

# DESCRIPTIONES LANIATORUM

(ARACHNIDORUM OPILIONUM SUBORDINIS)

FECIT

WILLIAM SØRENSEN

OPUS POSTHUMUM

RECOGNOVIT ET EDIDIT

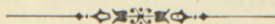
KAI L. HENRIKSEN

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WITH A PREFACE AND NOTES IN ENGLISH  
AND 29 TEXTFIGURES

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(PARACHLORANUM OPTIMUM SUBORDINIS)

PECT

WILLIAM SORRENSEN

OPUS POSTHUMUM

RECONDIT ET EDITUM

KAL. J. HENRIKSEN

WITH A PREFACE AND NOTES IN ENGLISH  
AND IN LATIN

In hac opera describitur et figuratur auctoritate propria et in hunc modum

ROBRIANUS

WILHELMUS J. LEVIN & MUNICIPALIS

PLANO LITHOGRAPHICUM

## Preface.

THE late Danish zoologist Dr. WILLIAM SØRENSEN (1848—1916) was among the first who thoroughly investigated the remarkable Arachnid group *Opiliones Laniatores*. His first publication on this group appeared in 1873, and in the following decades he published half a score of important papers dealing with the morphology and anatomy of the group and giving taxonomic contributions to the knowledge of it. In the number of genera and species new to science described in these papers were included several remarkable types which caused the founding of new families. At that time SØRENSEN was probably the zoologist who had the greatest experience in the difficult taxonomy of the group, and he knew from autopsy by far the greater part of the species then described. He intended to write a monograph of the group, and for that purpose he had at his disposal all the material belonging to the Copenhagen Zoological Museum as well as material given or lent him by different persons and museums, and he had begun to work out descriptions of the new forms included in this material. At about the commencement of the new century he turned his mind to other works which took the main part of his time and interest, so his work with the *Laniatores* advanced but slowly or nearly came to a stand-still.

During the same time other arachnologists (LOMAN, POCOCK a. o.) published descriptions of *Laniatores* unknown to SØRENSEN, and in 1911 the German arachnologist C. FR. ROEWER began an ample descriptive activity, publishing revisions of the different groups of *Laniatores* based on very abundant material which enabled him to multiply the number of species very considerably, until ROEWER in 1923 could collect all the species known in an extensive manual: *Die Weberknechte der Erde*. It may, for instance, be noted that the family *Triquenonychidæ* only contained 1 species before SØRENSEN's time, SØRENSEN added 5 new species, but now the world fauna includes 71 species.

The fact that an increasing number of species were described by other zoologists, and that SØRENSEN himself only knew a small — steadily decreasing — number of all existing species, no doubt played its part in causing a pause in SØRENSEN's work.

When Dr. SØRENSEN died in 1916 he left behind him much preliminary work for the intended monograph, viz. notes upon families, transcriptions of diagnoses concerning genera and species formerly published by SØRENSEN and others, etc., as

well as a number of descriptions of genera and species new to science. The latter descriptions were for the most part only present in rough draughts — some of the species even in two or more different draughts — and jotted down in a way (words abbreviated, the handwriting in pencil very bad) that makes them most difficult to decipher.

The Danish zoologist C. WITH began a revision of these posthumous manuscripts in order to prepare as much as possible for publication. Dr. WITH, however, only accomplished the revision of three lesser groups (*Minuidæ*, *Tricommatidæ* and *Stygnidæ*) in a manuscript ready for the press; he was working at the revision of the family *Cosmetidæ*<sup>1)</sup> when he died in 1923. Then the present editor was charged with the work and — besides the just named four families — revised nearly all the remaining families, making the whole manuscript ready for the press. Having also added remarks to the groups dealt with by WITH, and in these parts also put in some descriptions found later on, etc., the present editor is responsible for the appearance and arrangement of SØRENSEN'S notes and descriptions published here.

As mentioned above, only a fractional part of all forms known now-a-days were known to SØRENSEN, and of an even smaller number of genera and species descriptions were present in his posthumous manuscripts. Therefore it is not possible to publish any monographic treatment of the whole group based on the said manuscripts — as was hoped when Dr. WITH began his revision. The very detailed descriptions of new genera and species (to which may be added some few descriptions of species formerly described by others and reinvestigated by SØRENSEN) can, however, for the most part be made ready for the press, and as moreover they include descriptions of three new families (sensu SØRENSEN), there is every reason to publish all these descriptions and associate SØRENSEN'S name with them in memory of the outstanding and conscientious work done by him on the group *Opiliones*.

SØRENSEN has the honour of having delimited the principal taxonomic groups, and — as mentioned above — several families were based upon remarkable new forms described by him. Some few of the families characterized in the earliest of SØRENSEN'S taxonomic papers could not, however, be maintained, and later on they were withdrawn again; thus he united the family *Pachylidæ* with *Gonyleptidæ* (1902), and in after years he doubted that the family *Zalmoxidæ* could be held apart from *Phalangodidæ*. In the intended monograph SØRENSEN admitted 15 families viz.: *Oncopodidæ*, *Samoidæ*, *Phalangodidæ*, *Stygnopsidæ*, *Minuidæ*, *Olynthidæ* (in the meantime described by ROEWER as *Tricommatinæ*), *Biantidæ*, *Erecananidæ*, *Epedanidæ*, *Assamiidæ*, *Cosmetidæ*, *Stygnidæ*, *Hernandariidæ*, *Gonyleptidæ*, and *Triaenonychidæ*.

<sup>1)</sup> The introductory remarks to *Cosmetidæ* were written by WITH.

No doubt the characters distinguishing the families (*sensu* SØRENSEN) from each other are not in all instances of the same taxonomic value, and consequently some families are more closely related mutually than with other families. This was recognized by ROEWER who has arranged the families in another way than did SØRENSEN and he considers some of SØRENSEN's families to be subfamilies under two of the 5 families which he admits. A comparison of the groups of SØRENSEN and ROEWER will show this:

W. SØRENSEN:		C. FR. ROEWER:
Oncopodidæ .....		Oncopodidæ
Samoidæ .....		Phalangodidæ    Samoinæ
Phalangodidæ (incl. Zalmoxidæ).....		—            Phalangodinæ
Stygnopsidæ .....		—            0
Minuidæ .....		—            0
Olynthidæ .....		—            Tricommatinæ
0 .....		—            Stygnommatinæ
Biantidæ .....	}	—            Biantinæ
0 .....		—            Ibaloniinæ
Erecananidæ .....		—            Podoctinæ
0 .....		—            Erecananinæ
Epedanidæ .....	}	—            Acrobuninæ
0 .....		—            Saracinicinæ
Assamiidæ .....	}	—            Epedaninæ
0 .....		Assamiidæ    Dampetrinæ
Cosmetidæ .....		—            Assamiinæ
		—            Trionyxellinæ
		Cosmetidæ
	}	Gonyleptidæ    Prostygninæ
Stygnidæ .....		—            Stenostygninæ
		—            Stygninæ
		—            Heterostygninæ
Hernandariidæ .....		—            Hernandariinæ
0 .....		—            Cranainæ
0 .....		—            Heterocranainæ
0 .....		—            Stygnocranainæ
0 .....		—            Phareinæ
	}	—            Pachylinæ
Gonyleptidæ (incl. Pachylidæ).....		—            Gonyleptinæ
		—            Mitobatinæ
		—            Coelopyginæ

Neither is the arrangement of ROEWER quite adequate (see the discussion heading the *Phalangodoidea* and *Gonyleptoidea* below), and the characters used by

ROEWER for separating groups and genera are often merely heuristic, but it seems most probable to the editor that the groups *Phalangodidæ* and *Gonyleptidæ* sensu ROEWER really comprise groups (subfamilies ROEWER, families SØRENSEN) of lesser systematic range than for instance *Assamiidæ* or *Cosmetidæ*, and that an arrangement according to this view seems more likely to express the mutual relationship between the groups.

If this be admitted, it will be a mere matter of judgment whether the genera are to be ranged into 5 families comprising a number of subfamilies (ROEWER) or into 5 series (superfamilies) 3 of which are only represented by 1 family, the other 2 each comprising a number of families (SØRENSEN). As this paper contains genera and species recognized by SØRENSEN, it would seem most natural to retain the term "family" everywhere in the arrangement of the material treated below, but the editor has introduced in their proper places below the two names *Phalangodoidea* and *Gonyleptoidea* for characterizing the families (sensu SØRENSEN) which were to be included as subfamilies in the families *Phalangodidæ* and *Gonyleptidæ* sensu ROEWER.

Each of the families treated below is characterized by a diagnosis in Latin worked out by SØRENSEN, but the editor has in some instances supplemented or emended the text when it was thought necessary because of the families containing genera unknown to SØRENSEN. In the general introduction I have also inserted remarks upon such forms unknown to SØRENSEN when I judged it to be of interest. In the diagnoses of the genera I have likewise in some few instances inserted, altered or deleted words or sentences in order to separate these groups from others which were not known by SØRENSEN.

Otherwise, especially in the descriptions of the species, Sørensen has the full credit and responsibility for all that is written in Latin, while the remarks of the editor are given in English. In a few instances the whole specific description is given in English; this means that SØRENSEN left such scanty and fragmentary notes upon the species in question that the editor — who has reinvestigated the animals — is responsible for the whole description, and is thus the author of the species.

In the following are given contributions to the knowledge of most of the families. Nothing new was, however, found in SØRENSEN'S manuscripts concerning *Triænonychidæ*, and it has not been possible to the editor to treat the notes upon the family *Gonyleptidæ*. These two families do not therefore occur, in the following pages.

Finally I beg to thank the Trustees of the Carlsberg Fund for a grant which enabled me to undertake the revision of the posthumous manuscripts of Dr. SØRENSEN.

KAI L. HENRIKSEN.

## Opiliones Laniatores.

Oculi aut tuberi communi impositi (e.g. *Epedanidæ*) aut sat late disjuncti (e.g. *Biantidæ*), interdum tubere mediano propinqui, sed non in eo positi (e.g. *Erecananidæ*); in plurimis prope limbum anteriorem scuti siti, interdum in medio cephalothorace, in *Stygnommate* prope sulcum posteriorem cephalothoracis siti. Tuber saepe eminentia una (processu acuta vel obtusa, longa vel breve) vel tuberculis binis (acutis vel obtusis) præditum, interdum destitutum.

Cephalothorax limitibus segmentalibus destitutus. Segmenta dorsalia abdominis, præter operculum anale, octo. In *Oncopodidis* cephalothorax et segmenta dorsalia abdominis I—VIII in scutum dorsale coalita, dum segmentum anale (= operculum anale) solum liberum est; in familiis ceteris cephalothorax et segmenta dorsalia abdominis I—V in scutum dorsale coalita, dum segmenta tria posteriora, præter operculum anale, libera sunt. Scutum limbo anteriore, limbis lateralibus et limbo posteriore præditum. In *Assamiidis* margo libera (anterior) limbi anterioris dentibus conicis quinque (rarissime septem) prædita, quorum unus medianus et bini (aut trini) in angulo exteriori positi sunt<sup>1)</sup>. In descriptionibus sequentibus cephalothorax area I numeratus, area VI est limbus posterior scuti<sup>2)</sup>, et areæ scuti sulcis transversis quinque divisæ sunt. Interdum tamen sulcus secundus evanescit (e.g. *Epedanidæ*), aut sulcus quartus evanescit (e.g. *Gonyleptidæ*), et tunc solummodo areæ quinque et sulci transversi quatuor visibiles sunt; in *Hernandaria* sulci secundus, tertius et quartus evanescunt, et tunc sulci transversi duo solummodo adsunt. Sulci priores duo transversi in generis quibusdam sulco longitudinale mediano aream II in partes duas laterales dividente conjuncti. Interdum (in generis quibusdam familiæ *Gonyleptidarum*) etiam sulci mediani in segmentis pluribus adsunt. In area IV (et raro etiam in areis pluribus) eminentiæ duæ altæ acutæ aut obtusæ aut grana interdum adsunt.

Eminentia corporis (et membrarum) ob magnitudinem suam granula, grana, tubercula, processuli, processus appellantur. Spinas tales eminentias (majores aut minores) appello, quæ setam seu aculeum apicalem gerunt.

<sup>1)</sup> ROEWER is right in laying stress upon this fact as being one of the most important characteristics for delimiting a certain group of genera, viz. the family *Assamiidæ*.

<sup>2)</sup> ROEWER does not include cephalothorax in the numbering. Thus for instance Area III sensu ROEWER is = Area IV sensu SØRENSEN, which must be remembered when the descriptions of the two authors are compared.

Orificia glandularum foetidarum tuberi nunquam imposita, supra marginem anteriorem coxarum II aut in margine laterali scuti aut ad eum posita. Emissaria liquoris foetidi duobus modis instructa sunt: aut ex orificiis detectis glandularum foetidarum oriuntur canales (aperti) secundum partem inferiorem limbi lateralis, qui canaliculos breves excipiunt, ab orificiis manifestis vesicularum urinariarum orientes, pone orificia glandularum foetidarum positus; quo modo liquor foetidus et urina secundum limbos laterales scuti emittantur (in plurimis) — aut ex orificiis obtectis glandularum foetidarum et vesicularum urinariarum oriuntur canales, coxis primi et secundi paris formati et processibus coxarum plus minusve clausi; quo modo liquor foetidus et urina ad ventrem emittantur (in *Cosmetidis* et *Hernandariidis*).

Orificia vesicularum urinariarum post orificia glandularum foetidarum, prope marginem cephalothoracis posita.

Sternum longum, perangustum, raro (in *Triænonychidis*) pone dilatatum. Labium sternale manifestum, molle, solum ad ipsam basin cum lobis maxillaribus coxarum I conjunctum.

Segmenta ventralia abdominis novem; saltem octavum et nonum coalitum, in *Oncopodidis* segmenta omnia coalita.

Spiracula duo, ad segmentum ventrale secundum pertinentia, aut processibus fulcipientibus obtecta et in sulco sæpe profundo inter coxas IV et abdomen sita, aut detecta et ipsi segmento imposita<sup>1)</sup>; in plurimis maxima, lunata, cancellata, nivea quia cancelli tuberculis microscopicis ornati sunt; in *Zalmoxi australi* perpusilla (oculo nudo non percipienda), orbicularia, integra, margine ciliato.

Antennae<sup>2)</sup> (Cheliceræ auct.) tri-articulatae. Articulus primus sæpe parte dorsale subgloboso prominente præditus. Articulus secundus et tertius forcipem verum efficiunt.

Membrorum secundi paris segmentum basale (coxale) est mandibula<sup>3)</sup> (maxilla auct.), in partem palpigeram (basalem, in parte apicali sæpe productam, palpum gerentem) et partem manducatoriam (os versus directam, productam, in parte terminali mollem) divisa.

Palpi robusti, quinquearticulati (mandibulas continentes) in partes trochantericam, femoralem, patellarem, tibialem et tarsalem divisa; pars tarsalis ungue valido, acuto, prehensile instructa. Pars trochanterica in plurimis spina inferiore prædita. Palpi *Oncopodidarum* præterea inermes. In *Phalangodidis* et *Gonyleptidis* palporum

<sup>1)</sup> ROEWER (1912 p. 4) in accordance with LOMAN (1906) emphasizes the fact that spiracula detecta ctr. spiracula obtecta is of no consequence for separating the families ("wohl aber zur Unterscheidung der Genera:); within the family *Assamiidae* sensu ROEWER is found a series of genera having free, and another series having covered spiracles, as well as the intermediate "Stg. obwohl von Zch. umstellt deutlich sichtbar" (e. g. *Metassamia*). — For the same reason the two Soerensenian families *Zalmoxidae* and *Phalangodidae* cannot be maintained as separate families, as they are only distinguished by the said spiracular character.

<sup>2)</sup> In this descriptive work I have not altered these easily intelligible terms, though I cannot accept the correctness of their morphological interpretation (see HENRIKSEN in Trans. 4th intern. Congr. of Entom. Ithaca 1928 p. 589).



partes tibialis et tarsalis spinis fortiter armata et etiam segmenta cetera spinis armata esse possunt. *Assamiidarum* palporum partes tibialis et tarsalis spinis tenuioribus armatae et pars femoralis ordinibus granorum vel processibus, quibus aculei vel setae laterales (non autem apicales) imposita sunt, vel denticulorum demonstrant. In *Triænonychidis* spinæ desunt, sed armatura est processus, quibus aculei vel setae laterales (non autem apicales) imposita sunt. In *Cosmetidis* spinæ etiam desunt; margines palporum denticulati seu setis gracilibus præditæ. In familiis quibusdam (e.g. *Erecananinis*) partes tibialis et tarsalis paullum oblique positæ, ita ut adductæ partem femoralem utroque margine attingant, et in *Assamiidis* atque *Stygnopsinis* manifesto oblique positæ, ita ut adductæ cruciatim partem femoralem margine exteriori attingant.

Coxæ pedum I mobiles, ceteræ immobiles, coalitæ. Lobus maxillaris coxæ I per se immobilis motu coxæ movetur; pars dura lobi non partita. Lobus maxillaris coxæ II immobilis, aut nodiformis rudimentarius (e.g. in *Gonyleptidis*), aut in laminulam angustam, discretam (i. e. sutura a coxa limitatam), porrectam formatus (e.g. in *Oncopodidis*)<sup>1</sup>. Lobi maxillares coxarum III et IV omnino desunt. Processus fulcientes sunt, qui coxas II cum iisdem III, coxas III cum iisdem IV, coxas IV cum abdomine conjungunt; inter coxas IV et abdomen feminae sæpe adsunt, etsi mari desunt.

Pedum partes liberæ sunt trochanter, femur, patella, tibia, metatarsus et tarsus. Femorum pars proxima trochanterem spurium formare possunt. Metatarsi sæpe spurie in partem proximalem (astragalum) et distalem (calcaneum) divisi; in *Triænonychidis* nonnullis astragalo breve et calcaneo longo, in *Laniatoribus* plurimis tamen calcaneus est parvus et astragalo oblique limitatus, in *Oncopodidis* metatarsi non divisi. Metatarsi calcaribus apicalibus binis instructi sunt (in plurimis) aut calcaribus destituti (in *Oncopodidis*), scilicet propterea quod tarsi in eundo latere inferiore toto (in plurimis) aut parte posteriore lateris inferioris (in *Oncopodidis*) solum attingunt.

Tarsi *Oncopodis* sunt impartiti (uniarticulati), in generibus ceteris *Oncopodidarum* tarsi I et II bi-, III et IV triarticulati. In familiis ceteris tarsi I—II in duas partes (citeriorem et ulteriorem) divisi sunt, quarum pars ulterior tarsi I secundum subfamilias aut integer aut bi- aut tri-partita est. Pars ulterior tarsi II aut integer, aut bi-, aut tri-, aut quadri- aut etiam quinque- (*Zarax*) partita est, quod characterem generum præstat. Tarsi III et IV in partes tres divisi sunt, quarum pars media impartita et pars ulterior semper biarticulata est. Numerus segmentorum partis citerioris tarsorum I—II, quum 1 vel 2 vel 3 adsunt, characterem generum præstat, quum autem

<sup>1</sup>) Formerly SØRENSEN considered it an important character whether or not the maxillary lobe II were movable, and used it e.g. within the Phalangodins and allied groups (*Phalangodidæ* in the Roewerian sense) for separating the families. Later on, however, SØRENSEN admitted that this lobe is always immovable, and only its size varies according to the (Roewerian) families: "discretus, porrectus" in *Oncopodidæ* and *Triænonychidæ*, "rudimentarius, non exsertus" ("als winziges Knötchen nur kaum noch bemerkt werden kann") in *Assamiidæ*; in *Phalangodoidea*, comprising a handsome scale of varying characters, all sizes are established from "manifeste discretus subpronus" (in *Erecananidæ*), "discretus subverticalis" (in *Sarasinidæ*, *Ibaloniidæ* and *Epedanidæ*), "discretus latus porrectus" (*Phalangodidæ* incl. *Zalmoxins*, "deest" in *Stygnopsidæ*, and "deest vel adest" in *Tricommatidæ* and *Minuidæ*. In *Cosmetidæ* and *Gonyleptoidea*, finally, it is absent.

supra 3 adsunt, variabilis est in speciebus et etiam in individuis et in lateribus binis individui. Etiam numerus segmentorum partis citerioris III et IV, quum 3 non superat, characterem generum præstat<sup>1)</sup>. — In familiis nonnullis *Phalangodoideorum* et *Gongyleptoideorum* (e.g. *Samoidæ*, *Stygnidæ*) scopula pilorum densorum longiorum, in apice dilatatorum et inter se æqualium in parte posteriore (et interdum media) tarsorum III—IV adest. Scopulæ huic pilorum (non rigidorum) setulæ — inprimis articulo pænultimo — rigidæ, apicem versus tenuiores semper immixtæ sunt. Quoad intelligere possum — nam tale animal vivum non inspexi — animalia scopula vestita solum planta partis anterioris solius tangunt<sup>2)</sup>. — Processum terminalem tarsorum III et IV illum processum setas sensorias duas gerentem nominavi, qui in animalibus adultis supra unguiculos positus et inter unguiculos deorsum curvatus est; hic processus adest in *Cosmetidis* et *Gongyleptoideis* (America indigenis) atque in *Trionyxellinis* (Asia indigenis).

Unguiculi I—II singuli, integri; III—IV in *Triænonychidis* singuli, sed processibus aduncis lateralibus binis (utrinque singulis) muniti; unguiculi III et IV familiarum ceterarum bini, in plurimis integri, in generibus nonnullis tamen pectinati (e.g. *Asopella*) sive dente interiore magno instructi (e.g. *Asopella*)

Apertura genitalis operculo genitali mobili parvo clausa.

Penis plerumque longus, gracilis, musculos non continens, in *Triænonychidis* brevior et crassior, musculus continens, qui glandem movet. Glans semper manifesta, multis partibus brevior quam corpus, in partes duas divisa, quarum superior gracilis orificium vasis deferentis fert, et inferior laminam. Vagina vestita est stratis muscularibus internis duobus, quarum fibræ oblique inter se secant, et externo tenui præcipue longitudinali. Ipsum operculum genitale musculis duobus clauditur.

Ovipositor brevis, sat mollis, non annulatus; apex fissus non discretus, corona setarum incurvarum ornatus. Vagina simplex, musculis complanatis duobus instructa. Ipsum operculum genitale musculis duobus clauditur.

Differentia sexualis plerumque maxima, modo vario (secundum genera) demonstratur.

Metamorphosis in *Oncopodidis* haud memoria digna. Ceteris in familiis tarsi pullo- rum omnes biarticulati, in animalibus adolescentibus (sive junioribus) tarsi I et II biarticulati, III et IV tripartiti. In *Erecananidis* etiam animalia adulta eundem numerum demonstrant, sed in Laniatoribus ceteris numerus segmentorum animalium adultorum augetur, ita ut segmenta (2, 2, 3, 3) in adolescentibus reperta in partes citeriorem et ulteriorem tarsorum I—II et in partes citeriorem, mediam et ulteriorem tarsorum III—IV transeunt. *Triænonychidis* et *Oncopodidis* exceptis tarsi III—IV pullo- rum et animalium adolescentium arolio instructi sunt, qua organa in animalibus adultis semper dispereunt. Etiam scutum animalium adolescentium plus regulariter

<sup>1)</sup> SØRENSEN and ROEWER agree as to the importance and stress laid upon this secondary dividing of the primary (larval) tarsal joints.

<sup>2)</sup> SØRENSEN and ROEWER agree in regarding the presence or absence of scopula as (Sub)Family-character.

divisum quam adutorum: limbus posterior segmentum manifestum format, et in animalibus, quorum adulti areas quinque scuti solum habent animal adolescens areas omnes sex demonstrat.

Geographical distribution: Opiliones Laniatores are found all over the world. Of the 5 main groups enumerated below, into which the Laniatores may be divided, *Oncopodidæ* and *Assamiidæ* only occur in the old world, *Cosmetidæ* and *Gonyleptoidea* in America only, while *Triænonychidæ* and *Phalangodoidea* occur in both parts of the world. The most generalized forms (i. e. *Oncopodidæ* and some Phalangodoid groups) inhabit Australasia, from where the group has in a former period spread to the other places in the world where they now occur, thus also to America. That non-flying animals bound to the soil, like the Opiliones, have been able to spread even to America seems remarkable, and signifies that in past geological times some connection has existed between the 2 parts of the world.

It was to be expected that the long time which has elapsed since that connection was broken off might have caused an evolution in different directions in each of the 2 parts of the world, and therefore one might look out for fundamental distinguishing characters separating the American and the old world forms from each other. It has been supposed that a processus terminalis represents an American specialization (as it occurs within the American families *Cosmetidæ* and *Gonyleptoidea*); ROEWER, however, has pointed out that a processus terminalis also occurs within the old world family *Assamiidæ* (viz. subfamily *Trionyxellinæ*), while several American forms (among the *Phalangodoidea*) do not possess a processus terminalis. On the other hand, it would seem that one of SØRENSEN'S main characters, viz. the development of lobus maxillaris coxæ II is more important, as a reduction of the lobus to the point of vanishing has only taken place in America (*Stygnopsidæ*, *Minuidæ*, *Cosmetidæ* and *Gonyleptoidea*), but as American Phalangodoid groups like *Tricommatidæ* and *Phalangodidæ* do possess a well developed lobus, this character, also, cannot be used for distinguishing all the American Laniatores from those of the old world. It has not been possible to divide the world-wide group *Phalangodoidea* (nor the *Triænonychidæ*) in a natural way so that all the American forms could be separated off as a whole from the old world forms.

#### *Conspectus familiarum.*

- I. Scutum dorsale maximum, cephalothorax et segmentis abdominalibus octo compositum, dum segmentum anale solum liberum est, in latere inferiore corporis situm . . . . . familia *Oncopodidæ*.
- II. Scutum dorsale cephalothorace et segmentis abdominalibus quinque compositum, dum segmenta tria posteriora, præter segmentum anale, libera sunt:
  - A. Unguiculi tarsorum III et IV singuli, in adultis processibus aduncis lateralibus binis (utrinque singulis) muniti. . . . . familia *Triænonychidæ*.
  - B. Unguiculi tarsorum III et IV bini, integri aut pectinati:
    1. Margo anterior scuti processibus (dentibus) quinque (rarissime

septem) proceris, longe conicis instructus, quorum unus medius et bini (rarissime tres) extra antennas et palpos positi. (Palporum partes tibialis et tarsalis oblique positæ sunt, ita ut adductæ crucialiter gerentur et ne partem femoralem quidem margine suo exteriori attingant) . . . . . familia *Assamiidæ*.

2. Margo anterior scuti dentibus talibus destitutum. Palporum partes tibialis et tarsalis parallelæ cum iis lateris alteris vel ut maxime paululum oblique positæ, ita ut adductæ partem femoralem utroque margine attingant (in *Stygnopsidis* tamen ut in *Assamiidis* crucialiter geruntur):

a. Processus terminalis tarsi III et IV deest: superfamilia *Phalangodoidea*.

b. Processus terminalis tarsi III et IV adest:

+ Palporum tenuiorum partes femoralis, tibialis et tarsalis late compressæ, pars exterior parti femorali plane adpressa; margines palporum denticulati seu setis gracilibus præditæ, spinas carentes . . . . . familia *Cosmetidæ*.

++ Palporum validorum partes femoralis, tibialis et tarsalis rotundatæ (non compressæ), partes tibialis et tarsalis spinas robustas gerentes, non parti femorali adpressæ, sed plus minusve porrectæ . . . . . superfamilia *Gonyleptoidea*.

### Oncopodidæ Thor.

*Cosmetoidæ oncopodinæ* Thorell, Ann. Mus. Genova. IX, 1876, p. 134.

*Oncopodidæ* Thorell, ibid. XXX, 1891, p. 375, 757.

*Oncopodidæ* Roewer Weberkn. d. Erde, 1923, p. 56. — Suppl.: Abh. Naturw. Ver. Bremen XXVI, 2, 1927, p. 267.

Tuber oculiferum deest aut, si adest, a parte cetera areæ primæ haud limitatum.

Scutum dorsale maximum, cephalothorace et segmentis abdominalibus octo compositum, dum segmentum anale solum liberum est, in latere inferiore corporis situm.

Segmenta ventralia omnia coalita.

Emissarium orificiorum glandularum foetidarum secundum marginem scuti dorsalis ductum.

Spiracula in sulco coxam IV et abdomen separante posita.

Mandibularum pars palpigera non producta (an etiam in *Gnomulo*?)

Palporum robustorum patella, tibia et tarsus neque processibus neque spinis armata; pars tarsalis parte tibiali manifesto longior.

Lobus maxillaris coxæ II discretus porrectus, brevior seu longior.

Metatarsi calcaribus apicalibus inferioribus destituti, in apice ut patera excavati, in astragalos et calcaneos non divisi.

Tarsi delatati, aut integri (uniarticulati) aut anteriores in articulos binos et posteriores in articulos trinos divisi.

Scopula et processus terminalis desunt.

Unguiculi I—II singuli, III—IV bini; omnes integri, parvuli, graciles magnopere retractiles in excavatione apicis tarsi positi.

Species hujus familiæ in Malacca et in insulis Sundaicis magnis indigenæ.

Structura tarsorum demonstrat hæc animalia modo plane differente a Laniatoribus ceteris pede ferire. Metatarsi ceterorum Laniatorum calcaribus apicalibus inferioribus binis instructi sunt, qui in pedibus I et præsertim II graciles, in III et præsertim IV robusti sunt; item tarsi angusti et plus minusve longi. Itaque ceteri Laniatores pede tali modo feriunt, ut apicem inferiorem metatarsi et plantam totam tarsi solo opprimant et solum calcaribus matatarsorum (inprimis III et IV) et setulis sat rigidis, quibus planta tarsi vestita est, pellentes se moveant. Animalia autem *Oncopodidarum* calcaribus apicalibus metatarsorum destituta, apice metatarsorum solum non tangunt et oblique positam plantam et apicem quidem tarsi solo opprimunt et solum planta tali, perlata, pellentes se movent. Et, ut solum planta melius pellere possint, metatarsus in apice profunde excavatus est, ut basin tarsi excipiat et hunc firmiter teneat. Structuræ et positioni tarsi ea res optime congruere mihi videtur, quod unguiculi (parvuli gracilesque) in apicem profunde et angustissime excavatum tarsi excipi possunt.

Adhuc venit, quod animalia hujus familiæ quasi imaginem graduum metamorphosis Laniatorum ceterorum (quoad structuram tarsorum) reddunt. Hac in re genus *Oncopodis*, adolescens et adultum, numerum articulorum tarsalium minorem præbet, quam pulli ceterorum Laniatorum, scilicet in omnibus pedibus articulos singulos; et metamorphosis huic generi fere nulla est: animali juniore plantula<sup>1)</sup> (apex tarsi) pedum III et IV ut in ceteris Laniatoribus producta ex incisura angusta emergens, sed arolium deest; saltem *Oncopodi Feæ* etiam pseudonychium deest. Secundum ill. THORELL tamen *Oncopodi truncato*<sup>2)</sup> juniore præterea plantula (scapus) pseudonychio instructa est, et de *Oncopode Dorie*<sup>3)</sup> juniore ill. THORELL dicit: "modo singulum unguiculum video, apice scapi [plantulæ] insertus et cum eo angulum obtusum formantem, qui unguiculum unguiculo 3° sive inferiori [pseudonychio] *O. truncati* et *Gnomuli Sumatran*i respondet: unguiculi superiores [veri] ad duo tubercula minuta ad basin hujus unguiculi inferiores sita redacti videntur!" — Sed mirabile dictu! *Oncopodi Feæ* juniore tarsi III et IV processu terminali (brevis) setulas duas, pilis tarsi crassiores neque longiores, gerente instructa, dum processus terminalis talis animali adulto plane deest (vide fig. 2). E contrario in Laniatoribus ceteris, animalibus non adultis hi tarsi processu terminali destituti semper sunt, dum in animalibus adultis (in multis familiis) eo instructi sunt.

<sup>1)</sup> Tarsi (III et IV) in animalibus junioribus unguiculos quidem singulos demonstrare, sed etiam mihi videtur me vestigium alterius defracti vidisse.

<sup>2)</sup> Annali del Museo Civico di Storia naturale de Genova. Vol. 1891 p. 765.

<sup>3)</sup> Ibid. p. 765.

Secundum ill. THORELL genus *Gnomuli* eundem numerum articulorum tarsalium quam juniores Laniatorum familiarum ceterorum demonstrat, i. e. 2, 2, 3, 3. Animalii juniori *Gn. Sumatranii*<sup>1)</sup> articuli tarsales primum ("in exemplo minore") sunt 2, 2, 2, 2 — ut in pullis Laniatorum ceterorum — deinde (in exemplo majore) 2, 2, 3, 3 ("articulationibus modo spuriiis separati" — quod verisimiliter indicat quod animal eo pervenit, ut articuli novi intra cutem priorem jam conditi sunt. Animalibus junioribus pseudonychium adest, arolium cutem deest. (Si processus terminalis adsit, ill. THORELL non commemorat).

Item secundum ill. THORELL "pullus" *Pelitni armillati*<sup>2)</sup> articulos tarsales 2, 2, 2, 2 demonstrat; arolium magnum subglobosum adest.

Adhuc venit: In adultis *Oncopodidarum* segmentum liberum unicum est dorsale anale, dum cetera in scutum dorsale et scutum ventrale coalita sunt, in pullo *Pelitni armillati* "segmenta dorsalia tria vel quatuor ultima libera sunt et segmenta ventralia (6) libera, non in scutum ventrale coalita", quod etiam omnes Laniatores adulti et pulli familiarum ceterorum demonstrant.

In SØRENSEN'S manuscripts descriptions of 2 species of Oncopodids were found, belonging to the genera *Oncopus* Thor. and *Pelitnus* Thor. respectively.

### Oncopus Thor.

*Oncopus* Thorell. Ann. Mus. Genova. IX. 1876, p. 134.

*Oncopus* Roewer. Weberkn. d. Erde. 1923, p. 57.

Oculi (saltem in *feæ*) basi tuberis impositi, a parte cetera areae primæ non manifeste limitati, ex ipso margine anteriore scuti surgentis, convexi, ante versum conice producti.

Scutum dorsale longum, anguste lyriforme, adversus coxas III leniter sinuatum. Area prima (s. cephalothorax) a secunda sulco recurvo limitata, cujus pars media multo acutior est (i. e. segmentationem multo manifestius indicat) quam in ceteris Laniatoribus mihi cognitis, dum partes laterales hujus sulci evanescent. Sulci ceteri lati, leves, manifesti autem (secundo tamen debili), ultimis exceptis, leviter procurvi.

Areae priores saltem quinque eminentiis majoribus destituta.

Segmenta ventralia omnia coalita.

Orificia glandularum foetidarum ipsi margini scuti imposita, librata, labio superiore tumido. Coxæ II tubercula magna bina, scuto oppressa præstant, ante et post orificia posita, quibus liquor foetidus in emissarium ducitur.

Antennarum articulus primus subito incrassatus; pars basalis angustior brevis, quare oculum facile effugit; digitus mobilis oblique movetur.

Mandibularum pars palpigera non producta tuberculo conico inferiore basali munita.

<sup>1)</sup> Ibid. p. 762—63.

<sup>2)</sup> Ibid. p. 757 et 763 (animal adultum incognitum).

Palporum robustiorum partes trochanterica cylindrica, femoralis leviter compressa, patellaris et tibialis vix, tarsalis manifesto infra deplanata.

Lobus maxillaris coxæ II latus.

Coxæ IV coxis III non dimidio latiores, cum abdomine processu magno exteriori conjunctæ.

Pedes robusti, breves; II et IV subæque longi.

Tarsi omnes indivisi (uniarticulati), paullo longiores quam latiores.

III. THORELL, genus *Oncopodis* fundans, (de *O. Doriæ*) dicit: "Oculi duo, eminentiæ amplæ humili prope marginem cephalothoracis anticum impositi", et (de *O. Feæ*) dicit: "elevatio illa oculigera", sed (ante descriptionem *Oncopodis truncati*) de toto genere dicit: "Oculi sessiles dicendi, in impressione longa levi laterum partis cephalothoracis positi, hac parte inter oculos fortius transversim convexa". *Oncopodem truncatum* mihi incognitum e genere movere non audeo, quamquam hac in re a ceteris speciebus sat multum differre videtur.

Six species, of which SØRENSEN has examined *O. Feæ* Thor., are now placed in this genus (vide ROEWER, p. 57).

#### **Oncopus feæ Thor.**

*Oncopus Feæ* Thorell. Ann. Mus. Genova. XXX. 1890, p. 375.

*Oncopus Feæ* Pocock. Ann. Mag. nat. Hist. (6) XIX. 1897, p. 288.

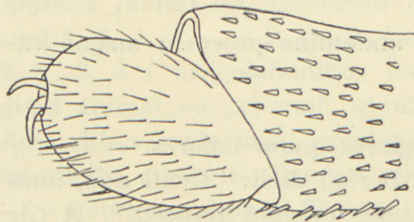
*Oncopus Feæ* Roewer. Weberkn. d. Erde. 1923, p. 58.

9,5 mm longus, fuscus; tubero culiferum ante versum conice productum; scutum dorsale paribus tribus (areis septimæ et octavæ et nonæ impositis) eminentiarum præditum, quorum postrema ambo tubercula sublibrata, a margine posteriore scuti paullo recessa; palporum pars femoralis tuberculo non sat amplo humillimo rotundato inferiore basali prædita, pars tibialis tuberculo inferiore-exteriore basali subprono armata; metatarsi in apice dorsali incrassati, ubi tarsis crassiores sunt.

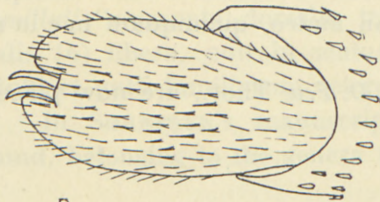
Tuber oculiferum convexum, humile, latum, sublæve; pars producta obtusa.

Scutum dorsale levissime convexum. Limbus anterior non discretus. Limbus lateralis vix discretus. Pars manifesta sulci transversi primi in foveolas rotundas, sat profundas, utrinque singulas desinit. Areæ prima subtilissime irregulariter transversim plicata (s. impresso-striata), secunda et tertia et quarta in lateribus subtiliter oblique plicatæ; prima foveis utrinque binis, anterioribus levibus, prope marginem anteriorem positis et foveis utrinque binis prope marginem lateralem positis, prædita. Areæ 7 et 8 et 9 eminentiis posterioribus binis, latis, humilibus rotundatis ornatae, quarum primæ duæ sunt grana magna, postremæ duæ tubercula sublibrata e margine posteriore scuti paullo recessa, inter se spatio majore quam ceteræ disjunctæ. Areæ (prima excepta) carinis transversis humilibus singulis præditæ; carinæ arearum 2dæ, 3tiæ, 8væ, 9næ obsoletæ. Venter et omnes coxæ sublævia; operculum genitale tamen manifesto transversim rugosum. Coxa III impressione transversa levi. Scutum ventrale carinas 5 transversas demonstrat manifestas subtiles, marginem lateralem pæne attingentes.

Antennarum articulus I in apice superiore conice productus, sublævis, tuberculo valido inferiore apicali prono trilatero instructus; pars producta superior robusta,



A



B

Fig. 1. *Oncopus Fæe* Thor.

A Tarsus IV a latere inspecta, B intra inspecta.

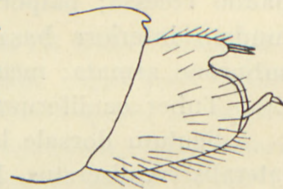
(W. Sør. del.)

desuper inspecta parte patellari paullo brevior, tuberculo inferiore exteriori basali subprono conico, obtuso armata, et in apice utrinque leviter producta. Pars tarsalis partibus patellari et tibiali conceptis manifesto longior, parte femorali paullo longior, partibus femorali et trochanterica simul sumtis brevior; levissime curvata, supra convexa, in apice exteriori in tuberculum porrectum producta. Unguis brevis, robustus, vix curvatus.

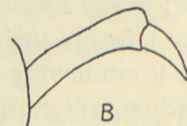
Pedes breves robusti. Trochanter I tuberculis inferioribus pronis, obtusis, duobus, basilare et apicale instructus. Trochanteres spurii I et II tuberculis singulis dorsalibus et apicalibus præditi. Femora leviter arcuata, in tubercula robusta apicalia lateralia utrinque bina porrecta, compressa, rotundata producta, quorum posteriora femorum I et II inter sese non bene limitata. Patellæ in tubercula singula apicalia conica productæ. Tibiæ in tubercula robusta apicalia lateralia utrinque singula, porrecta, compressa, rotundata productæ. Metatarsi præsertim I in apice dorsali incrassati, tarsis crassiores. Tarsi latiores quam longiores. Metatarsi subtiliter dense granulati; partes ceteræ læves.

obtusa. Articulus II ante sublævis, fovea tamen lata neque profunda ornatus, ante digitos posita, tuberculo posteriore exteriori subapicali præditus. Digitus mobilis tuberculo parvo posteriore basali præditus, in apice excavatus, adductus apicem digiti immobilis excipit; carina anteriore-interiore integra instructus, ante medium incipiente, usque ad excavationem apicalem attingente. Digitus immobilis compressus, carina inferiore posteriore præditus, breviter extenuata, basin prope vix dentata.

Palporum pars trochanterica cylindrica, tuberculo magno inferiore apicali conico subobtusato armata. Pars femoralis femore I paullo minus crassa, fortiter arcuata, in apice manifesto latior, tuberculo non sat amplo, brevissimo, rotundato, inferiore basilaris munita, in apice exteriori in tuberculum breve robustum producta (iisdem femorum simile sed tenuius). Pars patellaris brevis, desuper inspecta non duplo longior quam latior. Pars tibialis brevis,



A



B

Fig. 2. *Oncopus Fæe* Thor. anim. juv.

A Tarsus IV, a latere inspecta, B tarsi IV apex.

(W. Sør. del.)



Long. corp. (= long. scuti) 9,5, lat. 5,5; palpi 6; pedes I 9, II 12, III 9,5, IV 13,5.

Color: fuscus. Venter rubicundo-fuscus. Membra fusco-brunnea. Pars tarsalis palporum et apices metatarsorum rubicundi. Tarsi testacei.

Patria: insula Penang. — Animalia adultum unum et junius unum (5 mm longum) vidi quæ ill. THORELL mihi ut viderem benevolentissime misit.

### **Pelitnus Thor.**

*Pelitnus* Thorell. Ann. Mus. Genova. XXX. 1891, p. 757.

*Pelitnus* Roewer. Weberkn. d. Erde. 1923, p. 62.

Tuber oculiferum plus minusve forte, transversum, tuberculo uno præditum.

Corpus pæne inverse pyriforme, parum longius quam latius. Scutum dorsale post aream primam late sed non profunde sinuatum.

Areæ omnes scuti eminentiis majoribus destitutæ.

Orificia glandularum foetidarum forte curvata; parte superiore angusta margini scuti parallela, quare orificia minus manifesta. Tubercula duo coxæ II (dorsalia) ante et pone (majus) orificium imposita sunt.

Antennarum articulus I sensim crassior, articulus II (ad articulationem) paullo longior quam articulus III.

Mandibularum pars palpigera non producta, tuberculo interiore basali (semper?) munita.

Palpi robusti; pars femoralis manifesto crassior quam femur I, subteres (vix compressa), leviter curvata; partes trochanterica et femoralis interdum tuberculo inferiore munitæ; partes ceteræ inermes.

Pedes robusti breves; II et IV subæque longi.

Lobus maxillaris coxæ II subconica, oblique deorsum et prorsum directus, haud manifesto discretus.

Coxæ IV coxis III non dimidio latiores.

Tarsi I et II biarticulati, III et IV triarticulati.

In this genus 7 species are now placed (vide ROEWER). SØRENSEN recognized one further species, viz.

### ***Pelitnus Thorelli* n. sp.**

*Pelitno segnipedi* affinis. — 6,5 mm longus, castaneus pedibus pallidioribus; tuber oculiferum fere duplo latius quam altius, fere a margine anteriore scuti surgens. Areæ II—VI linea angusta longitudinale singula impressa divisæ. Areæ II—IX (i. e. abdominales) carinis transversis elevatis singulis in partes binas divisæ. Palporum partes trochanterica et femoralis tuberculo inferiore munita, tuberculum femorale minus quam in *segnipede*.

Tuber oculiferum haud magnum, haud bene limitatum, manifesto latius quam

longius, fere duplo latius quam altius, triplo brevius quam area prima, vix granulatum. Eminentia apicalis est tuberculum haud bene limitatum, conicum, obtusum, in basi latius quam altius.

Scutum dorsale (i.e. corpus) perverse pyriforme. Area prima fere duplo latior quam longior, transversim subrectangula, pone sensim paullo latior. Limbus anterior haud bene discretus, rotundatus, lævis. Area ipsa (I) dense subtilissime granulata, post tumulum oculigerum in parte fere tertia media alte convexa, extra quam sat profunde impressa, et tuberculis ambobus mox ante suturam limitantem areae positus et æque late a limbo laterali ac ab parte media elevata separatis, humilibus, rotundatis. Margo posterior partis mediae elevatae anguste et sat profunde emarginatus. Area secunda paulo brevior quam area prima. Area III manifesto brevior quam II; IV, V, VI, VII subæque longæ paullulo breviores quam area III; VIII manifesto longior quam VII, IX dimidio fere longior quam VIII. Sulci transversi 2dus, 3tius leviter (angulate) procurvi, ceteri subrecti. Primo excepto omnes sulci læves. Area II sulco levissimo anteriore subsemicirculari prædita. Areae abdominales (i.e. II—IX) lineis transversis singulis in partes binas divisæ: partes anteriores acclives, partes posteriores fere duplo breviores. Areae II—IX leviter reticulate aciculati et punctulis impressis ornatae, quorum plurima in ordines singulos sat manifestos secundum lineas elevatas disposita sunt. Areae II—VI et margo anterior secundæ lineis impressis singulis mediis angustis per medium ductis præditæ, quarum anteriores manifestæ, posteriores debiles. Limbus lateralis adversus sulcum I triangule introrsum dilatatus, posteriores versus sensim paullo latior ab areis sulco separatus, aream VIII attingente. Limbus irregulariter sculptus (impreste reticulatus). Emissaria liquoris foetidi ante manifestissima, pone evanescentia, secundum marginem posteriorem areae IX inter se communicantia. Segmentum liberum (unicum) anale dorsale — quoad visibile — multo latius quam longius. — In scuto ventrale sulci transversi 5 leviter arcuati (recurvi) ante marginem desinentes et ibi dilatati segmenta 6 indicunt. Area analis manifesto longius quam area II—V. Areae ventrales subtilissime coriaceæ et punctulis parvulis densis ornatae, ordinatim haud disjunctis. Operculum genitale subæque longum atque pone latum, punctis impressis ornatum. Spiracula in pariete posteriori sulci coxam IV ab abdomine separantis posita. Bulla spiraculorum leviter tumida.

Antennarum articulus primus tuberculo magno, apicali, dorsali, rotundato, elevato prorsum leviter et vix introrsum directo præditus. Articulus 2dus (ad articulationem) paullo longior quam articulus 3tius.

Mandibularum pars palpigera non producta, tuberculo inferiore basali munita.

Palpi robusti, pars trochanterica duplo brevior, sed vix angustior quam articulus 1mus antennarum, a latere inspecta apicem versus multo crassior, tuberculo inferiore apicali rotundato; pars femoralis manifesto crassior quam femur I, subteres (vix compressa), vix arcuata, leviter curvata, tuberculo inferiore subbasali rotundato; pars patellaris brevis, desuper inspecta duplo longior quam latior, parte femorali non tenuior. Partes patellaris et tibialis vix, pars tarsalis manifesto infra deplanatae. Pars tibialis desuper inspecta parte patellari manifesto brevior, non

autem tenuior, apicem versus sensim tenuior; pars tarsalis æque longa ac pars patellaris + pars tibialis, in basi tenuior quam apex partis tibialis, apicem versus sensim tenuior et angustior. Unguis in basi æque crassus ac apex partis tarsalis, triplo fere brevior quam pars tarsalis.

Pedes breves, robusti, subtiliter coriacei et punctis impressis et densis ornati. Processus articulares coxarum robusti, II et IV prominentes, posterior coxæ II et anterior coxæ IV compressi et profunde fissi (s. bigemini), posterior coxæ IV abdomini coalitus; præter quos coxa I tuberculo anteriore submedio, rotundato producto prædita. Trochanteres pyriformes. Trochanteres spurii sutura debili (vix manifesta) a femoribus vix limitati. Femora teretia, levissime compressa. Patellæ leviter clavatæ. Tibiæ et metatarsi subcylindrici. Astragali paullo longiores quam crassiores. Astragali et calcanei a sese sutura vix manifesta limitati; astragali ipsam basin metatarsorum efficiunt. Tarsis omnibus articulus primus in basi fortiter incrassatus. Tarsus I (a latere inspectus): articulus 2dus non duplo longior quam primus, subovatus, fere duplo longior quam crassior. Tarsus II: articulus 2dus deorsum leviter curvatus, quam articulus primus fere triplo longior, et fere triplo longior quam crassior. Tarsus III et IV: articulus primus quam 2dus manifesto et quam 3tius vix longior. Tarsi II et inprimis I manifesto, III et IV non latiores quam apex metatarsi. Articulus 3tius tarsorum profunde, I et II anguste, III et IV late excavati. Ungues I et II pusilli, III et IV sat majores.

Differentia sexualis ignota.

Long. corp. (et scuti) 6,5; lat. max. 4,5; palpi 4,75; pedes I 7,2, II 9,6, III 7,8, IV 10,75.

Castaneus, infra vix dilutior. Membra fulvo-castanea. Tarsi fulvi. Pars tarsalis palporum et apices femorum et tibiæ manifeste dilutiores (subfulvi).

Patria: Java. — Specimina duo in Museo Hafniense asservantur.

Remark: This species is very nearly related to *P. segnipes* Loman, but is easily distinguished by the low eye tuber, the less strong femoral armature, and the relatively short palps and 2nd pair of legs.

### Assamiidæ W. Sør.

*Assamioidæ* Sørensen. Naturh. Tidsskr. (3) XIV. 1884, p. 595.

*Assamiidæ* Roewer. Weberkn. d. Erde. 1923, p. 215. — Suppl.: Abh. Naturw. Ver. Bremen. XXVI, 2, 1927, p. 269.

Tuber oculiferum adest.

Scutum dorsale sulcis transversis quinque (interdum difficilibus visu) divisum. Sulci I et II conjuncti vel non conjuncti. Margo limbi anterioris scuti processibus quinque proceris, longe conicis instructus, quorum unus medius et bini extra antennis et palpos positi.

Emissaria liquoris foetidi secundum margines laterales scuti dorsalis ducta. Orificia glandularum foetidarum detecta.

Spiracula maxima, lunata, cancellata, nivea quia cancelli tuberculis microscopicis ornati, in foveola oblonga inter coxas IV et abdomen posita, processibus fulcientibus plus minusve obiecta, qui coxas IV cum abdomine jungunt.

Mandibularum pars palpigera et pars manducatoria inter se non discretæ, (in generibus mihi cognitis) neque supra nec infra partem palpigeram non productam processus adest.

Palporum corpore breviorum partes armatæ tibialis et tarsalis oblique positæ sunt (crucialiter geruntur), ita ut adductæ partem femoralem litteram S formantem margine exteriori attingant; pars femoralis tuberculis setas (sed non spinas) subapicales gerentibus prædita.

Lobus maxillaris coxæ II rudimentarius, non exsertus.

Coxæ IV mediocriter aut paullo dilatata; cum abdomine processibus fulcientibus (jam dictis) conjunctæ.

Pedes omnes spinis destituti.

Femorum pars infima trochanterem spurium (præter trochanterem verum) format aut non.

Metatarsus in astragalum et calcaneum divisus.

Pars ulterior tarsi I bi- vel tripartita, II bi- ad septempartita.

Scopula deest. Processus terminalis deest vel adest.

Unguiculi I et II singuli, integri, III et IV bini, integri vel pectinati.

Differentia sexualis interdum in antennis, in palpis sive pede I demonstratur.

Animalibus adolescentibus spiracula detecta, quod processus fulciantes inter coxas IV et abdomen nondum adsunt.

Species hujus familiæ in Africa, Asia meridionali et Australasia dispersi.

ROEWER has divided this family into 3 subfamilies, viz. *Trionyxellinæ*, *Dampetrinæ* and *Assamiinæ* (ROEWER l. c. pag. 215, 220 and 236). In the manuscripts and material left by Dr. SØRENSEN 3 species were present, all belonging to the last-named subfamily (*Assamiinæ*), which is characterized by the missing processus terminalis and by pars ulterior tarsi I being 2-jointed.

One of these new species was an Indian one, named by SØRENSEN *Assamia variata*. As tarsus I is missing in the only specimen present, the number of joints in this latter cannot be stated, and thus it is uncertain whether it is to be placed in the genus *Assamia* W. Sør. or *Metassamia* Roewer, which latter was established in 1923; the number of joints still present in tarsi II and III (respectively 12 and 8—9) will, however, most probably refer it to *Metassamia*, and it is therefore described below under the name *Metassamia(?) variata* n. sp.

Some specimens representing another new species were collected in Australia and preserved in the Riksmuseum of Stockholm. SØRENSEN referred them to the genus *Dampetrus* as *D. atac* n. sp. As this species shows a distinctly 2-jointed pars ulterior I

it cannot be placed in the Dampetrin subfamily, in which (as pointed out by ROEWER) pars ulterior I is 3-jointed, but it must be placed among the Assamiins. Within this group it agrees in all essential features with the genus *Wintonia* (this genus moreover being the sole Assamiin genus hitherto known from Australia) in which it should thus be placed under the name of *Wintonia atar*.

Finally SØRENSEN has left a description of an Assamiin species which he has named *Seuthes* n. g. *Simonis* n. sp. The genus *Seuthes*, however, quite agrees with *Paraselenca* Roewer, established by ROEWER in 1923, and the species described below must then be named *Paraselenca simonis*.

**Metassamia (?) variata** n. sp.

*Assamia variata* Sørensen in manuscript.

4,5 mm longa, sordide olivacea, punctulis nigris partim confluentibus variegata; tuber oculiferum duplo latius quam altius, ordinibus granulorum æqualium præditum; sulci transversi scuti omnes manifesti; limbus anterior processibus quinque, quorum minimus suberectus; processuli areæ quartæ tuberibus minoribus impositi; palpi corpore longiores, pars trochanterica æque longa ac pars patellaris, pars femoralis tuberculo majore interiore, apici propinquo, armata, pars tarsalis spinis exterioribus duabus et interiore una; articuli tarsales: ?, 12, 8—9, ?.

Tuber oculiferum paullo latius quam longius, duplo latius quam altius, supra non excavatum, ordinibus ambobus granulorum æqualium (utrinque trinorum), inter se fere duplo latius quam ab oculis separatis. Oculi prominentes.

Scutum vix convexum, post coxas III subrectangulum, pone sensim paullulo latius. Sulci transversi omnes manifesti, secundus, tertius, quartus tamen leves. Limbus anterior discretus, ordine granulorum majorum et processibus quinque proceris, longe conicis instructus, quorum minimus medius in ordine granulorum positus, leviter proclinis, et ceteri porrecti, extra antennas et palpos positi, ante ordinem granulorum positi; exteriores maximi; supra palpos adsunt grana majora duo conica; anguli rotundati. Limbus lateralis vix discretus, lævis, punctis impressis dispersis ornatus. Emissarium liquoris foetidi angustissimum. Areæ secunda et tertia granulis parvulis paucis sat dispersis; ceteræ læves. Processuli areæ quartæ tuberibus, tubere oculifero minoribus, impositi, leviter reclines, subcylindrici, obtusi, late disjuncti. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum ornata. Anale ventrale læve, impressione longitudinali media anteriore præditum; coxæ (IV) et ventrale primum lævia; segmenta cetera ordinibus singulis granulorum pusillorum ornata.

Antennarum pars globosa articuli primi granulo interiore apicali supra prædita.

Palporum pars trochanterica æque longa atque pars patellaris, processulis inferioribus duobus armata, apici propinquis. Pars femoralis ordine inferiore tuberculorum densorum acutorum (circiter 24) fere invicem majorum et minorum et tuberculo majore interiore apici propinquo armata; latus exterius et dorsum granulis

parvis subacutis prædita. Pars patellaris tuberculis parvis (utrinque binis aut trinis) apicem articuli versus majoribus. Pars tibialis præter spinas tuberculis interioribus parvis (quatuor aut quinque) et (uno) exteriore apicali et granulis prædita; spina angulo exteriori imposita, robusta, longa. Pars tarsalis parte tibiali haud multo brevior, desuper visa oblique breviter fusiformis, parte tibiali vix minus lata; præter spinas exteriores duas et interiorem (an semper?) unam tuberculis utrinque circiter senis armata. Unguis parte tarsali parte tertia brevior.

Pedes longi, graciles. Coxæ II in lobum fixum magnum, subporrectum productæ. Trochanteres spurii vix manifesti. Femora subrecta, sublævia. Calcanei breves, II et III articulo tarsali primo breviores. Articuli tarsales: ?, 12, 8—9, ?. Unguiculi fortiter incurvi.

Differentia sexualis incognita.

Long. corp. 4,5; long. scut. 4, lat. scut. 3,25; palpi 6; pedes I ?, II 26, III 17, IV ?.

Sordide olivacea, punctulis nigris partim irregulariter confluentibus variegata. Segmenta dorsalia libera tria anteriora (præsertim tertium) fere nigra, dilute marginata. Venter (anali excepto) et membra (patellis exceptis) dilutiora.

Patria: India orientalis. — Specimen unicum vidi, ad urbem Calcutta a cl. Loczy in itinere cl. comitis BELA SZÉCHENYI per Asiam orientalem captum, in Museo nationali Hungarico asservatum.

#### **Wintonia atar n. sp.**

*Dampetrus atar* Sørensen in manuscript.

Mas 3,5 mm longus, fuscus; areæ secunda, tertia, quarta, quinta tuberculis parvis binis instructæ, eminentiis ceteris (granis magnis) manifesto majoribus; segmenta dorsalia libera: tertium ordinibus duobus manifestis granorum et anale granis minoribus densis dispersis ornata. Articuli tarsales: 4 (♀)—5 (♂), 8, 5, 6.

Tuber oculiferum plus quam duplo latius quam altius, longius quam altius, granis magnis subconicis (sex aut) octo præditum, ambas cristas formantibus. Oculi subbasales.

Scutum pone manifesto latius. Limbus anterior discretus, granis ornatus. Limbus lateralis latus, ordinibus duobus granorum præditus. Areæ secunda, tertia, quarta, quinta tuberculis parvis conicis binis instructæ, eminentiis ceteris (granis magnis) manifesto (circiter duplo) longioribus; quæ grana in ordines binos haud manifestos disposita sunt; ordines ambo tuberculorum pone divergentes: tubercula areæ tertiæ sibi manifesto propiora quam limiti interiori limbi lateralis. Segmenta dorsalia libera duo priora ordinibus singulis, tertium ordinibus manifesto duobus granorum ornata; anale dorsale granis minoribus densis dispersis. Coxæ et segmenta ventralia granis minoribus ornata.

Antennarum pars globosa articuli primi granis supra scabra.

Palporum graciliorum pars trochanterica processu inferiore robusto armata. Pars femoralis femore III vix crassior, ordine inferiore processuum circiter decem et processu robusto breviora interiore apicali armata. Pars patellaris tuberculis acutis

exterioribus quatuor et interioribus duobus (aut quatuor) armata. Pars tibialis præter spinas tuberculis acutis exterioribus quatuor et interioribus duobus (aut quatuor) armata. Unguis parte tarsali manifesto brevior.

Pedes sat robusti. Femora subrecta, ubique granulata. Calcanei I vix, II non longiores quam crassiores; III et IV crassiores quam longiores. Articuli tarsales: 4 (♀)—5 (♂), 8(—9—10, saltem in maribus), 5, 6.

Differentia sexualis: Mas quam femina major. Antennæ maris paullo crassiores quam feminae. Femur IV maris apicem versus sensim leviter crassius, processu inferiore exteriore subapicali, conico, subacuto, retrorsum (apicem femoris versus) curvato, patella paullo brevior et diametro femoris longiore, et ordine inferiore interiore subapicali tuberculorum parvorum, subcylindricorum, obtusorum, densorum trium aut quatuor instructum. Tarsus I maris quinque-, feminae quadri-articulatus.

♂: Long. corp. 3,6; long. scut. 3,3, lat. scut. 2,5; palpi 3,25; pedes I 8, II 14, III 9,5, IV 16,5.

Scutum fuscum. Venter rubicundus, fusco-variegatus. Antennæ et palpi scuto dilutiores. Pedum trochanteres et partim tarsi testacei.

Patria: Queensland. — Exempla septem vidi, mares tres et feminas quatuor, ad oppidum Cardwell a cl. C. FRISTEDT collecta, in Museo Holmiense (duo in Museo Zool. Hafniense) asservata.

Remark: This species is easily distinguished from the sole *Wintonia*-species known so far, viz. *W. scabra* Roewer (ROEWER l. c. p. 248), having one pair of eminentiæ on each of the scutal areas II—V bigger (tubercula parva) than the other eminentiæ (grana magna) present on the same areas.

#### *Paraselenia simonis* n. sp.

*Seuthes simonis* Sørensen in manuscript.

4 mm longa, fusca, testaceo-variegata; tuber oculiferum eminentiis sex præditum, quarum ambæ processus; areæ (prima et quinta exceptis) et segmenta dorsalia libera duo anteriora processibus binis et areæ tertia (præter processus) et quinta granis binis ornata; antennarum pars globosa articuli primi granulis dispersis. Articuli tarsales 5, 10—11, 6, 6—7.

Tuber oculiferum procline, manifesto latius quam altius, fere æque longum ac altum, supra non excavatum, eminentiarum paribus tribus ornatum, quorum medium processus proceros, conicos, acutos præstat, processibus arearum scuti longiores, altitudine tuberis paullo breviores; post quos tubercula ambo parva, et ante quos grana ambo parva. Oculi magni.

Scutum dorsale sat convexum, erga coxas III plane sinuatum, erga coxas IV sinu levi præditum, post coxas III non latius. Sulci (quinto excepto) leves. Limbus anterior haud discretus, processibus quinque libratis ornatus, quorum ambo maximi, juxta palpos positi. Limbus lateralis vix discretus, haud latus, ordine granorum

humilium ornatus. Areæ secunda, tertia, quarta processibus binis, brevibus, perrobustis, late conicis, acutis, coriaceis; areæ tertia (præter processus) et quinta granis binis rotundatis; scutum totum coriaceum. Limbus posterior scuti tuberculis ambobus et ordine granorum; segmenta dorsalia libera duo anteriora ordinibus singulis granorum et processibus binis, ordines processuum scuti continuantibus, et tuberculis lateralibus binis; tertium ordine tuberculorum et granorum; anale dorsale ordinibus duobus granorum. Coxæ et pars anterior segmenti ventralis primi granis dispersis; anale ventrale ordinibus duobus, margo posterior segmenti primi et segmenta cetera ordinibus singulis granulorum. Processus fulciantes, spiracula obtegentes, pauci, quorum unus maximus.

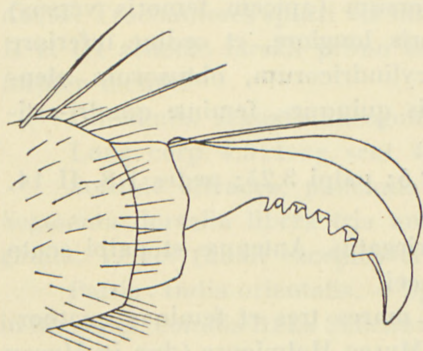


Fig. 3. *Paraselenca simonis* n. sp.  
Tarsi IV apex, a latera inspecta.  
(W. Sør. del.)

Antennarum pars globosa articuli primi granulis dispersis haud densis ornata.

Palpi non robusti; pars femoralis æque crassa ac pars media femoris IV, ordine inferiore processulorum densorum, robustorum, acutorum, et processulo interiore apicali robusto armata et ordinibus exterioribus et superioribus granorum ornata; pars patellaris processulis parvis interioribus, pars tibialis parte patellari parte tertia longior, processulis interioribus duobus et exterioribus parvis; pars tarsalis parte tibiali paullo brevior.

Spinæ partium tibialis et tarsalis omnes sat graciles, diametro articuli breviores. Unguis procerus, parte tarsali manifesto brevior.

Pedes longiores, sat robusti. Coxæ IV tuberculis exterioribus mediis (nec apicalibus) trinis, quorum summum maximum. Femora leviter arcuata, coriacea et vix granulata. Articuli tarsales: 5, 10—11, 6, 6—7. Unguiculi III et IV dentibus utrinque trinis aut quaternis aut quinis; dentes robusti, sat breves.

#### Differentia sexualis?

Long. corp. 4; long. scut. 3, lat. scut. 2,5; palpi 3,5; pedes I 10, II 16, III 10, IV 14.

Scutum fuscum, lineis et maculis testaceis notatum. Pedes sordide fuscotestacei; coxæ testaceæ nebula apicali fusca notatæ; trochanteres veri pallide testacei. Antennæ et palpi testacea.

Animalis junioris (3 mm longi) palpi 3,5 mm longi, processus arearum scuti multo longiores quam in animale adulto. Articuli tarsales 2, 2, 3, 3.

Patria: Africa occidentalis. — Specimina duo, in Sierre Leone capta, mihi a ill. SIMON data, vidi, in Museo Zoologico Hafniense asservata, alterum verisimiliter femina, alterum animal junius.

Remark: This species is nearly related to *Paraselenca aculeata* Roewer (ROEWER l. c. p. 284), but is easily distinguished from it, having no median furrow connecting the 1st and 2nd transversal furrows of scutum, and showing on scutum



(besides a pair of processes on the 2nd, 3rd and 4th areas) a pair of lesser eminentiæ (granæ) on the 2nd and 4th areas.

### Phalangodoidea.

In various papers (1884, 1886, 1896, 1910) Dr. SØRENSEN has described a number of Laniatores belonging to this series and referred them to the following families: *Phalangodidæ*, *Zalmoxioidæ*, *Epedanoidæ*, *Samoidæ*, *Biantoidæ*, and *Palpidoidæ* (this latter being later on renamed into *Erecananidæ* by STRAND).

As to these families it must be noted here that the family *Epedanoidæ* was erected (1886) by SØRENSEN as containing 3 new genera together with the old genus *Epedanus* Thorell, to which SØRENSEN thought they were related. Later on, however, he learned that the 3 genera differed essentially from *Epedanus* in having a scopula, while a scopula is missing in *Epedanus*, and therefore he removed them again and included them (1896) in the family *Biantoidæ* Thorell.

SØRENSEN only knew few Phalangodoid animals (11 genera with 16 species). Later on the number of forms belonging here has increased considerably through the extensive work of ROEWER; now 124 genera with 221 species are known, which are arranged by ROEWER into 12 subfamilies viz. *Samoinæ*, *Phalangodinæ*, *Tricommatinæ*, *Biantinæ*, *Stygnommatinæ*, *Ibaloniinæ*, *Podoctinæ*, *Erecananinæ*, *Acrobuninæ*, *Saracinicinæ*, *Epedaninæ*, and *Dibuninæ*.

In the present posthumous manuscripts of SØRENSEN were found descriptions of genera and species, referred to the following families: *Phalangodidæ*, *Olynthidæ* n. fam., *Epedanidæ*, *Biantidæ*, *Stygnopsidæ* n. fam. and *Minuidæ* n. fam.

Of the different groups, *Samoidæ* Sørensen is identical with *Samoinæ* Roewer, and *Palpidoidæ* (*Erecananidæ*) Sørensen is identical with *Erecananinæ* Roewer.

The editor agrees with ROEWER (1912, p. 110) in uniting the two Sørensenian groups *Zalmoxioidæ* and *Phalangodidæ* into a single group (= *Phalangodidæ* Roewer). The characters according to which SØRENSEN separated these two families in 1886 were not many, and since that time ROEWER has described so great a number of new forms which show a parallel variation of the features in both groups that their separation can only be established on a single point viz. "spiracula processibus fulcientibus obiecta" or "detecta" which at any rate is not enough for a separation of families, but — as both LOMAN (1905) and ROEWER (1912) maintain — is only of generic value. Furthermore SØRENSEN himself surely admitted that the two groups could not be maintained as separate groups; in his rough-draughts at my disposal all the descriptions of forms belonging hereto are kept together, and he has left several attempts at grouping all the forms known to him in common synopses.

The group *Olynthidæ* Sørensen differs only on a single point from the Roewerian subfamily *Tricommatinæ*, and it is therefore natural that the species in question (*Olynthus anomalis*) should be ranged within this latter group, which thus becomes synonymous with *Olynthoidæ*.

As to the forms referred by SØRENSEN to *Epedanidæ* the following remarks may be made: In 1913 ROEWER established a new Phalangodid subfamily *Saracinicinæ*, closely related to *Epedaninæ*, and these two subfamilies are separated according to the number of joints in pars ulterior tarsi I: 2 joints in *Epedaninæ*, 3 in *Saracinicinæ*. As to the genus *Asopella* described below, SØRENSEN remarks: "Specimini unico *A. bicoloris* limes articularum secundi et tertii partes posteriores tarsi I tam leviter expressus est, ut oculus meum effugisset, nisi eum diligentissime investigassem. Specimini unico *A. xanti* idem limes levis, quamquam haud difficilis visu. *Asopo borneensi* pars ulterior tarsi I vulgo manifeste tripartita, etiam tamen huic species speciei interdum fieri potest, eundem litem vix manifestum esse". I have been able to re-examine the 2 specimens of *A. borneensis* present in the Copenhagen museum and can state that pars ulterior tarsi I is really very distinctly tripartite. This latter species is, however, identical with *Epedanus lutescens* Thorell, which species belongs to *Epedaninæ* Roewer (with 2 joints in pars ulterior!). SØRENSEN has further compared *A. xanti* with *Epedanus javanus* Thor. and notes that they are probably identical, and that they agree at any rate in having 3 joints in pars ulterior. SØRENSEN recognized 3 joints in the two other species described below viz. *Epedanus prædo* and *E. (Metepedanus) venator*. — Thus 3 joints in pars ulterior tarsi I may occur in *Epedaninæ* sensu ROEWER. According to the characteristics mentioned by ROEWER, no other real difference than this number of tarsal joints can be stated between the 2 subfamilies in question, and since this, as previously stated, does not hold good, it seems that the 2 subfamilies cannot be retained as separate groups. I do not, however, know by autopsy any of the forms referred by ROEWER to the *Saracinicinæ*, and therefore I dare not definitely unite the two groups, but leave the settlement of this question to a future investigator who knows by autopsy more forms than I.

On the other hand I agree with ROEWER in regarding *Biantinæ* and *Ibaloniinæ* sensu ROEWER as separate groups, which show differences in important characters. SØRENSEN (1886) only knew one genus (*Mesoceras*) within his group *Biantidæ*, the only one then described (*Ibaloniinæ* was erected by ROEWER in 1912). Therefore it is no wonder that SØRENSEN did not substantiate that the genera included in *Biantidæ* may most naturally be ranged into two groups corresponding to the Roewerian subfamilies *Biantinæ* and *Ibaloniinæ* (in SØRENSEN's system having family range). The sole species described below belongs to the genus *Acrobiantes* and is consequently a real Biantid.

Finally there are the 2 groups *Stygnopsidæ* and *Minuidæ* novæ familiæ described below: Within the Roewerian system they must form a part of the subfamily *Phalangodinæ* (*Stygnopsis valida* is furthermore de facto included there, as formerly described). In the main there is no doubt that SØRENSEN is right in regarding these two groups as separate and new families apart from the *Phalangodidæ*. It is beyond doubt that *Phalangodinæ* sensu Roewer does contain a rather heterogeneous series of genera, and that some of the genera treated by ROEWER (especially those mentioned in Weberkn. p. 109—120) will — like *Stygnopsis* (and *Haehnelia*, see later on) —

prove to belong to *Stygnopsidæ* or *Minuidæ*; but as ROEWER gives no description of some of the characters used by SØRENSEN in limiting them, for instance the shape of the spiracles, I am not able to decide which.

ROEWER uses the occurrence of 4 or 5 transversal scutal grooves as a main character when separating the subfamilies within his family *Phalangodidæ*. Since among the 3 genera united by SØRENSEN in *Stygnopsidæ* 2 show 5 grooves, and one only 4, this character cannot be considered to be of such fundamental systematic importance — if the 2 new Sørensenian groups really are naturally limited, in which I agree with SØRENSEN.

Within his subfamily *Phalangodidæ* (in which *Stygnopsis valida* is placed by ROEWER) ROEWER makes use of the number of joints in pars anterior tarsi II — whether 2 or 3 — for separating the genera. This distinctive mark does not hold good either. Among the 2 specimens of *Stygnopsis valida* which I have had for re-examination, the type specimen certainly possesses 4 joints in pars anterior of the (12-jointed) left tarsus and likewise 4 in the (13-jointed) right tarsus II, but the other specimen has only 3 anterior joints in the (12-jointed) right tarsus (the left tarsus is missing). I note that in each of the 3 cases pars anterior consists of an apical joint and 3 or 2 inner joints respectively, these latter being in each case quite alike, showing that the 3rd joint, when present, cannot be interpreted as merely cut off from one of the other two. This agrees with the fact mentioned below, that the genera *Stygnopsis* (type with 4 anterior joints) and *Haehnelia* (with 3 anterior joints) which otherwise quite agree, are to be considered merely as synonyms.

Thus the families in question (subfamilies sensu ROEWER) need to be outlined through other characters than those hitherto used; I shall not try to characterize the many groups erected by ROEWER, not known to me by autopsy, the more so since I am not sure that SØRENSEN would accept them as families. In the following diagnostic survey I have, however, tried to rearrange those present in the material reinvestigated by me, together with those which I know only from ROEWER'S descriptions.

#### *Conspectus familiarum Phalangoideorum.*

- I. Pars anterior tarsi I impartita. (Lobus maxillaris coxæ II discretus; tuber oculiferum deest; scutum sulcis 5 divisum; femur I spinis armatum; scopula deest)..... *Erecanidæ*.
- II. Pars anterior tarsi I bi- aut tripartita:
  - A. Scopula adest. (Pars anterior tarsi I bipartita):
    1. Tuber oculiferum adest. (Femur I spinis setigeris destitutum):
      - a. Scutum dorsale sulcis 5 divisum. (Lobus maxillaris coxæ II deest) ..... *Samoidæ*.
      - b. Scutum dorsale sulcis 4 divisum ..... *Acrobunidæ*.
    2. Tuber oculiferum bene limitatum deest. (Scutum dorsale sulcis 5 divisum; Lobus maxillaris coxæ II discretus):

- a. Femur I spinis setigeris armatum..... *Ibaloniidæ*.  
 b. Femur I spinis setigeris destitutum..... *Biantidæ* (p. 214).
- B. Scopula deest:
1. Tuber oculiferum adest:
- a. Femur I spinis vel tuberculis setigeris armatum. (Scutum dorsale sulcis 4 vel 5 divisum; lobus maxillaris coxæ II deest vel discretus sed parvus; pars ulterior tarsi I bipartita).....*Minuidæ* (p. 217).  
 b. Femur I spinis vel tuberculis setigeris destitutum:  
 + Pars ulterior tarsi I tripartita:  
 § Scutum dorsale sulcis 5 divisum. (Lobus maxillaris coxæ II discretus vel deest) ..... *Tricommatidæ* (p. 240).  
 §§ Scutum dorsale sulcis 4 divisum. (Lobus maxillaris coxæ II discretus)..... *Saracinicidæ* (cf. p. 243).  
 ++ Pars ulterior tarsi I bipartita:  
 § Lobus maxillaris coxæ II discretus, latus, porrectus:  
 £ Scutum dorsale sulcis 4 divisum ..... *Epedanidæ* (p. 243).  
 ££ Scutum dorsale sulcis 5 divisum ..... *Phalangodidæ* (p.251).  
 §§ Lobus maxillaris deest. (Scutum dorsale sulcis 4 aut 5 divisum) ..... *Stygnopsidæ* (p. 262).  
 §§§ Lobus maxillaris parvus. Scutum dorsale sulcis 5 divisum  
*Microminua* (genus *Minuidarum*) (p. 235).
2. Tuber oculiferum deest. (Pars ulterior tarsi I bipartita):  
 a. Femur I spinis setigeris armatum. (Scutum dorsale sulcis 5 divisum) ..... *Podoclidæ*.  
 b. Femur I spinis setigeris destitutum:  
 + Scutum dorsale sulcis 5 divisum ..... *Stygnommatidæ*.  
 ++ Scutum dorsale sulcis 4 divisum ..... *Dibunidæ*.

### Biantidæ Thor.

*Epedanoidæ* pars Sørensen. L. Koch. Arachn. Austral. 2, 1886, p. 66.

*Biantoidæ* Thorell. Ann. Mus. Genova. XXVII. 1889, p. 670.

*Phalangodidæ Biantinæ* Roewer. Weberkn. d. Erde, 1923, p. 128. — Suppl. Abh. Naturw. Ver. Bremen. XXVI, 2, 1927, p. 296.

Tuber oculiferum bene limitatum deest. Oculi inter se late disjuncti, sessiles aut uterque suo tumulo impositi, prope sulcum transversum primum retractum.

Scutum dorsale sulcis quinque transversis divisum. Sulci I et II non conjuncti.

Spiracula ovalia, in sulco inter coxas IV et abdomen sita, sed non processibus fulcientibus detecta.

Mandibularum pars palpigera valida, porrecta.

Palporum longorum et gracilium partes tibialis et tarsalis spinis armatæ.

Coxæ IV dilatatae.

Pedes longi et graciles. Femora I spinis setigeris destituta. Trochanteres spurii in I, II et III manifesti.

Lobus maxillaris coxæ II discretus, porrectus.

Metatarsus in astragalum et calcaneum divisus.

Pars ulterior tarsi I bipartita, II tripartita.

Scopula adest. Processus terminalis tarsorum (III—IV) deest.

Unguiculi tarsorum I et II singuli, III et IV bini, omnes integri.

Habitant in Africa (Abessinia, Kamerun, Kilimandjaro, Mombasa, Natal, Cap, Madagascar etc.) et Asia meridionali (India cum insulis).

Long ago SØRENSEN investigated a species which he then called *Hinzuanius hildebrandtii* n. sp. The species in question was later examined by ROEWER who described it (1912, p. 172) under the same name. When ROEWER later on (1915) established the genus *Acrobiantes*, the species *hildebrandtii* was placed within this. SØRENSEN too substantiated later that it could not be placed in *Hinzuanius*, and in his posthumous manuscript he noted that it ought to be placed in a separate genus.

#### Acrobiantes Roewer.

*Acrobiantes* Roewer. Arch. f. Naturgesch. LXXXI. A 3. 1915, p. 29.

*Acrobiantes* Roewer. Weberkn. d. Erde, 1923, p. 137.

Tuber oculiferum amplissimum, latissimum (tam latum et humile ut tuber oculiferum commune deesse facile videatur), tres partes areæ primæ excipiens, eminentia anteriore una præditum. Oculi inter se late dispersi.

Scutum mediocriter convexum, a basi antennarum non alte surgens.

Areæ quarta et quinta eminentiis majoribus binis.

Sulci transversi scuti omnes disjuncti, subparalleli.

Labrum (cum clypeo) late triangulum.

Antennarum articulus secundus oblique non positus; pars incrassata articuli I subcylindrica.

Mandibularum pars palpigera porrecta, valida, ordine superiore transverso basali granorum et tuberculo superiore humili instructa.

Palpi longi; partes femoralis longissima, cylindrica et patellaris leviter clavata, teretes inermes; pars tibialis compressa et pars tarsalis compresso-fusififormis, spinis armata; pars tarsalis præter spinas ordinibus ambobus setarum (processibus non impositarum) prædita, inferioribus, sibi propinquis, unguem adductum excipientibus.

Pedes breves. Coxæ IV coxis III duplo latiores. Unguiculi integri.

Differentia sexualis armatura pedum IV demonstratur. Glans penis gracilis, corpore penis vix crassior; lamina (inferior) vix dilatata, ante vix lobata; processus duo superiores conici, sat crassi, lamina inferiore breviores.

*Acrobiantes hildebrandtii* (W. Sør. in man.) Roewer.

*Hinzuanus hildebrandtii* Sørensen in manuscript.

*Hinzuanus hildebrandtii* Roewer. Arch. f. Naturgesch. LXXVIII, 3, 1912, p. 172.

*Acrobiantes hildebrandtii* Roewer, ibid. LXXXI. A 3. 1915, p. 27.

*Acrobiantes hildebrandtii* Roewer. Weberkn. d. Erde, 1923, p. 138.

Tuber oculiferum subtiliter granulatum; eminentia anterior est tuber humile late conicum, rotundatum. Oculi suo tumulo parvulo impositi a margine anteriore scuti late remoti, limiti posteriori tuberis oculiferi propinqui, a linea media corporis duplo latius quam a margine laterali scuti remoti.

Scutum ante rotundatum, pone sensim paullo latius. Sulci transversi duo anteriores paullo angulate procurvi, duo posteriores recti. Limbus anterior non discretus. Limbus lateralis latus, ordine medio granorum densorum ornatus. Emissarium liquoris foetidi latissimum, pone semper (?) latius. Areae granis densis ornatae, quarta et quinta processulis binis sibi subæqualibus, cylindricis, acutis in rectangulum dispositis; præter quos interdum duo minores in area V adsunt. Limbus posterior et segmenta dorsalia libera tria anteriora granulis et ordinibus singulis processulorum conicorum acutorum (extus sensim minorum); segmentum anale ordinibus tribus haud manifestis granorum. Segmenta ventralia ordinibus singulis granulorum remotorum, anale ordinibus duobus granorum. Coxæ subtiliter granulatae.

Spiracula tumulis imposita.

Antennarum pars incrassata articuli primi eminentiis superioribus basalibus utrinque singulis prædita, ceterum lævis. Articulus secundus pilis longis ante ornatus.

Mandibularum pars palpigera conica, æque longa ac articulus primus antennarum et eo crassior, præter tuberculum ordine superiore transverso basali granorum instructa.

Palporum pars trochanterica breviter clavata tuberculo setifero inferiore; pars femoralis æque longa ac femur II, femoribus tenuior; pars patellaris parte femorali vix dimidio brevior, parte tibiali duplo longior; pars tibialis basi crassior spinis exterioribus tribus, sibi æqualibus, diametro articuli triplo longioribus; pars tarsalis spinis utrinque binis, prima diametro articuli vix duplo longiore. Unguis procerus, valde incurvus.

Pedes robustiores. Coxæ IV granis, superioribus densis ornatae. Trochanteres veri subpyriformes; trochanteres spurii manifesti. Femora subfusiformia, vix arcuata, ubique granulata. Patellæ III breves subglobosæ. Metatarsi III et IV spurie articulati. Articuli tarsales: 3, 5, 5, 5.

Differentia sexualis: Coxæ IV maris prominentes, processulo anteriore, conico suberecto (cujus vestigium apud feminam adest); trochanter IV processulo posteriore apicali. Femora IV ordine posteriore interiore eminentiarum trium, apici propinquarum, quarum prima processus procerus arcuatus, diametro articuli fere duplo longior, et ceteræ processuli illi similes, et processulis exterioribus duobus parvis,

eminentiis jam dictis propinquis. Tibiæ IV ordinibus inferiore et interiore processu-  
lorum, a basi ultra medium positorum.

Color: Scutum fuscum, eminentiis majoribus flavis; tuber oculiferum et limbi  
laterales rubicundo-testacei; venter rubicundo-testaceus, passim infuscatus; membra  
testacea, femoribus infuscatis, metatarsi I et tarsi I et II nigri.

Long. corp. 3; long. scut. 2,25, lat. scut. 2; palpi 5, pedes I 6, II 10, III 7, IV 9.

Patria: Madagascar. — Specimina tria, in museo Berolinensi asservata, vidi.

Remark: It is beyond doubt that this species is identical with that described  
by ROEWER under the same name, though ROEWER says that (in contra-distinction  
to the other species) it lacks an eminentia anterior on the carapax, although this  
is mentioned in the description above.

### Minuidæ n. fam.

*Phalangodidæ Phalangodinæ* pars Roewer. Weberkn. d. Erde, 1923, p. 69.

Tuber oculiferum adest.

Scutum dorsale sulcis quatuor vel quinque divisum. Sulci duo anteriores sulco  
longitudinali conjuncti aut non conjuncti. Areæ scuti atque segmenta libera ordinibus  
transversis granorum seu tuberculorum setigerorum ornata.

Emissarium orificiorum glandularum foetidarum secundum marginem lateralem  
scuti ductum.

Spiracula detecta, cancellata.

Palporum articuli, partibus femoralibus patellaribusque interdum exceptis,  
spinis armati.

Coxæ IV interdum non dilatatae, interdum paullum aut valde dilatatae.

Femora I (sæpissime) tuberculis setigeris armata sunt.

Lobus maxillaris coxarum II deest, vel adest, sed parvus.

Pars ulterior tarsorum I bipartita, II bi- vel tripartita.

Scopula et processus terminalis desunt.

Pedes I—II unguiculis singulis, III—IV binis, integris instructi.

Animalia in America meridionali præcipue Venezuela indigenæ.

All the genera and species of this new family, are, as far as I can make out,  
new to science, none of them being mentioned or described by ROEWER, in whose  
system they are to be placed in *Phalangodinæ*. The species are generally small or  
even minute, and they were often collected by sifting. With the exception of *Phera*,  
which was taken in Blumenau in Bresil, they were all collected in Venezuela.

In addition to the 7 genera, to the determination of which I have worked out  
the analytical key below, SØRENSEN had examined an eighth genus, which he named  
*Statira*, but I did not succeed in finding any description or material belonging to it;  
according to a few lines of SØRENSEN it is characterized by: four sulci transversi,

tuber oculiferum with a single eminentia, area IV unarmed, and pars ulterior tarsi II tripartite; tarsal joints: 4, 8—9, 5, 5.

No doubt all the genera brought together by SØRENSEN within this family are really nearly related to each other — the Bresilian genus *Phera* being, however, morphologically rather distant from the others which are all inhabitants of Venezuela. The genera, however, differ mutually as regards each particular character of those used by ROEWER in his arrangement of genera and (sub)families, since exceptions are found from the common behaviour, but some forms deviate on one particular point, other forms on another, for instance: pars ulterior tarsi II bipartita in *Phera* and *Minua*, tripartita in the others; femur I spinis setigeris destitutum in *Microminua*, but armatum in the others; sulci transversi scuti 4 in *Minuides* and *Euminua convolutus*, 5 in the others etc.). In spite of the fact that all the genera are really nearly related, it is therefore difficult to give a familiar diagnosis based on the generally accepted characters of taxonomic value in other families.

*Conspectus generum.*

- I. Pars patellaris palporum inermis. (Tuber oculiferum eminentia majore una præditum) ..... *Phera* n. gen.
- II. Pars patellaris palporum spina interiore armata:
  - A. Tarsus I tripartitus, pars citerior non articulatus (Pars ulterior tarsi II tripartita):
    - 1. Tuber oculiferum cum eminentia una majore:
      - a. Tuber oculiferum tuberculo sat parvo præditum. Femora I tuberculis setigeris armata ..... *Minuides* n. gen.
      - b. Tuber oculiferum processulo apicali præditum. Femora I sine tuberculis setigeris ..... *Microminua* n. gen.
    - 2. Tuber oculiferum tuberculis duo præditum, vel sine tuberculis majoribus ..... *Euminua* n. gen.
  - B. Tarsus I quatuorpartitus, pars citerior articulata:
    - 1. Pars ulterior tarsi II bipartita. Tuber oculiferum eminentia majore una præditum ..... *Minua* n. gen.
    - 2. Pars ulterior tarsi II tripartita. Tuber oculiferum sine eminentia magna:
      - a. Coxa IV valde dilatata, apices scuti attingens. Differentia sexualis magna ..... *Acanthominua* n. gen.
      - b. Coxa IV vix dilatata, apices scuti vix attingens. Differentia sexualis insignifica ..... *Kalominua* n. gen.

***Phera* n. gen.**

Tuber oculiferum eminentia majore una prædita.

Scutum dorsale pone apices coxarum IV attingens, post sulcum transversum primum manifeste dilatatum, erga apices coxarum IV subito fortiter angustius. Sulci



transversi quinque, quorum duo anteriores sulco longitudinali conjuncti, primus manifesto procurvus.

Area IV sine eminentiis magnis.

Margines orificiorum urinariorum et emissarii eorum proprii breves elevati, quare cum orificio glandularum foetidarum confluunt, ferrum equinum angustum, irregulare formantes.

Palporum haud robustorum pars femoralis leviter compressa; pars patellaris inermis; partes tibialis et tarsalis vix compressæ, spinis gracilibus armati; pars patellaris curvata apicem versus crassior (modo in *Gonyleptidis*). Pars palpigera haud producta.

Lobus maxillaris coxis II deest.

Coxæ IV valde dilatatae, apices erga sulcum transversum tertium attingunt.

Pedes IV longissimi.

Pars ulterior tarsorum II bipartita.

Differentia sexualis armatura pedum IV haud dubie demonstratur.

This genus, according to SØRENSEN, by the sulci transversi, the structure of pars patellaris and the sexual difference, shows great similarity to *Gonyleptidae* from which, however, it differs by the absence of processus terminalis of tarsus III and IV and of the two-segmented pars ulterior of tarsus II.

Species unica adhuc reperta:

***Phera pygmæa* n. sp.**

Mas 2 mm longus, fuscus; tuber oculiferum tuberculo præditum, pars media limbi anterioris conice elevata; areæ tertia, quarta, quinta granis ornatae, quorum majora in ordinibus singulis disposita; palporum pars femoralis inermis. Articuli tarsales 3, 4, 5, 5. In mare coxæ IV processulo exteriore bicuspidato; trochanter IV processibus apicalibus duobus; femora IV (præter processulos apicales duos) processu inferiore subapicali.

Tuber oculiferum duplo longius a sulco transverso primo quam a margine anteriore scuti separatum, latius et longius quam altius, tuberculo uno acuto præditum, altitudine ipsius tuberis plus quam dimidio brevior. Tuberculum a tubere manifeste limitatum.

Scutum (saltem maris) levissime convexum. Sulci lati manifesti. Limbus anterior discretus, tumidus, coriaceus, pars media conice elevata, tubere oculifero haud multo minor, eminentiis non ornata. Limbus lateralis haud latus, ordine medio (vel interiore) granorum majorum et acutorum, usque ad apicem coxæ IV ducto. Emissarium liquoris foetidi distincte limitatum. Areæ coriaceæ, tertia, quarta, quinta granis ornatae, quorum majora, partim acuta, in ordinibus singulis posterioribus disposita. Limbus posterior scuti et segmenta dorsalia tria anteriora ordinibus singulis granorum, anale dorsale, coxæ IV et ventrale primum granis minoribus dispersis.

Anale ventrale ordinibus duobus, segmenta ventralia cetera ordinibus singulis granorum parvorum sat remotorum ornata.

Antennarum pars globosa articuli primi sublævis, articulus secundus vix granulatus.

Palporum pars femoralis supra leviter convexa, æque crassa ac femur III, inermis. Pars tibialis spinis utrinque trinis, quarum secundæ ceteris longiores, interior secunda omnium longissima, diametro articuli brevior. Pars tarsalis spinis exterioribus 4, quarum prima et tertia ceteris duplo longiores, et interioribus 3, quarum secunda maxima. Unguis procerus æque longus ac pars tarsalis.

Pedes brevissimi, robusti. Femora arcuata, ordinibus singulis granorum ornata. Calcanei I et II manifeste longiores quam crassiores, III subæque longus ac crassus, IV brevior quam crassior. Articuli tarsales: 3, 4, 5, 5. Articulus ultimus tarsorum I et II penultimo triplo longior.

Differentia sexualis (femina ignota): In mare coxæ IV processulo exteriori robusto subrecto, bicuspidato (quia apex oblique incisus). Trochanter IV tuberculo exteriori basali obtuso, tuberculo interiore submedio robusto, vix curvato, et processulis apicalibus subacutis, superiore leviter curvato et interiore subrecto. Femora IV granis magnis, inferioribus majoribus, quorum alterum apici propinquum est tuberculum obtusum, et alterum est processus subapicalis, introrsum directus, arcuatus, acutus, et processulis superioribus apicalibus duobus rectis subacutis. Patellæ IV granis et processu inferiore, interiore subapicali, recto, acuto et tuberculo interiore apicali obtuso. Tibiæ IV granis, quorum inferiora majora, apicem articuli versus sensim longiora.

Long. corp. 2; long. scuti 1,75, lat. scuti 1,5; inter apices coxarum IV 2,5; pedes II 4,5, IV 5.

Scutum fuscum, sulcis dilutioribus (rufo-testaceis). Venter dilutior (brunneo-testaceus), fusco-variegatus. Eminentiae majores pedum IV (processulo coxali excepto) testaceæ. Pedes corpore vix dilutiores.

Patria: Brasilia. Specimen unicum, marem, ad oppidum Blumenau captum, in collectione ill. comitis KEYSERLINGII asservatum vidi.

### **Minua n. g.**

Tuber oculiferum fere ab ipso margine anteriore scuti surgens, eminentia majore una præditum.

Scutum dorsale sulco transverso primo constrictum, quare pars posterior ante subglobosa est; anguli anteriores limbi anterioris fortiter rotundati. Sulci transversi quinque, quorum primi duo non conjuncti, sulci recti II, III, IV in medio breviter sinuati (sinu ante aperto).

Area quarta eminentiis majoribus destituta.

Orificia glandularum foetidarum parva, processu coxali oppresso fere obtecta.

Palporum sat robustiorum pars femoralis leviter compressa, pars patellaris

apicem versus sensim crassior, intus armata; pars tibialis vix, tarsalis manifesto compressa. Pars palpigera conice producta usque ad apicem trochanteris I, tuberculo inferiore prædita.

Lobus maxillaris coxis II deest.

Coxæ IV dilatatae. Trochanteres spurii adsunt.

Tarsus I quadripartitus, pars citerior bipartita. Pars ulterior tarsi II bipartita.

Differentia sexualis (interdum magna) structura pedum demonstratur.

(Structura penis vide *M. dimorpha*).

To this genus SØRENSEN referred 4 species, all from Venezuela, to the determination of which I have worked out the following synoptic key (C. W.).

#### *Conspectus specierum.*

- I. Scutum scabrum granis magnis et minoribus dispersis. Femora pedum sine granis dorsalibus (Coxa IV ♂ sine tuberculo exteriore magno. 5,5 mm)  
*M. scabra* n. sp.
- II. Scutum granis ordinatim dispositis præditum. Femora pedum cum granis superioribus:
  1. Tuber oculiferum cum processu apicali granis ceteris valde majore:
    - A. Femora ordine dorsali granulorum acutorum; antennarum pars incrassata articuli I granis acutis apicalibus 3. Coxa IV ♂ tuberculo exteriore bicuspidato, trochanter IV ♂ processulo apicali procero.  
5 mm ..... *M. dimorpha* n. sp.
    - B. Femora tuberculo parvo dorsali; antennarum pars incrassata granis apicalibus duobus vel uno. Coxa IV ♂ sine tuberculo bicuspidato.  
Processus trochanteris IV unco navali subsimilis. 3 mm. . . *M. insolens* n. sp.
  2. Tuberculum apicale tuberis eminentiis ceteris (granis sat magnis) haud multo majus. Femora granis dorsalibus setigeris duobus basalibus...  
*M. elias* n. sp.

#### *Minua scabra* n. sp.

Tuber oculiferum magnum, transverse late conicum, manifesto latius quam altius, altius quam longius, granis conicis sat densis dispersis, acutis, et processulo apicali procurvo, subacuto, altitudine tuberis fere duplo brevior. Oculi subbasales, magni, prominentes.

Scutum alte convexum, sulco transverso primo constrictum, quare pars posterior ante subglobosa est. Sulci ceteri manifesti (non autem profundi) paralleli, sed II et III recurvi, ceteri subrecti (II, III, IV sinu medio parvo, ante aperto præditus). Limbus anterior non discretus. Limbus lateralis sat latus ordinibus duobus granorum præditus, quorum pauca (3, præsertim 1) ordinis exterioris adversus aream IV posita, ceteris majora, conica, post quæ eminentiæ ordinis exterioris sunt granula. Orificia glandularum foetidarum parva, processu coxali oppresso fere obtecta. Area II ceteris

manifesto major. Areæ granis magnis retroversis acutis, et minoribus densis, sat dispersis. Segmenta dorsalia libera tria anteriora ordinibus binis granorum, anteriore parvorum, postèriore magnorum, primum tuberculis marginalibus utrinque singulis, conicis (sexual character? C. W.). Analia granis magnis densis dispersis. Coxæ granis densis dispersis, medium adversum minoribus. Ventralia I ante sublævis, pone velut segmenta cetera ordine granorum inæqualium (extrorsum majorum). Ventrale I carinis ambabus, leviter obliquis, e angulo interiore-anteriore suorum spiraculorum, valde oblique positorum exeuntibus. Pars palpigera conice producta, tuberculo inferiore armata et superioribus basalibus duobus.

Pars globosa antennarum incrassata, lævis.

Palpi sat robusti. Pars femoralis femore III vix crassior, spinis inferioribus tribus, quarum maxima basalis, dum ceteræ seta (non aculeo) apicali instructæ sunt, et spina interna, apici propinqua diametro articuli duplo brevior. Pars patellaris spina interiore gracili, apici propinqua armata. Pars tibialis sat compressa, apicem versus angustior, spinis sat gracilibus exterioribus tribus, sensim longioribus, et interioribus duabus. Pars tarsalis parte tibiali manifesto brevior et multo tenuior, spinis gracilibus utrinque quaternis, quarum prima ceteris minor. Unguis procerus, parte tarsali paullo brevior.

Pedes breves, robusti. Coxæ IV valde dilatatae; scutum apices coxæ fere attingens; coxæ IV grano exteriori-superiore magno præditæ. Femora leviter arcuata; II granis, III granis superioribus et tuberculis inferioribus, I ordinibus inferiore et superiore processulorum, IV granis magnis densis et tuberculis posterioribus sat longis. Patellæ et tibiæ I, II, III granis, infra majoribus, IV granis magnis densis et inferioribus tuberculis. Metatarsi IV granis, infra majoribus, ceteri granulis. Trochanter IV tuberculo posteriore apicali magno sat procero conico incurvo, obtuso (♂?). Calcanei I—II paullo longiores quam crassiores, III manifesto crassior quam longior, IV partem apicalem obliquam metatarsi format. Articuli tarsales 4, ?, 5, 6.

Differentia sexualis ignota.

Long. corp. 5,5; long. scuti 4,5, lat. scuti 4; palpi 5; pedes I 9, II (sine tarso) 13, III 9, IV 12,5.

Fusca, palpi paullo dilutiores, tarsi fusco-testacei.

Patria: Venezuela, Merida. Exemplum unicum, marem, in Mus. Zool. Hafniensi asservatum, examinavi.

#### **Minua dimorpha n. sp.**

Tuber oculiferum sat magnum, transversum, late convexum, latius quam altius, granis dispersis sat densis scabrum. Processus apicalis proclivis, acutus. Oculi basales magni, prominentes.

Scutum alte convexum. Sulci transversi profundi. Limbus anterior vix discretus; anguli tuberculis conicis acutis aut binis, quorum primum majus, aut trinis, quorum medium ceteris majus. Limbus lateralis latus, ordinibus duobus haud manifestis granorum parvorum densorum ornatus, quorum duo extra aream III posita,

ceteris manifesto majora. Areæ I granis paucis dispersis, ceteræ ordinibus binis granorum, longiorum quam latiorum, pone majorum et altiorum. Limbus posterior et segmenta dorsalia libera tria anteriora ordine singulo granorum magnorum similium densorum. Anale dorsale ordine anteriore granorum magnorum et posteriore granis similibus densis. Anale ventrale granis sat magnis densis, coxæ IV (infra) granis sat parvis, segmenta cetera ordine singulo granorum anteriorum parvorum, pone sensim majorum, primum extra apices coxarum IV granis majoribus paucis.

Antennarum pars incrassata articuli primi supra granis acutis apicalibus 3, in femina posteriore-exteriore uno, in mare posterioribus 3, quorum exterius maximum, prædita est. Articulus secundus granis setiferis ornatus. Pars incrassata in femina grano interiore medio sæpe prædita.

Palpi sat robusti. Pars trochanterica spinis inferioribus duabus (in femina una tres) et tuberculo superiore uno. Pars femoralis ordine dorsali granulorum acutorum ornata, femore I paullo (♀) vel dimidio (♂) crassior præter parvam basalem spinis inferioribus tribus, robustis, quarum subbasalis maxima, dum ceteris seta apicalis brevis imposita est, et interiore apici propinqua una, diametro articuli fere duplo brevior. Spinæ interiores subapicales partis patellaris et partium tibialis et tarsalis graciles. Pars tibialis compressa apicem versus angustior et minus crassa, spinis subæqualibus exterioribus tribus et interioribus duabus. Pars tarsalis parte tibiali manifesto brevior et multo tenuior, spinis exterioribus quatuor et interioribus tribus armata. Unguis robustus, parte tarsali manifesto brevior.

Pedes breves sat robusti. In coxis differentia sexualis magna adest. Trochanteres granis conicis paucis. Femora I subrecta, II leviter, III sat fortiter, IV fortiter arcuata, granis acutis ubique prædita; femur I ordine inferiore et superiore processulorum parvorum conicorum, quorum setæ subapicales robustæ inferiores seorsum inclinatæ, Patellæ et tibiæ et metatarsi IV granis prædita, quæ in I et præsertim in IV magna sunt; IV processulo inferiore apicali acuto. Calcanei I—III æque crassi atque longi, IV crassiores quam longiores, anulum obliquum perbrevissimum (difficilem visu) formant. Articuli tarsales: in feminis 19: 4, (7)—8—(9), 5, 6, in maribus 20: 4, 9—10—(11), 5, 6.

Differentia sexualis: Eminentia tuberis oculiferi in mare processus proclivis, altitudine tuberis paullo longior, in femina processulus parvus acutus conicus, altitudine duplo brevior. Scutum altius convexum in mare quam in femina. Sulci transversi in femina II recurvus, ceteri recti, in mare recurvi sinu medio levi ante aperto præditi. Limbus lateralis maris adversus aream III processulus (vel tuberculum) magnus conicus, retroversum curvatus acutus, ante quem tuberculum sæpe adest. Segmentum primum liberum maris processulis exterioribus singulis conicis obtusis extorsum directus. Coxæ IV in mare tuberculo exteriore compresso bicuspidato, setam subapicalem robustam gerente, in femina tuberculo exteriore parvulo præditæ; trochanter IV in mare processulo interiore apicali procero acuto granulo interiore sive posteriore prope apicem prædito, et in femina processulo parvo gracili interiore apicali acuto præditus. Femora IV maris ordinibus inferioribus duobus tubercu-

lorum sive processulorum parvorum conicorum ornata; eminentiæ inferiores femorum IV feminae majores acutæ, quarum paucae apicem prope tubercula majora dicendæ sunt. Differentiæ parvæ in structura antennarum et tarsorum adsunt.

Penis lamina inferior utroque seorsum curvata, ut partes ceteræ ea plane amplectantur et obtegantur, cujus margines laterales sese supra tangunt, sulco angusto tantum separati, et pone quidem coalescunt. Lamina aculeis destituta, sed carinis transversis angustis altis, ante leviter concavis quatuor, meatui cochleæ similibus, instructa, in latere inferiore orientibus; in latere superiore glandis posteriores tres desinunt, dum prima usque ad margines laterales (circumvolutos) extendit (vide fig. 4.). Processus medius deest. Processus superior (ejaculatorius) subrectus, cujus basis (solito tumida) in membranas dorsales ambas latas tenues producta, ipsum

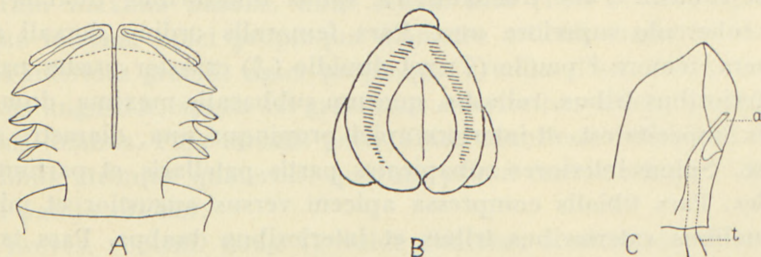


Fig. 4. *Minua dimorpha* n. sp.

A Glans penis, desuper inspecta, B ab apice inspecta. C Processus superior (a) in membranis situs (t = tunica intima ductus ejaculatorii).

(W. Sør. del.)

processum amplectantes et marginem anteriorem partis coalitæ laminæ attingentes. Membranæ, glande sub microscopo pressa, ut folia tenuia apparent. Nescio qui hae membranæ infra coalescunt. Credo, processum ejaculatorium, in coitu, per sulcum marginis lateralis laminæ circumvolutæ apparere.

Long. corp. ♀ 4,75; long. scuti 3,5, lat. scuti 2,7; palpi 4; pedes I 6,7, II 10, III 7, IV 9,5. — Long. corp. ♂ 5,25; long. scuti 4,3, lat. scuti 3,7; palpi 4,75; pedes I 9,2, II 16, III 9, IV 13,5.

Fusca; pedes dilutiores (brunnei), sæpe testaceo anulati; calcanei et tarsi testacei.

Variatio: Pars tibialis altera maris uni spinis exterioribus quatuor prædita; processulus trochanteris IV maris interdum leviter biramus, quia eminentia, solito granulum, longa est; patella IV in mare, in quo eminentiæ majores limbi lateralis segmenti dorsali liberi primi et ventralis primi paullo prominentes sunt, processulis inferioribus duobus.

Development: The adolescent specimens (adolescentes: articuli tarsales 2, 2, 3, 3) have the ocular tubercle smaller, and the interior spine of the pars patellaris is minute, the sulci of the scutum are well developed. In two specimens all the dorsal somites were separated by broad articulate membranes, not furrows as usual,

showing plainly, that the limb posterior is a real segment. A dorsal conical process was observed at the base as well as at the tip of the metatarsus. In the quite young animals (pulli: articuli tarsales 2, 2, 2, 2) eminentia tuberis est granum parvum acutum, sculptura corporis totius debilis, pars patellaris palporum inermis est, metatarsus IV as mentioned above. (C. W.).

Patria: Venezuela. MEINERT sifted numerous specimens during his collecting journey in 1891: La Moka (16 ♀<sup>1</sup>), 18 ♂<sup>1</sup>), 17 adolescentes and 8 pulli), Caracas in the month of July (3 ♀), Laguno di Espino in the month of June (1 ♂), Dos Caminos in the month of August (1 ♂, 1 adolesc.) — omnia in Museo Zool. Hafniensi asservata.

Remark: This description was rather difficult to work out from SØRENSEN'S rough-draught in pencil, which consisted of two independent parts, one concerning the male and another the female, originally regarded by the author as two different species. The notes on the young ones were worked out from SØRENSEN'S preliminary remarks in Danish. (C. W.).

#### *Minua insolens* n. sp.

Tuber oculiferum e margine anteriore scuti surgens, late et rotundate conicum, latius quam altius, paullo longius quam altius, granis acutis densis scabrum. Processus leviter proclivis, conicus, acutus, in mare altitudine tuberis non duplo brevior, in femina plus quam duplo. Oculi basales magni prominentes.

Scutum maris alte, feminae minus alte convexum, sulco transverso primo constrictum. Sulci manifesti, II recurvus, et III sinu medio ante aperto præditus. Limbus anterior non discretus. Limbus lateralis haud latus, ordinibus duobus granorum, pone sensim majorum, quorum exteriora interioribus majora sunt. Orificia glandularum foetidarum parva, in ipso margine posita, processu coxali, oppresso, fere obtecta. Area I tuberculis lateralibus conicis, acutis tribus, quorum primum adversus palpum positum maximum, et granis posterioribus mediis sat densis, litteram M haud bene expressam formantibus. Areae ceterae ordinibus binis granorum magnorum elevatorum. Limbus posterior et segmenta dorsalia libera tria priora ordinibus singulis granorum magnorum. Anale dorsale ordine anteriore granorum majorum et granis dispersis minoribus densis. Coxæ granis parvis. Segmenti ventralis I maris margo in medio lævis, lateraliter tuberculis obtusis aliquot, segmenta ventralia II et III granulata, IV et V granis magnis mediis (5—7); anale ventrale maris ordine manifesto posteriore granorum magnorum, et anteriore in medio late interrupto granorum parvorum. In femina segmenta ventralia ordine singulo granorum parvorum, latera versus majorum. Lobus maxillaris coxæ II sulco separatus, non autem mobilis. Pars palpigera maxillæ conice producta.

Antennarum pars incrassata articuli primi granulis acutis et processu interiore terminali, in mare majore, ornata.

<sup>1</sup>) 3 having ovipositor protruded.

<sup>2</sup>) 1 having penis protruded.

Palpi sat robusti; palporum pars trochanterica processulo superiore et spinis inferioribus duabus, quarum basalis parva. Pars femoralis tuberculo parvo dorsali ante mediano prædita, femore I dimidio crassior, supra convexa, spinis inferioribus tribus, quarum subbasalis maxima, setam longam gerens, dum ceteris seta (nec aculeus) apicalis brevis imposita est, et spina interior, apici propinqua, diametro articuli plus quam duplo brevior. Spinæ partium ceterarum graciles. Pars tibialis spinis subæqualibus exterioribus tribus et interioribus duabus. Pars tarsalis spinis utrinque tribus. Unguis parte tarsali manifesto brevior.

Pedes breves robusti. Trochanteres et femora I ordinibus inferiore et superiore processulorum subacutorum, quorum setæ subapicales robustæ, superiores sensim inclinatæ. Femora granis ubique, I subrectum, II leviter, III et IV fortiter arcuata. Patellæ, tibiæ, metatarsi IV granis prædita. Calcanei parvi, subæque crassi atque longi. Articuli tarsales ♀ 4, 6—(7), 5, 6; ♂ 4, (6)—7, 5, 6.

Differentia sexualis in processu apicali tuberi oculiferi adest; coxæ IV tuberculo compresso exteriore; in mare oblique acuminato, aliquanto majori. Trochanter IV processu inferiore apicali in mare, unco navali subsimile, in femina multo minore in apice vix inciso sive eminentia perparvula interiore subapicali prædita. Femora IV maris manifesto, feminae leviter clavatum, ordine inferiore eminentiarum, in mare manifesto majorum, apicem articuli versus majorum. Patella IV in mare processulo inferiore apicale, in femina tuberculo. Tibia IV maris manifesto, feminae leviter fusiformis, ordine inferiore eminentiarum, in mare manifesto, in femina paullo majorum. Segmentum liberum primum maris tuberculo exteriore marginali conico præditum; differentia sexualis in structura ventris descripta est.

Long. corp. ♂ 3; long. scuti 2,5, lat. scuti 2,1; palpi 2,7; pedes I 5, II 8,5, III 4,5, IV 6,5. — Long. corp. ♀ 2,5; long. scuti 2,2, lat. scuti 1,75; palpi 2,5; pedes I 4, II 6,2, III 4,3, IV 5,2.

Fusca aut fusco et ferrugineo variegata. Pedes et palpi fusco-testacei. Antennæ testaceo-fulvæ.

Patria: Venezuela. MEINERT sifted 3 ♂ and 3 ♀ at La Moka August 1st—12th, 1891. Specimina omnia in Museo Zool. Hafn. asservantur.

#### *Minua elias* n. sp.

Tuber oculiferum differs from that of the preceding species in having a "tuberculum apicale eminentiis ceteris granis sat magnis haud multo majus".

Scutum etc. scarcely differs from that of *M. insolens*, but the first area has anteriorly and laterally four teeth instead of three; the big grana of the posterior portion of the area is less regularly arranged. Segmentum anale ventrale ordinibus duobus granorum. The processus fulcientes of the coxæ are better developed, and the pars palpigera maxillarum has a bigger ventral process.

The antennæ are scarcely different from those of the preceding species.

The palpi differ in the following features: The dorsal process of pars trochanterica is better developed; the femoral part has two small dorsal setigerous tubercles



in the proximal half; "pars tibialis spinis robustioribus exterioribus 4 et interioribus 2. Pars tarsalis spinis exterioribus 5 et interioribus 3. Unguis parte tarsali paullo brevior."

Pedes are like those of the preceding species but "trochanter IV eminentia inferiore apicale memoria digno non instructus. Articuli tarsales 4, 7—8, 5, 6."

Differentia sexualis ignota.

Long. corp. 3,5; long. scuti 2,8, lat. scuti 2,2; palpi 3,5; pedes I 5, II 7,75, III 5, IV 7,25.

Colour blackish-brown with yellowish spots on the thorax and yellow articular membranes and furrows.

Patria: Venezuela. MEINERT sifted a single female at Hacienda De Elias, Las Trincheras December 19th, 1891. The specimen is preserved in Zool. Mus. Copenhagen.

Remark: SØRENSEN only left a few notes in pencil about this species; it is most easily distinguished from *M. insolens* by the short apical teeth of the ocular tubercle.

### Minuides n. g.

Tuber oculiferum a margine anteriore scuti surgens, eminentia majore una apicali præditum.

Scutum dorsale sulcis transversis quatuor; sulcus secundus deest. Scutum sulco transverso constrictum, pars latissima ante ipsam partem posteriorem. Anguli anteriores limbi anterioris rotundati.

Area quarta eminentiis majoribus destituta.

Orificia glandularum foetidarum proclivia, detecta, plana.

Palporum robustorum pars femoralis compressa, pars patellaris spina interiore armata, pars tibialis latior quam crassior. Pars palpigera mandibularum breviter (i. e. ultra coxam I paullo) producta, tuberculis superioribus basalibus duobus armata. Coxæ IV non dilatatae. Trochanteres spurii adsunt.

Tarsus I tripartitus, pars citerior non articulata. Pars ulterior tarsi II tripartita. (Differentia sexualis ignota).

Only a single species belongs to this genus, which is most easily distinguished from *Minua* by the number of segments in tarsi I et II.

### Minuides setosa n. sp.

Tuber oculiferum a margine anteriore scuti surgens, subconicum, magnum, altum, paullo altius quam latius, æque longum ac altum, ante erectum, pone rotundate declive, in processulum apicalem vix proclivem, conicum, obtusum, haud bene limitatum desinens. Oculi magni, basi propinqui.

Scutum convexum. Sulci debiles. Limbus anterior non discretus, supra palpos tuberculis parvis binis setigeris præditus. Limbus lateralis haud latus, ordine exteriori granorum parvorum rotundorum densorum ornatus, intra quæ grana posteriora

adsunt, ordinem haud manifestum efficientia. Area I ordine posteriore transverso granorum trium vel quatuor (the left side shows 4, while the exterior granum is wanting on the right side), Area II (i. e. II + III) ordinibus quatuor, ceteræ et limbus posterior et segmenta dorsalia libera tria priora ordinibus binis eminentiarum prædita; eminentiæ ordinis anterioris sunt grana haud magna, in limbo posteriore et segmentis liberis minuta; eminentiæ ordinis posterioris sunt conicæ acutæ, setas subapicales singulas gerentes, usque ad limbum posteriorem majores, deinde leviter minores, mediæ quam laterales majores, quarum eminentiarum maximæ sunt tubercula minora, minimæ grana magna. Anale dorsale granis dispersis sat magnis. Coxæ granis densis; segmenta ventralia priora ordinibus granorum pone majorum, setas subapicales gerentium, anale anterioribus duobus et posteriore uno, segmenta cetera singulis.

Antennarum pars incrassata articuli primi sublævis, articulus II citra carinam transversam, prope digitos positam, depressam, ante digitum immobilem sinuatus lateraliter. Digni retrorsum curvati, lateraliter carinati, immobilis dente compresso magno submedio præditus.

Palpi robusti. Pars trochanterica spinis gracilibus inferioribus duabus. Pars femoralis compressa, arcuata, femore IV crassior, ordine inferiore processuum duorum, spinam apicalem longam gerentium, et tuberculorum acutorum (dextra 3—4 et sinistra 2), setulam apicalem gerentium, et spina interiore subapicali, diametro articuli paullo brevior. Pars patellaris spina interiore subapicali simili. Pars tibialis spinis utrinque trinis armata, spinarum interiorum subæqualium tertia longissima; exteriorum secunda ceteris multo longior, diametro paullo longior, tertia parva. Pars tarsalis parte tibiali paullo brevior et multo angustior, spinis exterioribus 3, quarum (secunda et) prima quam spina longissima partis tibialis vix brevior, et tertia parva, et interioribus 4, quarum prima et quarta parvæ, dum secunda et tertia graciles longæ. Unguis fortiter incurvus, parte tarsali paullo brevior.

Pedes breves, robusti. Coxæ IV tuberculis brevibus exterioribus et interioribus. Femora omnia ordinibus binis tuberculorum minorum, setam subapicalem gerentium, munita, quæ in femore I majora sunt. Femora ceterum omnia et trochanteres et patellæ et tibiæ granis setigeris dense munita. Metatarsi IV granis haud densis, ceteri granulis setigeris. Femora arcuata, præsertim IV. Calcanei I æque crassi atque longi, II—III breves, IV brevissimus. Articuli tarsales 3, 5, 5, 5—6.

Differentia sexualis ignota.

Long. corp. 2,75; long. scuti 2,5, lat. scuti 2,2; palpi 2,5; pedes I 4,6, II 6, III 5,5, IV 6,1.

Fusca; antennæ, palpi, trochanteres, tarsi testacei.

Patria: Venezuela. MEINERT has found a single female (?) at Las Trincheras November 4th, 1891. The specimen is preserved in the Zool. Mus. Copenhagen.

Remark: The fourth pair of coxæ are only slightly dilated and almost parallel with the preceding pair; they extend only slightly beyond the posterior margin of the scutum and scarcely to the posterior margin of the third abdominal somite. (C. W.)

**Euminua** n. g.

Tuber oculiferum non a ipso margine anteriore surgens; eminentia una major deest.

Scutum dorsale oblonge trapezoidale, adversum coxas III levissime sinuatum, apicibus coxarum IV sat longe prominens. Sulci transversi quinque vel quatuor, non conjuncti.

Area quarta sine eminentiis majoribus.

Orificia glandularum foetidarum parva in ipso margine posita.

Palporum sat robustorum pars femoralis leviter compressa; pars patellaris intus spina armata apicem versus sensim crassior; partes tibialis leviter, tarsalis non compressæ. Pars palpigera mandibulæ conice producta, longa.

Lobus maxillaris coxarum II sulco separatus, sed parvus.

Coxæ IV vix dilatatae. Trochanteres spurii sat manifesti adsunt.

Tarsus I tripartitus, pars ceterior non articulata. Pars ulterior tarsi II tripartita (etiam in *E. convolvulo*?).

Differentia sexualis in structura pedum interdum magna est.

(Structura penis vide *E. longitarsus*.)

The generic diagnosis and the synoptic key are worked out by the editor (C. W.). The number of segments in the terminal part of tarsus II of *E. convolvulus* has not been ascertained with certainty, but according to SØRENSEN it is probably two.

*Conspectus specierum.*

- I. Tuber oculiferum granis ambobus majoribus præditum, limbo anteriori subcontiguum. Scutum sulcis quinque divisum. Tarsus II 6—7 articulatus:
  - A. Segmenta dorsalia libera tria tuberculis conicis acutis trinis ornata. Metatarsus IV ♀ longior, ♂ brevior quam patella . . . . . *E. brevitarsa* n. sp.
  - B. Segmenta dorsalia libera tria sine tuberculis conicis acutis trinis. Metatarsus IV duplo longior quam patella . . . . . *E. longitarsa* n. sp.
- II. Tuber oculiferum sine granis majoribus, limbo anteriori non subcontiguum. Scutum sulcis quatuor divisum. Tarsus II 8—18 (♀), 25—39 (♂) articulatus. *E. convolvulus* n. sp.

**Euminua brevitarsa** n. sp.

Tuber oculiferum manifesto latius quam altius, limbo anteriori subcontiguum, pone magis declive quam ante, subtiliter coriaceum, præter grana posteriora subapicalia ambo parva granulis præditum. Oculi magni, prominentes, subbasales.

Scutum convexum, sulco primo manifeste depressum, totum subtiliter coriaceum, oblonge trapezoidale, ante rotundatum, adversum coxas III—IV levissime sinuatum, ultra apices coxarum sat longe prominens. Sulci transversi quinque, omnes disjuncti, manifesti, primus manifeste, ceteri leviter procurvi. Limbus anterior

vix discretus; anguli tuberculis trinis, quorum medium ceteris majus. Limbus lateralis haud latus ordine granorum minorum præditus. Area I magna, punctis magnis impressis lateralibus et granis parvis posterioribus ornata, areae ceterae et limbus posterior granis sat magnis in ordines singulos vix dispositis. Segmenta dorsalia libera tria priora tuberculis conicis acutis trinis ornata (in femina una in segmento tertio quatuor adsunt), quorum media lateralibus manifesto majora, dum lateralia interdum grana (segmenti liberi primi), non tubercula appellanda sunt. Anale dorsale granis sat magnis densis dispersis. E spiraculis carinae singulae ad operculum genitale exeunt. Ventralia analia ordinibus anteriore granorum, posteriore granulorum, cetera ordine singulo granorum minorum.

Antennarum pars subglobosa articuli primi laevis.

Palpi haud robusti. Pars trochanterica spinis inferioribus duabus. Pars femoralis leviter compressa, in mare femore II paullo crassior, in femina paullo tenuior, spinis inferioribus basi propinquis robustis duabus et processulo vel tuberculo inferiore subapicale et spina interiore subapicali, diametro articuli longiore. Spina interior subapicalis partis patellaris spina interiore partis femoralis vix brevior. Pars tibialis robusta, leviter compressa (i. e. paullo crassior quam latior), parte patellari manifesto longior (et multo crassior), spinis utrinque trinis, quarum interiores sensim paullo longiores, dum exterior tertia parva; omnium longissima exterior secunda, diametro articuli subaequalis. Pars tarsalis parte tibiali aequalis, saltem non brevior, et multo tenuior, spinis longis utriusque binis. Unguis parte tarsali manifesto brevior.

Pedes maris sat graciles, feminae sat robusti. Coxae IV non dilatatae, III dimidio latiores, muticae. Trochanteres omnes tuberculis minoribus superioribus singulis, IV praeterea duobus inferioribus. Trochanteres spurii manifesti. Femora ordinibus singulis inferioribus tuberculorum conicorum, quae in femoribus I et praesertim IV feminae magna et acuta sunt, dum in mare haec tubercula modo in femore I bene expressa sunt; ordo superior femoris I deest. Femora et tibiae granulata. Calcanei I paullo, II manifesto crassiores quam longiores, III et IV anulum apicalem articuli formant. Articuli tarsales 3, 6, 5, 5. Articuli 1—2 tarsi III manifesto breviores, tarsi IV vix breviores quam articuli 3—6. Pars ulterior tarsi II tripartita.

Differentia sexualis: Maris pedes praesertim II et IV longiores; pedes II et IV in femina aequae longi, IV in mare quam II manifesto longiores. Femora IV in femina fortiter, cetera leviter arcuata; in mare omnia leviter arcuata. Tubercula superiora trochanteris IV in mare quam in femina majora. Metatarsi III maris manifesto in-crassati, subclavati, metatarsi III—IV maris quam patella breviores, tarsi IV metatarso quincuplo brevior, III triplo brevior, metatarsi III—IV quam patellae manifesto longiores in femina, tarsi IV metatarso duplo et dimidio, III duplo breviores.

Long. corp. ♂ 2; long. scuti 1,75, lat. scuti 1,5; palpi 1,5; pedes I 4, II 8,5, III 5,2, IV 11. — Long. corp. ♀ 2; long. scuti 1,75, lat. scuti 1,5; palpi 1,5; pedes I 2,5, II 4,25, III 3,25, IV 4,25.

Fusca, striis (sulcis latis) transversis luteo-testaceis notata; area I eodem colore

punctata; venter testaceus transverse fusco lineatus; antennæ et palpi (nec pedes) dilutiores (subtestacei); tarsi testacei.

Animal junius: long. 1,5, pedes IV 1,8, articuli tarsales 2, 2, 2, 2. Areæ II, IV, V tuberculis parvis binis armatæ, ceterum modo coriaceum. Segmenta dorsalia libera tria priora tuberculis trinis, setas gerentibus. Palpi eodem modo armati. Color testaceus.

Variatio: One of the two males was somewhat smaller (scutum 1,6 mm long) and the legs distinctly shorter (pes IV 4,25 mm long) (C.W.).

Patria: Venezuela. MEINERT sifted 2 males, 2 females and a young animal at Caracas in the month of July (1891). The specimens are preserved in the Zool. Mus. Copenhagen.

#### *Euminua longitarsa* n. sp.

Tuber oculiferum convexum, a fronte inspectum in media manifesto altius, limbo anteriori subcontiguum, ante subcurvatum, pone convexe declive, triplo latius quam altius, fere duplo longius quam altius, granis posterioribus subapicalibus manifestis duobus conicis acutis, ante et pone quæ granula adsunt. Oculi magni prominentes.

Scutum convexum sulco transverso primo manifeste depressum, totum subtiliter coriaceum; de forma scuti et sulci quinque vide *E. brevitarsa*. Limbus anterior discretus, manifestus; pars media tuber format, tubere oculifero duplo minus amplum, dense subtiliter granulatum; anguli tuberculis binis, quorum posterius majus. Limbus lateralis haud latus granulis paucis ornatus. Emissarium distincte limitatum. Areæ I magna punctis magnis impressis lateralibus, ceteræ præter grana pauca dispersa ordinibus singulis granorum magnorum reclinium, pone majorum sæpe acutorum. Limbus posterior et segmenta dorsalia libera tria priora ordine singulo granorum magnorum. Anale dorsale granis sat magnis densis dispersis. Anale ventrale vittis duabus, anteriore granorum sat magnorum et posteriore granulorum; coxæ et ventrale I granulis paucis dispersis, ejus margo posterior et ventralia cetera ordine singulo granorum paucorum, medium versus minorum.

Antennarum pars subglobosa articuli primi lævis.

Palpi sicut in *E. brevitarsa*; eminentia inferior subapicalis partis femoralis, in mare tuberculum, in femina granum, interdum deest.

Pedes maris graciles, feminae sat graciles. Coxæ IV non dilatatae, coxis III fere duplo latiores. Tubercula trochanterum minus manifesta quam in *E. brevitarsa*. Trochanteres spurii sat manifesti. Femora omnia ordinibus singulis granorum rotundorum (in mare minores quam in femina), præterea ut tibiæ granulata. Calcanei I articulo tarsali secundo æqualis, II manifesto longior quam crassior, III vix longior quam crassior, IV anulum obliquum apicalem articuli format. Articuli tarsales 3, (in femina una 6)—7, 5, 6 (in 12 ♂ + 22 ♀). Articulus primus tarsi III articulis ceteris æqualis, triplo longior quam articulus secundus; articuli duo proximales tarsi IV articulis ceteris manifesto longiores; articulus primus manifesto longior quam secundus. Pars ulterior tarsi II tripartita.

Differentia sexualis: Maris pedes præsertim II et IV longiores; pes IV maris pede II valde longiores. Femora IV in femina manifesto, in mare vix, cetera leviter arcuata. Metatarsi III maris leviter subclavati; metatarsi III—IV maris et feminae patellis duplo longiores. Metatarsus IV tarsis duplo et dimidio in mare, dimidio in femina longior, metatarsus III tarsis in mare non duplo, in femina paullo longior.

Penis: The shaft is delicately curved twice; it is thickened twice and not visibly marked off from the glans penis. This is very big and consists of three portions viz. a ventral portion, a dorsal and a terminal process (see fig. 5A): 1) The ventral portion is scarcely plate-shaped; along the free anterior margin four spines are found, of which

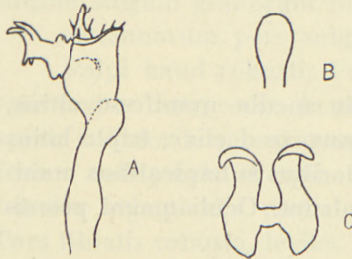


Fig. 5. *Euminua longitarsa* n. sp.  
Penis.

A Penis; a latere dextra inspecta.  
B Processus terminalis, desuper inspecta.  
C Processus dorsalis, desuper inspecta.  
(W. Sør. del.)

the superior, slightly curved one is placed on a small process. 2) The dorsal process is basally thick and swollen, and bears anteriorly near the base a small tubercle; the process is well marked off from the remaining portion of the glans. The dorsal process terminates in a big plate, the posterior as well as, especially, the anterior margin of which is deeply cleft; the anterior and lateral processes which are established in this way, are curved upwards and backwards (see fig. 5C). 3) The terminal process, which apically is curved somewhat downwards, has a single dorsal and two ventral spines beyond the curvature it is somewhat depressed and tongue-shaped (fig. 5B). — SØRENSEN was not able to make out in which process the ductus ejaculatorius discharges; it is certainly not

through the terminal process, but probably through the small cylindric process which is placed at the base of the dorsal one (C.W.).

Long. corp. ♂ 2,8; long. scuti 2,2, lat. scuti 1,8; palpi 2; pedes I 6, II 10,5, III 8,5, IV 16,5. — Long. corp. ♀ 3,3; long. scuti 2,5, lat. scuti 2; palpi 2,6; pedes I 4,5, II 8, III 6, IV 9.

Fusca, striis latis transversis (sulcis) fulvo-luteis; area I eodem colore punctata. Membra scuto manifesto dilutiora; trochanteres et tarsi pallide testacei. Venter fuscus striis transversis fusco-testaceis; coxæ eodem colore punctatæ.

Animal junius: Pars tibialis palporum spinis interioribus duobus. This structure is also found in the "pulli" except in two very small ones from La Moka; one of these had one exterior as well as one interior spine in the tibial portion, while the other (perhaps an abnormality) had two on each side. From these facts SØRENSEN draws the conclusion that the "pulli" probably pass through at least one ecdysis. The colour is uniformly grey and the sculpture is less pronounced. In pullis haud raro eminentia inferior subapicalis partis femoralis palporum pæne aut plane deest; haud raro eminentiæ inferiores parvulæ adsunt.

Variatio: In femina una (ex Caracas) segmenta ventralia ordinibus binis granulorum prædita. In mare uno pars tibialis spinis interioribus duabus ornata.

Patria: Venezuela. MEINERT, June 14th—August 12th, 1891, collected numerous specimens namely by sifting: La Moka (10 ♂, 10 ♀, 18 jun., 7 pulli), Laguno di Espino (1 ♂, 1 ♀), Dos Caminos (1 ♀), Caracas (2 ♂, 4 ♀). The specimens are preserved in the Zool. Mus. Copenhagen.

*Euminua convolvulus* n. sp.

Tuber oculiferum margini anteriori propinquum, breviter conicum, paullulo longius et latius quam altius, ante subrectum, pone convexe declive, subtilissime coriaceum, ceterum læve.

Scutum sat alte convexum, apicibus coxarum IV longe prominens, ante latum, adversus coxas III non angustius, deinde sensim latius, lateraliter leviter rotundatum ita ut pars latissima ante marginem posteriorem posita est; sulcis transversis quatuor divisum subrectis, quorum primus sat profundus, ceteri debiles. Limbus anterior non discretus; anguli leniter rotundati, tuberculis sibi propinquis porrectis conicis trinis. Limbus lateralis vix pone angustior granulis paucis remotis ornatus. Orificia glandularum foetidarum parva proclivia. Emisarium liquoris foetidi latum. Area I magna, granulis paucis dispersis, ceteræ granulis ordinatim vix dispositis. Limbus posterior et segmenta dorsalia vix granulata, item segmenta ventralia.

Antennarum pars incrassata grano posteriore supra ornata.

Palpi sat robusti. Pars trochanterica spinis inferioribus duabus setigeris et una dorsali. Pars femoralis femore IV crassior, inferioribus spinis, basi propinquis duabus longis et processulo acuto, ultra medium posito et interiore spina subapicali diametro articuli paullo brevior. Pars patellaris spina interiore submedia, spina interiore partis femoralis paullo minore. Pars tibialis leviter compressa, robusta, spinis exterioribus tribus, quarum apicalis parva, et interioribus sibi æqualibus tribus; omnium longissima exterior secunda, diametro articuli æqualis. Pars tarsalis parte tibiali non brevior, sed multo tenuior, æque crassa ac lata, spinis longis utrinque binis armata. Unguis parte tarsali manifesto brevior.

Pedes breves, sat robusti. Coxæ IV coxis III paullulo latiores. Trochanteres omnes tuberculis minoribus superioribus singulis. Trochanteres spurii manifesti breves. Femora I, II, III leviter, IV valde arcuata, ordinibus singulis inferioribus tuberculorum acutorum, setas robustas (s. aculeos) subapicales singulas gerentium; quæ tubercula in femoribus I et IV magna, in II et III parva sunt; præter quæ femur I ordine dorsali tuberculorum similium minorum, II—IV ordine dorsali singulo minorum. Tibiæ IV tuberculis similibus minoribus munitæ. Tibiæ patellis I paullo, III et IV dimidio, II vix longiores. Calcanei I—II unæ tertiæ astragalorum æquales,

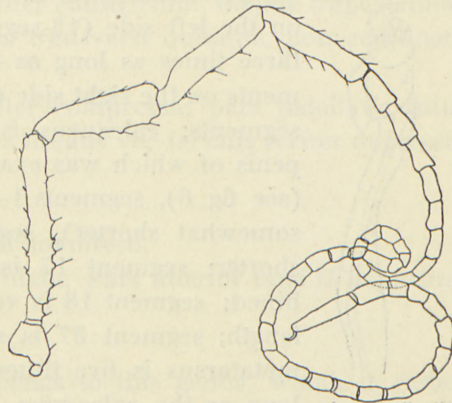


Fig. 6. *Euminua convolvulus* n. sp.  
Tarsus II maris.

III æque crassus atque longus, IV crassior quam longior. Articuli tarsales ♀ 3, 8—18, 5, 5; ♂ 3, 25—39, 5, 5. Articululus tarsalis ultimus I—II perlongus, III—IV conice producti.

Differētia sexualis: This species is very peculiar on account of the curious development of the tarsus in the second pair of legs; in five specimens, of which at least one (which was dissected) was a male, the tarsus II consisted of 25—39 segments with better developed articulation than is usually the case. In one specimen with 8 tarsal segments in tarsus II and in another showing 13 and 18 segments, which are probably females, the distal part apparently consisted of 2 segments; the calcaneus segment was twice as long as thick and the terminal one was three times as long as



Fig. 7. *Eumina convolvulus* n. sp. Penis, a latere sinistra inspecta.

the preceding ones. In the last mentioned specimen the seventh segment on the left side (13-segmented) was twice, and the eighth segment was three times as long as the adjoining ones, while the corresponding segments on the right side (18-segmented) are scarcely longer than the other segments; calcaneus is scarcely longer than thick. In a male, the penis of which was examined, the right tarsus consisted of 38 segments (see fig. 6), segments 1—13 were of almost equal length (the distal one somewhat shorter), segments 14—16 are rather indistinct and much shorter; segment 17 is almost as long as the three preceding combined; segment 18 is very short and segments 19—36 of almost equal length; segment 37 is somewhat and segment 38 much longer. The metatarsus is five times as long as deep; the astragalus is 2.4 times as long as the calcaneus, which is 17 times as long as deep. In the four other males the comparative length of the segments was somewhat varying, in one specimen segment 17 was twice as long as the adjoining segments, in others it was segments 11 or 15.

Penis (fig. 7) which SØRENSEN has not examined, and the structure of which was not quite understood, shows some similarity to that of *E. longitarsus*. The glans, which is big and well separated from the shaft, consists of a ventral (?) portion, gradually merging into the shaft, a lateral dorsal portion on each side, encompassed by the free margins of the inferior portion, and a terminal prominent part. The inferior portion has in the middle laterally a short seta and along the anterior free margin three rather soft somewhat serrated eminences; on each side dorsally and laterally wingshaped membranes, directed somewhat backwards. In dorsal view the terminal is seen widened out distally rather suddenly and in lateral view is curved distinctly downwards. On each side of this organ an elongated structure is seen, the terminal portion of which is rather prominent and somewhat serrated; between these lateral dorsal portions at the base of the terminal portion a trapezoid excavation is seen, in which the ductus ejaculatorius (?) probably has its aperture in a delicate process, covered by a thin membrane, between the hinder portion of the two lateral dorsal organs. In lateral view at least one membranous process is seen under the terminal process.



Long. corp. 1,2; long. scuti  $> 1$ , lat. scuti 0,8; palpi 1,2; pedes I 1,9, II 5,5, III 2, IV 2,25.

Vitellina nigro adumbrata.

Patria: Venezuela. MEINERT collected 2 females and 5 males at Las Trincheras November 5th, 1891, in old wood-dust. The specimens are preserved in the Zool. Mus. Copenhagen.

#### Microminua n. g.

Tuber oculiferum a margine anteriore surgens, eminentia una majore præditum.

Scutum dorsale adversus coxas III mediocriter constrictum, deinde trapezoidale, apicibus coxarum IV sat longe prominens. Sulci transversi quinque, non conjuncti.

Area quarta granis permagnis binis.

Palporum robustorum pars femoralis leviter compressa; pars patellaris intus spina armata, apicem versus sensim crassior; pars tibialis vix, tarsalis leviter depressa. Pars palpigera mandibulæ breviter producta.

Lobus maxillaris coxarum II parvus.

Coxæ IV non dilatatae. Trochanteres spurii manifesti.

Tarsus I tripartitus; pars ceterior non articulata. Pars ulterior tarsi II tripartita.

Differentia sexualis insignifica.

(Structura penis vide *M. parvula*.)

Only a single species from Venezuela belongs to this genus, which is rather characteristic by its short legs and round body, æque crassum atque longum.

The genus shows some similarity to ROEWER'S *Paramitraceras*.

#### Microminua parvula n. sp.

Tuber oculiferum, a margine anteriore surgens, magnum, conicum, paullo latius quam longius, duplo altius quam latius, leviter proclive, granis densissimis dispersis ornatum. Processulus apicalis ab ipso tubere sat manifesto limitatus, proclivis, obtusus, altitudine ipsius tuberis duplo aut plus brevior. Oculi basales.

Scutum ante latum, rotundatum, adversus coxas III vix constrictum, deinde trapezoidale, alte convexum. Corpus æque crassum atque latum. Sulci transversi quinque obsoleti, primo excepto. Limbus anterior extrorsum discretus, tuberculis parvis conicis porrectis sat late disjunctis utrinque binis, quorum exterius majus. Limbus lateralis latus, densissime granulatus. Areae granulis densissime ornatae, prima excepta granis permagnis (sive tuberculis parvis) binis rotundatis, setas breves gerentibus, area V præterea ordine granorum. Limbus posterior et segmenta dorsalia libera ordine singulo granorum magnorum; anale dorsale densissime granulatum. Ventralia ordine singulo granorum minorum, coxæ granis paullo majoribus ornatae.

Antennarum pars incrassata articuli primi lævis; articulus II granis anteriori-

bus paucis. — Mandibulæ pars palpigera breviter producta, tuberculis superioribus interioribus duobus et inferiore uno acutis.

Palpi crassi. Pars trochanterica tuberculo superiore munita, infra inermis. Pars femoralis femore IV vix dimidio crassior, leviter compressa, spinis inferioribus basin propè duobus longis, diametro manifesto longioribus, et interiore apici propinqua procerâ, diametro subæqualis, et tuberculis parvis dorsalibus apicalibus ambobus, exteriori minore. Spina interior media partis patellaris spinæ interiori partis femoralis æqualis. Pars tibialis robusta, paullo latior quam crassior, spinis exterioribus tribus, quarum tertia parva, et interioribus duobus, ulteriore longiore, ornata; omnium maxima exterior secunda, diametro articuli longior, spinis inferioribus partis femoralis æqualis. Pars tarsalis sat depressa, parte tibiale multo tenuior et non brevior, spinis longis utrinque binis armata. Unguis procerus æque longus atque spinæ partis tarsalis.

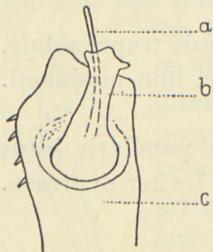


Fig. 8. *Microminua parvula* n. sp.

Apex penis, desuper inspecta.

a processus ejaculatorius, b lamina inferior, c tuber dorsale.

(W. Sør. del.)

Pedes breves robusti. Coxæ IV coxis III non dimidio latiores, muticæ. Trochanteres spurii manifesti. Femora sat arcuata, subtilissime granulata, sine granis inferioribus setigeris. Calcanei perobliqui, I et II vix longiores quam crassiores, III et IV paullo crassiores quam longiores. Pars ulterior tarsalis II tripartita. Articuli tarsales 3, 5, 5, 5 (in 28 speciminibus).

Differentia sexualis nulla.

Penis: Glans a corpore non distincte limitata. Lamina inferior spinis robustis lateralibus utrinque quatuor, inferioribus utrinque duabus et apicalibus duabus; lamina sensim paullo latior in linguam apicalem rotundatam producta. Processus ejaculatorius longus, conicus, ultra laminam prominens. Tuber dorsale productum in processum longum trilobatum (fig. 8).

Long. corp. 1,1; long. scuti 1, lat. scuti 0,9; palpi 1,5; pedes I 2, II 2,4, III 2,2, IV 2,6.

Color vitellinus, unicolor. Pedes fulvi, apicem tarsi versus saturatius (brunnescentes).

Animal junius: Two rather big young animals with two segments in tarsi I—II, three in III—IV, were scarcely different from the adults except in the less robust palps.

Patria: Venezuela. MEINERT sifted 30 specimens (of which one female had the ovipositor and one male the penis protruded) at La Moka in the month of August 1891. The specimens are preserved in the Zool. Mus. Copenhagen.

#### **Kalominua** n. g.

Tuber oculiferum ab ipso fere margine anteriore surgens sine eminentia majore.

Scutum dorsale ante latum, rotundatum, adversus coxas III non angustius, deinde pæne usque ad partem postremam scuti haud paullo dilatatum. Sulci transversiquinque disjuncti, leves, secundus subrectus, tertius (et quartus) fortiter procurvi.

Area quarta interdum eminentiis duabus vel quatuor majoribus.

Orificia glandularum foetidarum sat magna, angusta, proclivia.

Spiracula plane detecta.

Palporum robustorum pars femoralis leviter compressa; pars patellaris apicem versus sensim crassior intus spina armata; partes tibialis et tarsalis leviter depressæ. Pars palpigera mandibulæ leviter producta.

Lobus maxillaris coxarum II brevis, rotundatus.

Coxæ IV vix dilatatae, apices scuti non attingentes. Processus fulcientes desunt. Trochanteres spurii manifesti.

Tarsus I quadri-partitus; pars citerior articulata. Pars ulterior tarsi II tri-partita.

Differentia sexualis insignifica.

(Structura penis vide *K. bicolor*.)

Species unica adhuc reperta.

#### **Kalominua bicolor** n. sp.

Tuber oculiferum magnum, pone majus declive quam ante, altum, latius quam altius, paullo altius quam longius, ante sublæve, ceterum granis magnis. Oculi magni basales.

Scutum convexum, ante latum, rotundatum, adversus coxas III non angustius, deinde pæne usque ad partem postremam scuti haud paullo dilatatum. Sulci quinque leves disjuncti, secundus subrectus, tertius (et quartus) fortiter procurvi. Limbus anterior discretus, præter grana permagna conica porrecta, supra palpos posita, bina lævis. Limbus lateralis haud latus, ordinibus duobus granorum humilium densorum. Emissarium liquoris foetidi latum. Area II ceteris paullo major. Areæ I granis lateralibus binis, quorum anterius magnum conicum supra orificia glandularum foetidarum positum, ceteræ ordinibus binis granorum sat magnorum, pone majorum ornatæ, quorum pauca media (in mare 4, in femina 2) ceteris paullo majora. Limbus posterior et segmenta libera primum ordine singulo granorum magnorum, secundum et tertium et anale binis haud manifestis. Coxæ granis parvis; anale ventrale granis parvis vix ordinatim dispositis; ventralia primum ordinibus duobus, cetera ordine singulo granorum paucorum.

Antennarum pars vix incrassata lævis.

Mandibularum pars palpigera breviter producta, eminentiis, memoriæ non dignis, inferioribus et superioribus.

Palpi robusti. Pars trochanterica tuberculo inferiore perrobusto obtuso et superioribus duobus munita. Pars femoralis leviter compressa, supra convexa, femore IV duplo crassior in mare, vix dimidio in femina, spinis longis inferioribus duabus, basi propinquis, et interiore apici propinqua (diametro articuli in mare brevior, in femina longior) armata. Pars patellaris spina interiore submedia subprona armata, spina interiore partis femoralis vix minor. Pars tibialis latior quam crassior spinis

exterioribus tribus, quarum tertia minor, et interioribus duabus, posteriore longiore armata, quarum exterior secunda longissima, diametro articuli longior (vide: differentia sexualis). Pars tarsalis subdepressa, parte tibiali paullo brevior et multo gracilior, spinis utrinque binis, longis armata. Unguis sat procerus, parte tarsali brevior.

Pedes breves robusti (maris perrobusti). Coxæ et trochanteres IV muticæ, trochanteres spurii manifesti; femora IV manifesto, cetera leviter arcuata, I—II infra, III—IV ubique granis armata; grana inferiora femoris I sunt tubercula setigerentia. Tibiæ III—IV granulatae. Calcaneus I parte citiore tarsi vix brevior, ceteri paullo longiores quam crassiores. Articuli tarsales 4, (5—) 6, 5, 6; pars ulterior tarsi II tripartita, articulus ultimus tarsorum III—IV non conice productus.

Differentia sexualis. Mas major et robustior; pedes maris multo robustiores quam feminae. In mare pro spinis partium tibialis et tarsalis adsunt processuli breves acuti, aculeis longis subapicalibus instructi: utrinque bini in parte tarsali, interiores duo et exterior unus submedius in parte tibiali. Præter differentias jam dictas differentiam sexualem videre non potui; (the difference observed in the structure of the spines of pars tibialis and tarsalis is perhaps abnormal).

Penis. The lamina inferior is armed with numerous spines, laterally as well as ventrally; the lateral margins of the lamina are similarly as in *Minua dimorpha* turned upwards and inwards, in such a way that the processus superior, the tip of which is just visible beyond the anterior part of the lamina, is encompassed by the margins. (The penis was examined by SØRENSEN without dissection.)

Long. corp. 2,5; long. scuti 2,25, lat. scuti 2,1; palpi 3; pedes I < 4, II 6,75, III 5,5, IV 6,75.

Color citrinus maculis et striis nigris ornatus; tuber nigrum citrino punctatum; areæ ceteræ maculis mediis binis, partim confluentibus, et striis transversis, sulcos sequentibus, extra inter se partim confluentibus; limbus posterior et segmenta I—II libera maculis mediis singulis et maculis transversis lateralibus binis. Femora, patellæ, tibiæ anulis nigris binis basalibus et apicalibus; venter citrinus; segmentum I et anale striis transversis binis, cetera singulis; stria anterior analis lata, in medio interrupta.

Patria: Venezuela. In the month of July 1891 at Caracas MEINERT sifted a male (with penis protruded) and a smaller, darker specimen, which is probably a female. The specimens are preserved in the Zool. Mus. Copenhagen.

#### **Acanthominua** n. g.

Tuber oculiferum ab ipso fere margine oriente, sine eminentia majore.

Scutum dorsale ante latum, rotundatum, adversus coxas III leviter constrictum, deinde latius, denique subrectangulum, pone vix angustius. Sulci transversi quinque non conjuncti.

Area quarta sine eminentiis majoribus.

Orificia glandularum foetidarum non observata sunt.

Spiracula sub apice coxarum IV partim abscondita.

Palporum robustorum pars femoralis leviter compressa, pars patellaris apicem versus sensim crassior intus spina armata, partes tibialis et tarsalis leviter depressæ. Pars palpigera mandibulæ breviter producta.

Lobus maxillaris coxarum II brevis, rotundatus.

Coxæ IV valde dilatatae apicem scuti attingentes, processu fulciete uno, cum abdomine junctæ. Trochanteres spurii manifesti.

Tarsus I quadri-partitus, pars ceterior articulata. Pars ulterior tarsi II tripartita.

Differentia sexualis ignota, verisimiliter in structura antennarum et armatura trochanteris IV adest.

Species unica adhuc reperta:

*Acanthominua tricarinata* n. sp.

Tuber oculiferum e ipso fere margine anteriore oriens, magnum, tholiforme, ante plus quam pone declive, paullo latius quam longius, latius quam altius, granis minoribus densis partim acutis dispersis ornatum. Oculi magni basales. In exemplo majore grana majora dispersa, leviter conica acuta observata sunt.

Scutum sat convexum, ante latum, rotundatum, adversus coxas III leviter constrictum, deinde latius subrectangulum (pone vix angustius). Sulci transversi quinque non conjuncti. Limbus anterior non discretus. Limbus lateralis haud latus, ordinibus haud manifestis duobus granorum minorum densorum. Area II ceteris paullo major. Area I granis minoribus sat densis et tuberculis parvis anterioribus lateralibus porrectis conicis utrinque binis, ceteræ granis minoribus et ordine singulo granorum pone sensim majorum. Limbus posterior et segmenta tria priora libera granis minoribus et ordinibus singulis posterioribus granorum magnorum conicorum, anale dorsale ante et post impressionem transversam granis præditum. Coxæ infra granulis densissimis, IV majoribus; margo posterior segmenti primi et ventralia cetera ordine singulo granorum minorum, anale ordinibus duobus armata. Spiracula sub apice coxarum IV partim abscondita; a latere eorum carinæ singulæ secundum coxam IV exeunt.

Antennarum pars incrassata articuli primi granis acribus apicalibus duobus et subbasalibus minoribus 3—4, et supra basalibus 2—3 prædita. Articulus secundus (saltem in altero sexu) tuberculis robustis bicuspidatis (rarius tricuspидatis) anterioribus plerumque setigeris duobus, quorum primum majus submedium, dum ultra secundum, digitis propinquum, grana conice acuta duo adsunt. (In specimine uno inter tuberculis bicuspidatis duobus majoribus tuberculum bicuspidatum minor unum adest).

Pars palpigera mandibularum breviter producta granis inferioribus et superioribus paucis.

Palpi robusti vel perrobusti. Pars trochanterica spina inferiore et tuberculis minutis superioribus tribus et inferioribus tribus. Pars femoralis femore IV triplo cras-

sior, spinis longis duabus, basin prope et tuberculis parvis acutis, quorum ultimum ceteris manifesto majus inferioribus, et spina interiore apici propinqua robusta, diametro articuli paullo brevior; pars femoralis ordine irregulari superiore granorum prædita. Pars patellaris spina interiore procera, spina interiore partis femoralis tenuiore nec brevior. Pars tibialis latior quam crassior robusta, spinis exterioribus tribus, quarum secunda longa, tertia parva, et interioribus tribus sensim robustioribus et paullo longioribus. Pars tarsalis depressa parte tibiali paullo brevior et multo tenuior, spinis utrinque tribus, quarum primæ magnæ, tertiæ parvæ. Unguis robustus, parte tarsali paullo (tamen manifesto) brevior.

Pedes graciles. Coxæ IV muticæ (saltem in sexu altero) valde dilatata, anguste separata, processu fulciete inferiore uno cum abdomine junctæ. Trochanter IV (saltem in altero sexu) processibus, subbasali interiore granis magnis conicis scabro, et apicali posteriore, sat procero, longiore, deorsum leviter curvato sublævi subacuto. Trochanteres spurii manifesti. Femora IV arcuata, femora granis minoribus scabra; femora I tuberculis marginalibus inferioribus setigeris ornata. Calcanei I manifesto, II et III vix longiores quam crassiores, IV crassior quam longior. Articuli tarsales 4, 6, 5, 6; pars citerior tarsi I articulata. Pars ulterior tarsi II tripartita. Articululus ultimus tarsorum III—IV conice productus.

Differentia sexualis ignota.

Long. corp. 3,2; long. scuti 2,6, lat. scuti 2; palpi 3,5; pedes I 6, II 11,5, III 7, IV 9,5.

Color: Fuscus, parte media longitudinali dorsi fusco-fulvescente. Area I fulvo punctata; Antennæ et palporum partes citeriores fulvæ, fusco reticulatæ; palporum partes tibialis et tarsalis luteæ pallidæ. Tarsi obscure testacei, II nigricans.

Patria: Venezuela. In the month of December 1891 at Las Trincheras CHR. LEVINSSEN (LØFTING) collected 3 specimens, probably all males (at least one which was paler was a male). The specimens are preserved in the Zool. Mus. Copenhagen.

### Tricommatidæ (Roewer).

*Olynthoidæ* W. Sørensen in manuscr.

*Phalangodidæ Tricommatinæ* Roewer. Arch. f. Naturg. LXXVIII, 1912, p. 157.

*Phalangodidæ Tricommatinæ* Roewer. Weberkn. d. Erde 1923, p. 121. — Suppl.:  
Abh. Naturw. Ver. Bremen, XXVI, 3, 1928, p. 536.

Tuber oculiferum adest, eminentia una præditum aut destitutum.

Scutum dorsale sulcis quinque divisum. Sulci I et II conjuncti aut non conjuncti.

Orificia glandularum foetidarum detecta; emissarium secundum marginem lateralem scuti dorsalis ductum.

Spiracula detecta vel oblecta, maxima, lunata, cancellata.

Mandibularum partes manducatoria et palpigera inter se non discretæ.

Palporum robustiores partes tibialis et tarsalis (et sæpe partes omnes) spinis armatae.

Coxæ IV valde dilatatae.

Femur I spinis destitutum. Trochanteres spurii vix manifesti.

Lobus maxillaris coxarum II deest vel adest.

Metatarsus in astragalum et calcaneum divisus.

Pars ulterior tarsorum I et II tripartita.

Scopula et processus terminalis desunt.

Unguiculi integri.

Habitant in America meridionali.

Dr. SØRENSEN originally established a new family, *Olynthoidæ*, for the species described below, viz. *Olynthus anomalis*, with the reservation that possibly it ought to be united with one of the other families. The lacking lobus maxillaris II, the compressed pars femoralis palporum as well as the shape of the frontal edge of scutum of *Olynthus* is in some degree reminiscent of the Old world family *Assamiidæ*, but the nearest relatives of *Olynthus* are, however, the Tricommatids of ROEWER. True, according to SØRENSEN "lobus maxillaris coxæ II deest" in *Olynthus*, while according to ROEWER (1912, p. 157) "Maxillarloben der II. Coxa an deren vorderen Innenecke deutlich erkennbar, durch eine deutliche Furche abgetrennt, aber unbeweglich" in *Tricommatids*. As, however, some genera of *Minuidæ* possess a fairly well marked lobus maxillaris while this is wanting in others, I scarcely think this character important enough to justify the establishment of a separate (sub) family for the genus *Olynthus*, since otherwise it agrees with the *Tricommatinæ* Roewer. The characters found in the armature of the palps are probably of generic value only.

#### *Olynthus* n. g.

Tuber oculiferum eminentia majore una (grano) præditum.

Scutum post coxas III manifeste latius, sulcis transversis quinque divisum, sulco transverso primo profunde impressum; sulci duo anteriores sulco longitudinali non conjuncti.

Nullæ eminentiæ magnæ areæ quartæ scuti dorsalis.

Palpi robustiores, partes femoralis et tibialis leviter compressæ. Palporum partes femoralis et patellaris inermes.

Lobus maxillaris coxæ II deest.

Pedes robustiores, III omnium brevissimi, II quam IV vix longiores.

Unguiculi integri.

Differentia sexualis armatura pedum (trochanterum) IV demonstratur.

This genus differs distinctly from all the genera mentioned by ROEWER by the absence of spines in the femoral part of the palpi. It seems to be related to *Pseudophalangodes* Roewer (Weberkn. p. 123), but is easily recognized from this latter in

having an unarmed pars femoralis of the palp and only one (unpaired) grain on tuber oculiferum. (C. W.)

Species unica adhuc reperta:

**Olynthus anomalis n. sp.**

(Mas) 2,5 mm longus, fulvus; tuber oculiferum conicum grano parvo præditum, limbus anterior tubere medio præditus, tubere oculifero paullo minore, limbus lateralis coriaceus tantum; areæ coriaceæ, quarta et quinta et limbus posterior et segmenta dorsalia tria anteriora libera granis prædita; pars femoralis palporum inermis; femora III arcuata, cetera subrecta; calcaneus I articulo tarsali primo paullo brevior; articuli tarsales 5, 7, 5, 6. Maris coxæ IV processulo exteriori et tuberculo interiori, trochanter IV processu robusto interiori, granis anterioribus duobus prædito.

Tuber oculiferum magnum, breviter conicum, latius quam altius, coriaceum, grano parvo apicali præditum. Oculi basi propinqui.

Scutum post sulcum transversum primum convexum, pone altius. Sulci manifesti, sat profundi. Limbus anterior discretus, coriaceus, granulatus, tuberculis exterioribus proclivibus utrinque binis, et tubere medio tubere oculifero paullo minore rotundato, leviter proclivi, granulato. Limbus lateralis sat latus coriaceus. Emissarium liquoris foetidi distincte limitatum. Areæ coriaceæ, quarta et quinta granis magnis præditæ, in ordines singulos vix dispositis. Limbus posterior et segmenta dorsalia libera tria anteriora coriacea, ordine singulo granorum magnorum prædita; anale dorsale granis paucis dispersis. Segmenta ventralis vix granulata. Coxæ IV coriaceæ, granis dispersis haud densis.

Antennarum pars globosa articuli primi lævis.

Palporum pars trochanterica paullo crassior quam longior, spina interiori et tuberculo superiore armata. Pars femoralis femore IV vix minus crassa, supra convexa, inermis. Pars tibialis æque crassa ac pars femoralis, spinis exterioribus tribus, interioribus quatuor, quarum prima et tertia ceteris longior, omnium longissima exterior secunda, in basi cum tertia confluens, diametro articuli duplo longior. Pars tarsalis latior quam crassior, spinis utrinque quaternis, quarum primæ et tertiæ ceteris longiores. Unguis procerus, parte tarsali brevior.

Pedes robustiores. Femora III arcuata, cetera subrecta, IV ceteris multo crassiora, granis, (cetera granulis) prædita. Patellæ præsertim IV et II longæ, tibiis plus quam dimidio breviores. Calcanei I et II articulo tarsali primo paullo breviores, III manifeste, IV vix longiores quam crassiores. Articuli tarsales: 5, 7, 5, 6.

Differentia sexualis (femina ignota): In mare segmentum ventrale primum carinis lateralibus ambabus, in angulos singulos obtusos productis, erga apicem processus trochanteris IV positos. Coxæ IV processulo exteriori apicali recto, conico, acuto, et tuberculo interiori brevi robusto compresso, cujus margo posterior marginatus. Trochanter IV processu robusto interiori, levissime procurvo obtuso, granis magnis anterioribus duobus prædito, quæ tuberculum coxale et angulum carinæ abdominalis ambiunt. Femora IV grano magno dorsali basali, conico.



Long. corp. 2,5; long. scuti 2, lat. scuti 1,75; palpi 2,5; pedes I 8, II 9,5, III 7,5, IV 9,5.

Unicolor fulvus; eminentiæ scuti et processus interior trochanteris IV et femorum rufescentes. Antennæ, palpi, pedes I, II, III lutei.

Patria: Brasilia, provincia Rio Janeiro. Specimen unicum vidi, quod marem judico, in Serra Vanizella ab ill. professore GOELDI captum, in collectione ill. comitis KEYSERLINGII asservatum.

## Epedanidæ W. Sør. (et Saracinicidæ (Roewer)).

*Epedanoidæ* Sørensen, L. Koch, Arachn. Austral. 2, 1886, p. 66.

*Phalangodidæ Epedaninæ* Roewer, Arch. f. Naturg. LXXVIII A, 1912, p. 220.

*Phalangodidæ Epedaninæ* Roewer, Weberkn. d. Erde, 1923, p. 196. — Suppl.: Abh. Naturwiss. Ver. Bremen, XXVI, 2, 1927, p. 334.

*Phalangodidæ Saracinicinæ* Roewer, Arch. d. Naturg. LXXIX, 10, 1913, p. 89.

*Phalangodidæ Saracinicinæ* Roewer, Weberkn. d. Erde, 1923, p. 192. — Suppl.: Abh. Naturwiss. Ver. Bremen, XXVI, 2, 1927, p. 329.

Tuber oculiferum adest.

Scutum dorsale sulcis transversis quatuor omnibus disjunctis divisum.

Orificia glandularum foetidarum detecta. Emissaria liquoris foetidi secundum margines laterales scuti dorsalis ducta.

Spiracula detecta, maxima, lunata, cancellata, nivea (quia cancelli tuberculis microscopicis ornati sunt).

Mandibularum pars palpigera a parte maxillari restricta.

Palporum longorum partes tibialis et tarsalis paullum oblique positæ, ita ut adductæ partem femoralem utroque margine attingant.

Lobus maxillaris coxæ II discretus, porrectus, subverticalis.

Coxæ IV paullum dilatatae.

Femur I tuberculis et spinis destitutum.

Metatarsus in astragalum et calcaneum divisus.

Pars ulterior tarsi I bipartita (*Epedaninæ* Roewer) vel tripartita (*Saracinicinæ* Roewer), tarsi II bi- vel tripartita.

Scopula et processus terminalis desunt.

Unguiculi I—II singuli, III—IV bini, omnes integri aut dentibus instructi.

Habitant in Asia orientali et meridionali (China, Japan, Formosa, Malacca cum insulis Sundaicis).

As to the sole difference between *Epedanidæ* and *Saracinicidæ*, viz. the number of joints in pars ulterior tarsi I, see above. All the forms treated below show 3 joints

in pars ulterior i.e. do not belong to *Epedanidæ* sensu ROEWER but to *Saracinicidæ* Roewer, and this is the case also with the species referred to *Epedanus* and *Metepedanus* (!).

**Metepedanus venator** (W. Sør. in manuscr.) Roewer.

*Epedanus venator* Sørensen, in manuscr.

*Epedanus venator* Roewer, Arch. f. Naturg. LXXVII, I, 2, 1911, p. 184.

*Metepedanus venator* Roewer, ibid. LXXVIII, 3, 1912, p. 235.

*Metepedanus venator* Roewer, Weberkn. d. Erde, 1923, p. 204.

Under the name *Epedanus venator* Sørensen has given the following short notes upon a species which was fully described by ROEWER in 1911 under the name proposed by SØRENSEN; later on (1912) ROEWER referred it to the new genus *Metepedanus*.

Tuber oculiferum paullo longius a sulco transverso primo quam a margine anteriore cephalothoracis remotum, partem tertiam latitudinis cephalothoracis excipiens. Tuber duplo latius quam longius, læve. Processus a tubero vix limitatus erectus, ipso apice proclivi, procerus, acutus, una cum tubere æque altus atque longitudo articuli II antennæ usque ad articulationem.

Scutum rectangulum, pone paullulo latius quam ante, sulcis transversis quatuor (separatis) divisum. Area prima (sub)æque longa atque pars cetera scuti. Limbus anterior discretus ordine granorum sat magnorum subconicorum rotundorum sat paucorum (10). Limbus lateralis manifesto discretus, latus, pone sensim latior, ordine granorum haud densorum, pone sensim paullo majorum.

Calcaneos I et II discernere non potui, calcanei III et IV longitudine triorum segmentorum tarsalium.

Articuli tarsales: 14 (alter tarsus deest), > 27— > 34, 13 (alter tarsus deest), 14. Pars ulterior tarsi (unius) I tripartita. Unguiculi integri.

Long. corp. 6,1; long. scut. 5,3, lat. scuti 5; palpi 21; pedes I 26, II > 46, III 32, IV 42.

Area I et antennæ fulvæ. Areæ reliquæ et limbus lateralis, segmenta libera et sternum fusca. Mandibulæ, pars trochanterica et partes  $\frac{4}{6}$  propiores partis femoralis fulva, pars sexta pallida, pars sexta apiculis nigra; pars patellaris pallida, basi et apice nigricantibus, partes tibialis et tarsalis nigricantes, apicibus et basibus brevibus pallidis. Pedum femora et patellæ fulva, apicibus femorum et basibus patellarum brevibus nigricantibus; tibiæ I et II pallidæ, III et IV fulvæ; metatarsi et tarsi pallidi.

Patria: Iruusan (an Borneo?). — Specimen unicum, in Museo Turinense assertatum, vidi.

**Epedanus prædo** n. sp.

The following scanty notes upon an Epedanid species from Borneo do not allow of a sure reference to genus, though it seems most probable that it belongs to

the genus *Epedanus* s. str. At any rate it is of great interest in showing that a 3-jointed pars posterior on tarsus I may occur in the *Epedanidae* sensu ROEWER.

Tuber oculiferum paullo longius a sulco transverso I quam a margine anteriore separatum, partem tertiam latitudinis cephalothoracis vix excipiens, circiter triplo latius quam altius et quam longius, læve. Processus procerus, haud bene limitatus, leviter (tamen manifesto) reclinis, æque longus atque pars patellaris.

Scutum subrectangulum, pone paullo latius quam ante, leviter convexum. Limbus anterior leviter elevatus, ordine granorum conicorum subobtusorum paucorum (8) præditus. Limbus lateralis discretus, latus, pone sensim latior, ordine granorum procurvo-rotundato, pone sensim majorum præditus. Areae et segmenta dorsalia et ventralia lævia. Coxæ I granis magnis vel tuberculis conicis, II granis, III granulis, IV sublæves.

Calcanei I  $\frac{2}{3}$  longitudinis tarsi, II articulo tarsi primo duplo longior mihi videtur, III et IV non duplo breviores articulo tarsi primo.

Articuli tarsales: 12—13, 33—36, 7, 8. Pars posterior tarsorum I et II tripartita, segmenta 2 et 3 partis posterioris II tamen haud bene separata. Unguiculi longi, leviter curvati, integri.

Long. corp. 5,4; long. scut. 4, lat. scut. 3,4; palpi 9,75; pedes I 20, II 47, III 30, IV 35.

Fulvo-testaceus, fusco ornatus: linea obscura circulari, ante aperta, areae primæ, vittis transversis singulis arearum ceterarum et segmentorum liberorum dorsalium; segmenta ventralia striis obscuris singulis transversis. — Pedes fulvo-testacei; apices sat longi tibiarum et bases breviores metatarsorum pallida; femora anulo angusto apicali, nigricante, tibiæ ad basin breviter, tibiæ ante apicem et metatarsi ceteri post basin haud breviter nigricantes; tibia et metatarsus et tarsus II nigricantes, apex tibiæ sat longus et basis brevis tarsi pallida. Tarsi reliqui pallida.

Long. corp. 5,4; long. scut. 4, lat. scut. 3,4, palpi 9,75; pedes I 20, II 47, III 30, IV 35.

Patria: Borneo. — Feminam unam, ad Simunjam captam, in Museo Turinense asservatam, vidi.

#### **Asopella** n. g.

Tuber oculiferum manifesto commune, sat magnum, eminentia magna, conica præditum.

Scutum dorsale subrectangulum (pone sensim paullo latius), ultra coxas IV prominens.

Sulci transversi quatuor, omnes disjuncti; primus procurvus, ceteri recti.

Area quarta scuti eminentiis majoribus destituta.

Antennarum magnarum articulus primus sat procerus, apicem versus sensim incrassatus; articulus secundus illo longior et multo crassior, articulus tertius incurvus, ordine anteriore (interiore) dentium armatus, quorum ultimus magnus et ipse apex articuli apicem digiti immobilis (inter se) excipiunt.

Pars palpigera mandibularum producta (ultra coxas I parte sua dimidia prominens) eminentiis superiore media et inferiore subapicali munita.

Palporum procerorum partes omnes spinis armatae, pars trochanterica brevis, subpyriformis; pars femoralis longa subcylindrica; pars patellaris clavata; partes tibialis et compressa tarsalis præter spinas marginales spinulis parvis (aut aculeis) inferioribus armatae.

Coxæ IV muticæ, coxis III paullo latiores.

Pars ulterior tarsi I tripartita, II etiam tripartita.

Unguiculi III et IV dentibus singulis interioribus magnis instructi.

Differentia sexualis (haud magna) magnitudine antennarum demonstratur.

Obs.: In specimine unico *A. bicoloris* limes articularum secundi et tertii partis ulterioris tarsi I tam leviter expressus est, ut oculum meum effugisset, nisi eum diligentissime investigavissem. In specimine unico *A. xanti* idem limes levis, quamquam haud difficilis visu. In *Asopo Borneensi* [lutescente] pars ulterior tarsi I vulgo manifeste tripartita, etiam tamen huic speciei interdum fieri potest, eundem limitem vix manifestum esse.

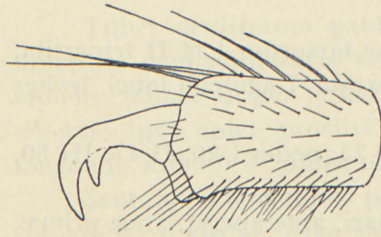


Fig. 9. *Asopella lutescens* Thor.  
Tarsi IV apex cum unguiculo uno  
(alter non delineatus).  
(W. Sør. del.)

In the manuscripts of SØRENSEN the 3 species described below were referred to the family *Epedanidae* under the generic name *Asopus*, not identic, however, with the genus *Asopus* described by SØRENSEN in 1896 and later on rebaptized *Pyramidops* Loman (1902), on account of the preoccupation of the name *Asopus*. This is also the reason why this present genus cannot be called *Asopus*; I propose to alter the name into

*Asopella*. It is easily recognized, having "unguiculi III et IV dentibus singulis interioribus magnis instructi" (fig. 9). A similar tooth is found as a juvenile character in several species of *Epedanus*, but it is present in the adult stage of all the present 3 species: *lutescens* Th., *bicolor* and *xanti*, and this feature is, I think, reason enough for keeping these three species in a common genus: *Asopella*.

To this genus SØRENSEN referred 3 species from Java and Borneo which may be separated according to the key below:

#### *Conspectus specierum.*

- I. Aculei inferiores (neque spinæ marginales) partis tarsalis palporum pauci dispersi; pars femoralis spinis interioribus duabus armata:
  1. Spina exterior quarta partis tibialis parva; pars femoralis ordinibus granorum tribus, exteriore et duobus dorsalibus..... *bicolor* n. sp.
  2. Spina exterior quarta partis tibialis quam tertia paullo tantum brevior; pars femoralis ordinibus dorsalibus duobus granorum ornata.. *xanti* n. sp.
- II. Aculei inferiores partis tarsalis palporum densissimi, in ordines duos dispositi; pars femoralis spina interiore unica armata ..... *lutescens* Thor.

*Asopella bicolor* n. sp.

5,25 mm longa, fulva, area prima in lateribus, pars posterior areæ secundæ, areæ tertiæ et quarta (et segmenta dorsalia libera partim) fuscæ, fere nigræ; tuber oculiferum a sulco transverso vix longius quam a margine anteriore scuti remotum; limbus anterior sublævis; limbus lateralis ordine granorum; areæ sublæves, prima impressionibus ambabus; limbus posterior scuti et segmenta dorsalia libera duo anteriora ordinibus singulis granulorum parvorum; pars palpigera mandibularum processulo robusto superiore adunco; palporum robustorum pars femoralis apicem versus vix crassior, spinis interioribus duabus longis armata et ordinibus tribus, dorsalibus duobus et exteriore, granorum densorum; pars tibialis parte patellari manifeste longior, nec ea neque parte femorali crassior, spinis exterioribus quatuor et interioribus tribus (exteriore apicali excepta) longis; aculei inferiores partis tarsalis pauci dispersi. Pedes II et IV subæque longi; calcaneus I articulo tarsali primo brevior; articuli tarsales 11, 26—31, 9, 10—11.

Tuber oculiferum sat magnum transversum, latius quam altius partem plus quam quartam latitudinis areæ primæ excipiens, a sulco transverso primo vix longius quam a margine anteriore scuti remotum, læve. Processus longus, rectus, erectus, procerus, conicus, subacutus.

Scutum dorsale (saltem maris) levissime convexum. Sulci transversi profundi. Sulcus lateralis (limbum lateralem abscidens) ante, adversus marginem posteriorem tuberi oculiferi, bramus; ramus exterior sulcum marginalem (qui limbum anteriorem abscidit) non attingit, dum ramus interior, incurvus, ante tuber oculiferum obsolescit. Limbus anterior manifeste discretus, sublævis; anguli rotundati. Limbus lateralis sat angustus, pone latior, ordine submedio granorum haud densorum præditus. Orificia glandularum foetidarum longa, angusta; emissaria liquoris foetidi ante angusta, pone lata, limitibus obsoletis. Areæ sublæves, prima ceteris conjunctis (quarta parte) longior, impressionibus juxta tuber oculiferum positæ prædita, carina transversa anteriore limitatis. Limbus posterior scuti et segmenta dorsalia libera duo anteriora ordinibus singulis granulorum parvorum, segmenta cetera (et ventralia quidem) sublævia. Coxæ IV granis paucis dispersis. Spiracula vix curvata.

Antennarum sarticulus primus (saltem maris) vix seorsum directus, tuberculis superioribus multis leviter procurvis, conicis, acutis præditus. Articulus secundus primo dimidio longior, leviter elevatus, tuberculo posteriore submedio acuto et anterioribus tuberculis et granis acutis dispersis.

Mandibularum pars palpigera processulo superiore adunco obtuso et processulo procero inferiore recto, seta haud apicali prædita.

Palpi robusti, corpore multo longiores. Pars trochanterica spinis inferioribus tribus, quarum media longissima, et tuberculis superioribus duobus, quorum posterius parvum. Pars femoralis femore III dimidio crassior, manifeste arcuata, vix curvata, apicem versus vix crassior, æque longa atque partes patellaris et tibialis conjunctæ, ordine inferiore spinarum septem procerarum, quarum ultima brevior, a sexta sat longe remota, ceteræ sibi subæquales, diametro articuli plus quam duplo longiores,

et spinis interioribus duabus apici propinquis, diametro articuli longioribus, armata; ordinibus tribus, exteriore et duobus dorsalibus, granorum densorum ornata. Pars patellaris spinis exteriore una et interioribus duabus, exteriore longioribus. Pars tibialis parte patellari manifesto (non dimidio) longior, nec ab ea parte femorali crassior, a latere inspecta fusiformis, spinis marginalibus exterioribus quatuor et interioribus tribus, quarum exterior apicalis parva, ceteræ longæ, omnium longissima exterior secunda ipso articulo paullo brevior, et aculeis inferioribus paucis dispersis armata. Pars tarsalis parte tibiali brevior et vix crassior, spinis utrinque quaternis armata, apicem articuli versus brevioribus, quartis parvulis; aculei inferiores pauci, dispersi. Unguis parte tarsali manifesto longior.

Pedes sat graciles. Femora I leviter arcuata, cetera subrecta, omnia lævia; III quam IV paullo crassiora. Patellæ, præsertim III, femoribus crassiores. Astragali spurie articulati, calcanei breves (articulo tarsali primo breviores). Articuli tarsales: 11, 26 et 31 (sin. et dext.), 9, 10 et 11 (sin. et dext.). Unguiculi III et IV longi, levius curvati; dens interior ante medium positus, æque longus atque diameter unguis.

Differentia sexualis (femina incognita): in mare digiti antennarum in basi hiantes.

Long. corp. 5,25; long. scuti 4,5, lat. scuti 3,75; palpi 9; pedes I 16, II 27, III 21,5, IV 26,5.

Fulva. Pars anterior areæ primæ in lateribus, pars posterior areæ secundæ, areæ tertia et quarta fuscæ, fere nigræ. Segmenta dorsalia fusca, fulvo marginata; ventralia anale fuscum, cetera brunnea; coxæ obscure fulvæ. Pedes luteo-testacei, femora III fulvo-lutea.

Patria: Java. Specimen unicum (marem) vidi, ad Sindang-Laja a cl. XANTO captum, in Museo nationali Hungarico asservatum.

#### *Asopella xanti* n. sp.

?*Epedanus javanus* Thorell, Ann. Mus. Genova, IX, 1876, p. 131.

Femina 4 mm longa, fulvo-lutea, limbo posteriore scuti et segmentis dorsali libero primo et ventralibus plurimis fusciscentibus; tuber oculiferum a sulco transverso primo paullo longius quam a margine anteriore scuti remotum; limbus anterior tuberculis parvis proversis utrinque binis, prope angulos situs; limbus lateralis ordine irregulari granulorum, granulis parvis arearum vix majorum; area prima impressionibus ambabus; palporum pars femoralis apicem versus non crassior, spinis interioribus duabus armata et ordinibus duobus dorsalibus granorum ornata; pars tibialis parte patellari manifesto longior nec ea neque parte femorali crassior, spinis exterioribus quatuor et interioribus tribus armata, quarum exterior quarta non parva; aculei inferiores partis tarsalis pauci dispersi. Pedes II et IV subæquales; calcaneus I articulo tarsali primo brevior; articuli tarsales 9, 22, 7, 8.

Tuber oculiferum sat magnum, latius quam altius, partem vix quartam latitudinis areæ primæ excipiens, a sulco transverso primo paullo longius quam a margine anteriore scuti remotum, vix subtilissime granulatum. Processus longus, rectus, erectus, subcylindricus, obtusus.

Scutum dorsale (saltem feminæ) leviter convexum. Sulci ut in *A. bicolore*. Limbus anterior discretus, ordine granulorum et tuberculis parvis (s. granis magnis) proclivibus utrinque binis, prope angulos rotundatos positus. Limbus lateralis angustus, pone latior, ordine irregulari granulorum, granulis arearum vix majorum. Emissarium liquoris foetidi ante angustum, a coxis III latissimum, pone sensim latius. Areae granulis parvis ornatae; prima ceteris conjunctis paullulo brevior, impressionibus ambabus, juxta marginem posteriorem tuberis oculiferi positus, latis, manifestis, carina anteriore vix limitatis. Segmenta dorsalia libera et ventralia et coxæ IV sublævia. — Spiracula vix curvata.

Antennarum articulus primus anteversum et seorsum directus, eminentiis dorsalibus longis (septem), quarum plures sunt processuli subrecti, subcylindrici, subobtusiusculi. Articulus secundus primo dimidio longior, geniculatus (nec elevatus), tuberculis conicis, subacutis, posteriore uno (aut duobus) et anterioribus aliquot, quorum duo ceteris manifesto majora.

Pars palpigera mandibularum tuberculis parvis duobus, superiore subbasali interiore, et inferiore subapicali exteriori.

Palpi robusti. Pars trochanterica eminentiis inferioribus et superioribus binis, quarum inferior prima et superior exterior, ceteris multo majores, sunt processus minores. Pars femoralis femore III (circiter dimidio) crassior, partibus patellari et tibiali conjunctis paullo brevior, subrecta (non arcuata, vix curvata), apicem versus non crassior, ipso apice parte media paullo quidem tenuiore, spinis inferioribus sex proceris, sibi æqualibus (ultima ceteris tamen paullo brevior), diametro articuli fere duplo longioribus, et interioribus duabus armata (quarum prima paullo major) æque longis ac inferioribus, et ordinibus duobus dorsalibus granorum haud densorum ornata. Pars patellaris spinis sibi subæqualibus, exteriori una et interioribus duabus. Pars tibialis a latere inspecta fusiformis, parte patellari manifesto longior, nec ea nec parte femorali crassior, spinis exterioribus quatuor et interioribus tribus armata, quarum exterior quarta quam tertia paullo brevior; omnium longissima exterior secunda diametro articuli fere quadruplo longior. Pars tarsalis parte tibiali brevior et crassior, spinis utrinque quaternis, apicem versus sensim multo brevioribus; aculei inferiores pauci, parvi, dispersi. Unguis parte tarsali manifesto longior.

Pedes sat graciles. Femora lævia, I, II, III vix, IV leviter arcuata; III quam IV manifesto crassiora. Patellæ, præsertim III et IV, femoribus crassiores. Calcanei articulo tarsali primo breviores. Articuli tarsales 9, 22, 7, 8. Dens interior unguiculorum III et IV ultra medium positus, manifeste compressus, longus, parti ulteriori unguiculi subæqualis.

Differentia sexualis ignota (mare incognito).

Long. corp. 4; long. scuti 2,6, lat. scuti 2,5; palpi 5,5; pedes I 7,5, II 13, III 10, IV 12.

Obscure fulvo-lutea. Limbus posterior scuti, segmentum dorsale liberum primum, segmenta ventralia (primo et anali exceptis) fuscescentia. Pedes apicem versus dilutiores.

Patria: Java. Specimen unicum, feminam (ovipositore protruso) vidi, ad Sindang-Laja a cl. XANTO captam, in Museo nationali Hungarico asservatum.

Remark: Dr. SØRENSEN has compared the species with *Epedanus javanus* Thorell, and notes that they are probably identic.

**Asopella lutescens** Thor.

*Epedanus lutescens* Thorell, Ann. Mus. Genova, IX, 1876, p. 133.

*Epedanus lutescens* Roewer, Weberkn. d. Erde, 1923, p. 199.

*Asopus borneensis* Sørensen in manuscr.

5 mm longa, fulva, marginibus scuti sæpe anguste infuscatis; tuber oculiferum a sulco transverso primo fere longius quam a margine anteriore scuti remotum; limbus anterior ordine granorum ornatus; scutum totum subtiliter granulatum; area prima impressionibus lunatis ambabus; palporum pars femoralis apicem versus manifesto crassior, spina interiore unica, apici haud propinqua, armata et ordine dorsali granorum ornata; pars tibialis parte patellari vix longior, spinis exterioribus quatuor et interioribus tribus armata, quarum exterior quarta parva; aculei inferiores partis tarsalis in ordines duos dispositi. Pedes II quam IV longiores; calcaneus I æque longus atque articulus tarsalis primus; articuli tarsales 9—11, 23—26, 7—8, 8.

Tuber oculiferum sat magnum, latius quam altius, partem quartam latitudinis areæ primæ excipiens, a sulco transverso primo duplo fere longius quam a margine anteriore scuti remotum, vix granulatum. Processus longus, erectus, subrectus (apice vix procurvo), procerus, conicus, acutus.

Scutum dorsale leviter convexum. Sulci ut in *A. bicolore*. Limbus anterior manifeste discretus, ordine granorum sat magnorum remotorum obtusorum ornatus; anguli rotundati. Limbus lateralis sat angustus, pone latior, subtiliter granulatus. Emissarium liquoris foetidi ante angustum, a coxis III latissimum, pone sensim latius. Area prima ceteris conjunctis vix brevior, impressionibus quatuor prædita, quarum anteriores, extra tuber oculiferum positæ, manifestæ, lunatæ, pone concavæ, dum posteriores, post tuber positæ, transversæ, subrectæ, debiles. Scutum totum, segmenta dorsalia omnia, ventrale anale subtiliter dense granulata; segmenta ventralia cetera sublævia. Coxæ IV apicem versus granis magnis ornatæ. — Spiracula leviter modo curva.

Antennarum articulus primus anteversum et (præsertim in mare) seorsum directus, eminentiis haud multis lateralibus præditus, quarum majores (superiores apicalis una et ultra medium positæ duæ) sunt tubercula majora conica, leviter procurva, subacuta. Articulus secundus supra articulationem basalem leviter elevatus, quam primus dimidio longior, granis piliferis anterioribus sat dispersis ornatus (pone muticus).

Mandibularum pars palpigera tuberculo parvo superiore humili obtuso et tuberculo setifero inferiore munita.

Palpi corpore multo longiores. Pars trochanterica spinis inferioribus duabus et superiore una (post quam altera parva interdum adest) armata. Pars femoralis leviter



curvata, vix arcuata, apicem versus manifesto crassior, æque crassa atque femur III, ordine inferiore spinarum gracilium (6—8), quarum aculei debiles, apicem articuli versus sensim breviorum, quarum longissimæ diametro articuli paullo longiores, et spina interiore unica, apici haud propinqua, diametro articuli duplo brevior, armata et ordine superiore granorum piliferorum (5—9) ornata. Pars patellaris parte tibiali vix brevior, spinis proceris apici propinquis, exteriore una et interioribus duabus (saltem) æque longis atque diameter articuli. Pars tibialis partibus femorali et patellari manifesto crassior, apicem versus sensim minus crassa, non crassior quam latior, spinis marginalibus exterioribus quatuor et interioribus tribus armata, quarum exterior apicalis parva et ceterarum exterior prima brevior, dum ceteræ diametro articuli dimidio longiores, et spinulis inferioribus dispersis. Pars tarsalis parte tibiali crassior et brevior, spinis marginalibus utrinque trinis sat longis, sibi æqualibus, et aculeis brevibus densis, in ordines duos sat late disjunctos dispositis. Unguis parte tarsali vix longior, ordinem interiorem aculeorum adductus fere tangit.

Pedes graciles longiores. Femora vix arcuata, lævia, III quam IV paullulo crassiora. Patellæ, præsertim III, femoribus crassiores. Astragali spurie articulati. Calcanei breves, articulo tarsali primo I æqualis, II paullo brevior, III et IV breviores. Articuli tarsales 9—11(—13), sæpissime 10, (20—)23—26(—28), 7—8(—9), 8(—9). Dens interior unguiculorum magnus, compressus, acutus.

Differentia sexualis: Maris antennæ majores; eminentiæ articulorum et primi et secundi haud multo majores. Digni forcipis in basi hiantes, quod digitus mobilis valde incurvus est; dentes majores, basalis digiti mobilis magnus, retroversus; digitus immobilis dente, ultra medium posito, compresso, acuto munitus.

Long. corp. (♀) 5; long. scuti 3,75, lat. scuti 3,5; palpi 8; pedes I 15, II 26, III 17, IV 22. Tuber oculiferum una cum processu vix 2. Antennæ maris (ubi longissimæ) 7.

Fulva. Margines scuti sæpe anguste infuscati. Membra dilutiora; partes pedum a patellis luteo-testaceæ.

Patria: Borneo. Exempla quindecim, mares et feminas, vidi, ad Matang a cl. XANTO collecta, in Museo nationali Hungarico (tredecim) et in Museo zool. Hafniense (duo) asservata.

Remark: This species was called *A. borneensis* in the manuscripts of SØRENSEN. No doubt it is identic with *lutescens* Thorell.

## Phalangodidæ Simon.

*Phalangodidæ* Simon, Arachnides de France VII, 1879, p. 148.

*Phalangodidæ* + *Zalmoxidæ* Sørensen, L. Koch, Arachn. Austral. 2, 1886, p. 63.

*Phalangodidæ Phalangodinæ* pars Roewer, Arch. f. Naturg. LXXVIII A 3, 1912, p. 108.

*Phalangodidæ Phalangodinæ* pars Roewer, Weberkn. d. Erde, 1923, p. 69. — Suppl. Abh. naturw. Ver. Bremen XXVI, 2, 1927, p. 269; XXVI 3, 1928, p. 529.

Tuber oculiferum adest.

Scutum dorsale sulcis quinque (interdum partim obsoletis) divisum. Sulci I et II conjuncti vel non conjuncti.

Orificia glandularum foetidarum detecta. Emissaria liquoris foetidi secundum margines laterales scuti ducta.

Spiracula aut obiecta aut detecta, vel perpusilla (oculo non percipienda) orbicularia, integra, margine ciliato (*Phalangodidæ* mihi olim), vel maxima, ovalia sive sublunata, cancellata, nivea, quia cancelli tuberculis microscopicis ornati sunt (*Zalmoxidæ* mihi olim).

Mandibularum pars maxillaris et pars palpigera inter se discretæ.

Palporum validorum aut robustiorum partes omnes spinis armatæ; partes tibialis et tarsalis vix oblique positæ sunt, ita ut adductæ partem femoralem utroque margine attingant.

Coxæ IV in plurimis vix dilatatae.

Femur I tuberculis vel spinis setigeris destitutum. Femorum pars infima trochanterem spurium (præter trochanterem verum) format.

Lobus maxillaris coxæ II discretus, latus, porrectus.

Metatarsus in astragalum et calcaneum sæpissime divisus, astragalus (spurius) partem maximam metatarsi efficit.

Pars ulterior tarsi I bipartita, II bi-, tri- vel quadripartita.

Scopula et processus terminalis desunt. Articulus tarsalis ultimus pedum III—IV sæpissime conice productus, quare efficitur, ut plantula et ungues non plane apicaliter, sed supra posita sunt.

Unguiculi tarsorum I—II singuli, III et IV bini, omnes integri.

Habitant in Asia meridionali (cum insulis), Australia (cum insulis Oceanicis). Africa occ. et sept., Europa mediterranea, America sept. et centrali.

To this subfamily SØRENSEN referred the following forms:

### **Cynortina** Banks.

*Malea* Sørensen in manusc.

*Cynortina* Banks, Proc. Acad. Sci. Philad. LXI, 1909, p. 228.

*Cynortina* Roewer, Weberkn. d. Erde 1923, p. 120. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 3, 1928, p. 531.

Tuber oculiferum a margine anteriore scuti remotum, latius quam altius, granis ambobus præditum.

Scutum sulcis quinque transversis, primo manifesto, ceteris debilibus.

Area IV eminentiis magnis destituta.

Orificia glandularum foetidarum pæne librata, non obiecta; emissarium liquoris foetidi latissimum.

Spiracula detecta.

Antennarum articulus I parte incrassata læve.

Mandibularum pars palpigera breviter conice porrecta.

Pedes longiores, robustiores.

Coxæ IV coxis III latiores.

Unguiculi integri.

Tarsus I triarticulatus. Pars ulterior tarsi I bipartita, tarsi II tripartita.

Differentia sexualis nulla (teste ROEWER).

Palpi robusti, segmenta omnia spinis armata. Unguis parte tarsali brevior.

Remark: SØRENSEN had created the name *Malea* n. gen. for the genus described above. In all essential points, however, it agrees with the genus *Cynortina* Banks and must consequently be regarded as synonymous with it.

#### *Cynortina cerisea* n. sp.

*Malea cerisea* Sørensen in manuscr,

3,5 mm longa, cerisea, palpis et trochanteribus pallidioribus, pedum partibus ceteris scuto obscurioribus. Tuber oculiferum a sulco transverso primo duplo longius quam a margine anteriore scuti remotum, granis ambobus præditum. Anguli limbi anterioris non discreti tuberculis parvis binis; limbus lateralis ordine exteriori tuberculorum compressorum; areæ (prima excepta) et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum, præter quæ segmenta I et II tuberculis parvis binis lateralibus. Palporum partes femoralis et patellaris spinis interioribus singulis. Pedes longiores robustiores, IV quam II multo longiores; femoribus rectis patellæ (exceptis IV) manifesto crassiores. Articuli tarsales 3, 7, 5, 6.

Tuber oculiferum a sulco transverso primo duplo longius quam a margine anteriore scuti remotum, transversum, duplo latius quam altius, longius quam altius, convexum, granis ambobus præditum, ab oculis æque longe ac inter se separatis.

Scutum convexum pone sulcum transversum I alte convexum, post sulcum I dilatatum; sulci transversi quinque subrecti et (primo excepto) debiles. Limbus anterior non discretus, anguli tuberculis parvis binis subporrectis conicis subacutis. Limbus lateralis leviter discretus, angustus, ordine exteriori tuberculorum humilium compressorum pone majorum præditus. Orificia glandularum foetidarum pæne librata, ordine tuberculorum parvorum, coxis II impositorum, non obiecta; emissarium liquoris foetidi latissimum. Areæ prima vix convexa, sublævis, secunda magna; et ceteræ et segmenta dorsalia libera tria anteriora ordine singulo granorum parvorum, præter quæ eminentiæ extremæ segmentorum Imi et IIdi sunt tubercula humilia. Anale dorsale læve. Coxæ sublæves. Ventrale primum medium læve, ordine posteriore, intra spiracula interrupto, granorum magnorum; e spiraculis carinæ singulæ magnæ exeunt, inter se prorsus convergentes. Anale ventrale læve. Ventralia cetera ordine singulo granulorum. Spiracula detecta cancellata etc., vix lunata, lata, intra apicem coxarum posita.

Antennarum pars incrassata oblonga articuli primi lævis.

Pars palpigera mandibularum discreta, robusta, breviter conica, porrecta, tuber-

culo inferiore uno robusto brevi, apici propinquo (et granis superioribus duobus submediis) prædita.

Palpi paullo oblique geruntur; pars trochanterica?; pars femoralis femore I dimidio crassior, spinis armata inferioribus quatuor, quarum prima et secunda diametro articuli vix longior, tertia pusilla, quarta robusta brevis, et interiore una apici propinqua, æque longa ac diameter articuli. Pars patellaris vix duplo longior quam crassior, spina unica interiore, diametro articuli subæquali, armata. Pars tibialis robusta, paullo crassior quam latior, parte patellari vix dimidio longior, spinis utrinque trinis armata, quarum longissima exterior secunda apici propinqua, diametro articuli longior, exterior tertia parvula. Pars tarsalis manifesto latior quam crassior, parte tibiali vix brevior, spinis utrinque trinis armata, quarum ultima parvula. Unguis procerus, parte tarsali manifesto brevior.

Lobus maxillaris coxarum II parvulus adest.

Pedes longiores, robustiores, IV quam II multo longiores. Coxæ IV coxis III duplo latiores, extra muticæ, tuberculo interiore apicali oppresso conico. Trochanteres I, II, III subglobosi, IV multo longiores quam crassiores, clavati. Femora recta, granis setiferis ornata; trochanteres spurii adsunt, breves, partem modo angustiore femorum efficientes. Pedum I, II, III femoribus patellæ manifeste, tibiæ paullo crassiores. Calcanei I et II articulo tarsali primo subæquales, III manifesto longior quam crassior, IV anulum apicalem obliquum format. Articuli tarsales 3, 7, 5, 6. Articulus ultimus tarsorum III et IV non conum acutum format.

Differentia sexualis?

Long. corp. 3,25; long. scuti 2,75, lat. scuti 2,5; palpi 3; pedes I 6, II 11, III 8,5, IV 17,5.

Cerisea, dorsum umbris obscurioribus transversis. Venter dilutior, rubicundus. Palpi pallide lutei, pedum trochanteres (veri et spurii) pallide testacei; ceteræ partes scuto obscuriores, subfuscæ.

Patria: America centralis: C. R. Talamanca, Dulci. Specimen unicum, forsitan feminam, vidi, in Museo Holmiensi asservatum.

Remark: The present species is separated from the 2 species described, *tarsalis* Banks and *rectipes* Roewer by the following combination of characters: Femora III and IV recta; coxa IV extra mutica, tuberculo interiore apicali; limbus lateralis ordine tuberculorum præditus.

#### **Timoleon** n. gen.

Tuber oculiferum altum conicum, in summo sæpissime truncatum, ex ipso margine anteriore scuti surgens.

Scutum sulcis quinque transversis, quorum duo anteriores non conjuncti; sulcus I leviter arcuatus, II et III angulati, ceteri arcuati. Area II magna.

Area IV eminentiis magnis destituta.

Orificia glandularum foetidarum rima angusta, proclivis.

Antennarum articulus I parte globosa præditus.

Mandibularum pars palpigera breviter producta.

Palpi robusti, segmenta omnia armata; unguis parte tarsali brevior.

Pedes breves robusti.

Coxæ IV coxis III duplo latiores.

Calcanei non manifesti.

Unguiculi integri.

Pars ulterior tarsi I biarticulata. (Pars ulterior tarsi II verisimiliter triarticulata<sup>1)</sup>).

Articulus ultimus tarsorum III et IV verticaliter truncatus.

Differentia sexualis femore et tibia IV (et segmento ventrali anali) demonstratur.

Habitat in America meridionali.

Remark: This American genus, the material of which I have not been able to reëxamine, according to the description shows great similarity to the (Indo-Australian) genus *Zalmoxis* (see ROEWER, Weberkn. p. 85), with which it agrees among other things in having the 2nd scutal area larger than the others and the 1st transversal furrow feebly arcuate, but the following ones distinctly angulate, all palpal joints armate, the 4th coxa twice as broad as the 3rd, 3—5—5 tarsal joints on the first 3 pairs of legs, and secondary sexual characters on the 4th leg.

It is, however, easily distinguished from *Zalmoxis* as it has only the 2nd and 3rd transversal furrow angulate, a rather high tuber oculiferum, 5 tarsal joints in the 4th leg, and the palpal claw shorter than the palpal tarsus.

#### *Timoleon crassipes* n. sp.

2 mm longus, coloratione variabilis; tuber oculiferum altum, ex ipso margine anteriore surgens; limbus anterior non discretus; limbus lateralis ordine exteriori granorum ornatus; areæ scuti secunda, tertia, quarta, quinta granulis dispersis; partes omnes palporum spinis armatæ: partes femoralis et patellaris spinis interioribus singulis; pars tibialis spinis interioribus tribus, tibiæ anteriores patellis haud multo longiores. Articuli tarsales: 3, 5, 5, 5. Pars ulterior tarsi I bipartita.

Tuber oculiferum ex ipso margine anteriore scuti surgens, altum, conicum, leviter proclive, in summo sæpissime truncatum, læve. Oculi magni, subbasales.

Scutum convexum, post sulcum transversum primum manifeste latius. Sulci quinque manifesti, primus leviter arcuatus, secundus et tertius angulati, ceteri arcuati. Area II magna. Limbus anterior non discretus. Limbus lateralis sat latus, ordine exteriori manifesto granorum ornatus. Areæ prima lævis, secunda, tertia, quarta, quinta granulis multis dispersis præditæ; area sexta (= margo posterior scuti) et segmenta dorsalia libera tria anteriora et ventralia ordinibus singulis granulorum ornata; anale dorsale et coxæ granulis dispersis; anale ventrale ordinibus duobus granulorum. Area IV eminentiis majoribus destituta.

<sup>1)</sup> SØRENSEN has not noted anything about this in his manuscript. As I have not seen the animal in natura, I have judged about this feature from the other genera among which SØRENSEN ranged *Timoleon*.

Antennarum pars globosa articuli primi lævis.

Supra partem palpigeram mandibulæ breviter productam adest processulus scutum contingens.

Palpi robusti (nec validi) armatura sat gracili præditi. Pars femoralis femori IV crassitudine subæqualis, supra leviter convexa, spinis inferioribus tribus (duabus basi propinquis diametro articuli paullo longioribus; ultima apici propinqua parva) et spina interiore una apicali; pars patellaris spina unica interiore; pars tibialis parte patellari dimidio longior, robusta, spinis exterioribus duabus, apici propinquis, et interioribus tribus quarum exterior prima, ceteris major, diametro articuli brevior; pars tarsalis parte patellari vix longior, ovata, spinis utrinque trinis. Unguis robustus, parte tarsali dimidio fere brevior.

Pedes breves robusti. Coxæ IV coxis III duplo latiores, processu interiore oppresso præditæ. Femora arcuata, ordinibus singulis inferioribus granorum, IV tuberculorum. Tibiæ I, II, III patellis haud multo longiores. Tibiæ IV eminentia majore inferiore apici propinqua. Calcanei non manifesti. Articuli tarsales: 3, 5, 5, 5. Pars ulterior tarsi I bipartita. Articulus ultimus tarsorum III et IV verticaliter truncatus. Unguiculi integri.

Differentia sexualis: Maris pars anterior segmenti ventralis analis tuberculis ambobus, late separatis. Eminentia femorum IV maris majores, quarum una, ultra medium posita, est processulus. Eminentia inferior subapicalis tibiæ IV in mare processulus, in femina tuberculum.

Long. corp. 2; long. scuti 1,5; lat. scuti 1,25; palpi 1,5; pedes II et IV circiter 4.

Coloratione variabilis. Testaceus aut fusco- et testaceo-variegatus aut fuscus, sulcis scuti dilutioribus; pedes pallentes aut testacei obsolete fusco anulati.

Patria: Columbia. Exempla sex vidi, quorum mares quatuor et feminae duas, in collectione ill. comitis KEYSERLINGII asservata.

### **Philacarus** n. gen.

Tuber oculiferum a margine anteriori scuti remotum, latius quam altius, inerme, granis densis dispersis ornatum.

Scutum dorsale sulcis quinque transversis, primo manifesto, ceteris debilibus.

Area IV eminentiis magnis destituta.

Orificia glandularum foetidarum magna, proclivia; emissarium liquoris foetidi haud latum.

Spiracula obtecta.

Antennarum articulus I parte ovata præditus, articulus II ordine anteriore obliquo eminentiarum trium præditus.

Mandibularum pars palpigera conice producta.

Palpi robusti, corpore longiores, segmenta omnia spinis et processibus armata. Unguis parte tarsali brevior.

Pedes breves, robustiores.

Coxæ IV coxis III dimidio latiores.

Pars ulterior tarsi I bipartita, tarsi II tripartita. Tarsi I et III quinquearticulati.

Unguiculi integri.

Differentia sexualis in magnitudine, in antennis et metatarsis III demonstratur.

Habitat in America meridionali.

Remark: This genus shows some similarity to the Central-American genera *Pellobunus* Banks and *Metapellobunus* Roewer (Weberkn. p. 111) but it is easily recognized by the armature of the palps, by a different number of tarsal joints and by the scutal furrows (except the 1st) being almost obsolete.

***Philacarus samoides* n. sp.**

2,5 mm longus, testaceus aut fusco-testaceus; limbus anterior scuti non discretus, acclivis; limbus lateralis leviter discretius granulis parvis ornatus; areæ granis densis dispersis; antennarum robustarum articulus II ordine anteriore obliquo eminentiarum trium præditus; palporum partes femoralis et patellaris spinis interioribus singulis, pars tibialis processibus magnis utrinque binis. Articuli tarsales 5, 7, 5, 6. Maris articulus secundus antennarum processulis, feminae granis præditus; metatarsus III in mare compressus, in femina cylindricus.

Tuber oculiferum a margine anteriore scuti remotum, magnum, transverse conicum, latius quam longius, æque longum ac altum, granis densis dispersis ornatum. Oculi magni basales.

Scutum convexum, post coxas III sensim paullo latius. Sulci quinque (primo excepto) plus minusve debiles. Limbus anterior non discretus, tuber oculiferum adversus leviter acclivis. Limbus lateralis leviter discretus, granulis parvis ornatus. Orificia glandularum foetidarum magna proclivia; emissarium liquoris foetidi haud latum. Areæ scuti et segmenta dorsalia libera granis densis dispersis; segmenta ventralia ordinibus singulis, anale (ventrale) ordinibus duobus granorum ornata.

Antennarum robustarum pars incrassata articuli primi ovata, granis superioribus posterioribus acutis, quorum unum majus, et inferioribus paucis parvis; articulus secundus ordine anteriore obliquo eminentiarum trium.

Supra partem palpigeram mandibularum conice productam adest processulus brevis robustus.

Palpi validi, corpore valde longiores, pars trochanterica processibus inferiore uno et superioribus duobus; pars femoralis femore IV triplo crassior, supra et infra granulata, ordine inferiore eminentiarum (5—8) armata, quarum prima et secunda sunt spinæ, diametro articuli longiores, et ceteræ sunt processuli breves robusti acuti, quorum ultimus aut pænultimus ceteris major, et spina interiore apici propinqua; pars patellaris spina interiore apicali; pars tibialis parte patellari crassior et dimidio longior, processibus exterioribus quinque, interioribus quatuor, quorum utrinque secundus et quartus magni, aculeo longo instructi, ceteri parvuli; pars tarsalis parte tibiali paullo brevior, processibus exterioribus quatuor, interioribus tribus, secundo

et tertio magnis, aculeo longo instructis, ceteris parvulis. Unguis procerus, parte tarsali tertia parte brevior.

Pedes breves, robustiores; coxæ IV coxis III dimidio latiores; trochanteres (veri) subglobosi. Femora arcuata, granulis parvulis ornata. Articuli tarsales: (4—)5, 7, 5, (5—)6. Pars ulterior tarsi I bipartita, II tripartita.

Differentia sexualis: Mas femina major et robustior, antennæ maris robustiores, articulus secundus vix geniculatus processulis anterioribus robustis, acutis, in femina granis. Metatarsus III feminae cylindricus, maris compressus, subtus convexus. Long. corp. 2,5; long. scuti 2; palpi 3,5; pedes I 4, II 5,5, III 3,5, IV 5.

Color testaceus aut sordide fusco-testaceus, membra testacea.

Patria: Columbia. Specimina quinque vidi, marem unum, feminas tres in coll. ill. comitis KEYSERLINGII asservata, feminam unam in Museo zool. Hafniense.

### **Cleombrotus** n. gen.

Tuber oculiferum a margine anteriori scuti remotum, latum, humillimum, inerme, læve.

Scutum dorsale sulcis quinque transversis, primo manifesto, ceteris debilibus. Area IV eminentiis magnis destituta.

Emissarium liquoris foetidi latissimum.

Spiracula detecta.

Antennarum articulus I parte incrassata præditus.

Mandibularum pars palpigera non producta.

Palpi robusti, corpore longiores; pars trochanterica inermis, segmenta cetera spinis armata. Unguis parte tarsali vix brevior.

Pedes longi.

Coxæ IV coxis III dimidio latiores. Metatarsi I et II multiarticulati; calcanei I et II non manifesti.

Pars ulterior tarsi I bipartita. (Pars ulterior tarsi II verisimiliter tripartita<sup>1</sup>).

Unguiculi integri magni.

Differentia sexualis verisimiliter in antennis demonstratur.

Habitat in America meridionali.

Remark: This genus too shows some similarity to *Pellobunus* Banks and *Metapellobunus* Roewer (Weberkn. p. 111) as well as to *Philacarus* treated above. The present genus is, however, easily recognized by the unarmed pars trochanterica of the palp.

### **Cleombrotus minutus** n. sp.

1,5 mm longus, unicolore flavescens. Tuber oculiferum læve, oculi late disjuncti, duplo longius a margine anteriore scuti quam a sulco transverso primo remoti; palporum partes femoralis et patellaris spinis interioribus singulis, pars tibialis spinis

<sup>1</sup>) SØRENSEN does not mention anything about this in his manuscript. I have formed my opinion about it from a comparison with the other genera nearly related to it.



interioribus duabus. Pedes longi, femora III quam IV crassiora. Articuli tarsales 5, 7, 5, 5.

Tuber oculiferum latum, humillimum, transversum, eminentiis majoribus destitutum, triplo latius quam altius, læve, uterque oculus suo fere tumulo parvo impositus. Oculi magni, late disjuncti, a margine exteriori scuti dimidio longius quam inter se separati, inter se æque fere longe et a margine anteriore scuti duplo longius quam a sulco transverso primo remoti.

Scutum paullum convexum, pone vix latius. Sulci transversi quinque, primus manifestus, leviter arcuatus, ceteri debiles, recti. Limbus anterior extus discretus, sat tumidus, granis ornatus. Limbus lateralis leviter discretus ordine exteriori eminentiarum haud manifestarum. Emissarium liquoris foetidi latissimum. Area prima quam secunda haud multo major, ante tuber oculiferum granis ornata; area ceteræ, segmenta ventralia duo anteriora, segmentum dorsale liberum granulis multis et segmentum dorsale ultimum granulis paucis, ordinatim dispositis prædita. Area IV eminentiis majoribus destituta. Coxæ granis scabræ.

Antennarum pars incrassata articuli primi granis posterioribus paucis ornata et granulis dispersis opaca.

Neque supra neque infra partem palpigeram mandibularum non productam adest processulus (s. tuberculum).

Palpi robusti corpore valde longiores; pars trochanterica inermis; pars femoralis femore IV duplo crassior, supra leviter convexa, spinis inferioribus quatuor, basali diametro articuli triplo longior, et spina interiore apicali una longa robusta prædita; pars patellaris spina interiore longa robusta armata, extus inermis; pars tibialis parte patellari longior, spinis exterioribus tribus et interioribus duabus, exteriori prima parva, ceteris robustis et longis; pars tarsalis depressa, parte patellari paullo longior, spinis utrinque binis. Unguis robusta, parte tarsali vix brevior. Pars propior (processus) spinarum partium patellaris, tibialis, tarsalis pæne librata, pars ulterior (aculeus?) sub angulo pæne recto inclinata.

Pedes longi, III et IV quam I et II multo robustiores. Coxæ IV coxis III dimidio latiores. Femora leviter arcuata, III et IV granis acutis remotis ornata, III quam IV crassiora. Metatarsi I et II multiarticulati. Calcanei I et II non manifesti. Articuli tarsales 5, 7, 5, 5. Pars ulterior tarsi I bipartita. Unguiculi magni.

Differentia sexualis (?): Maris(?) antennarum articulus secundus ovatus, supra articulationem basalem alte, rotundate elevatus.

Long. corp. 1,5; long. et lat. scuti 1; palpi 2; pedes I 4,5, II 7, III 5, IV 6,5. Unicolore flavescens.

Patria: Columbia. Specimen unicum, verisimiliter marem, vidi, in collectione ill. comitis KEYSERLINGII asservatum.

#### **Chersobleptes** n. gen.

Tuber oculiferum ex ipso margine scuti surgens, inerme, sublæve aut granis paullum eminentibus dispersis ornatum.

Scutum dorsale sulcis quinque transversis, primo manifesto, ceteris plus minusve debilibus præditum.

Area IV eminentiis magnis destituta.

Emissarium liquoris foetidi latum aut haud latum.

Spiracula detecta aut obtecta.

Antennarum articulus I parte incrassata prædita.

Mandibularum pars palpigera vix aut breviter producta.

Palpi vix robusti, corpore breviores; segmenta omnia armata (an etiam trochanter *crassi*?). Unguis parte tarsali brevior aut æqualis.

Pedes breves robusti.

Coxæ IV coxis III aut vix duplo aut dimidio latiores. Femora arcuata.

Pars ulterior tarsi I bipartita, II tripartita.

Differentia sexualis in coxa et femore IV aut in parte femorali palporum et in granis arearum scuti verisimiliter demonstratur.

Habitat in America centrali et meridionali.

Remark: This American genus to which SØRENSEN has referred 2 species rather different inter se, viz. *crassus* and *bovallii*, shows some similarity to the Palearctic genus *Scotolemon* Lucas (RÖEWER, Weberkn. p. 97), but it is easily recognized in having tuber oculiferum rising directly from the anterior margin of the scutum.

The two species included in this genus — judging from the descriptions alone — are rather different, and may be separated as follows:

*Conspectus specierum.*

Tuber oculiferum altius quam latius; pars palpigera mandibulæ vix producta.

*crassus* n. sp.

Tuber oculiferum duplo latius quam altius, pars palpigera mandibulæ breviter

producta ..... *bovallii* n. sp.

**Chersobleptes crassus** n. sp.

2,25 mm longus, fusco et testaceo variegatus. Tuber oculiferum magnum ex ipso margine anteriore scuti surgens; limbus lateralis ordine exteriori granorum ornatus; palpi vix robusti, spinis armati; partes femoralis et patellaris spinis interioribus singulis; pars tibialis spinis magnis interioribus duobus; pedes robusti. Articuli tarsales: 3, 5, 5, 6.

Tuber oculiferum magnum, ex ipso margine anteriore scuti surgens, ante erectum, pone convexum, altius quam latius, duplo altius quam longius, granis paullum eminentibus dispersis ornatum. Oculi magni subbasales.

Scutum convexum ante latum, post coxas III latius, trapeziforme, lateribus leviter rotundatis. Sulci transversi quinque primo excepto debiles. Limbus anterior non discretus, anguli acuti, tuberculis singulis conicis acutis præditi. Limbus lateralis leviter discretus, latus, ordine exteriori granorum densorum pone humiliorum. Emissarium liquoris foetidi haud latum. Scutum totum subtiliter coriaceum; area prima

granis dispersis, ceteræ ordinibus singulis granorum ornatae; segmenta dorsalia libera tria anteriora ordinibus singulis granulorum, segmenta ventralia lævia.

Antennarum pars incrassata articuli primi lævis.

Supra partem palpigeram mandibularum vix productam adest tuberculum.

Palpi corpore breviores, vix robusti, pars femoralis femore I dimidio aut duplo crassior, spinis inferioribus duabus, basi propinquis, diametro articuli longioribus, et interiore una apicali diametro articuli æquali; pars patellaris spina unica interiore; pars tibialis crassa parte patellari dimidio longior, spinis utrinque quaternis, prima et tertia diametro articuli longioribus, ceteris parvulis; pars tarsalis parte patellari vix longior, spinis utrinque binis. Unguis parti tarsali longitudine æqualis.

Pedes breves, robusti. Coxæ IV coxis III dimidio latiores, non dilatatae. Femora arcuata, ordine inferiore granorum ornata. Articuli tarsales 3, 5, 5, 6. Pars ulterior I bipartita, II tripartita.

Differentia sexualis: Maris(?) pars femoralis palporum femore I duplo, feminae(?) dimidio crassior, arearum scuti (prima excepta) maris(?) grana media 4 aut 6 majora, quorum duo media magna, feminae(?) omnia humilia.

Long. corp. 2,25; long. scuti 1,75, lat. scuti 1,5; palpi 1,5; pedes I 3,5, II 4,5, III 3,5, IV 4,5.

Fusco et testaceo variegatus, femora testacea, anulis fuscis trinis, plus minusve expressis notata.

Patria: Columbia. Specimina tria, unum verisimiliter marem, duas verisimiliter feminas, e collectione ill. comitis KEYSERLINGII vidi.

#### *Chersobleptes bovallii* n. sp.

2,25 mm longus, rubicundo-testaceus. Tuber oculiferum limbo anteriori contiguum, sublæve; limbus anterior discretus, pars media elevata, carinam latam efficiens; anale dorsale processu uno librato præditum; pars incrassata articuli primi antennarum globosa; palporum partes femoralis et patellaris spinis interioribus singulis, tibialis interioribus tribus; trochanteres (veri) subglobosi, patellæ et tibiæ femoribus manifeste crassiores. Articuli tarsales 3, 6, 5, 5.

Tuber oculiferum limbo anteriori scuti contiguum, transversum, duplo latius quam altius, longius quam altius, ante et pone convexum, sublæve, oculi magni, prominentes.

Scutum convexum, longius quam latius, post sulcum transversum primum sensim haud paullo latius, trapeziforme, lateribus leviter rotundatis, sulcis quinque præditum. Limbus anterior discretus, lævis, pars media elevata, tuberculum oculiferum adversus acclivis. Limbus lateralis haud latus, ordine medio granorum magnorum subovalium densorum ornatus. Orificia glandularum liquoris foetidi angulata (s. arcuata); emissarium liquoris foetidi latum. Areæ et segmenta dorsalia libera subtiliter coriacea, ordinibus singulis granulorum ornata; anale dorsale processu uno librato conico acuto præditum, æque longo ac anale ventrale; segmenta ventralia subtiliter coriacea, anale granulis ordinatim dispositis. Coxæ IV processulo interiore

apicali conico subacuto (non fulciente) præditæ, spiraculo prominente. Spiracula detecta.

Antennarum pars globosa articuli primi lævis.

Mandibularum pars palpigera undique discreta, leviter producta, conica, tuberculo superiore subbasali.

Palpi vix robusti, corpore breviores, spinis sat gracilibus armati. Pars trochanterica spinis inferioribus duabus parvis; pars femoralis æque crassa ac femur II, spinis inferioribus quatuor, prima et secunda diametro articuli duplo fere longioribus, tertia pusilla, quarta brevi robusta, et interiore apicali diametro articuli longitudine æquali; pars patellaris spina unica interiore apici propinqua; pars tibialis parte patellari dimidio longior, robusta, spinis exterioribus duabus, interioribus tribus, quarum maxima exterior secunda diametro articuli longitudine æqualis; pars tarsalis procera, depressa, spinis utrinque binis armata. Unguis parte tarsali parte tertia brevior.

Pedes breves robusti. Coxæ IV coxis III vix duplo crassiores. Trochanteres (veri) subglobosi. Femora arcuata, I, II, III leviter; granis remotis prædita. Patellæ et tibiæ, præsertim II, femoribus manifeste crassiores. Articuli tarsales: 3, 6, 5, 5. Pars ulterior tarsi I bipartita, II tripartita.

Differentia sexualis(?): Maris(?) coxa IV processulo interiore apicali robusto; femora IV ordine inferiore eminentiarum majorum remotorum prædita, quarum apicales et pænultima sunt tubercula conica.

Long. corp. 2,25; long. scuti 1,75; lat. scuti 1,5; palpi 1,5; pedes I 3, II 5, III 4, IV 5.

Unicolore rubicundo-testaceus; femora dilutiora, patellæ, tibiæ (et metatarsi) obscuriores, II pæne fuscæ.

Patria: America centralis. Specimen unicum, verisimiliter marem, vidi, in Costa Rica a cl. BOVALLIO captum, in Museo Holmiensi asservatum.

### Stygnopsidæ n. fam.

*Phalangodidæ Phalangodinæ* pars Roewer, Weberkn. d. Erde, 1923, p. 69. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 2, 1927, p. 269.

Tuber oculiferum adest, eminentia una præditum.

Scutum dorsale sulcis transversis quatuor aut quinque divisum. Sulci duo anteriores sulco longitudinali non conjuncti.

Orificia glandularum foetidarum detecta, emissaria liquoris foetidi secundum margines laterales scuti dorsalis ducta.

Spiracula detecta maxima, lunata, cancellata, nivea, quia cancelli tuberculis microscopicis ornati sunt.

Mandibularum partes maxillaris et palpigera inter se non discretæ.

Palporum partes posteriores valde armatae peroblique positae, ita ut adductae partem femoralem margine exteriori attingant.

Lobus maxillaris coxarum II deest.

Pars posterior tarsorum I bipartita, II tri- aut quadripartita.

Pedes I et II unguiculis singulis, III et IV unguiculis binis instructi. Unguiculi integri.

Scopula et processus terminalis desunt.

Species robustae hujus familiae in America meridionali indigenae.

In Stygnopsidae must certainly be included more than the 2 genera treated below; several of the Phalangodid genera treated by ROEWER (Weberkn. p. 109—120) will surely prove to belong here, but as ROEWER does not mention, for instance, the degree of crossing of the palps, the shape of the spiracles etc. I am not able to decide which.

The 2 genera treated below are separated in the following way:

A. Palporum pars patellaris armata:

1. Palporum pars patellaris intus armata ..... *Stygnopsis*.

2. Palporum pars patellaris extus armata ..... *Isæus*.

B. Palparum pars patellaris inermis ..... *Tachus*.

### **Stygnopsis** W. Sør.

*Stygnus* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 644. — nec Perty.

*Stygnopsis* Sørensen, Ergebn. Hamb. Magalh. Sammelr. II, Gonyl. 1902, p. 4.

*Stygnopsis* Roewer, Arch. f. Naturg. LXXVIII A 3, 1912, p. 153.

*Haehnelia* Roewer, ibid. LXXXI A 3, 1915, p. 21.

*Haehnelia* + *Stygnopsis* Roewer, Weberkn. d. Erde, 1923, p. 114, 116.

Tuber oculiferum adest eminentia una (processu valido) praeditum.

Scutum dorsale paene rectangulum, ultra coxas IV longe prominens, sulcis transversis quinque divisum; sulci duo anteriores sulco longitudinali non conjuncti, primus levissime procurvus, ceteri subrecti.

Area quarta scuti dorsalis eminentiis majoribus ambabus praedita.

Palpi validissimi, pars femoralis compressa, non arcuata, ordinibus inferioribus duobus eminentiarum armata; pars patellaris intus armata; pars tibialis robusta latissima, valde armata; pars tarsalis late ovata, etiam valde armata.

Coxae IV coxis III vix duplo latiores.

Pedes II omnium longissimi.

Trochanteres spurii pedibus II adsunt.

Pars posterior tarsorum II tri- aut quadripartita.

Differentia sexualis magnitudine et structura antennarum verisimiliter demonstratur. Glans penis corpore penis, ante sensim crassiore, haud crassior.

ROEWER has established a genus, called *Haehnelia*, for an animal from Mexico having 3 joints in pars ulterior tarsi II, while ROEWER ranges *Stygnopsis* among the genera having 4 joints. One of the 2 specimens of *Stygnopsis valida* examined by me shows, however, 3 joints in the one tarsus II, and 4 in the other, the number is thus varying. As *Stygnopsis* and *Haehnelia* otherwise agree in all essential respects, and as the number of joints in pars ult. II does not form any hindrance to uniting the 2 genera, *Haehnelia* will fall as a synonym to *Stygnopsis*.

It is moreover most probable that the 2 species *Stygnopsis valida* and *Haehnelia mexicana* — both found in Mexico — will prove to be identical. I have not been able to examine the type of *Haehnelia mexicana*, but a comparison of the description and figure of this latter with the specimens of *Stygnopsis* shows but a single plastic difference besides some difference in the colour, viz.

Limbus posterior scuti (= 5th abd. area) — as well as the 3 free tergites — each with a median short spine. Colour fuscous with lighter eyes . . . . . *valida* Sør.  
Only the 3 free tergites each with a median short spine. Colour fuscous with lacteous-white spots on 5th scutal area and 1st and 2nd free tergites viz. 3, 4, 2 spots . . . . . *mexicana* Roewer.

Moreover the colour difference is possibly not a real one. Perhaps *Stygnopsis valida* has also shown white spots in the fresh state, as one of the specimens seen by me (not the type) has a trace of a waxy-white spot on the left hind corner of the 5th area and a little larger one on the right side of the 2nd free area — the other spots have probably been worn off.

If this is right, which seems very probable, the difference in armature is so slight that it may very well represent only an individual variation, and therefore I note *Haehnelia mexicanum* (however with a query) as synonymous with *Stygnopsis valida*.

#### *Stygnopsis valida* W. Sør.

*Stygnus validus* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 645.

*Stygnopsis validus* Sørensen, Ergebn. Hamb. Magalh. Sammelr. II Gonyl. 1902, p. 4.

*Stygnopsis validus* Roewer, Arch. f. Naturg. LXXVIII A 3, 1912, p. 153.

? *Haehnelia mexicana* Roewer, ibid. LXXXI A 3, 1915, p. 21.

*Stygnopsis validus* Roewer, Weberkn. d. Erde, 1923, p. 116.

? *Haehnelia mexicana* Roewer, ibid. p. 114.

Mas 11 mm longus, fuscus, pedibus dilutioribus; tuber oculiferum permagnum pone<sup>1)</sup> limbum anteriorem scuti positum, a processu suo non limitatum; processus areæ quartæ spatio interapicali subæquales; limbus posterior scuti et segmenta dor-

<sup>1)</sup> SØRENSEN wrote "usque ad" which I have altered into "pone" as the limbus anterior runs unbroken in front of the tuber along the whole front edge of the scutum.

salia libera tria anteriora tuberculis singulis prædita; articuli tarsales 6, 12—13<sup>1)</sup>, 7, 7. Maris saltem antennarum validorum articulus secundus alte sursum productus, coxæ IV processulo exteriori præditæ.

Patria in descriptione prima (1884) Guinea esse dicitur. Species (et genus) autem non in Africa sed in America indigena est; marem alterum in rebus publicis Mexicanis ab ill. Dr. FRITSCHE collectum, examinavi. Specimina ambo in Museo zool. Hafniense asservantur.

Addenda et corrigenda: Tuber oculiferum cum suo processu (vix proclivi), conicum in apice procerum acutum, longius quam area prima et granis parvis paucis ornatum. — Scutum dorsale erga coxas III et IV haud leviter sinuatum. Limbus anterior discretus. Limbus lateralis ordine medio granorum densorum, intra quem grana minora ordinem propinquum interruptum haud manifestum formant. Areæ granis, prima duobus, secunda quatuor, tertia sex, quarta duobus et quinta duobus ornatae sunt. Animal Fritschei 2, 4, 5, 1, 2 demonstrat, quia in area III et IV in latere sinistra grana lateralis abest<sup>2)</sup>. Processus areæ quartæ subrecti (leviter reclines, retrorsum vix recurvi), sat proceri, acuti, spatio interapicali subæquales. Limbus posterior et segmenta tria libera præter tubercula longa singula ordinibus singulis granorum mag-norum, haud numerosorum, qui in limbo et segmentis duobus prioribus late interrupti sunt; anale dorsale granis duobus permagnis humilibus. Segmentum ventrale carinis ante latioribus ambabus præditum, e margine posteriore spiraculorum oblique prorsum exeuntibus.

Antennarum pars producta articuli secundi leviter compressa.

Palporum pars trochanterica præter tubercula parva pauca spina inferiore valida armata et tuberculis curvatis superioribus munita. Pars femoralis intus non plana, tubercula interiora 6—7 in ordine obliquo disposita, obtusa (in animali Fritschei minora quam in typo); pars femoralis intus eminentia humili setifera, memoria non digna, ornata; grana obtusa dorsalia partis femoralis in ordinibus duobus disposita; eminentiæ magnæ inferiores parti femorali 7—12 adsunt.

Pedes: Femora omnia granulata. Femora III et IV apicem versus ordinibus inferioribus binis processulorum, quorum longissimus diametro manifesto brevior; tibiæ III et IV apicem versus ordinibus inferioribus binis tuberculorum conicorum; calcaneus I astragalo duplo brevior; II articulo tarsali primo æqualis, III articulo tarsali primo vix, IV manifesto brevior, metatarsus II spurie multiarticulatus.

### Isæus n. gen.

Tuber oculiferum eminentia una præditum.

Scutum dorsale subrectangulum, ultra coxas IV haud longe prominens, sulcis transversis quatuor divisum, primo fortiter, ceteris leviter arcuatis; sulci duo anteriores sulco longitudinali non conjuncti.

<sup>1)</sup> One specimen showed 12 on one leg, 13 on the other — pars ulterior in both being 4-jointed, the other specimen had lost one tarsus, but the other tarsus showed 12 joints, pars ulterior being 3-jointed.

<sup>2)</sup> Thus in this side quite as in *mexicana* Roewer.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita.

Palpi validissimi, pars femoralis compressa, arcuata, ordine inferiore eminentiarum armata; pars patellaris extus armata; pars tibialis subdepressa; pars tarsalis depressa.

Lobus maxillaris coxæ II deest.

Pedes II omnium longissimi.

Coxæ IV coxis III non duplo latiores.

Trochanteres spurii pedibus I adsunt.

Pars ultima tarsorum II tripartita.

Differentia sexualis magnitudine et structura antennarum verisimiliter demonstratur.

Species unica adhuc reperta:

*Isæus mexicanus* n. sp.

(Mas) 5,5 mm longus, fusco-brunneus; tuber oculiferum permagnum margini anteriori scuti subcontiguum, a processu suo limitatum; limbus lateralis post apicem coxarum IV lævis; processus areæ quartæ spatio interapicali paullo breviores; segmentum anale ventrale granis anterioribus multis densis dispersis et ordine posteriore granorum ornatum, intervallo sublævi; palporum pars femoralis intus plana inermis, processibus inferioribus robustissimis armata et tuberculo superiore apicali porrecto instructa; calcaneus (spurius) I astragalo paullo brevior. Articuli tarsales: 6, 10—11, 7, 7. Maris saltem antennarum validarum articulus secundus alte sursum productus, coxæ IV tuberculo exteriore præditæ.

Tuber oculiferum limbo anteriori scuti contiguum, altum, conicum, æque altum ac latum, altius quam longius, ante pæne erectum; processus procerus conicus, acutus, ipso tubere dimidio brevior. Oculi basales (ipsi tuberi impositi).

Scutum convexum, erga coxas III et IV sinuatum. Limbus anterior leviter discretus, angustus, medius angustissimus, extus granis ornatus. Limbus lateralis, usque ad apicem coxarum IV ordine medio granorum densorum et granis interioribus dispersis ornatus, post coxas IV lævis nitidus; emissarium liquoris foetidi latum, pone latius. Areæ prima et secunda longitrorsus rugosæ, ceteræ granis et granulis densis, dispersis. Processus areæ quartæ proceri, conici, acuti, aliquantum reclines, processu tuberis oculiferi et spatio interapicali paullo breviores. Limbus posterior scuti et segmenta dorsalia libera duo anteriora ordinibus singulis tuberculorum parvorum densorum conicorum; tertium ordine posteriore tuberculorum similium et granis dispersis densis; anale dorsale granis conicis densis dispersis; segmenta ventralia ordinibus singulis granorum; anale ventrale granis anterioribus multis densis dispersis et ordine posteriore granorum ornatum, intervallo sublævi. Coxæ granis præditæ.

Spiracula lata; bulla tuber humile formans.

Antennarum (saltem maris) validarum pars subglobosa articuli primi granis superioribus et tuberculis leviter incurvis exterioribus paucis et superiore-interiore uno apici propinquo. Articulus secundus supra articulationem basalem sat alte seor-



sum productus; pars producta supra paullum compressa, rotundata. Digiti validi, mobilis dentibus magnis tribus robustis, immobilis dentibus magnis duobus, ultra medium positus.

Palporum pars trochanterica spina inferiore valida et processibus superioribus paucis, ultimo maximo procurvo; pars femoralis femore IV haud dimidio crassior, intus inermis plana, canali submedio instructa, glabra, extra et supra granis magnis rotundatis, ordinatim dispositis, quorum superius ultimum est tuberculum porrectum conicum, acutum, processibus inferioribus quinque robustissimis, diametro articuli æqualibus, setis subapicalibus debilibus instructis; pars patellaris granis supra ornata, processu exteriori (torsione articuli prono) armata; pars tibialis granis minoribus supra ornata, spinis robustis utrinque quaternis<sup>1)</sup> armata, tertiis latitudine articuli brevioribus; pars tarsalis parte patellari paullulo brevior, supra lævis, spinis haud robustis utrinque quaternis, apicem articuli versus sensim brevioribus. Unguis procerus, parte tarsali vix brevior.

Pedes breves; I et II graciles, quibus III et IV multo robustiores. Coxæ IV (saltem maris) tuberculo exteriori apicali. Trochanteres IV tuberculis anteriore et posteriore, tuberculo coxali paullo longioribus. Femora arcuata, I et II leviter; I et II ordinibus inferioribus singulis granorum; femora, patellæ, tibiæ III et IV ubique granis densis, quorum inferiores longi, acuti, ordines binos formantes; patellæ III et IV processulis inferioribus singulis apicalibus, conicis, acutis. Calcanei (spurii) I astragalo paullo brevior, IV brevissimus. Articuli tarsales: 6, 10—11, 7, 7.

Long. corp. 5,5; long. scuti 4,5, lat. scuti 3,5; palpi 7; pedes I 10, II 15, III 10, IV 14. Articulus secundus antennarum 4,5.

Unicolore fusco-brunneus.

Patria: Mexico. Specimen unicum vidi, quod marem habeo, ad oppidum Cordova captum, in collectione ill. comitis KEYSERLINGII asservatum.

Remark: I have not been able to reexamine this species in natura. It seems to be allied to *Metaconomma* Cambr. (ROEWER, Weberkn. p. 115).

### Tachus n. gen.

Tuber oculiferum eminentia una præditum.

Scutum dorsale subrectangulum, ultra coxas IV pone prominens, sulcis transversis quinque divisum; sulcus primus procurvus, secundus leviter recurvus, parte media leviter ante concava, ceteri subrecti. Sulci duo anteriores sulco longitudinale non conjuncti.

Area quarta scuti dorsalis eminentiis majoribus destituta.

Palpi robusti; pars femoralis leviter compressa, arcuata, ordine inferiore eminentiarum armata; pars patellaris inermis; pars tibialis (paullum) compressa robusta; pars tarsalis vix compressa.

<sup>1)</sup> quarum exterior ultima in specimine meo unico aculeo accessorio anteriore prædita est.

- Lobus maxillaris coxæ II deest.  
 Pedes IV omnium longissimi.  
 Coxæ IV coxis III dimidio latiores.  
 Trochanteres spurii I, II, III manifesti.  
 Pars ulterior tarsorum II tripartita.  
 Differentia sexualis magnitudine et structura antennarum verisimiliter demonstratur.  
 Species unica adhuc reperta:

**Tachus keyserlingii n. sp.**

(Femina) 3,75 mm longus, fusco-brunneus; processus tuberis oculiferi ab ipso tubere leviter proclivi non limitatus, procurvus; palporum pars femoralis tuberculis inferioribus duobus et spina interiore armata; patellæ III et IV femoribus manifeste crassiores. Articuli tarsales: 3, 5, 5, 5.

Tuber oculiferum ex ipso margine anteriore scuti surgens, magnum altum conicum, leviter proclive, gradu anteriore præditum, granulatum; processus conicus procurvus. Oculi subbasales (ipsi tuberi impositi).

Scutum convexum post coxas III manifeste latius, lateribus deinde parallelis, erga coxas IV vix sinuatum. Sulci transversi, profundi. Limbus anterior non discretus; (a latere tuberis oculiferi impressio linearis transversa sat profunda exit). Limbus lateralis ordine granorum densorum ornatus; emissarium liquoris foetidi ordine exteriore granulorum limitatum. Area prima rugosa; secunda granis ambobus; areae ceteræ, limbus posterior scuti, segmenta dorsalia libera duo anteriora ordinibus singulis, segmentum tertium ordinibus haud manifestis duobus, anale dorsale ordinibus tribus granorum ornata. Coxæ granis densis, segmentum anale ventrale ordinibus duobus, segmenta ventralia cetera ordinibus singulis granulorum prædita.

Spiracula leviter arcuata, sat lata; bulla elevata.

Antennarum pars globosa articuli primi sublævis; articulus secundus rotundate geniculatus (feminæ saltem) non elevatus.

Palporum pars femoralis femore IV crassior, supra convexa, apicem versus sensim fere latior, intus leviter convexa, tuberculis setiferis inferioribus duobus, brevibus, robustis, rotundatis (altero basali, altero medio), et spina interiore brevior sat robusta, apici propinqua; pars tibialis spinis utrinque quaternis, quarum tantum exterior tertia robusta, diametro articuli brevior, interiores prima et tertia ceteris parvis majores, pars tarsalis spinis utrinque trinis, apicem versus brevioribus. Unguis procerus, parte tarsali manifeste brevior.

Pedes breviores, sat robusti. Coxæ IV (saltem feminæ) eminentia exteriore apicali destitutæ. Femora I et II subrecta, III et IV arcuata, granis præsertim intra ornata. Patellæ III et IV femoribus manifeste crassiores. Articuli tarsales: 3, 5, 5, 5.

Differentia sexualis?

Long. corp. 3,75; long. scuti 3, lat. scuti 2,75; palpi 2,75; pedes I 7, II 12, III 8,5, IV 13.

Unicolore fusco-brunneus; antennæ, palpi, trochanteres pedum dilutiora. Calcani (spurii) et tarsi testacei, articulus primus tarsi I fuscus.

Patria: Brasilia. Specimen unicum vidi, quod feminam habeo, ad oppidum Blumenau captum, in collectione ill. comitis KEYSERLINGII asservatum.

Remark: The editor has not been able to re-examine this species. It seems to be related to *Paramitroceras* Cambr. (ROEWER, Weberkn. p. 116) and *Brotasus* Roewer (Abh. nat. Ver. Bremen, XXVI, 1928, p. 532). It differs rather much from the two other Stygnopsids, and in some particulars shows so much concordance with the *Minuidæ*, that the editor is inclined to believe that it must be included in this latter family.

### Gonyleptoidea.

In his paper from 1884 SØRENSEN ranged all the forms belonging to the Gonyleptoid series, then known to him, within 4 families which he called *Coelopygidæ*, *Gonyleptoidæ*, *Pachyloidæ* and *Hernandarioidæ*. In 1902 SØRENSEN withdrew the *Pachyloidæ*, including the forms in question in the family *Gonyleptoidæ*, as he perceived that the distinguishing character, viz. 4 or 5 dorsal sulci, is not reliable for separating them.

In his posthumous notes on the group he admits 3 families viz. *Hernandariidæ*, *Stygnidæ* and *Gonyleptidæ*, as he includes the *Coleopygidæ* in *Gonyleptidæ*, and now (in contradistinction to his former view — 1884 p. 580) considers the *Stygnidæ* to be a well-outlined family.

*Hernandariidæ*, according to SØRENSEN, is easily recognized through the course of the emissaria ad ventrem coxarum, which latter feature, besides in the *Hernandariidæ*, is only found in the *Cosmetidæ*. On the contrary, he lays no stress upon the number of dorsal transversal sulci; the genera hitherto described certainly possess only 2, but below is described a form with 5 sulci, which SØRENSEN includes here.

The 2 other families are separated according to the presence or absence of a scöpula (present in *Stygnidæ*, absent in *Gonyleptidæ*).

The *Coelopygidæ* and the *Gonyleptidæ* were united on account of the following facts noted by SØRENSEN on a rough-draught sheet: 1) the genus *Leptocnemus* Koch links the 2 genera (*Coelopygus* and *Amphères*) which form the *Coelopygidæ* with the (other) Gonyleptoids, and 2) the chelate shape of the palps, characterizing the Coelopygids, in other families (*Biantidæ* and *Stygnidæ*) occurs in some genera but not in others, and cannot therefore be considered a family character.

ROEWER who had examined a much greater number of Gonyleptoid Laniatores of varying shape and characters, subdivided the group (familia *Gonyleptidæ* sensu Roewer) into a number of subfamilies, viz. *Pachylinæ*, *Prostygninæ*, *Phareinæ*, *Stenostygninæ*, *Gonyleptinæ*, *Mitobatinæ*, *Coelopyginæ*, *Cranainæ*, *Heterocranainæ*, *Stygnocranainæ*, *Stygninæ*, *Heterostygninæ*, *Hernandariinæ*, and (see ROEWER, Abh. nat. Ver. Bremen, XXVII, 1929, p. 181) *Bourguyinæ*.

Of these groups *Pachylinæ* Roewer is identical with *Pachylidæ* Sørensen olim,

*Gongyleptidæ* + *Mitobatinae* Roewer is identical with *Gongyleptidæ* Sørensen olim, *Coelopyginae* Roewer with *Coelopygidæ* Sørensen olim, and *Hernandariinae* Roewer with *Hernandariidæ* Sørensen<sup>1)</sup>, while *Stygnidæ* Sørensen comprises *Stenostygninae*, *Prostygninae*, *Stygninae* and *Heterostygninae* Roewer.

As seen from the conspectus above, the family *Stygnidæ* Sørensen is separated from the other families by the presence of a scopula, but ROEWER does not ascribe a scopula to *Prostygninae* and *Stygninae*. Both authors have investigated representatives of the latter group, and their statements are therefore apparently incompatible. As to the genus *Stygnus* Sørensen, however, notes: "scopula vix densa; in parte media tarsorum III et IV adsunt pili spathulati pauci", and as to *Stygnus aggerum* (which species also is known by ROEWER — but referred to a group, *Stygninae*, without scopula) SØRENSEN notes: "scopula tenuis, pili vix dilatati" i. e. having a rather reduced scopula. Therefore I think that ROEWER's term "ohne Scopula" as to *Prostygninae* and *Stygninae* means "without a well developed scopula", and that *Stygnidæ* Sørensen, which, it is true, forms a natural group, is really characterized by the Sørensenian character "scopula adest", though the scopula may be rather reduced in some forms. Therefore I still keep the forms united by SØRENSEN into the family *Stygnidæ* within this latter which, as said above, comprises the 4 subfamilies of ROEWER: *Prostygninae*, *Stenostygninae*, *Stygninae* and *Heterostygninae*.

According to ROEWER all the forms belonging to the two last-named subfamilies agree in having but 4 sulci transversi scuti. Among the genera which might belong to these 2 subfamilies, the genus *Stygnoplus* is characterized by SØRENSEN as having 5 sulci, of which, however, "sulcus quartus debilis", and also *Eutimesius* (also known by ROEWER and thus by him given 4 sulci) are rather intermediate, as the 4th sulcus is only visible in the middle, but otherwise obsolete "itaque sulcus quartus oculum faciliter effugit". This proves that SØRENSEN is right when he maintains (1902 p. 4) that "numerus sulcorum transversorum scuti dorsualis characterem familiarum non præbet"; one investigator may count 4, another 5 sulci in the same animal; and if the system is arranged with "4 or 5 sulci" as the leading character, the animal may be misinterpreted as to its systematic position.

It must also be mentioned that the genus *Nomoclastes* described below has 5 sulci, well-developed scopula, and simple claws, which do not fit in with any of the Roewerian subfamilies in question (see the key: Abh. naturw. Ver. Bremen, XXVII, 1929, p. 181).

### Hernandariidæ W. Sør.

*Hernandaroidæ* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 598.

*Gongyleptidæ* *Hernandariinae* Roewer, Arch. f. Naturg. LXXIX, A 5, 1913, p. 460.

*Gongyleptidæ* *Hernandariinae* Roewer, Weberkn. d. Erde, 1923, p. 582.

<sup>1)</sup> The genus *Ariaeus* described below must, however, be included in *Pachylinae* Roewer.

Tuber oculiferum adest, eminentiis ambabus instructum.

Scutum dorsale sulcis transversis duobus vel quinque divisum.

Emissarium liquoris foetidi efficit canalis (apertus), coxis primi et secundi paris et processibus formatus, liquorem foetidum ad ventrem coxarum ducens. Orificia glandularum foetidarum obtecta aut detecta.

Spiracula maxima lunaria, cancellata, nivea, quia cancelli tuberculis microscopicis ornati sunt, post sulcum coxam quartam ab abdomine separantem posita.

Palporum partes tibialis et tarsalis spinis (aculeis suo processui impositis) armatae, minus manifeste oblique posita sunt, ita ut adductae partem femoralem margine utroque attingant.

Lobus maxillaris coxae II deest.

Coxae IV dilatatae.

Pedes breviores.

Pars ulterior tarsi I tripartita, II etiam tripartita.

Unguiculi pedum integri.

Scopula deest. Processus terminalis pedibus III et IV adest, sed parvus.

Species in America meridionali indigenae.

SØRENSEN has left a description of the following new genus and species which differs from *Hernandaria* and the other forms hitherto known, in having not 2, but 5 sulci on the scutum; and further a most important character is found in the orificium glandulae foetidae. According to this latter difference SØRENSEN has separated the 2 genera known to him in the following way:

Orificia glandularum foetidarum processibus obtecta, in ipso margine scuti dorsalis posita ..... *Hernandaria*.  
 Orificia glandularum foetidarum (et urinariarum) detecta, magna, infra lata; margo posterior orificii in processum productus, qui processum superiorem (medium) coxae II attingit ..... *Ariaeus* n. gen.

#### ***Ariaeus* n. gen.**

Tuber oculiferum eminentiis majoribus ambobus instructum.

Sulci scuti dorsalis omnes manifesti, duo anteriores sulco longitudinali conjuncti.

Area quarta eminentiis majoribus ambobus instructa.

Orificia glandularum foetidarum (et urinariarum) detecta, magna, infra lata; margo posterior orificii in processum productus, qui processum superiorem (medium) coxae II attingit.

Coxae IV dilatatae.

Pedes II omnium longissimi.

Unguiculi pedum integri.

Differentia sexualis?

*Ariæus tuberculatus* n. sp.

(Femina) 6,5 mm longa, brunnea, tuber oculiferum processulis ambobus; pars media limbi anterioris late elevata tuberculis ambobus; areæ scuti dorsalis tuberculis binis, segmenta dorsalia libera secundum et tertium tuberculis parvis binis; pars femoralis palporum intus inermis; calcaneus I astragalo plus quam dimidio brevior; articuli tarsales 6, 10, 7, 8; processus terminalis unguiculis dimidio brevior.

Tuber oculiferum sat magnum, latius et longius quam altius, supra excavatum, præter granula pauca processulis ambobus robustis, conicis acutis, spatio interapicali subæqualibus.

Scutum levissime convexum, post coxas III sat fortiter dilatatum, pone breviter coarctatum. Sulci sat lati. Limbus anterior discretus tumidus; pars media late elevata, supra late excavata, tuberculis ambobus leviter proclivibus, late separatis, graciliter conicis, acutis; pars cetera granis conicis acutis, paucis (utrinque trinis) densis, supra palpos positis. Limbus lateralis latus, granis parvis densis ornatus, ordinatim haud manifeste dispositis. Post orificia urinaria detecta permagna orbicularia adest processus (tertius) magnus coxæ II. Areæ subtiliter coriaceæ, prima granulis, ceteræ granis parvis, densis dispersis ornatae. Areæ omnes tuberculis parvis rotundatis binis, quæ in area quarta sibi magis quam in area tertia propinqua. Limbus posterior scuti et segmenta dorsalia 3 anteriora ordine singulo granorum parvorum, secundum et tertium tuberculis parvis binis; anale dorsale granulis dispersis. Coxæ et segmenta ventralia (omnia) sublævia.

Spiraculorum bulla elevata.

Antennarum pars globosa articuli primi lævis.

Palpi graciles; pars femoralis (leviter compressa) æque crassa ac femur III, inermis; pars patellaris parte tibiali haud multo brevior, parte tarsali paullo longior; partes tibialis et tarsalis leviter compressæ; pars tibialis spinis utrinque quaternis, quarum secundæ et quartæ parvæ, exterior quarta pusilla, omnium longissima exterior tertia, cum quarta in basi confluens, diametro articuli dimidio longior; pars tarsalis spinis utrinque quinis, quarum prima et tertia ceteris parvis duplo longiores. Unguis procerus, parte tarsali vix brevior.

Pedes graciles, breviores. Femora I et II subrecta, sublævia, III et IV leviter arcuata, granulata. Calcanei I astragalo plus quam dimidio brevior, II articulo tarsali primo vix longior, III et IV articulo tarsali primo breviores. Articuli tarsales 6, 10, 7, 8. Processus terminalis gracilis, unguiculis dimidio brevior.

Differentia sexualis (mare incognito): Feminae coxæ, trochanteres, femora IV sine una eminentia majore.

Brunneus, eminentiæ arearum scuti umbra fusciori cinctæ. Venter, antennæ, palpi, trochanteres pedum dilutiora.

Long. corp. 6,5; long. scut. 6, lat. scut. 6; palpi 6; pedes I 14, II 26, III 18, IV 25.

Patria: Brasilia. Specimen unicum, feminam, vidi, ad oppidum Blumenau captum, in coll. ill. comitis KEYSERLINGII asservatum.

Remark: This form cannot be identified with any hitherto described, neither

in *Hernandaroidæ* nor in *Pachylinae* Roewer, to which latter group it should possibly be referred in the Roewerian system.

### Stygnidæ Simon.

Subfam. *Stygninae* Simon p. p., Ann. Soc. Ent. Belg. XXII, 1879, p. 218.

*Prostygninae* + *Stenostygninae* + *Stygninae* + *Heterostygninae* Roewer, Arch. f. Naturg. LXXIX, A 4/5, 1913, p. 140, 162, 425, 444.

*Prostygninae* + *Stenostygninae* + *Stygninae* + *Heterostygninae* Roewer, Weberkn. d. Erde, 1923, p. 449, 459, 571, 576. — Suppl.: Abh. nat. Ver. Bremen, XXVII, 2, 1929 et XXVIII, 2/3, 1931.

Tuber oculiferum adest vel deest.

Scutum dorsale sulcis transversis quatuor aut quinque divisum, quorum duo anteriores sulco longitudinali conjuncti sunt.

Emissaria liquoris foetidi secundum margines laterales scuti dorsalis ducta. Orificia glandularum foetidarum (in generibus mihi cognitis) detecta.

Spiracula detecta, maxima, lunata, cancellata, nivea, quia cancelli tuberculis microscopicis ornati sunt.

Mandibularum partes maxillaris et palpigera inter se (plus minusve) discretæ.

Palporum partes tibialis et tarsalis paullum oblique positæ, ita ut adductæ partem femoralem utroque margine attingant.

Lobus maxillaris coxæ II deest.

Coxæ IV (in generibus mihi cognitis) cum abdomine processibus fulcientibus non conjunctæ, sæpissime paullum dilatatae.

Pedes II (in speciebus mihi cognitis) omnium longissimi, pedibus IV saltem non breviores.

Femorum pars infima (in generibus mihi cognitis) trochanterem spurium (præter trochanterem verum) format.

Pars ulterior tarsorum I tripartita. Pars ulterior tarsi II (in generibus mihi cognitis) tripartita.

Tarsorum III et IV pars ultima (præsertim articulus ultimus) leviter resupinata, scopula sæpe lata densa pilis longis vestita, in apice (paullum) dilatatis. Processus terminalis pedibus III et IV adest.

Pedes I et II unguiculis singulis, III et IV binis instructis.

Species adhuc cognitæ in America et meridionali et septentrionali indigenæ.

Pullos duos speciei generis<sup>1)</sup> alicujus hujus familiæ vidi. Quorum tarsis III

<sup>1)</sup> Oculi late disjuncti, æque longe a linea media corporis ac a marginibus lateralibus separati, a margine anteriore scuti triplo longius quam a sulco transverso primo remoti; uterque suo tumulo impositus (dum tuber oculiferum deest) inter quos eminentia nulla adest. — Scutum sulcis transversis quinque divisum; areæ secunda et quarta (non autem segmenta libera) eminentiis majoribus instructæ. — Spiracula latissima. — Articuli tarsales 2, 2, 2, 2. — 5 mm longi.

et IV scopula plane deest; pili inferiores tarsorum breves et pertenues quidem. Palpi structura et armatura a palpis animalium adulatorum discrepare non videntur.

Genera et species omnes in America indigenæ.

*Conspectus generum mihi cognitorum.*

- I. Palpi corpore longiores; partes femoralis et patellaris (clavata) teretes, graciles; aut omnino inermes aut vix armatæ; tuber oculiferum commune non adest, oculi late disjuncti:
  - A. Unguiculi pedum III et IV integri:
    1. Inter (et ante) tumulos oculiferos eminentia magna adest. . . *Stygnus* Perty.
    2. Inter (et ante) tumulos oculiferos eminentia magna deest. *Ideostygnus* n. gen.
  - B. Unguiculi pedum III et IV pectinati:
    - (1. Area quarta scuti dorsalis eminentiis majoribus (teste ill. SIMON) destituta . . . . . *Stenostygnus* Simon).
    2. Area quarta scuti dorsalis eminentiis majoribus ambabus instructa:
      - a. Area prima scuti eminentiis majoribus destituta. . . *Stygnidius* Simon.
      - b. Area prima scuti eminentia interoculari una instructa:
        - + Eminentia interocularis mutica; palporum pars femoralis inermis; pedes longissimi, graciles. . . . . *Eulimesius* Roewer.
        - ++ Tuber interoculare eminentia majore unica præditum; palporum pars femoralis armata; pedes breviores, posteriores robusti . . . . . *Stygnoplus* Simon.
- II. Palpi corpore breviores, robusti; partes femoralis (leviter) compressa, armata et patellaris robustæ:
  - A. Tuber oculiferum commune non adest; tumuli oculiferi late separati, sua crista eminentiarum præditi. . . . . *Nomoclastes* n. gen.
  - B. Tuber oculiferum commune sat magnum, eminentiis majoribus ambabus instructum . . . . . *Tegyra* n. gen.

**Stygnus** Perty.

*Stygnus* Perty p. p. + *Goniosoma* p. p., Delect. An. Artic. 3, 1832, p. 207, 202.

*Stygnus* p. p. Gervais Walckenaer Ins. Apt. III, 1844, p. 111.

*Stygnus* p. p. C. L. Koch, Übers. d. Arachnidensyst. fasc. II, 1839, p. 11.

*Stygnus* Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 220.

*Stygnus* + *Stygnellus* Roewer, Arch. f. Naturg. LXXIX, A 5, p. 427, 434.

*Stygnus* + *Stygnellus* Roewer, Weberkn. d. Erde, 1923, p. 572, 574.

Tuber oculiferum commune non adest, oculi inter se late disjuncti, uterque suo tumulo impositus, inter (et ante) tumulos eminentia (major) unica adest.

Scutum dorsale sulcis transversis quatuor divisum, sulci duo anteriores sulco



longitudinali conjuncti. Scutum subrectangulum ultra apices coxarum IV paullulo prominens.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita.

Supra partem palpigeram mandibularum porrectam conicam adest tuberculum basale; pars palpigera processu inferiore apicali robusto instructa.

Palpi corpore multo longiores, partes femoralis et patellaris teretes, graciles, inermes; pars patellaris clavata parte tibiali longior; pars tibialis robusta compressa, in basi crassior; pars tarsalis parte tibiali brevior, compresso-fusiformis, præter spinas ordinibus inferioribus duobus sibi propinquis setarum armata, unguem adductum excipientibus.

Coxæ IV coxis III fere triplo latiores, eminentia exteriori apicali magna præditæ.

Scopula vix densa; in parte media tarsorum III et IV adsunt pili spathulati pauci.

Unguiculi III et IV sat late divergentes, fortiter incurvi, integri.

Differentia sexualis (teste ill. SIMON et ROEWER) armatura femorum IV et structura antennarum demonstratur.

#### *Stygnus simonis* n. sp.

*Stygnus simplex* E. Simon in schedula — nec Roewer.

5 mm longus, olivaceo-niger, figuris sordide flavis notatus; præter granula adsunt eminentiæ majores binæ: areæ quartæ processus; limbo scuti grana, segmentis dorsalibus liberis primo tubercula, secundo et tertio processuli; antennarum pars subglobosa articuli primi sublævis; palporum pars tibialis spinis utrinque quinque armata. Articuli tarsales: 7, 14, ?, 7. Processus terminalis unguiculis haud multo brevior.

Tumuli oculiferi parvi læves. Oculi a linea media corporis paullo longius quam a margine exteriori scuti separati, a margine anteriori scuti duplo longius quam a sulco transverso primo remoti. Tuber interoculare late conicum granulis dispersis ornatum, cujus processus ad marginem anteriorem tumulorum oculiferorum positus, erectus, procerus, tubere ipso verisimiliter altior<sup>1)</sup>.

Scutum convexum, adversus coxas III angustius, pone paullo latius. Sulci transversus primus et debilis quartus manifeste, ceteri leviter arcuati. Limbus anterior discretus, leviter tumidus, lævis. Limbus lateralis sat angustus, ordine exteriori granulorum parvorum haud densorum præditus; emissarium sat latum, distincte limitatum. Areæ prima lævis, secunda, tertia et quarta granis parvis (vel granulis) paucis (quaternis) ornatae, area quarta processibus ambobus longis, spatio interapicali æqualibus, processu interoculari vix longioribus, vix divergentibus, subrectis, reclinibus, conicis, acutis, sulco transverso quarto contiguus. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum et eminentiis majoribus binis, anale dorsale granulis, in ordines tres minus manifeste dispositis. Segmentum anale ventrale ordinibus duobus haud manifestis granulorum. Coxæ granis dispersis.

<sup>1)</sup> The interocular spine is broken.

*Spiracula magna.*

Antennarum robustarum pars subglobosa articuli primi granulo exteriore pone ornata, ceterum lævis; articulus secundus supra articulationem basalem paulum elevatus, rotundate conicus.

Palporum pars trochanterica brevis spinis inferioribus duabus parvis; pars femoralis æque crassa ac femur I, leviter arcuata, apicem versus paulo crassior; pars patellaris leviter arcuata, parte tibiali vix dimidio longior; pars tibialis spinis proceris utrinque quinque, quarum quartæ longissimæ diametro articuli plus quam duplo longiores, quintæ pusillæ; pars tarsalis parte tibiali manifesto brevior, spinis exterioribus quatuor et interioribus quinque, exteriore prima et interioribus prima et tertia ceteris longioribus. Unguis procerus, parti tarsali longitudine æqualis.

Pedes longiores, graciliores. Coxæ IV processulo exteriore subrecto, conico, acuto. Trochanteres IV processulo superiore parvo, conico, acuto. Femora subrecta granulis ornata, II tuberculis pusillis obtusis, apicalibus dorsalibus duobus, III?, IV processulis parvis acutis duobus. Calcanei I astragalo fere duplo longior, II et IV articulo tarsali primo breviores. Articuli tarsales: (?—)7, (?—)14, ?, 7. Processus terminalis unguiculis haud multo brevior.

*Differentia sexualis?*

Olivaceo-niger, apices processulorum scuti et processulorum segmentorum dorsaliū liberorum et tumuli oculiferi sordide flavescentes; area prima vitta arcuata notata, extra et ante tumulos oculiferos et post processum interocularem posita, punctis sordide flavis formata; limbus lateralis lineis exteriore et interiore, sulcus transversus tertius maculis transversis tribus (vel potius vitta transversa interrupta) sordide flavis. Femora anulis binis dilutioribus, haud manifestis notata. Antennæ et palpi rufotestacea; pars femoralis anulis fuscis duobus manifestis.

Long. corp. 5; long. scut. 4,25, lat. scut. 4; palpi 9; pedes I 13, II 25, III ?, IV 24.

Patria: America septentrionalis. Specimen unicum vidi, in republica Texas captum, quod ill. SIMON mihi benevolentissime dedit, quod feminam iudico.

Remark: As ROEWER (1913, p. 437; Weberkn. p. 575) has described a species closely related to this, but not identical, under the name of *Parastynnellus simplex*, the editor has altered the name of the present species to *S. simonis*.

*Stygnus aggerum* n. sp.

*Stygnus aggerum* Sørensen in manuscr.

*Stygnellus ferrugineus* Roewer, 1913, p. 435 (nec PERTY).

*Stygnellus ferrugineus* Roewer, Weberkn. d. Erde, 1923, p. 574.

5,5 mm longus, castaneus spinis partim fulvo-testaceis; præter grana adsunt eminentiæ majores binæ: areæ quartæ processus; limbus posterior granis binis majoribus et segmenta dorsalia libera processulis binis; antennarum pars globosa articuli primi granis acutis; palporum pars tibialis spinis utrinque quinque armata. Articuli tarsales 6, 9, 6, 7. Processus terminalis unguiculis paulo brevior.

Tumuli oculiferi parvi læves, æque longe a margine exteriore quam a linea

media corporis separati; a margine anteriore scuti duplo latius quam a sulco transverso primo remoti. Tuber interoculare humiliter conicum, duplo latius quam altius granis parvis parce ornatum; processus a tubere ipso manifeste limitatus, leviter proclivis, procerus conicus obtusus, ipso tubere paullo altior, cujus basis paullo ante marginem anteriorem oculorum sita est.

Scutum ante marginatum, sat alte convexum, in lateribus levissime arcuatum. Sulci transversi primus et quartus profundi, manifeste procurvi, secundus leviter recurvus. Limbus anterior antennis emarginatus, discretus, ordine granulorum sat densorum lateraliter ornatum. Limbus lateralis angustus ordine sat manifesto, ante anteriore, granorum parvorum, ante densorum. Emissarium liquoris foetidi angustum. Areae I laevis, fossula posteriore in mare quam in femina majore, ceterae irregulariter parce rugosae, granis haud parce armatae, quorum aliquot ordines singulos formantia, paullo tamen manifesto, praesertim in area tertia, ceteris majora. Processus areae IV leviter divergentes, fortiter reclines, vix recurvi, subacuti, paullo longiores quam tuber interoculare et processus ejus conjuncta, distantia interapicali in femina duplo, in mare paullo breviores; pars basilaris leviter dilatata granis parvis ornata. Limbus posterior et segmenta dorsalia libera tria anteriora ordine singulo granorum densorum vicissim majorum et parvorum, quorum duo limbi posterioris ceteris majora; segmenta tria anteriora processulis binis (interdum trinis) conicis subacutis. Segmentum anale dorsale granis inaequalibus dispersis. Coxae et ventrale primum granis dispersis sat densis; anale ordinibus duobus, limbus posterior ventralis primi et ventralia cetera ordinibus singulis granorum parvorum densorum.

Antennarum robustarum pars subglobosa articuli primi granis acutis tribus posterioribus supra praedita. Articulus secundus supra articulum basalem vix conice elevatus.

Palporum pars trochanterica brevis spinis parvulis inferioribus duabus et tuberculo procurvo superiore. Pars femoralis femore I paullo tenuior, versus apicem subito leviter arcuata. Pars patellaris parte tibiali non dimidio longior, clavata. Pars tibialis spinis proceris utrinque quinque (interior tertia vulgo brevior in specimine uno deest), quarum longissimae quartae diametro articuli dimidio longiores. Pars tarsalis parte tibiali manifeste brevior, spinis exterioribus quatuor et interioribus quinque, quarum primae et interior tertiae procerae, ceteris robustioribus duplo longiores. Unguis procerus parti tarsali subaequalis.

Pedes haud robusti. Coxae IV (maris et feminae) processulo exteriori apicali acuto bigemino (i. e. in basi cum tuberculo inferiore confluyente). Trochanteres IV (maris et feminae) processulis parvis apicalibus superiore et interiore et minore exteriori. Femora I—II subrecta, III et IV arcuata; femora omnia et patellae et tibiae granulis ubique, III—IV feminae ordine inferiore granorum acutorum, II, III, IV processulis parvis apicalibus dorsalibus binis, II perparvis obtusis, III et IV acutis. Calcanei I astragalo plus quam duplo brevior, II paullo longior quam crassior, III et IV aequae crassi atque longi. Articuli tarsales: 6, 9—10, 6, 7. Processus terminalis unguiculis paullo brevior et vix tenuior. Scopula tenuis, pili vix dilatati.

Differentia sexualis haud magna. Eminentiae scuti maris paullo robustiores quam feminae. Antennae maris quam feminae robustiores, articulus secundus in mare quam in femina alteriore elevatus, pars chelata maris leviter compressa; digiti maris in basi leviter hiantes, mobilis sat inclinatis. Femora III et IV in mare robustiores quam in femina, in mare ordinibus inferioribus binis, III tuberculorum, IV processulorum apicem versus majorum, acutorum serrata. Patella IV maris processulorum acutorum corona apicali, tibia IV maris processulis apicalibus inferioribus duobus.

Castaneus, apices processuum areae IV et processus interocularis et processulorum segmentorum liberorum fulvo-testacei. Pedes corpore paullo dilutiores; tarsi II nigricantes, ceteri fusco-testacei; antennae et palpi sordide fulvo-testacei. Tuber interoculare punctulis dilutis densis (granulis), quae in animale sicco non visa sunt.

Long. corp. ♀ 5,2; long. scut. 4,5, lat. scut. 4,2; palpi 7; pedes I 10, II 17,5, III 13, IV 18,5.

Long. corp. ♂ 4,5; long. scut. 4, lat. scut. 3,6; palpi 6,5; pedes I 9,5, II 17, III 13, IV 16,5.

Variatio: Spina interior tertia partis tibialis in specimine uno deest.

Patria: Venezuela. Animalia quatuor (feminas tres et marem unum) vidi, a Dr. F. MEINERT ad Las Trincheras mense Novembre 1891 capta, et in Museo zool. Hafniense asservata.

Remark: This species is identical with a species from Guyana, which ROEWER mentions under the name of *St. ferrugineus* Perty. ROEWER certainly did not find any scopula in his material, but as the scopula is only slightly developed in SØRENSEN'S specimens, I do not believe — as said above — that this difference is a real one. Otherwise the species agree perfectly. On the other hand, it is questionable if this species is really identical with *ferrugineus* Perty. This latter was redescribed by C. L. KOCH (Arachn. V. 7, p. 26—28, fig. 550), who among others things remarks: "Kopf, Vorder-, Mittel- und Hinterthorax durch tiefe Furchenrinnen getrennt", "auf dem Hinterthorax zwei kurze... spitze Dorne" and (about pars tibialis) "das vierte [Glieder] kurz und dick, ziemlich gleichdick" — which characters do not quite agree with the present species. KOCH'S description is rather insufficient for identifying the species, and therefore SØRENSEN and ROEWER — none of whom has seen either PERTY'S or KOCH'S specimens — do not agree in their interpretation. ROEWER regards the present species as identical with *ferrugineus* Koch, while SØRENSEN, basing on the above-mentioned quotations from KOCH, thinks that it is not the same species, though, however, it is a near relative of it.

#### Ideostygnus n. gen.

Tuber oculiferum commune non adest; oculi inter se late disjuncti, uterque suo tumulo impositus; pars media areae inter oculos posita, convexa, ante rotundata declivis eminentiis majoribus destituta.

Scutum dorsale sulcis transversis quatuor divisum, quorum anteriores duo in medio confluunt. Scutum rectangulum ultra apices coxarum IV prominens; area I sat alte convexa.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita.

Pars maxillaris tubere superiore basali granulato prædita; supra partem palpi-geram porrectam conicam granis inferioribus præditam tubercula basalia duo adsunt.

Palpi corpore multo longiores; partes femoralis et patellaris teretes, graciles, inermes; pars patellaris clavata parte tibiali longior; pars tibialis robusta compressa, in basi crassior; pars tarsalis parte tibiali brevior, compresso-fusififormis, præter spinas ordinibus inferioribus duobus sibi propinquis setarum gracilium armata, unguem adductum excipientibus.

Coxæ IV non dilatatae inermes.

Scopula densa, pili vix spathulati.

Unguiculi III et IV sat late divergentes, fortiter incurvi, integri.

Differentia sexualis structura antennarum et armatura femorum IV demonstratur.

*Ideostygnus lævis* n. sp.

6,5 mm longus, rubro-cinnamomeus; præter granula adsunt eminentiæ majores binæ: areæ quartæ processus, areæ primæ grana; antennarum pars subglobosa articuli primi lævis; palporum pars tibialis spinis exterioribus sex et interioribus quinque armata. Articuli tarsales 7—8, 18, 6, 7. Processus terminalis unguiculis suo dimidio brevior.

Tumuli oculiferi parvi, rotundate conici, læves, a linea media corporis plus quam dimidio latius quam a margine laterali scuti separati, plus quam dimidio longius a margine anteriore scuti quam a sulco transverso primo disjuncti.

Scutum: area prima altior quam quarta. Limbus anterior latus versus discretus et hic granulis paucis. Limbus lateralis sat latus, carina submedia præditus, usque ad sulcum transversum secundum ordine granorum remotorum parvorum, deinde lævis et hic et ibi punctis impressis ornatus. Orificia glandularum foetidarum parva oblique angusta, orificia viarum urinarium parva conspicua. Area prima lineola impressa transversa, in medio interrupta, inter oculos posita; in mare lineis impressis duabus, quarum anterior recurva non interrupta; area prima granis paucis parvis, quorum ambo anteriora majora, secunda granulis pusillis ambobus (in femina grana minora sunt, granula ambo areæ secundæ desunt). Area quarta processibus proceris, peracutis, suberectis, spatio interapicali æqualibus. Dorsum ceterum et venter lævia. Coxæ ordinibus granorum ornatae quæ in coxa I partim conica sunt.

Antennarum articulus primus granis inferioribus tribus infra ornatus, ceterum lævis. Articulus secundus supra articulum basalem elevatus, pars elevata subconica, rotundata, lævis nitida.

Palporum pars trochanterica tuberculis parvis inferioribus duobus. Pars femoralis femore I crassior, tuberculo inferiore basali simili munita, ceterum lævis, apicem versus crassior. Pars patellaris parte tibiali vix duplo longior. Pars tibialis spinis proceris exterioribus sex et interioribus quinque, quarum longissimæ primæ, diametro articuli aliquanto longiores, quibus secundæ, exterior quinta, interior quarta paullo breviores sunt; exterior quarta parvula. Pars tarsalis parti tibiali æqualis

spinis exterioribus quinque et interioribus sex, quorum primæ et interiores tertia et quinta ceteris longiores sunt. Unguis parte tarsali vix brevior.

Pedes longi graciles, læves (vide differentia sexualis). Femora I arcuatum, cetera recta, omnia eminentiis dorsalibus apicalibus destituta. Patella IV processulo inferiore apicali curvato (majore in mare quam in femina). Calcanei I astragalo plus quam duplo longior, II et III astragalo æqualis, IV astragalo triplo breviores. Articuli tarsales 7(♀—♂)—8(♂), 16(♂)—18—19(♀), 6, 7. Processus terminalis unguiculis sua dimidia brevior. Scopula densa e pilis mollibus rotundatis, vix spatulatis composita.

Differentia sexualis: Pars elevata antennarum articuli secundi maris parte cetera (usque ad articulationem articuli tertii) nec longior, nec tenuior, feminae manifesto tenuior et triplo brevior; maris digitus mobilis digito immobili, dente magno subbasali armato, multo longior et dente magno, apicem prope sito, armatus. Trochanter IV processulis dorsali medio et intero-inferioribus duobus, quorum vestigia in femina adsunt. Femur IV maris leviter incrassatum, ordinibus superiore et exteriore-inferiore granorum humilium rotundatorum præditum et ordine intero-inferiore leviter arcuato processulorum serratum, femur IV feminae cylindricum læve.

Nitide rubro-cinnamomeus, areæ I et IV saturatiores; antennæ maris subnigræ, palpi et pedes fulvo-testacei, fusco punctati; femur IV maris rubrum.

Long. corp. ♂ 6,5; long. scut. 5, lat. scut. 4,25; palpi 16; pedes I 20, II 36, III 28, IV 35.

Long. corp. ♀ 6; long. scut. 4,75, lat. scut. 4; palpi 17; pedes I 20, II 37, III 28, IV 36.

Variatio: Femur III maris unius processulo parvo, apice propinquo intero-inferiore armatus. Processuli dicti femoris IV maris unius subacuti et diametro articuli paullo breviores, duorum obtusi et diametro dicto multo breviores.

Patria: Brasilia. Mares tres et feminas duas, in Para in nidis Termitidarum arboricolorum captas vidi.

Remark: This genus and species has not been described by ROEWER. According to the description the genus seems to be related to *Fonteboatus* Roewer (ROEWER, Abh. nat. Ver. Bremen, XXVIII, p. 156), which, however, among other things lacks a scopula.

### **Stygnidius** Simon.

*Stygnidius* Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 223.

*Heterostygnus* + *Stygnidius* Roewer, Arch. f. Naturg. LXXIX, A 5, 1913, p. 445, 455.

*Heterostygnus* + *Stygnidius* Roewer, Weberkn. d. Erde, 1923, p. 577, 580.

Tuber oculiferum commune deest; oculi inter se late disjuncti, uterque suo tumulo impositus; inter tumulos eminentiæ (majores) desunt.

Scutum dorsale sulcis transversis quatuor divisum, sulci duo anteriores sulco longitudinali conjuncti. Scutum rectangulum, ultra apices coxarum IV paulum prominens. Area prima ceteris permulto major.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita.

Orificia glandularum foetidarum leviter tantum arcuata.

Mandibularum pars palpigera porrecta, robusta, breviter conica, tuberculis basalibus superioribus duobus et inferiore uno instructa.

Palpi corpore multo longiores, partes femoralis et patellaris teretes, graciles, inermes; pars patellaris clavata, parte tibiali longior; pars tibialis robusta, compressa, in basi crassior; pars tarsalis parte tibiali brevior, compresso-fusififormis, præter spinas ordinibus inferioribus ambobus sibi propinquis setarum armata, unguem adductum excipientibus.

Coxæ IV coxis III duplo latiores, eminentia exteriore apicali (sat) magna præditæ.

Unguiculi III et IV deplanati, marginibus acutis, (præsertim intus) pectinati.

Differentia sexualis magnitudine et structura antennarum (teste ill. SIMON) demonstratur.

*Stygnidius guérinii* n. sp.

*Stygnidius inflatus* Simon in schedula.

2,5 mm longus, flavo-rufescens; area quarta scuti processibus ambobus robustis, brevibus prædita; coxæ IV læves; antennarum pars incrassata articuli primi granulis superioribus acutis parce prædita; palporum pars tibialis spinis utrinque quinis armata; patellæ III femoribus multo crassiores. Articuli tarsales 6, 10—11, 6, 7. Processus terminalis sat brevis.

Tumuli oculiferi parvi læves. Oculi a linea media corporis fere duplo quam a margine exteriore separati; a margine anteriore scuti quadruplo longius quam a sulco transverso primo remoti.

Scutum sat convexum, erga coxas III non angustius. Sulci transversi primus leviter, ceteri vix arcuati. Limbus anterior discretus. Limbus lateralis sat angustus, ordine exteriore granorum sat densorum ornatus; emissaria liquoris foetidi latissima, pone semper latiora. Areæ prima granis et granulis dispersis, secunda, tertia et quarta granis paucis (quaternis) ornatae. Processus areæ quartæ breves robusti, conici, spatio interapicali triplo breviores. Limbus posterior scuti et margo posterior segmenti ventralis primi ordinibus singulis granorum densorum; segmenta dorsalia libera duo anteriora et segmenta ventralia ordinibus singulis granorum; segmentum anale et coxæ lævia.

Antennarum pars incrassata articuli primi granulis superioribus acutis parce prædita.

Mandibularum pars palpigera articulo primo antennarum (saltem in mare) manifeste brevior.

Palporum pars trochanterica brevis; pars femoralis æque longa et crassa ac femur I; pars tibialis parte patellari vix tertia parte brevior spinis utrinque quinis longis armata, quarum longissima, exterior quarta, diametro articuli triplo longior; pars tarsalis spinis exterioribus sex aut septem, secunda et quarta ceteris longioribus, et interioribus quinque aut sex, prima longissima et tertia ceteris longioribus. Unguis procerus, parti tarsali longitudine æqualis.

Pedes breviores, III et IV ceteris manifeste robustiores. Coxæ IV (in mare saltem) tuberculo parvo exteriori, trochanteres IV corona media granorum ornati. Femora arcuata, I, II, III leviter. Patellæ III femoribus multo crassiores. Astragali (spurii) I et II spurie articulati; calcanei I et II breviores, III et IV breves. Articuli tarsales: 6, 10—11, 6, 7. Processus terminalis unguiculis duabus partibus brevior. Unguiculi III et IV dentibus interioribus quinque longis pectinati. Scopula adest.

Differentia sexualis (femina mihi incognita): Maris antennæ validæ, articulus secundus supra articulationem basalem sat alte, rotundate cylindrice elevatus.

Unicolore flavo-rufescens, area prima scuti et pedes punctis (eminentiis parvulis) rufis ornata; antennæ et palpi dilutiora, nitida, tarsi leviter infuscati.

Long. corp. 2,5; long. scut. 2,25, lat. scut. 2; palpi 4,5; pedes I 7, II 13, III 8, IV 11.

Patria: Guyana. Specimen unicum, marem, vidi, mihi ab ill. E. SIMON benevolentissime datum, nunc in Museo zool. Hafniense asservatum.

Remark: The specimen upon which the above description of *St. guérinii* is based, was presented to Dr. SØRENSEN by E. SIMON under the label *Stygnidius inflatus* Sim., but this is due to a wrong determination of the specimen. The real *Stygnidius inflatus* Sim., which has been redescribed by ROEWER (see Weberkn. p. 580), is much bigger (5 mm), has much longer dorsal spines, a different armature of the proximal joints of pes IV and more than six tarsal joints in pes III. — *St. guérinii* is nearly related to ROEWER'S *Heterostygnus minutus* (Weberkn. p. 577) but it differs from this latter by the different armature of pes IV of the male.

### **Eutimesius** Roewer.

*Zmotus* Simon in schedula.

*Zmotus* Sørensen in manuscr.

*Eutimesius* Roewer, Arch. f. Naturg. LXXIX, A 5, 1913, p. 453.

*Eutimesius* Roewer, Weberkn. d. Erde, 1923, p. 579.

Tuber oculiferum commune non adest; oculi inter se late disjuncti, uterque suo tumulo impositus; inter (et ante) tumulos eminentia (major) unica, mutica adest.

Scutum dorsale sulcis transversis quinque<sup>1)</sup> divisum, sulci paullum arcuati, duo anteriores sulco longitudinali conjuncti. Scutum subrectangulum, ultra apices coxarum IV pone longe prominens.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita (quæ eminentiæ speciei solius mihi cognitæ sibi contiguæ eminentia unica esse prope videntur.

Orificia glandularum foetidarum sat longa, angusta, sublibrata.

Supra partem palpigeram mandibularum porrectam robustam, breviter conicam adest tuberculum exterius rotundatum.

<sup>1)</sup> Sulci quarti procurvi media pars sola sat manifesta, pars cetera obsoleta. Sulci ceteri profundi. Itaque sulcus quartus oculum facile effugit.



Palpi corpore multo longiores; partes femoralis et patellaris teretes, graciles, inermes; pars patellaris clavata, parte tibiali longior; pars tibialis robusta, compressa, in basi crassior; pars tarsalis parte tibiali brevior, compresso-fusififormis, præter spinas ordinibus inferioribus ambobus sibi propinquis setarum armata, unguem adductum excipientibus.

Pedes longissimi graciles, coxæ IV coxis III dimidio latiores, (saltem feminæ) sine eminentiis mentione dignis.

Unguiculi III et IV marginibus acutis, deplanati, (præsertim intus) pectinati. Differentia sexualis in armatura pedum III et præsertim IV adest.

Remark: The diagnosis above is that given by SØRENSEN for the genus *Zmotus*, then new to science. There is no doubt that *Zmotus* is really identical with *Eutimesius* Roewer (described 1913).

*Eutimesius miles* n. sp.

*Zmotus miles* Simon in schedula.

*Zmôtus miles* Sørensen in manuscr.

4,5 mm longus, læte dilute cinnamomeus, lineis et parvis maculis niveis ornatus; eminentia interocularis est tuber; area quarta scuti dorsalis processibus ambobus longis, sibi contiguis prædita; palporum pars tibialis spinis utrinque quinis armata; unguis parte tarsali haud paullo brevior; femora recta, III et IV processulis apicalibus singulis prædita. Articuli tarsales: 7, 17—22, 9, 11—12; processus terminalis unguiculis plus quam dimidio brevior.

Tumuli oculiferi prominentes, quamquam parvi, læves. Oculi a linea media corporis paullo longius quam a margine exteriori scuti separati, a margine anteriore scuti duplo longius quam a sulco transverso primo remoti. Eminentia interocularis, erga marginem anteriorem oculorum posita, est tuber paullum, transversum, late conicum, rotundatum, duplo latius quam altius, granis humilibus instructum.

Scutum convexum, erga coxas III non angustius, pone paullulo dilatatum. Limbus anterior discretus, leviter tumidus, lævis, angulis rotundatis. Limbus lateralis sat angustus, ordine exteriori granulorum parvorum remotorum ornatus; emissarium liquoris foetidi latissimum, pone latius. Areæ prima lævis, secunda et tertia granis binis. Processus areæ quartæ longissimi, proceri, per totam longitudinem sibi contigui, aliquantum reclines, in basi granis ornati, sulco quarto contigui. Limbus posterior scuti et segmenta dorsalia libera duo anteriora ordinibus singulis granulorum; segmenta ventralia quinque anteriora ordinibus singulis, anale ventrale ordinibus duobus granulorum parvorum ornata. Coxæ granis scabræ.

Spiracula magna.

Antennarum robustarum pars subglobosa articuli primi granulo posteriore ornata.

Palporum pars trochanterica brevis; pars femoralis femore I crassior, recta; pars patellaris parte tibiali paullo longior, recta; pars tibialis spinis utrinque quinis, quarum longissimæ diametro articuli duplo longiores; pars tarsalis spinis utrinque septenis. Unguis procerus parte tarsali haud paullo brevior.

Pedes graciles. Trochanteres spurii III haud manifesti. Femora recta, III et IV granis manifestis et singulis processibus apicalibus praedita. Astragali (spurii) spurie articulati, I calcaneo subaequalis, II calcaneo dimidio, III duplo, IV triplo longiores. Fines astragalorum et calcaneorum I et II haud faciles visu. Articuli tarsales: 7(—8), 17—22, 9(—11), 11—12 (in specimine altero articuli IV alterius pedis 3: regenerati). Processus terminalis robustus, unguiculis plus quam dimidio brevior. Unguiculi III et IV dentibus interioribus quinque robustis longis pectinati.

Differentia sexualis? (mare adhuc incognito).

Læte dilute cinnamomeus, lineis (vel vittis angustis) et maculis parvis niveis notatus: limbus anterior scuti linea transversa in medio interrupta; area quinta linea procurva; tumuli oculiferi orbiculo intus aperto cincti; area secunda maculis ambabus parvis, sibi propinquis; limbi laterales maculis oblongis trinis; segmentum dorsale tertium linea una et segmentum anale ventrale lineis ambabus. Venter obscurior; antennæ, palpi, pedes I et II dilutiora, fere flavescientia.

Long. corp. 4,5; long. scut. 4, lat. scut. 3,5; palpi 10; pedes I 18, II 41, III 27, IV 37. (Processus areæ quartæ 2,5).

Patria: America septentrionalis. Specimina duo, feminas (alterius ovipositore protruso) vidi, in republica Texas collecta, quæ ill. SIMON mihi benevolentissime dedit et nunc in Museo zool. Hafniensi asservata sunt.

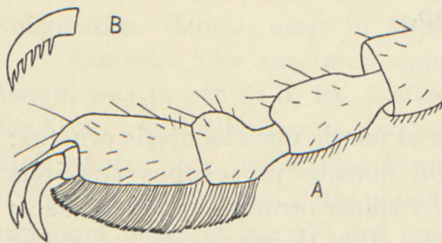


Fig. 10. *Eutimesius miles* n. sp.  
A Tarsi IV apex. B Unguiculus tarsi IV  
a latere mediali inspecta. (W. Sør. del.)

Remarks: This species from Texas is closely related to ROEWER'S *E. simonis*, which latter was caught in Bresil (Amazonas). As the interocular tubercle of *simonis* is higher than broad (not broader than high) and as the granulation of this tubercle, of the scutum (including the coalesced spines) and of the free abdominal somites is much better developed in *simonis* than in the present form, I think that they are different species. It may also be mentioned that the claw of the tarsal part is distinctly shorter than the joint itself in the present species, but distinctly longer in *simonis*.

The regenerated left pes IV consists of two rather long proximal joints of almost equal length, and of a much shorter terminal one without terminal process, but with scopula and a single very short and clumsy pectinate claw.

### Stygnoplus Simon.

*Stygnus* p. p. C. L. Koch, Uebers. d. Arachnidensyst. fasc. II, 1839, p. 11.

*Stygnoplus* Simon, Ann. Soc. Ent. Belg., 1879, p. 222.

*Stenostygnellus* + *Stygnoplus* Roewer, Arch. f. Naturg. LXXIX A 4/5, 1913, p. 165, 448.

*Stenostygnellus* + *Stygnoplus* Roewer, Weberkn. d. Erde, 1923, p. 460, 578.

Tuber oculiferum commune non adest; oculi inter se late disjuncti, uterque suo tumulo impositus; inter (et ante) tumulos adest tuber eminentia unica instructum.

Scutum dorsale rectangulum, ultra apices coxarum IV longe prominens, sulcis transversis quinque divisum, quorum primus (fortiter) et quartus et quintus procurvi, tertius subrectus, secundus bipartitus, utraque parte per se sulcum primum attingente.

Area quarta eminentiis majoribus ambabus instructa.

Orificia glandularum foetidarum parva, angusta.

Pars palpigera mandibularum producta, breviter conica, undique sat dense granulata, eminentiis majoribus destituta.

Palpi corpore multo longiores; partes femoralis armata et patellaris inermis teretes, graciles; pars patellaris clavata, parte tibiali non longior; partes tibialis, in basi crassior, et tarsalis robustæ, non compressæ; pars tarsalis parte tibiali brevior, ordinibus inferioribus spinularum destituta.

Coxæ IV coxis III dimidio latiores.

Pedes breviores, I et II graciles, III et IV plus minusve robusti.

Unguiculi III et IV intus modo pectinati, late divergentes.

Differentia sexualis magnitudine antennarum et crassitudine (et armatura) femorum, patellarum, tibiaram (nec autem coxarum) III et IV demonstratur.

Remark: The present genus includes the two Roewerian genera *Stygnoplus* and *Stenostygnellus*. The latter includes but one species, viz. *flavolimbatus* Roewer, which together with the new species *marginalis* (described below) will form a natural group, possibly with generic range (*Stenostygnellus*).

*Conspectus specierum hic descriptarum.*

1. Palporum pars femoralis ordine inferiore processulorum parvorum armata; coxæ IV muticæ:
  - A. Cinnamomeus..... *forcipatus* C. L. Koch.
  - B. Nitide fusco-castaneus ..... *meinerti* n. sp.
2. Palporum pars femoralis tuberculo inferiore basali munita; coxæ IV processulo instructæ ..... *marginalis* n. sp.

***Stygnoplus forcipatus* C. L. Koch.**

*Stygnus forcipatus* C. L. Koch, Arachniden XII, 1848, p. 19.

*Stygnoplus forcipatus* Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 222.

*Stygnoplus forcipatus* Roewer, Weberkn. d. Erde, 1923, p. 579.

5,5 mm longus, cinnamomeus, processus tuberis interocularis sublævis altitudine ipsi tuberi subæqualis; sulcus quartus debilis; limbus anterior tuberculis suberectis ambobus; area quarta processibus ambobus, reclinibus, longis acutis; palporum pars femoralis femore III paullo tenuior, ordine inferiore processulorum parvorum armata, pars tibialis spinis utrinque quinis. Coxæ IV muticæ; femora II processulis parvis apicalibus singulis, III et IV binis; calcaneus I astragalo æqualis; articuli tarsales 6, 17, 7, 8.

Tumuli oculiferi sat magni, conici, læves, a linea media corporis dimidio fere

longius quam a margine laterali scuti separati, a sulco transverso primo paullulum (non diametro sua) remoti, a margine anteriore scuti longe recessi. Tuber interoculare subconicum, latius quam altius, ante oculos positum, sublæve; processus ab ipso tubere manifesto limitatus, suberectus, rectus, altitudine tuberi subæqualis, conicus, subacutus.

Scutum sat alte convexum, ante leviter emarginatum, angulis anterioribus rotundatis. Sulcus quartus debilis. Limbus anterior discretus, sat tumidus, tuberculis ambobus, suberectis, conicis, obtusis, supra suum palpum positus. Limbus lateralis granulis parvis paucis ornatus. Emissarium liquoris foetidi latum, pone semper latius. Area prima granulis paucis dispersis, ceteræ ordinibus singulis granorum rotundorum paucorum præditæ. Processus areæ quartæ divergentes, reclines, in basi dilatati, ceterum proceri conici, acuti, longi, spatio interapicali pæne æquales. Limbus posterior scuti et segmenta dorsalia tria anteriora ordinibus singulis granorum minorum paucorum; anale dorsale impressione transversa præditum, ceterum læve. Coxæ et ventrale primum granis dispersis sat densis, anale ordinibus duobus, cetera ventralia ordinibus singulis granulorum.

Antennarum pars globosa articuli primi granis exterioribus parvis prædita, ceterum lævis.

Palporum pars trochanterica brevis processulo superiore uno et tuberculis inferioribus duobus munita. Pars femoralis subrecta, apicem versus manifesto incrassata, deinde iterum angustata, femore II manifesto crassior, femore III paullo tenuior, granulis undique ornata et ordine inferiore processulorum parvorum (s. tuberculorum) armata conicorum, obtusorum, circiter octo, apicem articuli versus majorum. Pars tibialis quam pars patellaris subrecta vix longior, spinis utrinque quinque haud multum inæqualibus, quarum longiores diametro articuli æquales. Pars tarsalis spinis exterioribus octo et interioribus sex armata, quarum utrinque binæ ceteris robustis duplo longiores. Unguis procerus, parte tarsali paullo brevior.

Pedes I quam II manifesto graciliores, III et IV sat robusti. Coxæ IV muticæ. Trochanteres III et IV tuberculis conicis præditi, quorum apicalia trochanteris IV ceteris majora. Femora II subrecta, cetera leviter arcuata, granulis ubique prædita, II processulis parvis apicalibus porrectis singulis posterioribus, III et IV binis, quorum posterior major. Calcanei I æque longus ac astragalus; II et III articulo tarsali primo manifeste, IV vix longiores. Articuli tarsales (modo in mare uno enumerati): 6, 17, 7, 8. Processus terminalis unguiculis duplo brevior. Dentes unguiculorum quinque longi, acuti, sensim longiores.

Differentia sexualis: Mas quam femina major. Scutum feminae rectangulum, maris pone coxas III paullulo angustius, in lateribus levissime arcuatus. Antennarum articulus secundus feminae geniculate elevatus, maris valde inflatus; pars elevata vix compressa, rotundata, nitida, præsertim ante impresse punctata, ceterum lævis, parte cetera manifesto brevior. Digni forcipis maris in basi hiantes, mobilis quam immobilis paullo longior, dentibus magnis duobus armatus. Processuli inferiores partis femoralis palporum maris quam feminae majores. Femora III et IV feminae ordinibus inferioribus

granorum, maris (præsertim IV) incrassata, ordinibus inferioribus binis eminentiarum robustarum, conicarum, leviter curvarum serrata, sensim longiorum, quarum ultiores sunt processuli acuti; quæ eminentiæ in femore III remotæ, in femore IV densæ et majores, præter quas femora IV ordine superiore submedio tuberculorum similium prædita sunt. Patellæ IV maris ordine superiore tuberculorum et processulis robustis apicalibus tribus. Tibiæ IV maris subfusiformes, ordinibus inferioribus duobus et superiore uno, ultra medium positæ, processulorum conicorum, curvorum, acutorum, quorum superiores majores.

Cinnamomeus; limbus posterior cinnamomeo-luteus; segmenta dorsalia omnia luteo marginata. Antennæ olivaceo-testaceæ, digitis rufis; palpi olivaceo-testacei, nigropunctati; pedes obscure olivaceo-rufo-testacei; femora et tibiæ IV maris cinnamomea.


Long. corp. 5,5; long. scut. 4,75, lat. scut. 4,5; palpi 11; pedes I 13, II 25, III 18, IV 23.

Patria: Columbia. Exempla siccata quatuor, tres mares et feminam unam, in Museo Berolinensi vidi — quæ, quamquam "*Stygnus inflatus* Gerv." nominata, tamen exempla typica a C. L. KOCH descripta, esse judico.

#### *Stygnoplus meinerti* n. sp.

6,5 mm longus, nitide fusco-castaneus, processus tuberis interocularis granulatus, ipso tubere altior; sulcus quartus ceteris debilior; limbus anterior tuberculis suberectis duobus vel tribus; area quarta processibus ambobus reclinibus, longis acutis; palporum pars femoralis femore III in femina tenuior, in mare crassior, ordine inferiore processulorum parvorum armata; pars tibialis spinis utrinque quinis. Coxæ IV submuticæ; femora II processulis apicalibus singulis, III et IV binis; calcaneus I astragalo paullo brevior; articuli tarsales 6, 15—16, 7, 8.

Tumuli oculiferi sat magni, conici, læves, a linea media corporis dimidio fere longius quam a margine laterali scuti separati, a sulco transverso primo paullulum (non diametro sua) remoti, a margine anteriore scuti longe recessi. Tuber interoculare ante tumulos positum, subconicum, latius quam altius, dense granulatum, processus ab ipso tubere manifeste limitatus, leviter, manifesto tamen, proclivis, rectus, ipso tubere altior, conicus acutus.

Scutum sat convexum, ante et pone sensim paullo angustius quam adversus coxas IV, angulis vix rotundatis. Sulcus quartus non tam latus et profundus quam ceteri, -formis (♂ obsoletus). Limbus anterior antennis emarginatus, discretus, sat tumidus, præter grana remota pauca tuberculis utrinque duobus vel tribus suberectis, subconicis, obtusis, supra palpos positæ; pars media dense subtilissime granulata. Limbus lateralis haud latus ordine exteriori granorum, in mare parvorum, ante sat densorum et fossulis interioribus paucis ornatus. Emissarium liquoris foetidi sat latum pone sensim latius. Areæ leviter rugosæ, I impressionibus lunatis ambabus transversis ante suum tumulum oculiferum positæ, in mare levibus; II, III, IV, V ordine singulo in medio late interrupto granorum sat magnorum in femina, haud magnorum in mare, rotundatorum; in area II utrinque 2—3, in area III

utrinque 3—4, in IV 2—3, in area V paullo minoribus 4—5. Processus areae IV divergentes, in femina fortiter reclines, conici, in basi vix manifesto dilatati, proceri acuti, longi, spatio interspinali ♀ paullo, in mare manifesto breviores. Limbus posterior et segmenta dorsalia libera omnia ordine singulo granorum minorum (in mare granulorum) haud densorum. Coxæ et ventrale primum granis sat magnis dispersis, sat densis; anale ventrale ordinibus duobus; margo posterior segmenti primi et cetera ventralia ordine singulo granorum parvorum densorum.

Antennarum robustarum pars incrassata granis exterioribus parvis, paucis, acutis prædita. Articulus secundus geniculate elevatus, granulis planis anterioribus armatus.

Palporum pars trochanterica brevis, processulo superiore uno et spinis inferioribus duabus, quarum pars apicalis est seta. Pars femoralis subrecta, apicem versus manifesto incrassata, deinde iterum angustata, femore II manifesto crassior, femore III tenuior in femina (in mare crassior), ubique granulosa (granulis ♀, granis ♂), et ordine inferiore processulorum parvorum (i. e. tuberculorum) armata, subconicorum, obtusorum, sex aut septem in femina, decem in mare, quorum apicalia paullo majora. Pars tibialis parte patellari subrecta paullo, sed manifesto longior, spinis utrinque quinis haud multum inæqualibus armata, quarum longiores diametro articuli subæquales. Pars tarsalis spinis exterioribus (7—)8, et interioribus 6, quarum binæ ceteris robustis duplo longiores. Unguis procerus, parte tarsali paullo brevior. Pars tarsalis vittis inferioribus duobus spinularum armata, spinulæ inferiores partis tarsalis perpusillæ, oculum facile effugiunt; pars tibialis similibus dispersis.

Pedes I quam II manifesto graciliores, III et IV sat robusti, coxæ IV (♂—♀) submuticæ (i. e. grano magno exteriore subapicali). Trochanter IV (♂—♀) processulo superiore subapicali et parvo interiore apicali rectis, conicis, acutis. Femora II—III recta, I et IV leviter arcuata, ubique granulata, processulis apicalibus dorsalibus parvulis, acutis, II unico (posteriore), III et IV binis (posterioribus majoribus). Calcaneus I astragalo paullo brevior, II—III astragalo subæquales, IV duplo fere brevior. Processus terminalis brevis, curvus, unguiculis duplo brevior, iisque crassitudine subæquales. Articuli tarsales 6, 15—16 (♀ pes unus), 7, 8. Scopula densa adest.

Differentia sexualis: Antennarum articulus secundus maris elevatus; pars elevata (desuper visa) trilateralis, ante dense impresse punctata; digiti in basi leviter hiantes, mobilis leviter inclinatis. Femur IV maris ordine exteriore processulorum acutorum, densorum, apicem versus majorum, infra serratum. Patella IV corona apicali processulorum trium. Tibia IV apicem versus ordinibus inferioribus duobus processulorum parvorum acutorum serrata.

Nitide fusco-castaneus; apices processus interocularis et processus areae quartæ dilutiores (fulvo-testacei); pedes fulvo-testacei, nebulose nigro punctati; tarsi II nigricantes, ceteri partim infuscati. Antennæ et palpi testaceæ; pars femoralis nebulose nigro annulata. Tuber interoculare punctis dilutis (granulis) ornatum densis.

Long. corp. 4,6; long. scut. 4,5, lat. scut. 4,1; palpi 11; pedes I 11,5, II, 25,5, III 18, IV 23.

Patria: Venezuela. Specimina duo vidi, marem unum ad St. Estéban, et feminam unam ad Las Trincheras mense novembre 1891 a FR. MEINERT capta et in Museo zool. Hafniensi asservata.

Remark: This species is closely related to *St. forcipatus*.

*Stygnoplus marginalis* n. sp.

5,5—6,5 mm longus, brunneo-rufus, parte posteriore limborum lateralium linea marginali lutea notata, in maculam pone dilatata; tuber interoculare processulo et granis deplanatis instructum; limbus anterior processulis suberectis ambobus; area quarta processibus ambobus, fortiter reclinibus, longis; sulcus transversus quartus acutus; palporum pars femoralis tuberculo inferiore basali armata; pars tibialis parte patellari vix longior; coxæ IV processulo instructæ; femora II processulis apicalibus singulis, III et IV binis; calcaneus I astragalo duplo longior; articuli tarsales 7, 16, 8, 9.

Tumuli oculiferi parvuli, humiliter conici, læves, a linea media corporis haud multo longius quam a margine exteriori scuti separati, a sulco transverso paullum (vix longius quam diametrum suam) remoti, a margine anteriore scuti longe recessi. Tuber interoculare, ante oculos positum, magnum, conicum, granis deplanatis densis præditum. Processulus apicalis, ab ipso tubere manifesto limitatus, rectus, suberectus, procerus, subobtusus, altitudine ipsius tuberis duplo fere brevior.

Scutum convexum, præsertim pone; adversus coxas III et IV vix angustius. Limbus anterior discretus, processulis ambobus præditus, supra palpos positus, suberectis, conicis, processulo coxæ IV brevioribus. Limbus lateralis granulis parvulis dispersis. Emissarium liquoris foetidi latum. Areæ granis parvis et granulis dispersis. Processus areæ quartæ fortiter reclines, vix divergentes, primum late, deinde procere conici, acuti, spatio interapicali longiores. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum magnorum; anale dorsale granulis paucis dispersis; anale ventrale granulis densis dispersis; coxæ et ventrale primum granis et granulis, ventralia cetera ordinibus singulis granulorum.

Antennarum pars subglobosa articuli primi eminentiis posterioribus supra ornata, articulus secundus supra elevationem basalem elevatus.

Palporum pars trochanterica brevis, tuberculis inferiore et majore superiore munita. Pars femoralis recta, apicem versus sensim paullo crassior, femore II crassior, tuberculo inferiore basali armata, intus inermis. Pars tibialis parte patellari subrecta vix longior, spinis proceris, haud multum inæqualibus, exterioribus sex (aut septem, quum apicalis parvula advenit) et interioribus quinque. Pars tarsalis spinis inæqualibus, exterioribus (sex aut) septem et interioribus sex. Unguis procerus, parte tarsali paullo brevior.

Pedes I quam II manifesto brevior, III et IV perrobusti. Coxæ IV in utroque sexu processulo exteriori apicali procero, recto, obtuso. Trochanteres IV (præter grana) in utroque sexu processulo superiore et tuberculo inferiore, apicalibus, proceris, acutis. Trochanteres spurii I et II manifesti, III et IV obsoleti. Femora I leviter, II vix, III

et IV manifeste arcuata, II processulis apicalibus dorsalibus singulis (posterioribus), III et IV binis, quorum posterior major; I et II granulis, III et IV et tibia IV præter grana ordinibus inferioribus binis eminentiarum majorum, apicem articuli versus majorum. Metatarsi III et IV in utroque sexu tibiis multo tenuiores. Calcanei I astragalo saltem duplo longior, II astragalo subæqualis, III astragalo paullo brevior, IV articulo tarsali primo brevior. Articuli tarsales 7, (15—)16(—17), 8, 9. Processus terminalis unguiculis non duplo brevior. Dentes (interiores) unguiculorum III quinque et IV sex, proceri, teretes, acuti.

Differentia sexualis: Mas quam femina major. Antennarum maris validarum pars subglobosa articuli primi tuberculo exteriori apicali, magno, humili, rotundato. Articulus secundus feminæ levius elevatus, granis et granulis setiferis ante præditus, maris validus, inflatus, nitidus, præsertim ante impresse punctatus (ceterum lævis), cujus pars elevata, rotundata, vix compressa, parte altera paullo brevior. Digni maris in basi hiantes, mobilis quam immobilis plus quam dimidio longior, fortiter inclinatus. Femora, patellæ, tibiæ III et IV maris valde incrassata, eminentiis majoribus quam in femina prædita, dum feminæ eminentiarum inferiorum ultimæ modo dicendæ sunt majores (processuli). Tibiæ III maris (neque feminæ) ordinibus inferioribus binis eminentiarum majorum præditæ.

Brunneo-rufus; sulci fusciores. Pars posterior limborum lateralium linea marginali lutea notata, in maculam pone dilatata.

Long. corp. ♀ 5,5 (♂ 6,5); long. scut. ♀ 4,75 (♂ 5,75), lat. scut. ♀ 3,75 (♂ 5); palpi ♀ 9,5 (♂ 11); pedes I ♀ 11, II ♀ 19, III ♀ 14 (♂ 16), IV ♀ 18 (♂ 20). Antennarum articulus secundus ♂ 5,75 longus, 3,5 crassus.

Patria: Columbia. Specimina quatuor vidi, marem unum et feminas duas (quorum patria incerta) in Museo Dresdenio asservata, marem siccatum in Museo Berolinense.

Remark: This species is nearly related to *Stenostygnellus flavolimbatus* Roewer (Weberkn. p. 460) but differs by the colour, by the armature of pars trochanterica and pes IV.

#### Nomoclastes n. gen.

Tuber oculiferum commune non adest; oculi inter se sat longe disjuncti, uterque suo tumulo impositus; inter tumulos sua crista eminentiarum ornatos eminentiæ majores desunt.

Scutum dorsale subrectangulum, sulcis transversis quinque divisum; sulcus primus valde procurvus sulco secundo parte sua media fere contiguus. Scutum ultra apices coxarum IV pone longe prominens. Area prima parte cetera scuti paullo brevior.

Area quarta scuti dorsalis eminentiis majoribus ambabus instructa.

Neque supra nec infra partem palpigeram mandibularum vix discretam, non productam, adsunt eminentiæ majores.

Palpi sat robusti, corpore breviores, partes femoralis (paillum) compressa, eminentiis armata, et patellaris (modo *Gonyleptis*) curvata, robustæ, sat breves; partes



tibialis, parte patellari longior; et tarsalis sat depressa oblique positæ, ita ut adductæ partem femoralem margine exteriori attingant.

Coxæ IV coxis III dimidio latiores, (saltem feminæ) sine eminentiis mentione dignis.

Articulus tarsalis ultimus III et IV in apice excavatus, quia apex plantæ alte bilobatus est. Scopula articuli tarsalis pænultimi III et IV sat rara, articuli tarsalis ultimi densissima.

Unguiculi III et IV magni, incurvi, integri.


Differentia sexualis incognita.

Remark: This genus shows similarity in some features to *Protimesius* Roewer (Weberkn. p. 575), but it differs from this latter e. g. in the well developed scopula, shorter palps, and 6 joints in the 1st leg.

#### *Nomoclastes tædifer* n. sp.

3,5 mm longus, læte rufo-testaceus; tumuli oculiferi crista granorum paucorum præditi; limbus lateralis ordine submedio granorum et carinula exteriori ornatus; area quarta tuberculis ambobus humilibus; segmentum dorsale liberum tertium processibus ambobus; antennarum articulus primus tuberculis inferioribus duobus; pars femoralis palporum intus inermis. Pedes breves; femora arcuata, III et IV processulis apicalibus singulis prædita. Articuli tarsales 6, ?, 6, 7; processus terminalis unguiculis duabus partibus brevior.

Tumuli oculiferi humiles, rotundati, granis paucis ornati, cristam haud justam formantibus. Oculi duplo brevius inter sese quam a margine exteriori scuti separati; a margine anteriore scuti late, a sulco transverso primo tamen latius remoti.

Scutum convexum, erga coxas III et IV vix sinuatum, pone sensim manifeste latius. Sulci transversi manifesti, primus valde procurvus, sulco -formi pæne contiguus, pars media areæ secundæ itaque brevissima; sulci ceteri recti. Limbus anterior vix discretus, tuberculis minoribus suberectis, conicis præditus, quorum utrinque aliquot sibi propinqua. Limbus lateralis latus, ordine submedio granorum densorum et carinula exteriori ornatus; emissarium liquoris foetidi latum, pone latius. Area prima turbulis ambobus granorum paucorum ornata, post tumulos oculiferos positis, ceteræ ordinibus singulis granorum ornata. Tubercula areæ quartæ humilia rotundata. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum densorum; tertium præterea processibus ambobus, reclinibus, rectis, conicis, subacutis, paullum divergentibus, spatio interapicali dimidio brevioribus. Segmentum anale (et dorsale et ventrale) læve; margo posterior segmenti ventralis primi et segmenta cetera ordinibus singulis granulorum. Coxæ granis magnis humilibus ornata.

Spiracula (nec bulla) elevata; segmentum ventrale primum post spiracula tumidum.

Antennarum pars subglobosa articuli primi supra lævis, tuberculis exterioribus duobus pronis infra prædita, altero robusto conico acuto, altero subapicali minore.

Articulus secundus non geniculatus, ordine anteriore eminentiarum (granorum) ornatus.

Palporum pars trochanterica crassior quam longior, supra et infra alte convexa; pars femoralis femore IV haud paullo crassior, tuberculis setiferis inferioribus tribus brevibus robustis armata, uno subbasali, ceteris submediis; pars patellaris non duplo longior quam crassior, inermis; pars tibialis latior quam crassior, parte patellari duplo fere longior, spinis utrinque quaternis sat robustis, sibi subæqualibus, diametro articuli longioribus; pars tarsalis parte patellari vix longior, spinis utrinque quaternis, primis et tertiis ceteris longioribus. Unguis procerus, parte tarsali paullo brevior.

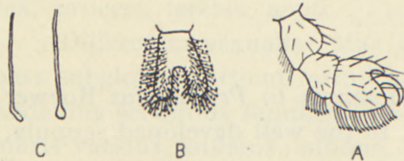


Fig. 11. *Nomoclastes tardifer* n. sp.  
A Tarsi IV apex, a latere inspecta, B infra inspecta; C pili duo ex scopula.  
(W. Sør. del.)

Pedes breves robustiores. Trochanteres IV inermes. Femora (saltem III et IV) arcuata, subtiliter coriacea, processulis apicalibus singulis exterioribus et granulis parvis remotis ornata. Cal-

canei (spurii) I astragalo non dimidio brevior, III et IV sat breves, astragalis manifeste crassiores. Articuli tarsales 6, ?, 6, 7. Processus terminalis unguiculis duabus partibus brevior.

Differentia sexualis incognita (magnitudine et armatura antennarum forsitan demonstratur).

Unicolore læte rufo-testaceus.

Long. corp. 3,5; long. scuti 2,75; lat. scuti 2,5; palpi 2,75; pedes I 5, II ?, III 6, IV 8,5.

Patria: Columbia. Specimen unicum vidi, quod feminam judico, in collectione ill. comitis KEYSERLINGII asservatum.

Remark: The editor has not seen this species. It cannot be included in any of the Roewerian subfamilies.

### **Tegyra** n. gen.

Tuber oculiferum commune manifestum adest, eminentiis majoribus ambabus (vel potius: cristis ambabus eminentiarum) præditum.

Scutum dorsale subrectangulum sulcis transversis quatuor divisum; sulcus primus manifeste procurvus, tertius leviter recurvus, ceteri subrecti; duo anteriores sulco longitudinali non conjuncti. Scutum ultra apices coxarum IV pone paullulo prominens.

Area quarta scuti dorsalis eminentiis majoribus ambabus prædita.

Orificia glandularum foetidarum sublibrata (processu magno compresso coxæ II imposito partim obscondita).

Pars palpigera mandibularum non producta (ultra coxam I non prominens) tuberculis duobus conicis acutis instructa, altero superiore, altero inferiore.

Palpi sat robusti, corpore breviores; partes femoralis (paullum) compressa,

eminentiis armata, et patellaris (modo *Gonyleptis*) curvata robustæ, sat breves; partes tibialis, parte patellari longior, et tarsalis sat depressa oblique positæ, ita ut adductæ partem femoralem margine exteriori attingant.

Coxæ IV coxis III triplo fere latiores, eminentia exteriori præditæ.

Scopula quamquam manifesta, haud densa.

Unguiculi III et IV valde incurvi, integri.

Differentia sexualis armatura pedum IV verisimiliter demonstratur.

Remark: This genus is new to science, it has not been mentioned or described in ROEWER'S work. It cannot be included in any of his subfamilies.

#### *Tegyra cinnamomea* n. sp.

3,5 mm longa, unicolore cinnamomea; tuber oculiferum processibus ambobus et granis ambobus ornatum; area quarta scuti processibus ambobus; antennarum pars globosa articuli primi eminentiis duabus, altera inferiore, altera superiore; palporum pars femoralis intus inermis; coxæ I tuberculis singulis inferioribus apicalibus, robustis; femora II, III, IV tuberculis (vel processulis) apicalibus instructa. Articuli tarsales 6, 11—12, 7, 7. Processus terminalis robustus, unguiculis dimidio brevior.

Tuber oculiferum sat magnum, duplo latius quam altius, longius quam altius, supra excavatum, processibus ambobus, conicis, obtusis præditum, altitudine tuberis brevioribus; ante oculos medios magnos grana utrinque singula.

Scutum convexum, erga coxas III haud angustius, pone paullulum dilatatum. Sulci transversi manifesti. Limbus anterior leviter discretus, lævis. Limbus lateralis latus, ordine exteriori granorum densior ornatus, quorum unum postremorum ceteris majus, conicum; emissarium liquoris foetidi distincte limitatum, pone sensim latius. Area prima granis majoribus ambobus, quarta ordinibus duobus, ceteræ et segmenta dorsalia libera tria anteriora ordinibus singulis granorum, quorum ambo areae secundæ ceteris majora. Processus medii areae quartæ proceri, longe conici, acuti, leviter divergentes, leviter reclines, spatio interapicali paullo breviores. Segmentum anale, et dorsale et ventrale, sublæve; margo posterior segmenti ventralis primi et segmenta cetera ordinibus singulis granulorum. Coxæ granis magnis paucioribus ornatae.

Spiracula magna, paullum tantum arcuata.

Antennarum pars globosa articuli primi grano superiore (posteriore exteriori) uno conico acuto prædita, supra ceterum lævis, et tuberculo inferiore exteriori uno, vix procurvo, conico, acuto. Articulus secundus geniculatus (non autem elevatus).

Palporum pars trochanterica spinis inferioribus et superioribus binis; pars femoralis æque crassa ac femur IV, supra convexa, processulis (setula subapicali præditis) inferioribus quatuor (secundo parvulo) brevibus, robustis armata, intus inermis; pars patellaris dimidio longior quam crassior, inermis; pars tibialis robusta, parte patellari duplo fere longior, spinis utrinque quaternis, robustis, tertiis diametro articuli dimidio longioribus; pars tarsalis parte tibiali paullo brevior, spinis

utrinque quaternis, primis et tertiis ceteris multo longioribus. Unguis procerus, æque longus ac pars tarsalis.

Pedes breviores, haud graciles. Coxæ I tuberculis singulis inferioribus, apicalibus, robustis, conicis; IV processulo exteriori, apicali, conico, recto. Trochanteres IV tuberculis trinis ornati, subapicalibus. Femora leviter arcuata, sublævia, II et III processulis apicalibus posterioribus singulis, IV binis (posteriore anteriore multo majore) proceris, leviter incurvis, acutis. Calcanei (spurii) I astragalo vix brevior, II astragalo spurie articulato triplo brevior, III astragalo plus quam duplo brevior, IV brevis. Articuli tarsales 6, 11—12, 7, 7.

Mas incognitus.

Unicolore cinnamomea. Limbus lateralis (partim) et membra dilutiora.

Long. corp. 3,5; long. scuti 3,25, lat. scuti 3; palpi 3,25; pedes I 7, II 16, III 10,5, IV 14.

Patria: America septentrionalis. Specimen unicum vidi, in republica Texas captum, quod ill. SIMON mihi benevolentissime dedit, et quod feminam judico, nunc in Museo zool. Hafniensi asservatum.

### Cosmetidæ C. L. Koch.

*Cosmetides* C. L. Koch, Uebers. d. Arachnidensyst. Fasc. II, 1839, p. 19.

*Cosmetidæ* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 189.

*Cosmetoidæ* W. Sørensen, Nat. Tidsskr. (3) XIV, 1884, p. 586.

*Cosmetidæ* Roewer, Weberknechte d. Erde, 1923, p. 290. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 3, 1928, p. 546.

Tuber oculiferum (in generibus adhuc cognitis) eminentiis magnis destitutum.

Scutum dorsale sulcis transversis quinque (sæpissime primo excepto plus minusve obsolete) divisum, quorum primus et secundus sulco longitudinali nunquam conjuncti sunt.

Emissarium liquoris foetidi efficit canalis (apertus) coxis I et II et processibus formatus dorso earundem coxarum impositis, liquorem foetidum ad ventrem ducens.

Spiracula maxima, lunaria, cancellata, nivea, quia cancelli tuberculis microscopicis ornati sunt, post sulcum posita, coxam IV ab abdomine separantem.

Palporum pars femoralis percompressa; partes tibialis et tarsalis complanatae, aculeis parvis (aut setis robustis), marginibus extenuatis impositis, rarius spinis armatae; partes tibialis et tarsalis manifeste oblique positæ sunt, ita ut adductæ partem femoralem margine suo exteriori attingant. Unguis relative parvus.

Lobus maxillaris coxarum II deest.

Coxæ IV non aut vix dilatatae.

Femorum pars infima trochanterem spurium (præter trochanterem verum) non format (in generibus adhuc cognitis).

Astragali cum calcaneis sutura conjuncti.

Pars ultima tarsorum III et IV scopula destituta. Articulus ultimus tarsorum III et IV processu terminali præditus.

Pars ulterior tarsi I triarticulata.

Pedes I et II unguiculis singulis, III et IV unguiculis binis instructi sunt.

In pullis et animalibus adolescentibus palpi teretes et (parte trochanterica excepta) inermes; unguis vix prehensilis, subrectus, subulatus, in apicem tenuem productus. Quæ structura palporum animalium juniorum huic familiæ peculiaris.

Species, sæpissime discolores, in America, præsertim meridionali, indigenæ.

ROEWER has tried to subdivide this family (or more correctly the subfamily of the Cosmetinae) into natural groups and has accordingly established numerous genera using three main characters as the basis of his system, namely: 1) Tarsengliederung (und zwar ihrer Abschnitte), 2) Habitus und Stärke der III und besonders IV Beine, 3) Bewehrung des Dorsalscutums.

He justly criticizes the use of the sexual differences found in the structure of the antennae, in the enlargement of the basal segments of tarsus I, and in the armature of the basal segments of the fourth pair of legs, as leading principles.

ROEWER's second character found in the difference in strength between the two first and the two last pair of legs may be of some value; as in many cases it is a matter of taste whether a given species must be referred to the one or to the other group I really think that only secondary value can be given to this character.

ROEWER regards the number of tarsal segments on pes I as the most important character and it is certainly of greater value than the two other characters, but SØRENSEN is probably right in rejecting it as a leading character and in placing species with a different number of tarsal segments within the same genus, e. g. *Rhaucus auro-lineatus* and *togatus* with five and seven segments respectively, *Poecilæmula signata*, *Prasia fallax* and *clypeata* with seven and six, and *Cynorta ornata* and *dimorpha* with five to seven. If we accept ROEWER's point of view, we are obliged to separate species which in other respects seem nearly related; add to this that the number of tarsal segments, at least in species bearing five to six segments, sometimes varies from one specimen to another as well as within the sexes. In *Poecilæma muticum* and *punctatum* e. g. the number is six or seven, and in the males of *Poecilæma reticulatum* and *Cynorta dimorpha* the number is seven, while it is only six in the females. I think it worth mentioning that ROEWER uses the number of tarsal segments in a similar way to establish genera in his *Discosomatinae*; I think this subfamily, which comprises the first of SØRENSEN's genera, is fairly natural.

ROEWER thinks that he has found a first rate character in the armament of the scutum and writes (1912 p. 4) "und so viele Arten einer Gattung und Individuen einer Art (bei viele Arten je 50—100 Stück) ich untersucht habe, habe ich die Bewehrung des Abdominalscutums — und das ist mit Nachdruck hervorzuheben — stets konstant und für dieselbe Species stets gleichartig gefunden und hielt mich deshalb für berechtigt in dieser Scutumbewehrung eines der besten genustrennenden Merkmale zu ersehen, welche ich daher konsequent für diese Trennung anwende.

Ich weise auch auf andere Gruppen der Opilionen (z. B. *Gagrellinæ*, *Assamiidæ*, *Phalangodidæ* etc.) hin, bei denen die Scutumbewehrung eines der wichtigsten genus-trennenden Merkmale ist."

Even if we accept ROEWER's just quoted statement of facts as correct, there are weighty reasons for not accepting his conclusions. I am inclined to think that we cannot hope to arrive at a good natural result by using the same characters to establish genera in different families and suborders. The fact that the armature of the scutum is serviceable as a generic character within the *Gagrellinæ*<sup>1)</sup> cannot be used as an argument for its value within the *Cosmetidæ*; even if the armature of the scutum is a good character to separate genera within a group with five tarsal segments in pes I, it is not at all evident that it should be so in a group with six tarsal segments in pes I. When the armature of the scutum varies from one species to another in different families within the same order, I should without further evidence be inclined to regard it as a character of specific and not of generic value, being — so to speak — latent within the species.

In this connection it might be useful to quote SØRENSEN's point of view on a similar question, namely the systematic value of the armature of the ocular tubercle (*Gonyleptiden* Hamb. Magalh. Sammelreise 1902 p. 5):

Jam C. L. KOCH propter numerum eminentiarum majorum — duarum, unius, nullius — tuberis oculigeri et areæ quartæ scuti dorsualis ("Hinterbrust") genera distinxit. Quos characteres certo judico bonos, si numerus re vera differt. In eodem genere autem eminentiæ dictæ nunc magnæ, nunc parvæ sunt, nunc evanescent. Si autem plane desunt, quot desunt? Una aut duo? Hanc rem, quod ad tuber oculigerum pertinet, puto me ipsum dijudicare posse. Quum duæ eminentiæ majores tuber ornant, tuber ad latera versus altius quam in medio est, aut saltem non altius in medio quam ad latera versus; sed tuber una eminentia ornatum, ut intelligitur, in medio altius quam ad latera versus. Itaque dicendum esse puto, tuber oculigerum una eminentia (majore) carere, si in medio, sed duabus, si ad latera versus altius sit. Quæ ratio momento hoc confirmatur: exemplum *Acanthoproctæ pustulatae* ab ill. Loman descriptum eminentiis majoribus tuberis oculigeri, in medio altioris, caret; sed exemplum ejusdem speciei (processibus validis singulis limbi posterioris scuti et analis dorsualis insignis) jam diu cognovi, cujus tuber tuberculo uno ornatum est et quod in nullo modo a genere *Pachyli* differt. In *Pachyloide glabrione* Lom. forma tuberis oculigeri, eminentiis majoribus destituti, plane eadem est quæ in *Pachylo pustulato* et quum ceterum species dictæ generice non differre mihi videantur, non dubito, quin etiam *Pachyloides glabrio* generi *Pachyli* attribuendum sit.

Si area quarta scuti dorsualis eminentiis majoribus destituta est, nullam rationem cognovi, qua hæc res dijudicari potest, nisi fortuna duas species cui præstat, quarum, inter sese ceterum similibus altera numerum eminentiarum præbet. Antea semel tantum tam felix fui: *Pucroliæ (Pachylus) minuta* m. eminentiis dictis caret, sed *Pucroliæ armata* m. eminentiam unam areæ quartæ demonstrat.

<sup>1)</sup> With has (Boll. Mus. Zool. Torino XX Nr. 50. 9 1905 p. 3—4) shown that the characters found in the armature of the scutum in the *Gagrellinæ* are not of generic value, as they vary within the species. ROEWER (Abh. aus dem Gebiete der Naturwissensch. XIX Bd. 4. Heft 1910) in spite of this statement has established numerous genera on the old basis, and he has not quite grasped the general bearing of the above quotation of SØRENSEN.

But it must of course be admitted that it would be a great support for ROEWER's system if he were really right in the above quoted passage, that the number of spines and grana of the scutum never vary within the genera and species. With the first presumption, however, I shall not deal since the definition of the genera is under discussion, but only with the second, which is not borne out by SØRENSEN's material.

It is certainly correct that the number of spines and grana is usually constant within the species, but several exceptions are found. The size of the tubercles vary in the different specimens of *Cynorta Holmbergi*, *quadrimaculata*, *v-album*, *juncta*, *ambigua*, *Rhaucus obscurus* and *Discosoma cinctum*. The number differs in *Libitia argentinum* and especially in *L. paraguayensis*. Differences between males and females were found in *Prasia venezuelana* and *clypeata* as well as in *Cynorta leviarcuata*.

I think it must be admitted that the system which ROEWER has proposed is no natural one. But on the other hand, ROEWER's system is probably the most practical one if we wish to find out whether a species is described or not, and where it has been described; his synoptic key and his tables are very useful; but a system is no mere catalogue of the species, but ought to be an expression of the true kinship between the species.

But even if we feel bound to reject ROEWER's system as not natural, it is not evident that the system proposed by SØRENSEN is a first class one. SØRENSEN has unfortunately not written any general remarks about the system, but he always used the principle of arranging the genera, and within each genus the species, in an order corresponding to what he regarded as the natural relationship. When we compare the characters which are used for separating several of the genera, I am obliged to admit that the characters employed for separating e. g. *Poecilæma* and *Cynorta* are rather insufficient, the more important one being the slenderness of the legs. At the present, however, SØRENSEN's system seems to be the most natural, in which we run no risk of mutually related species or even ♂ and ♀ of the same species being placed in different genera (C. W.).

The principal distinguishing character used in the following key (claws pectinate or simple) is also used by ROEWER for separating his two subfamilies, viz. *Cosmetinæ* and *Discosomaticinæ*. It must, however, be noted that the genus *Cosmetus* is reckoned by ROEWER as belonging to *Cosmetinæ*, while in SØRENSEN's key it is included in the relationship which ROEWER calls *Discosomaticinæ*. As the present editor has not examined any specimen belonging to the genus *Cosmetus* he dare not decide whether SØRENSEN or ROEWER placed the genus correctly.

#### *Conspectus generum.*

- I. Unguiculi pedum III et IV (saltem intus) pectinati. (Pedes longi):
  - A. Orificia glandularum foetidarum detecta; quorum margines elevati, infra divergentes, foramen transversum formant; scutum ovale pone truncatum eminentiis majoribus destitutum . . . . . *Protus* E. Simon p. 308.

- B. Orificia glandularum foetidarum oblecta (aut suboblecta) sunt foramina ovalia, in ipso margine scuti posita et margini parallela:
1. Scutum (suborbiculare, pone truncatum) eminentiis majoribus destitutum . . . . . *Discosomaticus* Roewer p. 310.
  2. Scutum eminentiis majoribus praeditum:
    - a. Scuti hexagoni pars media cubice elevata, gibbis quatuor ornata  
*Tetracyphus* n. gen. p. 312.
    - b. Scutum trapezoidale eminentiis majoribus ambabus, sibi contiguis praeditum, tuberi communi impositis . . . . . *Cosmetus Perty* p. 314.
    - c. Scutum oblonge trapezoidale eminentiis ambabus separatis ornatum . . . . . *Gryne* E. Simon p. 318.
- II. Unguiculi pedum III et IV integri:
- A. Pars ulterior tarsi II in articulos ultra tres partita . . . . . *Zarax* n. gen. p. 321.
  - B. Pars ulterior tarsi II tripartita:
    1. Area quarta scuti dorsalis eminentiis magnis ambabus praedita:
      - a. Pedes longi, graciles:
        - + Orificia glandularum foetidarum fere detecta. Palporum pars tibialis intus sulco marginali angusto praedita. *Acritas* n. gen. p. 325.
        - ++ Orificia glandularum foetidarum plus minusve oblecta sunt foramina brevia, lata, in ipso margine scuti posita. Palporum pars tibialis intus sulco marginali angusto non praedita.  
*Poecilæma* C. L. Koch p. 328.
      - b. Pedes longiores aut breviores, aut breves robusti; pars tibialis palporum robustorum utrinque fortiter dilatata; orificia glandularum foetidarum manifesta sunt rimæ transversæ longæ; corpus robustum . . . . . *Rhaucus* E. Simon p. 347.
      - c. Pedes breviores; orificia glandularum foetidarum plus minusve oblecta sunt foramina brevia lata . . . . . *Cynorta* C. L. Koch p. 377.
    2. Area quarta scuti dorsalis eminentiis magnis destituta (scutum aut muticum aut eminentiis majoribus praeditum, areæ quintæ aut limbo posteriori impositis):
      - a. Pedes graciles, longi . . . . . *Poecilæma muticum* n. sp. 329.
      - b. Pedes breves aut breviores . . . . . *Libitia* E. Simon p. 411.

Præter hæc genera *Vonones* E. Simon (mihi ignotus) et "*Phalangium Fusco-Ferrugineum* supra flavo variegatum postice spinis duabus erectis armatum" Olivier (*Actes d. l. soc. d'hist. nat.* I, 1792, p. 125) ad hanc familiam pertinent.

#### **Protus** E. Simon.

- Protus* E. Simon, *Ann. Soc. Ent. Belg.* XXII, 1879, p. 193.  
*Protus* Roewer, *Weberkn. d. Erde*, 1923, p. 390.



Tuber oculiferum eminentiis majoribus destitutum.

Corpus ovatum. Scutum dorsale, a latere inspectum, æque et sat alte convexum; pone truncatum, ante anguste truncatum, angulis rotundatis. Scutum extra antennas non productum, eminentiis majoribus destitutum.

Orificia glandularum foetidarum detecta; ipsa orificia sunt foramina magna orbicularia, quorum margines elevati, infra divergentes, foramen formant.

Palporum sat gracilium pars tibialis mediocriter extenuata; margo exterior primum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes longi graciles. Coxæ IV submuticæ. Pars propior tarsi I parte posteriore non crassior in femina.

Unguiculi III et IV pectinati.

Differentia sexualis (sec. ill. E. SIMON) crassitudine partis citerioris tarsi I demonstratur.

Two species belonging to this genus are known, one of which is present in the material and manuscripts left by SØRENSEN, viz.

#### **Protus insolens E. Sim.**

*Protus insolens* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 193.

*Protus insolens* Roewer, Weberkn. d. Erde, 1923, p. 391.

6 mm longus, niger; scutum punctulis flavis notatum; tuber oculiferum humile, convexum, læve; scutum ordinibus quatuor granulorum binorum et quaternorum; palporum pars femoralis tuberculo interiore apicali armata; femora lævia; calcaneus I astragalo duplo brevior. Articuli tarsales 7, 17, 11, 12; processus terminalis æque longus et crassus ac unguiculi.

Tuber oculiferum latum humile, supra vix convexum, subtilissime coriaceum, ceterum læve.

Scutum erga coxas III sinu parvulo præditum. Sulci transversi primus leviter procurvus, levis, postremus manifestus; ceteri desunt. Limbus anterior vix discretus, leviter tumidus, coriaceus. Limbus lateralis non discretus. Scutum subtiliter coriaceum, post sulcum transversum primum ordinibus transversis haud manifestis quatuor granulorum paucorum ornatum; granula ordinum primi et tertii quaterna, quorum bina (interiora) ceteris paullo majora, ordinum secundi et quarti bina. Limbus posterior scuti, segmenta libera, dorsalia et ventralia, et coxæ lævia.

Antennarum pars globosa articuli primi grano apicali interiore acuto et granulis supra scabra.

Palporum pars trochanterica parte patellari longior, in ipso apice fortiter incrasata, tuberculis inferioribus duobus parvis munita, quorum interius majus. Pars femoralis supra alte convexa, plus quam duplo longior quam crassior, ordine inferiore tuberculorum acutorum piliferorum (circiter decem) et tuberculo interiore apicali armata, ultra carinam dorsalem lævem non crenulata. Partis patellaris margo interior

haud anguste extenuatus, in apice angulatus. Pars tibialis subæque longa ac pars femoralis, triplo longior quam latior; margo interior sat latus, rectus, in apice rotundatus, exterior primum rectus, sensim paullo latior, deinde rotundate leviter

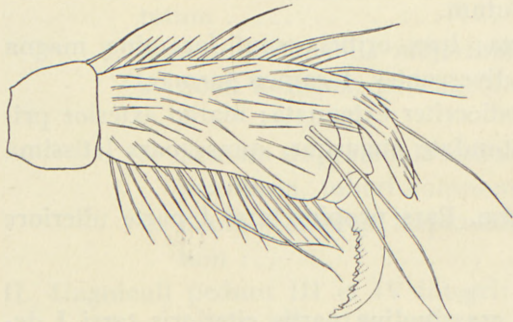


Fig. 12. *Protus insolens* Simon.

Tarsi IV apex, a latere inspecta, cum unguiculo uno (alter non delineatus).

angustior; anguli rotundati aculeis tenuibus singulis armati. Pars tarsalis parte tibiali plus quam duplo brevior, depressa, apicem versus angustior, marginibus non extenuatis; præter setas robustiores aculeo interiore armata. Unguis parte tarsali parte tertia brevior.

Pedes longi, graciles. Coxæ IV coxis III plus quam duplo latiores, carinula transversa superiore apicali humili brevi rotundata. Femora recta lævia. Calcanei I astragalo duplo brevior, II, III, IV articulo tarsali primo paullo longiores. Articuli

tarsales: 7, 17, 11, 12; (sec. ill. E. SIMON 7, 16, 15, 11). Processus terminalis subæque longus et crassus ac unguiculi. Unguiculi III et IV utrinque pectinati; dentes obtusi, interiores longi 6, exteriores breves 9—10.

Differentia sexualis (mihi alter sexus incognitus): Ill. E. SIMON dicit: "tarse I formée de 7 articles, presque égaux chez les femelles; chez le mâle les quatre premiers (pars propior) plus larges, le premier un peu plus long, atténué à la base".

Niger; scutum punctulis (granulis) flavis notatum, quorum quatuor ceteris paullo majora, rectangulum formantia. Pedes paullo dilutiores. Apices coxarum, trochanteres, partes propiores femorum flava. Tarsi obscure testacei.

Long. corp. 6; long. scuti 5,5; lat. scuti 4,75; palpi 5; pedes I 24, II 56, III 32, IV 44.

Patria: Brasilia. Specimen unicum (secundum descriptionem ill. E. SIMON feminam) vidi, ad oppidum Teffé in provincia Amazonas captum, quod ill. E. SIMON mihi benevolentissime dedit. Nunc in Museo Zoologico Hafniense asservatum.

### **Discosomaticus** Roewer.

*Discosoma* Perty, Delectus animalium, III, 1833, p. 209 (nom. proocc.).

*Discosomaticus* Roewer, Weberkn. d. Erde, 1923, p. 388.

Tuber oculiferum eminentiis majoribus destitutum.

Corpus late ovatum, pæne orbiculare. Scutum dorsale, a latere inspectum, æque convexum, pæne truncatum, extra antennas productum, eminentiis majoribus destitutum.

Orificia glandularum foetidarum obiecta sunt foramina breviter ovalia (ante latiora) in ipso margine posita, margini parallela.

Palporum sat gracilium pars tibialis mediocriter extenuata; margo exterior pri-

mum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes longi, graciles. Coxæ IV paullum dilatatae, submuticæ. Pars propior tarsi I parte posteriore non crassior.

Unguiculi III et IV pectinati.

Differentia sexualis incognita.

Species unica adhuc reperta, in Brasilia indigena.

#### **Discosomaticus cinctus Perty.**

*Discosoma cinctum* Perty, Delectus animalium, 1833, p. 209.

*Discosoma cinctum* C. L. Koch, Die Arachniden, 1839, VII, p. 114.

*Discosomaticus cinctus* Roewer, Weberkn. d. Erde, 1923, p. 389.

4,5 mm longus, læte fusco-brunneus, vitta marginali lutea cinctus; scutum coriaceum granulis ambobus anterioribus; segmenta dorsalia libera tria anteriora granulis parvis remotis; palporum pars femoralis tuberculo interiore apicali armata; coxæ IV ordine granorum laterali anteriore transverso; calcaneus I astragalo tertia parte brevior. Articuli tarsales 6, 16, 10, 10—13; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humillimum latum, supra late manifesteque excavatum, subtiliter coriaceum, ceterum læve.

Scuto dorsali sulci transversi plane desunt. Limbi anterior et lateralis et posterior non discreti. Tubercula extra (et intra) antennas posita parva, subcylindrica obtusa. Post tuber oculiferum impressio punctiformis adest. Scutum subtiliter coriaceum, granulis ambobus late disjunctis præditum, erga margines posteriores coxarum III positis. Segmenta dorsalia libera tria anteriora ordinibus singulis granulorum parvorum remotorum prædita. Venter et coxæ sublævia.

Antennarum pars globosa articuli primi granis marginalibus et granulis supra scabra.

Palporum pars trochanterica æque longa ac pars patellaris, in apice incrassata tuberculis parvis inferioribus duobus munita, quorum interius majus. Pars femoralis plus quam duplo longior quam crassior, supra valde convexa, ultra carinam dorsalem, tuberculo apicali præditam, lævis; ordine inferiore tuberculorum minorum (circiter 8) et tuberculo interiore apicali armata. Partis patellaris margo interior angustissime extenuatus, in apice angulatus. Pars tibialis plus quam duplo longior quam latior, parte femorali paullo longior; margo interior angustus subrectus, exterior haud latus, primum rectus sensimque latior, deinde vix angustior, quare apex parte latissima vix angustior; angulus interior productus, exterior rotundatus, aculeis gracilibus singulis armati. Pars tarsalis parte tibiali vix duplo brevior, perdepressa (parte propiore marginum extenuata) apicem versus angustior, aculeis gracilibus exterioribus (circiter 7) et interiore unico armata. Unguis parte tarsali duplo brevior.

Coxæ IV coxis III triplo fere latiores, ordine granorum densorum laterali anteriore transverso et carina transversa superiore apicali humili rotundata, extus vix altiore. Femora recta lævia. Calcanei I astragalo tertia parte, II duplo breviores; III articulis tarsalibus primo et secundo et tertio conjunctis, IV articulo tarsali primo longitudine æquales. Articuli tarsales: 6, (14—)16, 10, 10—13. Processus terminalis sat robustus, unguiculis paullo brevior. Unguiculi III et IV intus tantum pectinati; dentes quatuor, longi, acuti.

Differentia sexualis incognita.

Læte fusco-brunneus, vitta marginali sat lata lutea cinctus, cujus pars posterior segmentis dorsalibus liberis secundo et tertio imposita. Spiracula alba a ventre pæne nigro valde discordant. Membra cinnamomea; tarsi obscure testacei, II infuscati.

Long. corp. 4,5; long. scuti 4,25; lat. scuti 3,75; palpi 3,75; pedes I 20, II 48, III 20, IV 38.

Patria: Brasilia. Exempla duo vidi, in provincia Amazonas capta, mihi ab ill. E. SIMON benevolentissime data, nunc in Mus. Zool. Hafniense asservata.

Variatio: Granula anteriora ambo scuti specimini alteri defuere. — Vitta marginalis secundum C. L. KOCH læte alba ("schön weiss").

Remark: In the one specimen an indistinct suture was found between the first and second abdominal somites; the above-mentioned granules are placed in the first abdominal somite.

### **Tetracyphus** n. g.

Tuber oculiferum eminentiis majoribus ornatum mentione vix dignum.

Scutum hexagonum, ante et pone truncatum, extra antennis productum; pars media cubice elevata et gibbis (quatuor) prædita. Scutum, a latere inspectum, a tubere oculifero ultra partem cubicam rectum sensimque paullo altius, deinde sat subito declive.

Orificia glandularum foetidarum oblecta sunt foramina breviter ovalia ante latiora in ipso margine posita, margini (sub)parallela.

Palporum sat gracilium pars tibialis intus angustissime extenuata recta, extus late extenuata, sensim latior, denique tam abrupte sub angulo angustata, ut apex pars latissima esse videatur.

Pedes longi, graciles. Coxæ IV paullum dilatatae, submuticae. Pars propior tarsi I parte posteriore non crassior.

Unguiculi III et IV pectinati.

Differentia sexualis incognita.

Species unica adhuc reperta, in Brasilia indigena.

### **Tetracyphus mirabilis** n. sp.

*Poecilæma mirabile* Simon in schedula.

5,5 mm longus, brunneus, (dorso medio excepto) punctis majoribus (pustulis) flavo-cinereis notatus; tuber oculiferum supra leviter excavatum granulis ambobus;

pars media elevata vix coriacea, scutum ceterum (margine laterali excepto) pustulis planis densis; gibbæ posteriores reclines, perverse pyriformes; palporum pars femoralis spina interiore apicali armata; calcaneus I astragalo duplo brevior. Articuli tarsales: 8, 17, 10, 11; processus terminalis æque longi ac unguiculi.

Tuber oculiferum humile latum, supra leviter excavatum, quia oculi supra superficiem tuberis elevati sunt, coriaceum granulis ambobus præditum.

Scutum convexum. Sulcus transversus postremus tantum adest, debilis. Limbus anterior non discretus, leviter tumidus, coriaceus, ceterum lævis; tubercula extra antennis posita brevissima (porrecta) obtusa. Limbus lateralis non discretus, ordine marginali granulorum destitutus. Pars media elevata vix coriacea punctis impressis remotis ornata; gibbæ læves, nitidæ, anteriores subglobosæ, posteriores perverse pyriformes, reclines. Scutum ceterum pustulis planis (flavo-cinereis) densis ornatum. Segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum remotorum. Coxæ granis parvis densis præditæ; venter ceterum sublævis.

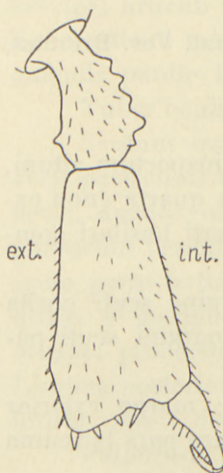


Fig. 14. *Tetracyphus mirabilis* n. sp.  
Palpi partes patellaris,  
tibialis et tarsalis.  
(W. Sør. del.)

Antennarum pars globosa articuli primi granulis supra et infra scabra, quorum superiora posteriora sunt grana magna.

Palporum pars trochanterica parti patellari subæqualis, sensim crassior, tuberculo inferiore brevi robusto rotundato. Pars femoralis plus quam duplo longior quam crassior, ordine inferiore tuberculorum obtusorum densorum (circiter 16) et tuberculo interiore apicali armata, quod aculeo apicali instructum est; supra prope basin convexa, lævis (carina haud manifesta). Partis patellaris margo interior late extenuatus, tuberculis depressis confluentibus (4—5) rotundatis crenulatus, quorum ultimum ceteris majus. Pars tibialis plus quam duplo longior quam latior, parte femorali paullo longior; margo interior angustissime extenuatus, rectus, in apice non producto aculeo armatus, exterior latus sensimque latior, apicem versus fortiter dilatatus et spinulis (quarum pars basalis brevissima) brevibus robustis (7—8) munita, quare ipse apex pars latissima esse videtur. Pars tarsalis compressa, marginibus non extenuatis, apicem versus paullo angustior, æque longa ac diametros transversa apicalis partis tibialis, aculeis exterioribus 5—6 et setis interioribus armata. Unguis parvus, parte tarsali plus quam duplo brevior.

Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali humili rotundata instructæ. Femora recta granulis acutis remotis ornata, quæ in pedibus posterioribus majora sunt. Metatarsi II spurie articulati. Calcanei I et II astragalo

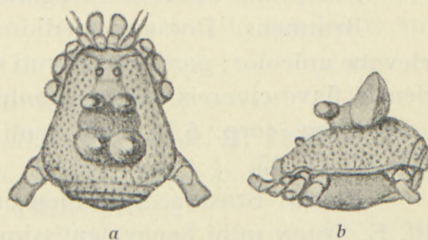


Fig. 13. *Tetracyphus mirabilis* n. sp.  
a desuper inspectus, b a latere inspectus.  
(W. Sør. del.)

duplo breviores; articulo tarsali primo III longior, IV paullo brevior. Articuli tarsales: 8, 17, 10, 11. Dentes unguiculorum III et IV longi acuti; exteriores 4, interiores 6. Processus terminalis æque longus ac unguiculi, quibus paullo est crassior.

Differentia sexualis incognita.

Brunneus. Dorsum medium usque ad marginem posteriorem partis cubice elevatae unicolor; pars cetera scuti et segmenta dorsalia tria anteriora punctis majoribus densis flavo-cinereis notata; venter brunneo-fuscus. Membra a femoribus dilutiora.

Long. corp. 5,5; long. scuti 5; lat. scuti 4,25; palpi 5,5; pedes I 21, II 53, III 31, IV 45.

Patria: Brasilia. Specimen unum vidi, ad Rio Vacantia, Cameta, captum, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Mus. Zool. Hafniense asservatum. Præterea specimina duo cognosco, ad Para capta (coll. Prof. GÖLDI).

### Cosmetus Perty.

*Cosmetus* Perty, Delectus animalium, III, 1833, p. 209.

*Cosmetus* C. L. Koch, Übers. d. Arachnidensyst. fasc. II, 1839, p. 20.

*Cosmetus* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 191.

*Cosmetus* Roewer, Weberkn. d. Erde, 1923, p. 376. — Suppl.: Abh. nat. Ver. Bremen, XXVI, 3, 1928, p. 609.

Tuber oculiferum eminentiis majoribus destitutum.

Scutum trapezoidale, extra antennis non productum; a latere inspectum altum, a tubere oculifero ad processus sensim altius, deinde declive. Area quarta (non expressa) eminentiis majoribus ambabus prædita, sibi contiguis et parti basilari communi alte conicæ, processiformi impositis.

Orificia glandularum foetidarum plane obtecta, in ipso margine scuti posita (NB. Ipsa orificia non vidi. Verisimiliter sunt foramina ovalia, margini scuti parallela).

Palporum sat gracilium pars tibialis mediocriter extenuata; margo exterior primum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes perlongi, graciles. Coxæ IV paullum dilatatae, submuticæ.

Unguiculi III et IV intus pectinati.

Differentia sexualis incognita.

Remark: ROEWER refers the genus *Cosmetus* to his subfamily *Cosmetinae* which is recognized by having simple claws. He has examined C. L. KOCH's original specimens of *C. mesacanthus*. The present editor has not examined any specimen of this genus, so he dare not decide whether SØRENSEN'S or ROEWER'S view is correct.

Three species are known to belong to this genus: one from Central America and 2 from Brezil, of which SØRENSEN has examined the one, and he has added 2 more species.

*Conspectus specierum hic descriptarum.*

- A. Coxæ IV tubere laterali anteriore destitutæ . . . . . *C. mesacanthus* C. L. Koch.  
 B. Coxæ IV tubere laterali anteriore humili clypeato (luteo) præditæ:  
 a. Tuber oculiferum convexum . . . . . *C. pleurostigma* n. sp.  
 b. Tuber oculiferum supra leviter excavatum . . . . . *C. turritus* n. sp.

*Cosmetus mesacanthus* C. L. Koch.

*Cosmetus mesacanthus* C. L. Koch, Übers. d. Arachnidensyst. Fasc. II, 1839, p. 20.

*Cosmetus mesacanthus* C. L. Koch, Die Arachniden, T. VII, 1839, p. 111.

*Cosmetus mesacanthus* Roewer, Weberkn. d. Erde, 1923, p. 377.

Vix 5 mm longus, viridi-flavus maculis parvis luteis partim confluentibus et punctis saturatius viridibus notatus; tuber oculiferum convexum sublæve; limbus anterior lævis; limbus lateralis (non discretus) ordine exteriori granorum parvorum; pars basilaris processus dorsalis, a tubere oculifero vix duplo quam a margine posteriore scuti separati, granis et granulis prædita; coxæ IV granulis pusillis; palporum pars femoralis intus inermis, supra lævis; femora lævia; calcaneus I astragalo paullo brevior; articuli tarsales: 7, 21, 13—14, 15 (unius tantum exempli. Secundum C. L. Koch articuli tarsales in genere *Cosmeti* sunt 10, ?, 13, 15); processus terminalis unguiculis paullo brevior.

Tuber oculiferum parvum humile, duplo latius quam altius, convexum, sublæve.

Scutum quamquam trapezoidale, pone tamen iterum angustius. Sulci transversi postremus debilis, ceteri plane obsoleti. Limbus anterior vix discretus, tumidus, lævis, angulis obliquis. Limbus lateralis non discretus, ordine exteriori granorum parvorum præditus. Scutum granis sat magnis humilibus dispersis. Processus validus, scuto parte tertia brevior, conicus, vix reclinis, a tubere oculifero vix duplo longius quam a margine posteriore separatus; pars basilaris granis et granulis dispersis ornata; processuli apicales cylindrici, obtusi, læves, parte basilari triplo breviores. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum; anale dorsale granulis dispersis; ventralia sublævia. Coxæ granulis pusillis.

Palporum pars femoralis leviter arcuata duplo longior quam crassior, ordine inferiore tuberculorum minorum remotorum (circiter 8) armata, intus inermis, supra lævis (nec carinata nec cristata). Partis patellaris margo interior carinatus. Pars tibialis duplo longior quam latior; margo interior sat angustus, apicem versus sensim paullo latior, in apice leviter productus et seta munitus, exterior primum angustus, deinde sat subito rotundate dilatatus iterumque leviter angustatus, setulis apici propinquis præditus; apex articuli subtruncatus parte latissima paullo angustior. Pars tarsalis depressa; apicem versus angustior, marginibus non extenuatis, præter setulas seta interiore munita. Unguis procerus parte tarsali non dimidio brevior.

Coxæ IV coxis III duplo latiores, carina transversa superiore apicali crenulata præditæ. Femora recta, lævia. Calcanei astragalo I paullo, II vix duplo, III duplo breviores, IV tarso toto fere æqualis. Articuli tarsales: 7, 21, 13—14, 15. Processus

terminalis unguiculis paullo brevior et tenuior. Dentes unguiculorum III et IV quinque sat robusti.

Differentia sexualis incognita.

Viridi-flavus, maculis (sæpe anulis) parvis luteis partim confluentibus et punctis saturatius viridibus notatus; processuli processus dorsalis brunnei. Pedes obscure olivacei; patellæ, apices femorum et tibiæ, bases metatarsorum flava.

Long. corp. 4,75; long. scuti 4,5; lat. scuti 4; palpi 5; pedes I 23, II 56, III 32, IV 45.

Patria: Brasilia. Exempla tria siccata in Museo Berolinense vidi, ad urbem Bahía a cl. BERG capta.

*Cosmetus pleurostigma* n. sp.

*Cosmetus pleurostigma* Mus. Berol. in schedula.

5,5 mm longus, rufo-flavus et rufescens, punctis sordide brunneis, scutum maculis parvis ambobus et punctis ambobus, coxæ IV maculis magnis singulis lateralibus anterioribus luteis; tuber oculiferum convexum, leviter granulatum; limbus anterior granulis dispersis; limbus lateralis (non discretus) ordine exteriori granorum parvorum; pars basilaris processus dorsalis, a tubere oculifero triplo fere longius quam a margine posteriore scuti separati, granis prædita; coxæ IV granis et tubere laterali anteriore clypeato; palporum pars femoralis intus inermis, carina dorsali lævi; femora III granulis, IV granis parvis; calcaneus I astragalo parte tertia brevior; articuli tarsales (exempli unius): 7, 21, 17—18, 18; processus terminalis unguiculis paullo brevior.

Tuber oculiferum parvum humile, plus quam duplo latius quam altius, convexum, leviter granulatum.

Scutum quamquam trapezoidale, pone tamen iterum angustius. Sulci transversii postremus debilis, ceteri plane obsoleti. Limbus anterior leviter discretus, tumidus, granulis dispersis ornatus. Limbus lateralis non discretus, ordine exteriori granorum parvorum. Scutum granis sat magnis dispersis. Processus validus, scuto non duplo brevior, conicus, vix reclinis, a tubere oculifero triplo fere longius quam a margine posteriore scuti remotus; pars basilaris granis tantum prædita; processuli apicales cylindrici, obtusi, læves, parte basilari triplo breviores. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum; anale dorsale granis dispersis. Anale ventrale sublæve; coxæ et ventrale primum granis dispersis; ventralia cetera ordinibus singulis granorum parvorum.

Antennarum pars globosa articuli primi granulis scabra.

Palporum pars femoralis leviter arcuata, vix duplo longior quam crassior, ordine inferiore tuberculorum minorum remotorum (circiter 8) armata, intus inermis, carina dorsali lævi prædita. Partis patellaris margo interior carinatus, in apice vix productus. Pars tibialis triplo fere longior quam latior; margo interior sat angustus, apicem versus sensim paullo latior, in apice leviter productus et seta munitus, exterior primum angustus, deinde sat subito rotundate dilatatus iterumque



leviter angustatus, setulis apici propinquis et tuberculo apicali minuto conico; apex articuli subtruncatus parte latissima paullo angustior. Pars tarsalis depressa, apicem versus angustior, marginibus non extenuatis, præter setulas seta interiore munita. Unguis procerus parte tarsali non dimidio brevior.

Coxæ IV coxis III duplo latiores, carina transversa superiore apicali, granis tribus composita, munitæ et tubere laterali anteriore clypeato humili rotundo (luteo) præditæ. Femora recta, I et II sublævia, III granulis, IV granis parvis. Calcanei astragalo I parte tertia, II vix breviores, III tarso subæqualis, IV manifeste brevior. Articuli tarsales: 7, 21, 17—18, 18. Dentès interiores unguiculorum III et IV quatuor longi, acuti. Processus terminalis unguiculis paullo brevior et vix tenuior.

Differentia sexualis incognita.

Sordide rufo-flavus, punctis (eminentis) sordide brunneis notatus; pars anterior scuti, venter, pars basilaris processus dorsalis, palpi rufescentes; processuli apicales processus dorsalis nigri. Lutea sunt: maculæ parvæ ambæ scuti rotundæ, mox pone et extra tuber oculiferum positæ; puncta ambo latius separata, inter maculas dictas et processum dorsalem posita; macula magna rotunda lateralis anterior coxæ IV. Pedes flavi; patellæ fuscæ; bases tibiæ infuscatae.

Long. corp. 5,5; long. scuti 5; lat. scuti 4,5; palpi 4,5; pedes I 21, II 51, III 31, IV 42.

Patria: Brasilia. Exempla tria siccata in Museo Berolinense vidi, ad urbem Bahia capta.

*Cosmetus turritus* n. sp.

*Cosmetus turritus* Mus. Berol. in schedula.

5,5 mm longus, latericius, fusco punctatus; scutum vittis latis marginalibus et punctis ambobus, coxæ IV maculis magnis singulis lateralibus anterioribus citrinis notata; tuber oculiferum leviter excavatum, leviter granulatum; limbus anterior granulis dispersis; limbus lateralis (non discretus) in margine lævis; pars basilaris processus dorsalis, a tubere oculifero triplo longius quam a margine posteriore scuti separati, granis prædita; palporum pars femoralis intus inermis; coxæ IV granis magnis (inferioribus) et singulis tuberibus lateralibus anterioribus clypeatis; femora III granulis parvis, IV granis prædita; calcaneus I astragalo vix duplo brevior; articuli tarsales (unius exempli): 8, 25, 16, 19—20; processus terminalis unguiculis vix brevior.

Tuber oculiferum parvum humile, plus quam duplo latius quam altius, supra leviter excavatum, leviter granulatum.

Scutum quamquam trapezoidale, pone tamen iterum angustius. Sulci transversii postremus debilis, ceteri plane obsoleti. Limbus anterior leviter discretus, leviter emarginatus, granulis dispersis ornatus. Limbi lateralis non discreti margo lævis. Scutum granis sat magnis dispersis ornatum. Processus validus, scuto duplo brevior, conicus, vix reclinis, a tubere oculifero triplo longius quam a margine posteriore scuti separatus; pars basilaris granis tantum prædita; processuli apicales cylindrici,

obtusi, læves, parte basilari triplo breviores. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum; anale dorsale granis dispersis. Anale ventrale ordine anteriore granulorum paucorum et posteriore granorum parvorum; coxæ et ventrale primum granis magnis; ventralia cetera ordinibus singulis granorum parvorum ornata.

Antennarum pars globosa articuli primi granis dispersis scabra.

Palporum pars femoralis leviter arcuata duplo longior quam crassior, ordine inferiore tuberculorum minorum (circiter 12) armata, intus inermis; carina dorsalis humilis vix crenulata. Partis patellaris margo interior carinatus, in apice oblique truncatus. Pars tibialis triplo fere longior quam latior; margo interior anguste extenuatus in apice vix productus, aculeo armatus, exterior haud late extenuatus, in apice leviter angustior; apex articuli subtruncatus parte latissima paullo angustior. Pars tarsalis depressa, apicem versus angustior, marginibus non extenuatis, præter setulas seta interiore munita. Unguis procerus parte tarsali non dimidio brevior.

Coxæ IV coxis III vix duplo latiores, carina transversa superiore apicali humili, granis tribus composita, et tubere clypeato laterali anteriore humili, rotundo citrino præditæ. Femora recta; II sublævia; I et III granulis parvis; IV una cum patellis et tibiis granis prædita, infra tantum majoribus. Calcanei astragalo I et II vix duplo, III plus quam triplo breviores; IV articulo tarsali primo manifeste longior. Articuli tarsales: 8, 25, 16, 19—20. Processus terminalis unguiculis vix brevior et vix tenuior. Dentes unguiculorum III et IV quatuor, longi, acuti.

Differentia sexualis incognita.

Læte latericius, punctis (granis) fuscis notatus. Citrina sunt: vittæ latæ marginales ambæ, ante et pone attenuatæ, marginem anteriorem scuti non attingentes, puncta rubra includentes; puncta ambo ante processum dorsalem posita; macula magna lateralis anterior coxæ IV. Pedes obscure olivacei; trochanteres, patellæ, apices femorum et tibiarum flava.

Long. corp. 5,5; long. scuti 5,25; lat. scuti 4,75; palpi 5; pedes I 21, II 56, III 31, IV 42.

Patria: Brasilia. Specimina duo siccata in Museo Berolinense vidi, ad urbem Bahia a cl. GOMEZ capta.

### Gryne Simon.

*Gryne* E. Simon, Ann. Soc. Ent. Belg. XXII, 1923, p. 193.

*Gryne* Roewer, Weberkn. d. Erde, 1923, p. 392. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 1928, p. 629.

Tuber oculiferum eminentiis majoribus destitutum dicendum est.

Scutum oblonge trapezoidale, post coxas III paullo latius, lateribus arcuatis; extra antennas leviter productum. Scutum, a latere inspectum, alte convexum; a tubere oculifero ad eminentias majores æquum sensimque altius, unde sat subito declive. Area quarta (non expressa) eminentiis majoribus ambabus munita.

Orificia glandularum obiecta sunt foramina breviter ovalia, ante latiora, in ipso margine scuti posita et margini parallela.

Palporum sat gracilium pars tibialis mediocriter extenuata; margo exterior primum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes longi, graciles. Coxæ IV mediocriter dilatatae, submuticæ. Pars propior tarsi I parte posteriore non crassior.

Unguiculi III et IV pectinati (aut crenulati).

Differentia sexualis (saltem in *G. oreysi*) forma metatarsi IV demonstratur.

Observatio: Speciem typicam hujus generis, *G. marginalem* Perty non cognovi. Speciem novam sequentem ill. E. SIMON "Poecilæma leprosum" nominatam mihi misit; tamen credo, hanc speciem generi *Grynes* adscribendam esse.

#### *Conspectus specierum.*

A. Unguiculi III et IV manifeste pectinati:

(a. Scutum fortiter et parce rugosum (sec. ill. E. SIMON).. *G. marginalis* Perty.)

b. Scutum præter granula sat densa granis tantum ambobus anterioribus præditum ..... *G. leprosa* n. sp.

B. Unguiculi III et IV crenulati tantum (sub lente etiam forti integri videntur)

*G. oreysi* W. S.

#### ***Gryne leprosa* n. sp.**

*Poecilæma leprosum* E. Simon in schedula.

6 mm longa, brunnea, lineis sordide luteis reticulata, processibus scuti anulo basali cinctis; tuber oculiferum late excavatum, granulis paucis dispersis ornatum; scutum coriaceum præter granula dispersa sat densa granis anterioribus ambobus et processibus posterioribus ambobus divergentibus proceris præditum; palporum pars femoralis spina interiore apicali armata; calcaneus I astragalo duplo brevior; articuli tarsales 8, 17, 10, 11; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humillimum transversum, supra late excavatum, subtiliter coriaceum, granulis paucis dispersis ornatum.

Scutum sat convexum. Sulci transversi omnes plane desunt. Limbus anterior discretus subtiliter coriaceus, ceterum lævis; tubercula extra antennas posita brevia obtusa. Limbi lateralis non discreti margo latus, præruptus lævis. Scutum ceterum subtiliter coriaceum granulis dispersis sat densis et granis anterioribus ambobus (areæ secundæ non expressæ impositis). Processus (areæ quartæ non expressæ) leviter reclines, divergentes, proceri, subobtusius, spatio interapicali longiores; pars inferior eorum granulis paucis ornata. Segmenta dorsalia libera et ventralia et coxæ granulis parvis prædita.

Antennarum pars globosa articuli primi granis marginalibus subacutis prædita, quorum posteriora majora.

Palporum pars trochanterica parte patellari longior in apice incrassata, tuber-

culis inferioribus duobus armata, quorum interius majus. Pars femoralis vix duplo longior quam crassior, ordine inferiore tuberculorum (circiter 10) et spina interiore apicali armata, ultra carinam dorsalem vix crenulatam lævis. Partis patellaris margo interior angustissime extenuatus, neque angulatus neque productus. Pars tibialis plus quam duplo longior quam latior, parte femorali manifeste brevior; margo interior anguste extenuatus, subrectus, exterior sat latus primum rectus sensimque latior, deinde prope apicem rotundate angustior; apex parte latissima paullo angustior; angulus exterior rotundatus aculeo sat gracile et minuto tuberculo, interior vix productus, aculeo simili armati. Pars tarsalis parte tibiali triplo fere brevior, sensim angustior, præter setas robustas aculeo interiore armata. Unguis sat procerus, parte tarsali non duplo brevior.

Coxæ IV coxis III triplo latiores, carina transversa superiore apicali vix manifesta, in medio altiore, rotundata munitæ. Femora subrecta, lævia. Calcanei astragalo I duplo, II plus quam duplo breviores; articulo tarsali primo III paullo longior, IV paullo brevior. Articuli tarsales: 8, 17, 10, 11. Unguiculi III et IV utrinque pectinati; dentes interiores 6 compressi, rotundati, exteriores 5 similes, sed breves. Processus terminalis æque crassus ac unguiculi, quibus paullo brevior.

Differentia sexualis mihi incognita.

Brunnea, post tuber oculiferum lineis sordide luteis reticulata; processus scuti unicolores, anulo basali luteo cincti. Patellæ et apices tibiæ fusca.

Long. corp. 6; long. scuti vix 5; lat. scuti vix 4; palpi 4,5; pedes I 19, II 42, III 27, IV 36.

Patria: Brasilia. Specimen unicum (feminam ovipositore protruso) vidi, ad Rio Vacantia, Cameta, captum, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hafniense asservatum.

***Gryne orensis* W. Sør.**

*Cosmetus orensis* W. Sørensen, Naturh. Tidsskr. (3), XII, 1879, p. 217.

*Cosmetus orensis* W. Sørensen, ibid. (3) XIV, 1884, p. 589.

*Gryne orensis* Roewer, Weberkn. d. Erde, 1923, p. 393.

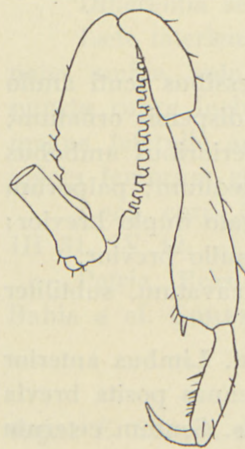


Fig. 15. *Gryne orensis*  
W. Sør. Palpus.  
(W. Sør. del.)

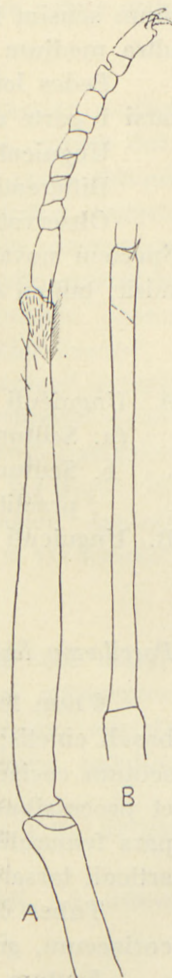


Fig. 16. *Gryne orensis* W. Sør.  
Pes IV. A metatarsus et tarsus mari. B metatarsus feminae.

6 mm longa, fusca, scuto irregulariter citrino maculato; tuber oculiferum leviter excavatum, granulis pusillis dispersis ornatum; sulci transversi primus manifestus, ceteri obsoleti; scutum subtiliter coriaceum granulis pusillis dispersis ornatum; area secunda granis parvis ambobus, quarta processibus ambobus longis instructæ; pal-

porum pars femoralis intus pæne inermis; calcaneus I astragalo duplo brevior; articuli tarsales: 7, 13, 9, 9; processus terminalis unguiculis crenulatis longitudine pæne æqualis. — Maris metatarsus IV compressus, brevis.

Patria: Republicæ Argentina (provincia El Gran Chaco) et Paraguay. Exempla decem in Paraguay a cl. RONDE capta vidi, in Museo Berolinense asservata.

Addenda et Corrigenḡa: Tuber oculiferum humile, duplo latius quam longius, supra leviter lateque excavatum, granulis pusillis dispersis ornatum. Tubercula extra antennas posita robusta, brevia, subobtusa. — Scuti subtiliter coriacei et granulis pusillis multis dispersis ornati area secunda granis parvis ambobus prædita. — Palporum pars femoralis intus pæne inermis (tuberculo pusillo rotundato munita) ultra carinam dorsalem granis crenulatam lævis. — Palporum partis patellaris margo interior angustissime extenuatus, leviter angulatus, ultra quem tuberculum parvum adest. — Palporum pars tibialis plus quam duplo longior quam latior; margo interior anguste extenuatus, subrectus, exterior primum sensim latior, deinde dilatatus, latere arcuato; anguli rotundati, exterior aculeo et minuto tuberculo, interior aculeo armati. — Palporum unguis dimidio partis tarsalis brevior. — Coxæ IV carina transversa superiore apicali humillima, rotundata, granis parvis prædita, munitæ. — Calcanei astragalo I duplo, II triplo fere breviores; III articulis tarsalibus primo et secundo conjunctis, IV articulo tarsali primo æquales. — Pulli scutum dorsale sulcis transversis manifestis quinque (nec quatuor) divisum, quorum quartus pone et prope processus areæ quartæ positus est. — Animalis adolescentis sulci transversi debiles.

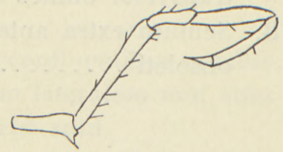


Fig. 17. *Gryne orencis*  
W. Sør. Animal adolescentis. Palpus.  
(W. Sør. del.)

### *Zarax* n. gen.

Tuber oculiferum eminentiis majoribus destitutum.

Corpus robustum. Scutum dorsale ante latum, trapezoidale, adversus apices coxarum IV paullo latius et deinde sat prærupte angustius; sulco transverso primo manifeste depressum.

Area quarta scuti eminentiis majoribus ambabus instructa.

Orificia glandularum foetidarum parva, ovalia, librata, in ipso margine scuti posita, processulo (vel tuberculo) dorsali coxæ II appresso plane oblecta.

Palporum sat robustorum pars tibialis mediocriter extenuata; margo exterior primum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes sat longi. Coxæ IV paullum dilatatae (coxis III plus quam duplo latiores), carina exterior apicali instructæ. Pars propior tarsi I parte posteriore crassior. Pars ulterior tarsi II in articulos ultra tres (utriusque speciei quinquearticulata) partita.

Unguiculi integri.

Differentia sexualis crassitudine partis propioris tarsi I demonstratur.

This genus is nearly related to *Poecilæmula* Roewer, but it is easily recognized by the 5-jointed distal part of tarsus II. Otherwise I should have ventured to identify *Zarax ænescens* described below with *Poecilæmula signata* Banks, in spite of its showing only 6 joints in tarsus I.

*Conspectus specierum.*

- A. Scutum extra antennis in tubercula singula porrecta productum; sulci transversi omnes manifesti ..... *Z. devians* n. sp.  
 B. Scutum extra antennis non productum; sulci transversi tertius et quartus obsoleti ..... *Z. ænescens* n. sp.

*Zarax devians* n. sp.

Femina 8 mm longa, fusco-castanea, lineis et punctis, partim confluentibus, olivaceis notata; tuber oculiferum humile, supra late excavatum; sulci transversi scuti omnes manifesti; tubercula extra antennis posita leviter resupinata; limbus lateralis pone sulcum transversum primum vix discretus, punctis et lineis impressis ornatus; areæ granulis parvis parce ornatae, secunda tuberculis ambobus, quarta tuberculis permagnis ambobus obtusis; palporum pars femoralis tuberculo interiore apicali armata; astragali calcaneo, I dimidio longior, II duplo fere brevior; articuli tarsales 7, 20, 10, 12; processus terminalis unguiculis manifesto brevior et tenuior.

Tuber oculiferum humile, plus quam duplo latius quam altius, supra late excavatum, granulis ornatum, in vittas ambas haud manifeste dispositis.

Scutum convexum, totum subtiliter coriaceum. Limbus anterior non discretus, lævis; tubercula extra antennis posita leviter resupinata. Limbus lateralis pone sulcum transversum primum vix discretus, lineis latis punctisque impressis ornatus. Areæ granulis parvis parce ornatae, quæ in area secunda paullo majora sunt; secunda tuberculis ambobus, quorum bases granis parvis densis præditæ. Tubercula permagna (sive processus breves) areæ quartæ robusta, conica, obtusa, quorum pars basilaris granulis magnis parce ornata. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum; segmentum secundum (saltem hujus exempli) grano magno medio præditum; anale dorsale dense granulatum. Coxæ et segmenta ventralia primum et anale sublævia; cetera ordinibus singulis granulorum.

Antennarum pars subglobosa articuli primi granulis superioribus ornata, ordine dorsali anteriore granorum, introrsum majorum, aspera.

Palporum pars trochanterica subæque longa atque pars patellaris, in apice incrassata, tuberculo robusto inferiore munita. Pars femoralis valde compressa, ordine inferiore tuberculorum parvorum (circiter quindecim) et tuberculo interiore apicali armata; ultra carinam dorsalem brevem serratam non usque ad apicem serrata. Pars patellaris teres. Partis tibialis margo interior rectus, exterior leviter arcuatus; apex truncatus, aculeo interiore (ante quem aculeus alter adest) et tuberculo parvo et aculeo exterioribus armatus, ante quem aculei laterales pauci adsunt. Pars tarsalis parte tibiali plus quam duplo brevior, primum depressa, deinde leviter

compressa, spinula interiore media et aculeis parvis interiore subapicali uno et exterioribus circiter quinque munita. Unguis procerus parte tarsali vix duplo brevior.

Pedes sat robusti. Coxæ IV carina apicali humili instructæ. Femora vix arcuata, undique (in femina) granulata. Calcanei I astragalo parte sua dimidia brevior, II astragalo duplo fere longior; articulo tarsali primo III vix, IV manifesto breviores. Articuli tarsales: 7, 20, 10, 12. Pars ulterior tarsi II quinquepartita (tarsus II alter specimini unico defuit). Pars propior tarsi I parte posteriore paullo, tamen manifesto, crassior. Processus terminalis unguiculis manifesto brevior et tenuior.

Differentia sexualis incognita.

Fusco-castaneus; limbus lateralis punctis olivaceis partim confluentibus notatus; sulci transversi omnes lineis angustis singulis, olivaceis, limbum lateralem non attingentibus, quæ (saltem priores tres) linea simili media conjunctæ sunt.

Long. corp. 8; long. scuti 6,5; lat. scuti 6; palpi 8,5; pedes I 23, II 43, III 29, IV 40.

Patria: Columbia. Specimen unicum, quod feminam judico, in Museo Vindobonense asservatum, vidi.

*Zarax ænescens* n. sp.

7 mm longus, obscure ænescens punctis pallidis notatus, area prima, parte exteriori limbi lateralis et membræ brunneis; tuber oculiferum humillimum, vix excavatum; sulci transversi tertius et quartus obsoleti; scutum extra antennas in tubercula non productum; limbus lateralis vix discretus, granis parvis et foveis ornatus; area granis parvis sat densis; secunda granis ambobus, amplis, humilibus, quarta processulis ambobus obtusis; palporum pars femoralis tuberculo robusto interiore apicali armata; astragalus I calcaneo dimidio longior; articuli tarsali: 6, 18, 9, 10; processus terminalis unguiculis manifesto crassior neque brevior.

Tuber oculiferum humillimum, latum, supra vix excavatum, vittis latis ambabus granorum parvorum ornatum.

Scutum paullum convexum, subtiliter coriaceum, extra antennas in tubercula non productum. Sulci transversi tertius et quartus obsoleti. Limbus anterior vix discretus, lævis. Limbus lateralis vix discretus, granis parvis dispersis et foveis non profundis præditus. Area granis parvis sat densis dispersis; secunda granis ambobus amplis, humilibus, late separatis. Processuli area quartæ robusti, conici, obtusi, leviter reclines, paralleli, spatio interapicali breviores; pars eorum multo major basalis granis parvis ornata. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum densorum; anale dorsale granis majoribus dispersis. Anale ventrale ordine posteriore granorum majorum; coxæ granis parvis dispersis; segmenta ventralia cetera ordinibus singulis granulorum densorum; primum ante modo coriaceum.

Antennarum pars globosa articuli primi granis obtusis densis supra ornata, quæ (præsertim ordinis posterioris) granis scuti multo majora sunt.

Palporum pars trochanterica æque longa atque pars patellaris, in apice medio-criter incrassata, tuberculis humilibus inferioribus duobus munita. Pars femoralis

duplo fere longior quam crassior, ordine inferiore apicem fere attingente tuberculorum parvorum, sensim majorum (circiter quindecim) et tuberculo robusto (aculeum haud gracilem, subapicalem gerente) interiore apicali armata; ultra carinam dorsalem brevem, prope apicem suum serratam, lævis. Partis patellaris margo interior sat anguste extenuatus. Pars tibialis parte femorali paullulo brevior, vix duplo longior quam latior; apex obliquus, angulis rotundatis; margo interior rectus, exterior leviter arcuatus, apicem prope aculeis brevibus circiter quinque densis, apicem versus robustioribus armatus. Pars tarsalis parte tibiali non duplo brevior, primum breviter depressa, marginibus anguste extenuatis, deinde leviter compressa; aculeis sat robustis armata, interioribus quatuor, exterioribus circiter septem. Unguis parte tarsali non duplo brevior.

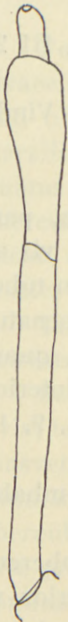


Fig. 18. *Zarax aenescens* n. sp. Pes I (calcaneus et tarsus regniti).

Pedes haud robusti. Coxæ IV carina exterior apicali instructæ, appressa, in medio manifeste altiore. Femora subrecta omnia et III et IV patellæ tibiæque granis et granulis ubique prædita. Calcanei I astragalo parte sua dimidia brevior, II astragalo vix longior; articulo tarsali primo III vix, IV manifesto breviores. Articuli tarsales: 6 (tarsus I alter biarticulatus, manifesto autem regenitus — fig. 18), 18, 9, 10. Pars ulterior tarsi II quinquepartita (tarsus II alter defuit). Processus terminalis æque longus ac unguiculi, iis autem manifesto crassior.

Differentia sexualis (femina incognita): In mare pars propior tarsi I parte posteriore duplo crassior.

Brunnea sunt: area prima scuti, pars exterior limbi lateralis, coxæ, segmentum ventrale primum; membra coxis paullo dilutiora. Areæ ceteræ scuti, pars interior limbi lateralis, segmenta dorsalia libera et cetera ventralia obscure ænescentia. Areæ punctis flavo-pallidis paucis notatæ; maculæ ambæ (punctis confluentibus formatæ), areæ primæ et parti propinquæ limbi lateralis impositæ, et lineæ ambæ parvæ fractæ, angulis posterioribus propinquæ, flavo-pallidæ.

Long. corp. 7; long. scuti 6; lat. scuti 5,5; palpi 6,5; pedes I 17, II 35, III 23, IV 31.

Patria: Venezuela. Specimen unicum, marem, vidi, ad oppidum Merida captum, in Museo Hauniense asservatum.

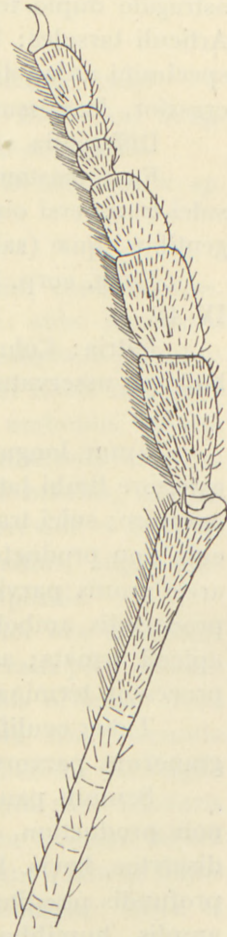


Fig. 19. *Zarax aenescens* n. sp. Maris calcaneus et tarsus (sinistri) I.



**Acritas** n. gen.

Tuber oculiferum eminentiis majoribus non ornatum est.

Pars latissima scuti dorsalis ante apices coxarum IV posita; scutum leviter convexum; a latere inspectum a sulco transverso primo usque ad marginem posteriorem æqualiter et leniter convexum, ita ut area III locum altissimum teneat; extra antennas in tubercula magna productum; sulci transversi, primo procurvo et postremo exceptis, obsoleti. Areæ II—V granis sat magnis binis, ordines ambo, pone leviter convergentes, formantibus.

Orificia glandularum foetidarum in sinu parvo posita fere detecta.

Palporum sat robustorum pars tibialis lata, anguste extenuata, extus sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est; intus sulco marginali angusto (sive margine duplice, angustissime extenuato) prædita.

Pedes graciles. Coxæ IV dilatatæ, margines posteriores scuti attingentes (♂) aut fere attingentes (♀). Pars propior tarsi I parte posteriore crassior.

Differentia sexualis magna, structura segmenti analis dorsalis et armatura pedum demonstratur.

Species unica adhuc reperta in Venezuela indigena.

**Acritas bilineatus** n. sp.

5,75 mm longus, fusco-brunneus, lineis latis olivaceo-luteis obliquis, ex orificiis glandularum foetidarum usque ad marginem posteriorem euntibus, linea eodem modo colorata posteriore transversa conjunctis; tuber oculiferum granulis magnis dispersis, limbus anterior vix granulatus; limbus lateralis sat discretus, granulis magnis densis et impressionibus irregularibus; scutum granulis magnis densis; areæ II—V granis sat magnis binis, ordines ambo pone leviter convergentes formantibus; pars femoralis tuberculo interiore apicali armata. Calcaneus I articulo tarsali primo subæqualis; articuli tarsales: 6, 9—12, 7, 7—8; processus terminalis æque longus ac unguiculi; anale dorsale maris processu inferiore et tuberculo superiore.

Tuber oculiferum humile, sat latum, supra fortiter excavatum, granulis magnis dispersis sat densis.

Scutum leviter convexum, a latere inspectum a sulco transverso primo usque ad marginem posteriorem æqualiter et leniter convexum, ita ut area III locum altissimum teneat. Sulcus transversus primus manifestissimus procurvus, quintus vix manifestus, ceteri obsoleti. Pars latissima scuti ante apices coxarum IV posita. Limbus anterior discretus, vix granulatus; pars media non elevata; tubercula extra antennas posita magna, depresso conica obtusa. Limbus lateralis sat discretus latus, granulis magnis densis dispersis extra majoribus, et impressionibus irregularibus plicatus. Orificia glandularum foetidarum in sinu parvo posita fere detecta. Areæ granulis magnis densis dispersis, II, (III non semper), IV, V, non expressæ, granis sat magnis binis, ordines ambo pone leviter convergentes formantibus. Limbus posterior ordine

granulorum; segmenta dorsalia libera tria anteriora granis inæqualibus (sexu differentibus). Coxæ granulis magnis; ventrale primum granis dispersis densis. Venter ceterum granulis ornatus.

Antennarum pars globosa granulis superioribus et granis marginalibus posterioribus et exterioribus, et apicali interiore.

Palporum pars trochanterica vix æque longa atque pars patellaris, tuberculo brevi robusto inferiore. Pars femoralis dimidio longior quam crassior, ordine inferiore tuberculorum, quorum sex (circiter) magna robusta, et tuberculo interiore armata; ultra carinam dorsalem altam, ultra medium articuli vix pertinentem, lævem tuberculis paucis serrata. Partis patellaris margo interior, peranguste extenuatus, apice angulatus, infra quem tuberculum parvulum adest. Pars tibialis non duplo longior quam latior, lata anguste extenuata, extus sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est; intus sulco marginali angusto sive margine duplici angustissime extenuato prædita, quare palpi complicari possunt. Pars tibialis deorsum curvata; margo uterque anguste extenuatus, interior subrectus, exterior arcuatus; angulus interior (inferioris marginis) prominens, robustus, aculeo brevi armatus, exterior non productus, extra quem aculeus similis adest. Pars tarsalis parte tibiali duplo brevior, depressa, marginibus vix extenuatis, in ipso apice brevi paullum compressa, setis robustis exterioribus et aculeo angulo marginis imposito interiore medio armata. Unguis parte tarsali dimidio brevior.

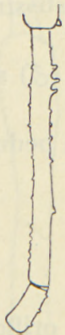


Fig. 20. *Acritas bilineatus* n. sp. Maris femur IV (sinistra).

Pedes graciles. Coxa IV tuberculo anteriore laterali cylindrico conico major in femina quam in mare, et processulo robusto conico vix curvato obtuso. Femora I—II subrecta, III et IV levissime arcuata, omnia et patellæ et tibiæ subtilissime granulatae. Calcanei I—II articulo tarsali primo subæqualis, III et IV vix longior quam crassior. Articuli tarsales: 6, (9—)10(—11—12), 7, 7—8. Processus terminalis æque longus ac unguiculi et iisdem crassior. Unguiculi integri.

Differentia sexualis: Mas minus convexus quam femina. Sculptura maris paullo robustior quam feminae. Anale dorsale feminae granis paucis dispersis et impressione transversa profunda in medio interrupta; anale dorsale maris processu brevi robusto conico, obtuso, supprono, supra quem adest tuberculum magnum, juxta quod adsunt parva ambo (utrinque singulum). E spiraculis exeunt carinae angustae binæ obliquae, maris manifestae, feminae obsoletae. Coxa IV tuberculis in mari majoribus quam in femina; trochanter IV maris tuberculo parvo interiore apicali, quod in femina deest; femora IV maris tuberculis gracilibus interioribus paucis remotis. Tarsi primi pars citerior parte ulteriore paullo, tamen manifesto crassior in mare, non in femina.

Lamina inferior penis glande cetera vix latior, in apice vix emarginata, angulis subacutis, setis lateralibus apicalibus utrinque binis longis et uno brevi et basalibus utrinque binis; processus medius in fig. 21 demonstratus est.

Fusco-brunneus, lineis latis, ante sensim latioribus, olivaceo-luteis obliquis,

procul serratis, ex orificiis glandularum foetidarum usque ad marginem posteriorem scuti euntibus, in parte latiore anteriore pustulis brunneis notatis, et linea eodem

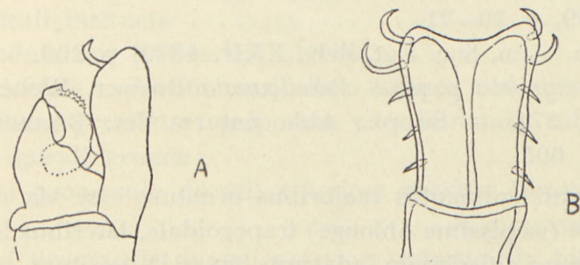


Fig. 21. *Acritas bilineatus* n. sp.

A Glans penis, a latere sinistro inspecta, B infra inspecta.

modo colorata posteriore marginella transversa conjunctis, mox ante quam ordo transversus punctorum olivaceo-luteorum adest. Tarsi brunneo-testacei.

Long. corp. 5,75; long. scuti 5,2; lat. scuti 4,4; palpi 4,7; pedes I 12, II 25, III 16, IV 22.

Patria: Venezuela. — E. SIMON collected 5 males and 2 females at San Esté-

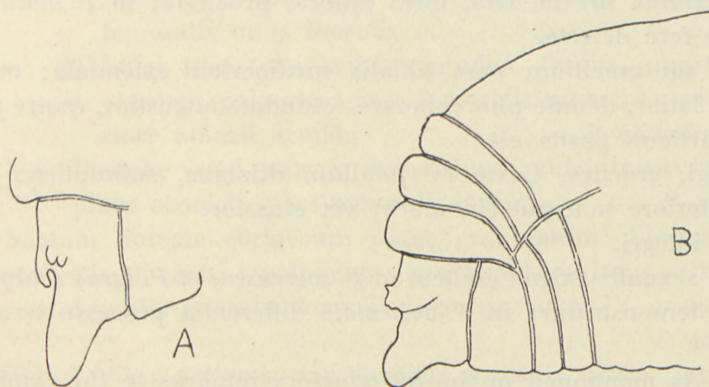


Fig. 22. *Acritas bilineatus* n. sp.

A Apex abdominis maris alterius, a latere inspecta, B maris normalis.

ban in the month of March 1888. They are preserved in the Zool. Museum of Copenhagen.

Remark: In a single male with the penis protruded the dorsal anal segment was as shown in fig. 22 A, distinctly different from that of the four other males (fig. 22 B), as the ventral process was much more clumsy; in the femora of the same specimen the armature was scarcely more developed than in the two females.

**Poecilæma** C. L. Koch.

*Cosmetus* p. p. Perty, Delectus Animalium III, 1833, p. 203.

*Poecilæma* + *Flirtea* p. p. + *Cynorta* p. p. C. L. Koch, Uebers. d. Arachnidensyst., fasc. II, 1839, p. 20—21.

*Poecilæma* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 200.

*Poecilæma* p. p. + *Cynorta* p. p. + *Poecilæmula* Roewer, Weberkn. d. Erde, 1923, p. 364, 310, 374. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 3, 1928, p. 595, 554, 605.

Tuber oculiferum eminentiis majoribus ornatum esse vix dicendum.

Scutum dorsale (sæpissime oblonge) trapezoidale, lateribus leviter arcuatis, ante rotundatum, post locum altissimum, adversus coxas IV positum, manifesto angustius; a latere inspectum a tubere oculifero ad processus leviter altius, deinde declive (in *mutico* non declive), sulco transverso primo non aut vix depressum (in *mutico* manifestum); extra antennas in tubercula porrecta productum; sulcis transversis (primo et postremo exceptis) sæpissime plus minusve obsoletis ornatum.

Area secunda sive granis aut tuberculis ambobus prædita sive inermis.

Area quarta (non expressa) eminentiis ambabus, majoribus aut minoribus, instructa.

Orificia glandularum foetidarum plus minusve obtecta, in ipso margine scuti posita, sunt foramina brevia, lata, infra latiora, proclivia; in *P. mutico* vix detecta et in *P. granito* fere detecta.

Palporum sat gracilium pars tibialis mediocriter extenuata; margo exterior primum sensim latior, deinde plus minusve rotundate angustior, quare pars latissima ultra medium articuli posita est.

Pedes longi, graciles. Coxæ IV paullum dilatatae, submuticæ. Pars propior tarsi I parte posteriore non aut (in mare) vix crassior.

Unguiculi integri.

Differentia sexualis exigua (saltem in *P. soerenseni* et *P. lyra*) sculptura segmenti analis dorsalis demonstratur; in *P. reticulato* differentia processu terminali pedum demonstratur.

Remarks: As mentioned in the introductory remarks to the family *Cosmetidae*, the finds of SØRENSEN do not allow a circumscription of the genera according to those characters which are used by ROEWER. This will result in another arrangement of the species; it will thus be seen that at any rate *Poecilæmula* Roewer and part of *Cynorta* will fall within the genus *Poecilæma* in the sense of SØRENSEN. — *P. muticum* is the most aberrant of the species referred to *Poecilæma*, but I think that it represents an extreme reduction of the eminentiæ within the same relationship, as *P. signata* Banks (according to the figure by ROEWER p. 374) has its eminentiæ considerably shortened as compared with the other species described.

*Conspectus specierum hic descriptarum.*

- I. Scutum dorsale sine processibus ambobus in area IV, cum granis parvis ambobus granulis scuti paullo aut vix majoribus . . . . . *P. muticum* n. sp.

## II. Area IV scuti processibus ambobus instructum:

- A. Orificia glandularum foetidarum fere detecta; labium anterius posterius prominet. Area II granis ambobus. Pars femoralis palpi tuberculo interiore apicali instructa . . . . . *P. granitum* n. sp.
- B. Orificia glandularum foetidarum obtecta:
1. Scutum dorsale eminentiis majoribus tantum ambobus (processibus posterioribus) præditum; palporum pars femoralis tuberculo parvo interiore apicali armata:
    - a. Coxæ I processulo dorsali anteriore breviter biramo  
*P. soerenzeni* n. sp. (K. L. H.).
    - b. Coxæ I processulo dorsali anteriore robusto vix bifido . *P. lyra* n. sp.
  2. Scutum dorsale præter processus posteriores granis ambobus (anterioribus) præditum, ceteris paullo tantum altioribus  
*P. marginatum* W. S.
  3. Scutum dorsale præter processus posteriores eminentiis majoribus (granis aut tuberculis) anterioribus ambobus præditum:
    - a. Scutum dorsale subtiliter coriaceum pustulis humillimis (coloratis) præditum:
      - + Pustulæ scuti magnæ:
        - § Sulci transversi scuti omnes manifesti; palporum pars femoralis intus inermis . . . . . *P. conspersum* Perty.
        - §§ Sulci transversi scuti secundus, tertius, quartus plane obsoleti; palporum pars femoralis tuberculo minuto interiore apicali armata . . . . . *P. albiadpersum* Roewer.
      - ++ Pustulæ scuti parvæ, densissimæ; sulci transversi II—IV plane obsoleti; pars femoralis inermis . . . . . *P. punctatum* n. sp.
    - b. Scutum dorsale coriaceum parce granulatum; limbus lateralis scuti vix discretus; palporum pars femoralis intus armata:
      - + Limbus lateralis foveolis rugosus; coxæ IV muticæ  
*P. guttigerum* n. sp.
      - ++ Limbus lateralis non foveolis rugosus; præter pustulas vix granulatus; coxæ IV non muticæ . . . . . *P. reticulatum* n. sp.
    - c. Scutum dorsale coriaceum tantum; limbus lateralis scuti discretus:
      - + Limbus lateralis lævis . . . . . *P. marginale* Banks.
      - ++ Limbus lateralis punctis impressis ornatus  
*P. withi* n. sp. (K. L. H.).

Observatio: *P. marginatum* huic generi adscripti quamquam unguiculos pedum non vidi.

**Poecilæma muticum** n. sp.

5,2 mm longum, cinnamomeum, linea transversa posteriore submarginali scuti et vitta lageniformi, extra quam puncta et maculæ et intra quam ordo medius punc-

torum 4 luteorum; tuber oculiferum ordinibus ambobus granulorum parvorum; limbus lateralis non discretus; scutum coriaceum; area IV granis parvis ambobus; orificia glandularum foetidarum vix detecta; palporum pars femoralis tuberculo interiore apicali armata; calcaneus I astragalo triplo brevior; articuli tarsales: 6—7, 12—14, 7—8, 7—9; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humile, supra excavatum, ordinibus ambobus granulorum parvorum, inter quos granula parva adsunt.

Scutum leviter convexum, a tubere oculiferum ad sulcum transversum primum vix, deinde sensim paullo altius, pone non declive. Sulci transversi primus leniter procurvus manifestus, ceteri vix manifesti. Limbus anterior discretus, coriaceus; pars media vix elevata, dense granulata; tubercula extra antennis posita subglobosa. Limbus lateralis perlatus, non discretus, præter pustulas granulis, quorum exteriora ordinem submarginalem formant, præditus, et punctis et striis impressis ornatus, quarum aliquot ordinem prope marginem exteriorem formant (et interdum sulcum formare videntur). Orificia glandularum foetidarum vix detecta. Area coriaceæ, prima impressionibus transversis posterioribus; omnes granulis dispersis; area quarta granis parvis granulis paullo, vix aut non majoribus, ambobus late disjunctis. Limbus posterior ordine granulorum; segmenta libera dorsalia tria anteriora ordinibus singulis granorum inæqualium densorum; anale dorsale granis inæqualibus dispersis. Anale ventrale vitta posteriore granorum parvorum haud densorum et carina anteriore; coxæ et segmenta ventralia cetera granulis ornata.

Antennarum pars globosa præter grana magna densa marginalia granis parvis supra ornata.

Palporum pars trochanterica parte patellari vix longior; in apice incrassata, tuberculo parvo subcylindrico obtuso inferiore apicali munita. Pars femoralis non triplo longior quam crassior; ordine inferiore tuberculorum minorum (c. 14) et tuberculo interiore apicali robusto brevi rotundo munita; ultra carinam dorsalem leviter expressam, leviter crenulatam, æqualiter crenulata. Partis patellaris margo interior angustissime extenuata. Pars tibialis parte femorali vix brevior, non triplo longior quam latior; margo interior extenuatus, subæquus, in parte apicali paullo angustior; margo exterior primum subrectus, sensim latior, deinde prope apicem paullo (rotundate) angustior; angulus interior breviter productus et exterior rotundatus inermes. Pars tarsalis parte tibiali plus quam duplo brevior, in postico leviter depressa, deinde vix compressa, margines vix extenuati inermes. Unguis sat procerus parte tarsali non duplo brevior.

Pedes graciles. Coxa I processulo sive carina dorsali sat humili, processulum suum conicum vix proclivum, superiorem submuticum emittente. Coxa IV quam III triplo latior in apice submutica. Femora leviter arcuata granulata. Calcaneus I astragalo triplo brevior, II paullo plus quam duplo; articulo tarsali primo coxa III vix, IV duplo brevior. Processus terminalis æquus et crassus et paullo brevior quam unguiculi. Articuli tarsales: 6—7, 12—14, (7—)8, (7—)9.

Differentia sexualis. Mas quam femina major et minus convexus. Anale dorsale

maris tuberculis duobus (præter quæ tertium posterius sæpe adest) præditum; grana analis dorsalis in femina vix majora quam granula cetera. Pedes maris quam femina paullo crassiores. Pars propior tarsi I in mare leviter incrassata.

Cinnamomeum; scutum linea lutea transversa posteriore submarginali in medio sæpe late interrupta et vitta lageniformi lutea, extra quam puncta et maculae parvæ irregulariter formatae adsunt, et intra quam ordo medius punctorum 4 adest luteorum in sulcis transversis positus.

Long. corp. 5,2; long. scuti 4,7; lat. scuti 4,2; palpi 4,8; pedes I 17, II 39, III 23, IV 32.

Patria: Brasilia. — Prof. GÖLDI collected 4 males and 12 females in 1892 and 5 females in 1893, in Colonia Alpina near Theresopolis, 8 specimens of which are preserved in the Zool. Museum Copenhagen.

#### *Poecilæma granitum* n. sp.

6 mm longum, brunneum, eminentiæ scuti, exceptis processibus areæ IV, eminentiæ aliquot tuberis, eminentiæ laterales coxæ IV et maculae anteriores subtriangulae, vitellinae; tuber oculiferum ordinibus ambobus granorum; limbus lateralis vix discretus; scutum granis parvis anterioribus et processibus posterioribus ambobus; orificia glandularum foetidarum fere detecta; labium anterius ultra posterius prominat; area II granis, area IV processibus ambobus; palporum pars femoralis tuberculo interiore apicali armata; calcaneus I astragalo haud multo brevior; articuli tarsales: 7, 14—16, 8, 9—10; processus terminalis unguiculis æqualis.

Tuber oculiferum latum, perhumile, manifeste excavatum, ordinibus ambobus granorum, quaternorum, paucorum, vitellinorum.

Scutum post sulcum primum sat alte convexum, post locum latissimum adversus apices coxarum IV positum paullulo angustius, lateribus levissime arcuatis. Sulci omnes manifesti. Limbus anterior vix discretus, ordine posteriore granorum quatuor præditus, pars media parva tumida; tubercula extra antennis posita parva, conica, obtusa, vitellina. Limbus lateralis vix discretus lævis, præter partem marginalem declivem pone latiore, granis præsertim ante densis præditus. Orificia glandularum foetidarum fere detecta; labium anterius ultra posterius prominat. Area prima ordine posteriore granorum 4—6, ceteræ granis densis dispersis, quorum aliquot ceteris majores, præsertim ambo areæ secundæ. Processus areæ quartæ leviter reclines magni, distantia apicali manifesto breviores; pars basilaris late conica, granulis brunneis scabra; pars apicalis cylindrica obtusa. Limbus posterior et segmenta dorsalia libera tria priora ordinibus singulis granorum inæqualium haud densorum; anale dorsale granis inæqualibus, quorum parva brunnea et ambo magna vitellina. Coxæ IV et ventrale primum granis minoribus densis; ventralia cetera ordinibus singulis granorum parvorum.

Antennarum pars globosa articuli primi granis densis prædita est.

Palporum pars trochanterica parte patellari longior, tuberculis inferioribus duobus quorum interius exteriori minus. Pars femoralis plus quam duplo longior

quam crassior, ultra carinam dorsalem brevem et humilem et lævem lævis, ordine inferiore tuberculorum parvorum circiter 12 et tumulo setifero robusto interiore apicali. Pars patellaris vix extenuatus; angulus interior rotundatus, exterior leviter productus, aculeo gracili armatus, intra quem aculeus similis adest. Pars tarsalis parte tibiale non duplo brevior, in postico leviter depressa, marginibus levissime extenuatis, deinde leviter compressa, præter setas aculeo interiore procero armata. Unguis procerus parte tarsali vix duplo brevior.

Pedes sat graciles; coxæ I tuberculo breviter et obtuse bicuspidato, IV submuticæ. Femora subrecta, granis parvis prædita. Calcanei I astragalo haud multo, II non triplo brevior, III articulo tarsali primo æqualis, IV vix brevior. Pars ceterior tarsi I æque crassa atque pars ulterior. Unguiculi integri. Processus terminalis æque longus et crassus ac unguiculi. Articuli tarsales: 7, 14(—15—16), 8, 9(—10).

Differentia sexualis ignota. Ventrale I (♀): carinæ obliquæ e spiraculis exeuntes obsoletæ.

Brunneum; sulci transversi, eminentiæ scuti, exceptis processibus areæ IV, eminentiæ aliquot tuberis, eminentiæ laterales coxæ IV (apicalibus exceptis) et maculæ anteriores ambæ scuti (ad sulcum transversum primum et præsertim ante) subtriangulæ, punctis impressis brunneis ornata, vitellinæ. Trochanteres flavi, pedum partes ceteræ flavæ, dense nigro punctatæ, pars dimidia subbasalis femoris IV fulva.

Long. corp. 6; long. scuti 4,5; lat. scuti 4; palpi 5,5; pedes I 14, II 35, III 21, IV 30.

Patria: Venezuela. Specimina duo (♀) vidi, ad San Estéban ab ill. E. SIMON 3/1888 capta; nunc in Museo Zool. Hafniense asservata.

**Poecilæma soerenseni** n. sp. (K. L. Henr.).

*Poecilæma limbatum* Sørensen, in manuscr. (nec KOCH).

3,5 mm longum, fusco-brunneum, vittis dorsalibus ambobus luteis, literam U formantibus notatum, partem mediam punctis (granis) luteis ornatam includentibus; tuber oculiferum haud latum ordinibus ambobus granulorum; limbi anterioris pars media dense subtiliter granulata; scutum coriaceum granulis dispersis et granis et ambobus processibus posterioribus præditum; segmenta dorsalia libera tria anteriora granis binis; palporum pars femoralis tuberculo parvo interiore apicali armata, pars tarsalis setis tantum munita; coxæ I processulo dorsali anteriore breviter biramo; calcaneus I astragalo plus quam duplo brevior; articuli tarsales: 7, 15, 8, 9; processus terminalis æque longus ac unguiculi. — Maris anale dorsale granis magnis ambobus.

Tuber oculiferum humile, haud latum, supra excavatum, ordinibus ambobus granulorum, oculis non propinquis, inter quos granula minuta adsunt.

Scutum sat alte convexum, a tubere oculifero ad sulcum transversum primum vix, deinde manifeste altius, pone leniter declive. Sulcus primus leniter procurvus latus non profundus, quintus manifestus, ceteri desunt. Limbus anterior vix discretus



angustus coriaceus; pars media dense subtiliter granulata; tubercula extra antennas posita brevia, haud robusta, conica, obtusa. Limbus lateralis e sexu varius. Orificia glandularum foetidarum tota fere obtecta. Scutum coriaceum, granulis dispersis et (luteis) granis ornatum, quorum majora ambo extra (et ante) tuber oculiferum posita sunt, et tria media, a sulco transverso primo usque ad processus posita (quorum secundum et tertium sunt media sui ordinis transversa granorum paucorum), et ordinibus ambobus granorum sat densorum, maculam dorsalem fuscam cingentibus, post processus inter se ordine brevi transverso conjunctis; extra quos grana minuta dispersa, minus densa adsunt. Area prima impressione posteriore media orbiculari parva. Processus leviter reclines subparalleli (primum conici granulati, deinde cylindrici obtusi) spatio interapicali subæquales. Margo posterior ordine, in medio interrupto, granorum densorum (luteorum); segmenta dorsalia libera tria anteriora ordinibus singulis granulorum et granis binis (luteis). Anale dorsale granulis dispersis et impressione transversa. Anale ventrale ordinibus duobus granulorum; coxæ et ventrale primum granis parvis dispersis; ventralia cetera ordinibus singulis granulorum.

Antennarum pars globosa articuli primi granis marginalibus densis ornata, pone majoribus.

Palporum pars trochanterica parti patellari subæqualis, in apice incrassata, tuberculo inferiore armata. Pars femoralis plus quam triplo longior quam crassior, ordine inferiore tuberculorum multorum (15—20), in basi confluentium, et tuberculo parvo interiore apicali armata; ultra carinam dorsalem lævem vix serrata. Partis patellaris margo interior angustissime extenuatus, in apice manifeste angulatus. Pars tibialis triplo longior quam latior, parte femorali vix brevior; margo interior sat anguste extenuatus rectus, in apice sensim angustior, exterior primum rectus sensimque paullo latior, deinde sensim angustior; anguli sat producti tuberculis singulis sat robustis armati. Pars tarsalis parte tibiali triplo fere brevior, angustus, sensim angustior, setis tantum munita. Unguis sat procerus parte tarsali vix tertia parte brevior.

Coxæ I processulo dorsali anteriore breviter biramo obtuso, IV coxis III plus quam duplo latiores, carina transversa superiore apicali humili. Femora recta, granulata. Calcanei astragalo I plus quam duplo, II duplo breviores; articulo tarsali primo III subæqualis, IV paullo brevior. Articuli tarsales: (6—)7, (13—)15(—17), (7—)8(—9), (8—)9(—10). Processus terminalis æque crassus et longus ac unguiculi.

Differentia sexualis: Mas quam femina minor et saturatius coloratus. Sulcus transversus primus maris manifestus, feminae levis. Limbus lateralis maris non discretus, feminae leviter discretus. Pedes maris paullo longiores. Anale dorsale maris granis magnis (fuscis) ambobus conicis, post impressionem transversam positus; feminae granis parvis ambobus. Mas a femina non in femoribus IV discrepat.

Fusco-brunneum, vittis latis ambabus luteis ante concave acuminatis, literam U pone interruptam formantibus, partem mediam dorsi includentibus, post processus scuti valde coarctatam, punctis (granis jam dictis) luteis notatam; margines lateralis

et posterior scuti et segmentorum dorsalium liberorum omnium sordide lutei. Pedes flavi, obsolete fusco anulati; patellæ et apices femorum et tibiæ infuscata.

Long. corp. 3,5 (♀, cujus abdomen fortiter extensum, 5); long. scuti 3,25 (♀ 3,75); lat. scuti 3 (♀ 3,25); pedes I 14, II 34 (♀ 33), III 19 (♀ 20), IV 27 (♀ 25).

Patria: Brasilia. Exempla decem, mares quatuor et feminas sex, vidi, in provincia Rio de Janeiro ab ill. Prof. GÖLDI quinque in Serra Veruzella capta et (uno in Museo Zool. Hauniensi excepto) in collectione ill. comitis KEYSERLINGII asservata, quinque ad Coloniam Alpinam (prope Theresopolin) in montibus.

Variatio: Carina dorsalis partis femoralis palporum interdum serrata, ultra quam articulus granis acutis interdum serratus est.

Remark: SØRENSEN believed that the species here described was identical with *Poecilæma limbatum* Koch as the pattern of the scutum is nearly the same, although he was well aware that great differences were present. It is, however, certain that this identity cannot be maintained. The species of SØRENSEN is quite another species, and clearly enough belongs to *Poecilæmula* Roewer. The species being thus in want of a new name, I propose to name it after Dr. SØRENSEN.

#### *Poecilæma lyra* n. sp.

4,25 mm longum, brunneum, vittis dorsalibus ambabus luteo-albidis ornatum, vitta angusta ante conjunctis, partem mediam punctis (granis) luteo-albidis notatam includentibus; tuber oculiferum haud latum, ordinibus ambobus granulorum et granulis pusillis dispersis; pars media limbi anterioris tumida, dense granulata; scutum coriaceum granulis dispersis et granis et ambobus processibus posterioribus; segmenta dorsalia libera tria anteriora granis binis; palporum pars femoralis tuberculo parvo interiore apicali armata, pars tarsalis setis tantum munita; coxæ I processulo dorsali anteriore vix bifido; Calcaneus I astragalo triplo fere brevior; articuli tarsales: 7, 15—16, 8, 9; processus terminalis unguiculis paullo brevior. — Maris anale dorsale tuberculis ambobus.

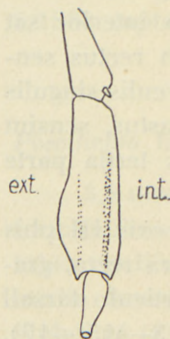


Fig. 23. *Poecilæma lyra* n. sp. Palpi partes patellaris, tibialis et tarsalis. (W. Sør. del.)

Tuber oculiferum humile haud latum, supra leviter excavatum, ordinibus ambobus granulorum et granulis pusillis dispersis ornatum.

Scutum sat convexum, æque latum ac longum, a tubere oculifero ad sulcū transversum primum vix, deinde manifesto altius, pone leniter declive. Sulci transversi primus procurvus et quintus debiles; ceteri desunt. Limbus anterior discretus coriaceus; pars media tumida, dense granulata; tubercula extra antennis posita brevia, robusta, obtusa. Limbus lateralis non discretus. Orificia glandularum foetidarum tota obtecta. Scutum coriaceum granulis dispersis sat densis et granis deplatis (luteo-albidis) præditum, quæ ante processus in ordines tres disposita sunt, quorum singula (media) ceteris majora, et ordinibus ambobus granorum remotorum (maculam dorsalem fuscā cingentibus), post processus inter sese ordine transverso

brevi conjunctis, extra quos grana minuta dispersa adsunt. Areæ primæ impressio posterior media orbicularis haud profunda imposita. Processus vix reclines, paralleli, primum conici granulati, deinde cylindrici læves, obtusi spatio interapicali æquales. Limbus posterior scuti ordine granorum (luteorum) sat densorum; segmenta dorsalia libera tria anteriora ordinibus singulis granulorum et granis binis (luteis); anale dorsale ordine superiore granorum quatuor. Coxæ et ventralia primum et anale granulis dispersis, cetera ordinibus singulis granulorum, pone minorum.

Antennarum pars globosa articuli primi granis marginalibus supra prædita, quorum posteriora majora, densa.

Palpi descriptioni speciei precedentis congruunt; hac in re tantum discrepant, quod unguis parte tarsali plus quam parte tertia brevior est.

Coxæ I processulo dorsali anteriore robusto, vix bifido, obtuso. Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali brevi, humili, crenulata. Femora recta, granulis ubique prædita. Calcanei astragalo I triplo fere, II duplo breviores, articulo tarsali primo III subæqualis, IV manifeste brevior. Articuli tarsales: 7(—8, raro), (14—)15—16(—17), (7—)8, 9(—10). Processus terminalis unguiculis paullo brevior et tenuior.

Differentia sexualis: Mas quam femina paullo minor. Pedes maris paullo longiores quam feminæ. Anale dorsale maris tuberculis posterioribus ambobus conicis acutis; feminæ granis.

Brunneum, vitta angusta lyriformi (sive U-formi) luteo-âlbida pone interrupta, cujus partes anteriores vitta angusta transversa (sæpe integra, sæpe interrupta) conjunctæ sunt, extra quam puncta (eminentiæ) remota dispersa luteo-âlbida adsunt; macula dorsalis media brunnea punctis (granis jam dictis) luteo-âlbidis notata. Area prima punctis (granis) ambobus luteo-âlbidis, ante et extra tuber oculiferum positis; margines lateralis et posterior scuti flavi; segmenta dorsalia flavo-marginata, tria anteriora punctis (granis) binis luteo-âlbidis. Pedes apicem versus dilutiores; tibiæ et metatarsi anguste fusco anulata; tarsi infuscati.

Long. corp. 4,25; long et lat. scuti 3,5; palpi 4; pedes I 14, II 34, III 20, IV 27.

Patria: Brasilia. Exempla duodecim vidi, in provincia Rio de Janeiro ab ill. Professore GÖLDI ad Monte Verde (4 ♂, 6 ♀, 1 pullum) et ad Facenda Calvario (1 ♀) capta, quorum duo in Museo Zool. Hafniensi, cetera in collectione ill. comitis KEYSERLINGII asservata.

Variatio: Palporum pars femoralis supra sæpe leviter serrata. Anale dorsale (in mare uno) eminentiis posterioribus quatuor præditum.

Pullus magnus: Long. corp. 2,75; long. scuti 2; palpi 6,5. Palporum pars trochanterica æque longa ac pars patellaris, tuberculo inferiore apicali munita; ceteræ partes inermes; pars femoralis partibus patellari et tibiali conjunctis æqualis; pars tibialis parte patellari duplo longior; pars tarsalis parte tibiali vix brevior. — Areæ leviter expressæ; secunda granis ambobus late separatis, quarta processulis ambobus. — Sculptura scuti cetera debilis. — Vitta anterior, partes anteriores lyræ conjungens, vix adest. Pedes fuscî, pæne nigri; apices tibiarum et bases metatarsorum pallentes.

Remarks: The four proximal tarsal joints in the first pair of legs are slightly enlarged in the single male examined.

Like the preceding species, this also must be referred to the genus *Poecilæmula* of the Roewerian system. Both species in many respects (e. g. the shape of the spines on area IV and the patterns of scutum) show much resemblance to *P. peculiaris* Roewer.

***Poecilæma marginatum* W. Sør.**

*Cosmetus marginatus* W. Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 588.

*Poecilæma marginatus* Roewer, Weberkn. d. Erde, 1923, p. 373.

5,5 mm longum, rufo-brunneum, vitta laterali et pustulis scuti vitellinis notatum; tuber oculiferum latum, late excavatum, granulis ambobus parvis; scutum subtiliter coriaceum, pustulis (vitellinis) dispersis et anterioribus granis ambobus (fuscis), ceteris paullo tantum altioribus, et posterioribus processibus ambobus granulatis; palporum pars femoralis tuberculo interiore apicali armata; articuli tarsales: ?, 17, 10, ?; processus terminalis robustus, diametro articuli longior.

Patria: Brasilia.

Addenda et corrigenda: Limbus anterior scuti sat tumidus, pustulis ambabus deplanatis ornatus. — Orificia glandularum foetidarum plane obtecta. — Inter tuber oculiferum et processus scuti adsunt grana ambo fusca, ceteris (pustulis) non latiora sed paullo altiora. — Palporum pars femoralis tuberculo interiore apicali armata; ultra carinam dorsalem lævem, apicem versus evanescentem, lævis. Partis patellaris margo interior anguste extenuatus, in apice oblique angulatus. — Coxæ IV coxis III triplo latiores, carina transversa superiore apicali crassa rectangula. — Calcanei I ?, astragalo II vix dimidio, III triplo breviores, IV? — Pars ceterior tarsi II 14-articulata. — Vitta lateralis scuti sordide vitellina, ante oblique acuminata, pone bifida, post coxas III recta, a margine remota.

***Poecilæma conspersum* Perty.**

*Cosmetus conspersus* Perty, Delectus Animalium, III, 1833, p. 203.

*Cynorta conspersa* C. L. Koch, Die Arachniden, T. VII, 1839, p. 100.

*Cynorta conspersa* Roewer, Die Weberkn. d. Erde, 1923, p. 312.

4 mm longum, dilute cinnamomeum, lineis et maculis et punctis luteis notatum, quorum macula lata perverse cordiformis inter processus fusco-brunneos posita est; tuber oculiferum leviter excavatum, subtiliter coriaceum tantum; sulci transversi omnes manifesti; pars media limbi anterioris sat dense granulata; limbus lateralis leviter discretus; area secunda granis ambobus, quarta processibus ambobus; scutum totum pustulis amplis subplanis (luteis); palporum pars femoralis intus inermis, pars tarsalis setis tantum munita; coxæ I carina dorsali; calcaneus I astragalo parte tertia brevior; articuli tarsales: 6, 14, 8, 8; processus terminalis unguiculis æqualis.

Tuber oculiferum humile latum, supra leviter excavatum, subtiliter coriaceum tantum.

Scutum convexum. Sulci transversi omnes manifesti; primus procurvus haud profundus, ceteri læves. Limbus anterior discretus coriaceus; pars media sat dense granulata; tubercula extra antennas posita brevia, robusta, rotundata. Limbus lateralis leviter discretus, coriaceus, præter puncta et lineolas impressa vix manifesta lævis. Orificia glandularum foetidarum tota fere oblecta. Areæ subtilissime coriaceæ, granulis minutis dispersis; prima impressione media posteriore orbiculari sat profunda nec ampla; secunda granis ambobus obtusis late separatis. Processus areæ quartæ sat proceri, leviter reclines ac divergentes, spatio interapicali breviores, obtusi. Scutum totum pustulis amplis subplanis. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum; anale dorsale granulis dispersis. Anale ventrale ordinibus duobus granulorum; coxæ et ventrale primum (ante sulcum latum et profundum) granulis parvis remotis; ventralia cetera ordinibus singulis granulorum remotorum.

Antennarum pars globosa articuli primi grano magno interiore apicali conico et granis exterioribus prædita.

Palporum pars trochanterica parte patellari paullo longior (in apice incrassata) tuberculo inferiore armata. Pars femoralis triplo longior quam crassior, ordine inferiore apicem fere attingente tuberculorum minorum (circiter 15) armata, intus inermis; ultra carinam dorsalem humilem lævem sensim evanescentem lævis. Partis patellaris margo interior angustissime extenuatus, non angulatus; ultra (et supra) quem tuberculum minutum adest. Pars tibialis plus quam duplo longior quam latior, parti femorali æqualis; margines sat late extenuati, interior rectus (qui — torsione palpi — "fast ein wenig ausgebogen" (C. L. KOCH) esse videtur), exterior primum rectus sensim paullo latior, deinde (ultra medium) rotundate angustior; anguli rotundati aculeis singulis armati. Pars tarsalis parte tibiali plus quam duplo brevior, sat angusta, apicem versus sensim angustior, setis tantum munita. Unguis sat procerus, parte tarsali dimidio brevior.

Coxæ I dorsali tuberculo compresso humili; IV coxis III duplo latiores, carina transversa superiore apicali humillima rotundata. Femora recta lævia. Calcanei astragalo I parte tertia, II parte vix tertia breviores, III et IV articulo tarsali primo manifeste (vix duplo) breviores. Articuli tarsales: 6, 14, 8, 8. Pars propior tarsi I parte ulteriore paullulo crassior. Processus terminalis æque longus atque unguiculi.

Differentia sexualis incognita.

Dilute cinnamomeum, lineis et maculis et punctis luteis notatum: limbus anterior lineis ambabus leviter obliquis; limbus posterior lineis ambabus, marginem attingentibus; macula lata perverse cordiformi, pone et inter processus fusco-brunneos areæ quartæ posita; maculis scuti, quarum utrinque ternæ oblongæ, limbis lateralibus impositæ, et quaternæ suborbiculares, ordines ambos arcuatos formantes; denique maculis parvis et punctis, quorum alia lineam mediam interruptam, alia (limbis lateralibus aut imposita aut propinqua) ordines ambos, alia ordinem transversum ante tuber oculiferum formant. Membra paullo dilutiora; patellæ infuscatæ; astragali anguste nigro anulati.

Long. corp. 4; long. scuti 3,5; lat. scuti 3; palpi 3,5; pedes I 14,5; II 32; III 19; IV 28.

Patria: Brasilia. Specimen unicum vidi, ad Rio Vacantia, Cameta, captum, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hauniensi asservatum.

Observatio: A descriptione, a C. L. KOCH data, his in rebus discrepat: "Der Augenhügel ziemlich hoch." — Grana areæ secundæ non commemoratur. — "Die drei oberen Hinterleibsringe.... ohne Körnchen." — Nullo modo tamen dubito, quin hæc species *Cynorta conspersa* Koch sit.

Remark: ROEWER has referred this species to *Cynorta* on account of the 6 joints in tarsus I.

**Poecilæma albiadpersum** (Roewer).

*Poecilæma punctulissimum* E. Simon in schedula.

*Poecilæma punctulissimum* Sørensen in manuscr.

*Cynorta albiadpersa* Roewer, Abh. nat. Ver. Bremen, XXVI, 3, 1928, p. 573.

Vix 5 mm longum, fuscum pæne nigrum; limbus anterior vitta angusta olivacea, margo exterior limbi lateralis rufescens, scutum ceterum, segmenta dorsalia libera, coxæ (in lateribus) maculis parvis (pustulis) olivaceis notata; tuber oculiferum coriaceum tantum; limbus lateralis non discretus; scutum subtiliter coriaceum pustulis amplis humillimis densis et tuberculis parvis anterioribus ambobus et processibus posterioribus ambobus; palporum pars femoralis tuberculo interiore apicali armata; coxæ I processulo dorsali anteriore curvato; calcaneus I articulis tarsalibus primo et secundo conjunctis æqualis; articuli tarsales: 6, ?, 8, ?; processus terminalis unguiculis vix brevior.

Tuber oculiferum humillimum transversum, supra manifesto (quamquam levius) excavatum, subtiliter coriaceum tantum.

Scutum sat alte convexum. Sulci transversi primus, impressionem latam haud bene expressam præstans, et quintus debiles; ceteri desunt. Limbus anterior leviter discretus; tubercula extra antennas posita conica, obtusa. Limbus lateralis non discretus. Orificia glandularum foetidarum vix oblecta. Scutum (margine exteriori limbi lateralis excepto) subtiliter coriaceum, pustulis amplis humillimis majoribus et magnis (olivaceis) dense præditum; area secunda (non expressa) tuberculis parvis ambobus humiliter conicis. Processus procere conico-cylindrici, obtusi, erecti, leviter divergentes, spatio interapicali duplo fere breviores. Limbus posterior scuti et segmenta dorsalia libera subtiliter coriacea et (anali excepto) ordinibus singulis pustularum. Coxæ et segmenta ventralia subtiliter coriacea; coxæ infra et ventrale primum subtiliter granulata. Coxæ IV pustulis magnis lateralibus.

Antennarum pars globosa articuli primi grans robustis marginalibus prædita.

Palporum pars trochanterica parte patellari longior, in apice incrassata, tuberculo inferiore robusto obtuso. Pars femoralis non triplo longior quam crassior, ordine inferiore, ultra medium pertinente, tuberculorum parvorum (circiter 6) et tuberculo

interiore apicali armata; ultra carinam dorsalem, in apice serratam, granis parvis serrata. Partis patellaris margo interior sat anguste extenuatus in apice angulatus, ultra quem tuberculum parvum adest. Pars tibialis plus quam duplo longior quam latior, parte femorali paullo longior; margo interior anguste extenuatus subrectus, exterior sat latus, primum rectus sensimque latior, deinde prope apicem rotundate angustior; anguli rotundati exterior aculeo gracili, interior tuberculo armati. Pars tarsalis parte tibiali triplo fere brevior, primum depressa, marginibus extenuatis, deinde angustior leviter compressa, aculeis utrinque binis armata, quorum maximus est interior primus, haud robustus. Unguis haud robustus, parte tarsali vix duplo brevior.

Pedes sat graciles. Coxæ I processulo dorsali anteriore anteversum curvato, acuto; IV coxis III plus quam duplo latiores, carina transversa superiore apicali humillima, brevi, rotundata. Femora leviter arcuata, lævia. Calcanei I æque longus atque articuli tarsales primus et secundus conjuncti, II ?, III æque longus atque articulus tarsalis primus. Articuli tarsales: 6, ?, 8, ?. Processulus terminalis procerus unguiculis vix brevior.

Differentia sexualis mihi incognita.

Fuscum pæne nigrum; scutum maculis parvis (et minimis) densis olivaceis; limbus anterior vitta angusta transversa olivacea; margo exterior latus limbi lateralis dilute rufescens; segmenta dorsalia libera tria anteriora ordinibus singulis macularum minimarum olivacearum; coxæ IV maculis similibus lateralibus. Pedes apicem versus haud multo dilutiores.

Long. corp. 4,75; long. scuti 4; lat. scuti 3,5; palpi 4; pedes I 16, (II sine metatarso et tarso 22), III 23, (IV sine metatarso et tarso 18).

Patria: Brasilia. Specimen unicum vidi, ad St. Paul Olivença captum, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hafniensi asservatum.

Remark: This species, which was unknown, when SØRENSEN made his description, was described in 1928 by ROEWER on material likewise from St. Paul Olivença.

#### *Poecilæma punctatum* n. sp.

5 mm longum, fusco-brunneum; tuber oculiferum, scutum totum, segmenta libera tria anteriora punctis (pustulis parvis) luteis densissime ornata; tuber oculiferum pustulis et granulis ornatum; limbus lateralis non discretus; scutum subtilissime coriaceum, pustulis et granulis parvis densissime ornatum; area II granis parvis ambobus et IV processibus ambobus; palporum pars femoralis intra inermis; astragalus I calcaneo dimidio longior; articuli tarsales: 6—7, 13—16, 8—9, 9—10; processus terminalis unguiculis paullo brevior et crassior.

Tuber oculiferum humillimum transversum, supra manifesto excavatum, coriaceum, præter pustulas parvas paucas granulis dispersis parvis mediis et ordinibus ambobus granulorum trinorum (quaternorum) infra et post suum oculum positis.

Scutum sat alte convexum. Sulci transversi primus manifestus (extus obsoletus) procurvus et quintus rectus manifestus; ceteri desunt. Limbus anterior leviter discretus, coriaceus, granulis parvis densis; tubercula extra antennas posita conica obtusa. Limbus lateralis non discretus. Orificia glandularum foetidarum vix obtecta. Scutum

totum (margine exteriori limbi lateralis excepto) subtilissime coriaceum, pustulis parvis (coloratis) et granulis parvis densis dispersis; area II non expressa granis ambobus sat parvis prædita; processus areae IV (non expressæ) conici, robusti, obtusi

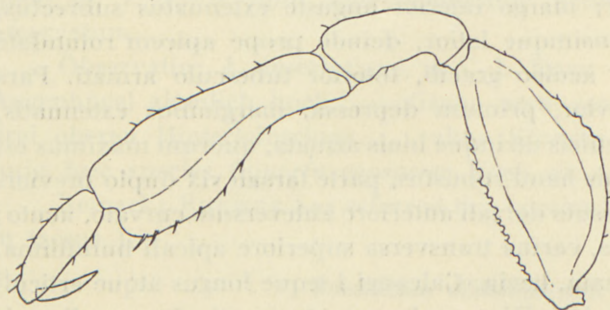


Fig. 24. *Poecilama punctatum* n. sp. Palpus.

reclines, paralleli, spatio interapicali paullo longius aut leviter divergentes, spatio interapicali subæquales parce granulati. Segmenta dorsalia libera subtiliter coriacea, tria anteriora ordinibus binis, anteriore pustularum parvarum (coloratarum) et posteriore granulorum majorum; anale præter granula granis. Coxæ IV infra et segmentum ventrale primum granulis dispersis haud densis suæ impressioni parva impositis; anale ventrale ordinibus duobus; cetera ordinibus singulis granulorum remotorum extus majorum.

Antennarum pars globosa articuli primi granis superioribus dispersis prædita.

Palporum pars trochanterica parte patellari longior, in apice incrassata, tuberculo inferiore, robusto obtuso. Pars femoralis duplo longior quam crassior, ordine inferiore, apicem non attingente, tuberculorum densorum parvorum (circiter 15), intra inermis; ultra carinam dorsalem, in parte media interdum serratum, lævis. Partis patellaris margo interior sat anguste extenuatus, in apice non angulatus, ultra quem tuberculum parvum adest. Pars tibialis vix duplo longior quam latior, parte femorali paullo longior; margo interior anguste extenuatus, subrectus, exterior sat latus, primum rectus, sensimque latior, deinde prope apicem rotundate angustior; anguli rotundati; exterior aculeo gracili et interior tuberculo armati. Pars tarsalis parte tibiali triplo fere brevior, primum leviter depressus, marginibus anguste extenuatis, deinde angustior leviter compressus. Unguis haud robustus, parte tarsali vix duplo brevior.

Pedes sat graciles. Coxa I processulo dorsali perobtuso bicuspidato; coxa IV coxa III plus quam duplo latior, carina transversa, superiore, apicale humilliore, brevi, bicuspidata. Femora leviter arcuata, lævia. Calcanei I astragalo dimidio brevior, II astragalo vix duplo brevior, III articulo tarsali primo manifeste longior, IV manifeste brevior. Articuli tarsales: 6—7, (13—)14(—16), 8—9, 9—10. Processus terminalis unguiculis paullo brevior et crassior.

Differentia sexualis incognita.

Fusco-brunneum; tuber oculiferum et scutum totum, segmenta anteriora libera tria punctis (pustulis parvis) luteis densissime ornata; grana areae II et processus

Fig. 25. *Poecilama punctatum* n. sp. Animal adolescens. A Palpus, B pars unguicularis palpi. (W. Sør. del.)

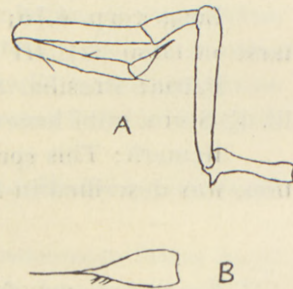


Fig. 25. *Poecilama punctatum* n. sp.

Animal adolescens. A Palpus, B pars unguicularis palpi. (W. Sør. del.)



areæ IV brunnea. Pedes olivaceo-brunnei; tibiæ et metatarsi anguste pallido anulati; tarsi posteriores ceteris non dilutiores.

Long. corp. 5; long. scuti 4,5; lat. scuti 3,75; palpi 4,75; pedes I 13, II 29,5; III 18; IV 24,5.

Patria: Venezuela. The late Dr. MEINERT sifted 4 full grown and 2 young specimens in the month of August 1891. They are now preserved in the Copenhagen Zoological Museum.

Variatio: Granula coxæ IV et segmenti ventralis I unius speciminis impressionibus non imposita.

Animal adolescens: Palpi teretes; pars trochanterica in apice leviter incrassata, tuberculo inferiore apicali; partes ceteræ cylindricæ, omnino inermes; pars tarsalis parte tibiali æqualis. Sulci transversi omnes, quamquam debiles, tamen manifesti (lutei), area II tuberculis ambobus conicis acutis; segmenta libera luteo marginata; tuber oculiferum pæne læve. Orificia glandularum foetidarum detecta (processus coxarum desunt) subrotundata. Metatarsus et tarsus pedum IV testacei.

Remark: As the number of tarsal joints vary (6 or 7), some specimens of the present species must be determined to belong to *Cynorta* within the Roewerian system, some others to belong to *Poecilæma* sensu ROEWER. The pattern of the scutum is just as in *P. sulphuratum* Roewer (Weberkn. p. 369). — At least one of the specimens examined with a 6-jointed tarsus I was a female (with visible ovipositor).

#### *Poecilæma guttigerum* n. sp.

Vix 5 mm longum, nigrum, margine anteriore et maculis magnis ellipticis ambobus, extra processus scuti sitis, luteis; tuber oculiferum granulis utrinque paucis; limbus lateralis vix discretus foveolis rugosus; scutum subtiliter coriaceum parce granulatum granis anterioribus ambobus et processibus posterioribus ambobus; palporum pars femoralis tuberculo interiore apicali armata; coxæ IV muticæ; calcaneus I astragalo plus quam duplo brevior; articuli tarsales: 6, 17, 8, 9; processus terminalis unguiculis æqualis.

Tuber oculiferum humile latum, supra late et sat profunde excavatum, subtiliter coriaceum, granulis paucis (utrinque trinis) ornatum.

Scutum sat alte convexum, a latere oculifero ad sulcum transversum primum vix, deinde manifesto altius, pone leviter declive. Sulci transversi primus procurvus et postremus rectus sat manifesti; ceteri desunt. Limbus anterior discretus latus, rotundatus, lævis; tubercula extra antennas posita sat magna, subconica obtusa. Limbus lateralis vix discretus, subtiliter coriaceus, foveolis irregularibus rugosus. Orificia glandularum foetidarum plane oblecta. Areæ subtiliter coriaceæ, parce granulatae, prima impressionibus lineiformibus ambabus, extra tuber oculiferum positus, et posteriore media suborbiculari, haud profunda; secunda (non expressa) granis ambobus late separatim, humilibus, rotundatis. Processus leviter reclines, divergentes, spatio interapicali breviores, primum conici, granis præditi, deinde subcylindrici obtusi. Segmenta dorsalia libera et anale ventrale coriacea tantum. Venter subtiliter

coriaceus; coxæ granulæ dispersis; ventrale primum punctis impressis dispersis; margo ejus posterior et ventralia cetera ordinibus singulis granulorum.

Antennarum pars globosa articuli primi granis marginalibus prædita, pone majoribus.

Palporum pars trochanterica parte patellari paullo brevior, in apice incrassata, tuberculo inferiore brevi robusto rotundato munita. Pars femoralis duplo longior quam crassior, ordine inferiore tuberculorum (circiter 6) parvorum obtusorum et tuberculo interiore apicali armata; ultra carinam dorsalem parce serratam eminentiæ non adsunt. Partis patellaris margo interior haud anguste extenuatus (æque late ac margo interior partis tibialis) et manifesto angulatus. Pars tibialis plus quam duplo longior quam latior, æque longa ac pars femoralis; margo interior anguste extenuatus subrectus, exterior sat latus, primum rectus sensimque latior, deinde prope apicem rotundate angustior; anguli rotundati exterior aculeo, interior tuberculo parvo armati. Pars tarsalis parte tibiali plus quam duplo brevior, primum depressa marginibus anguste extenuatis, deinde leviter compressa, sensim angustior; aculeis gracilibus exterioribus sex et interioribus duobus armata, quorum interior primus ceteris robustior. Unguis haud robustus, parte tarsali vix dimidio brevior.

Coxæ IV muticæ. Trochanteres tuberculis basalibus conicis subacutis, I, II, III singulis (posterioribus), IV binis. Femora vix arcuata, vix granulata. Calcanei I astragalo plus quam duplo, II tarso duplo breviores; III et IV articulo tarsali primo subæquales. Articuli tarsales: 6, 17, 8, 9. Processus terminalis æque longus atque unguiculi.

Differentia sexualis incognita.

Nigrum; margo exterior limbi lateralis et segmenta dorsalia libera tria anteriora manifeste dilutiora (sordide brunneo-rufescentia) umbris singulis mediis nigris; limbus anterior scuti et maculæ magnæ ellipticæ ambæ, extra processus scuti positæ, læte lutea. Coxæ IV punctis binis lateralibus anterioribus sordide luteis. Pedes brunneo-rufescentes; trochanteres et pars basalis femorum flavescentes; patellæ et apices tibiæ infuscata; tarsi pæne nigri.

Long. corp. 4,75; long. scuti 4; lat. scuti 3,5; palpi 4; pedes I 17, II 41, III 24, IV 33.

Patria: Pars meridionalis Americæ septentrionalis. Specimina duo vidi, in re publica Texas capta, quæ ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hauniensi asservata.

Variatio: In Exemplo uno impressio posterior media areæ primæ in ordinem foveolarum dissoluta.

**Poecilæma reticulatum n. sp.**

6,5 mm longum, cinnamomeum vittis latis reticulatis linearum vitellinarum ornatum; area I punctis vitellinis 6 notata; tuber oculiferum humile ordinibus ambobus granulorum majorum; limbus anterior discretus granulatus; limbus lateralis non discretus; scutum parce granulatum; area II granis magnis ambobus (♂) vel tuberculis conicis subacutis (♀); area IV processibus ambobus; pars femoralis palporum

spina interiore apicali armata; calcaneus I astragalo parte tertia brevior; articuli tarsales: 6(♀)—7(♂), 13—17, 10, 11—12; processus terminalis crassus, unguiculis (♂) duplo, (♀) triplo brevior.

Tuberculum oculiferum humile, latum, supra manifesto excavatum, ordinibus ambobus, oculis sat propinquis, granulorum majorum, inter quos granula parva dispersa adsunt.

Scutum convexum; a tubere oculifero ad sulcum primum transversum vix, deinde manifesto altius, pone sat abrupte declive. Sulcus transversus primus latus, non profundus, permanens et quintus sat manifestus; secundus vix manifestus. Limbus anterior discretus tumidus, granulatus et pustulis (punctis vitellinis) præditus; tubercula extra antennas posita brevia parva obtusa. Limbus lateralis non discretus, præter pustulis (lineis vitellinis) vix manifesto granulatus. Orificia glandularum foetidarum plane obtecta. Areae parce granulatae, area secunda granis magnis (♂), vel tuberculis conicis subacutis (♀) obtusis late separatis. Processus areae quartae sat reclines, subparalleli, magni, conici, obtusi, parce granulati, spatio interapicali longitudine subæqualis. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum (in ♂ minorum et remotorum); anale dorsale granulis paucis dispersis. Coxæ et ventrale primum granis et granulis dispersis sat densis.

Antennarum pars globosa articuli primi granulis superioribus et granis marginalibus posterioribus et exterioribus et granis magnis conicis apicalibus interioribus duobus supra armata.

Palporum pars trochanterica parte patellari manifesto longior, in apice incrassata, tuberculis setigeribus interioribus duobus armata, quorum ulterius magnum est. Pars femoralis plus quam duplo longior quam crassior, ordine inferiore, apicem non attingente, tuberculorum parvorum obtusorum (viginti aut ultra), quorum ultima basalibus manifesto majora sunt, et spina brevi sat robusta interiore apicali armata; adest ordo dorsalis longus tuberculorum, quorum maxima quam tubercula inferiora vix aut manifesto majora sunt, aut minora, procurva acuta. Partis patellaris margo interior anguste extenuatus, in tuberculum setigerum apicale productum, supra quod tuberculum æquale adest. Pars tibialis æque longa ac pars femoralis, plus quam duplo longior quam latior; margines laterales sat anguste extenuati; exterior rectus est leviter curvatus; apex interior productus, seta sat robusta armatus, exterior rotundatus, tuberculo parvulo munitus, intra quod setæ sat robustæ paucæ adsunt. Pars tarsalis latitudine parti tibiali æqualis, primum depressa, marginibus extenuatis, deinde compressa, præter setas aliquot seta robusta (sive aculeo gracili) una interiore media armata. Unguis sat robustus parte tarsali non duplo brevior.

Pedes longi graciles. Coxæ I processulo (sive carina) dorsali obtuse bicuspidato. Coxæ IV tuberculis lateralibus magnis obtusis sibi propinquis et carina apicali transversa rotundata in tuberculum parvum (granum) introrsus producta. Femora recta, II et III vix granulata; patellæ III et IV manifesto granulatae. Calcanei I astragalo tertia parte brevior, II duplo, III articulo tarsali primo subæqualis, IV brevior. Unguiculi integri. Articuli tarsales: ♂: 7, 16—17, 10, 12; ♀: 6, 13—15, 10, 11—12.

Differentia sexualis: Maris quam feminae pedes longiores et manifesto crassiores. E spiraculis carina humilis, obliqua procurrit, cujus margines in mare acuti, in femina rotundati. Granula femorum majora in mare quam in femina. Pars propior tarsi I parte posteriore in femina non et in mare distincte crassior. Processus terminalis crassus unguiculis in mare duplo, in femina triplo brevior, in mare leviter curvatus sat gracilis, in femina porrectus, subrectus, robustus, obtusus.

Cinnamomeum vittis latis reticulatis linearum vitellinarum ornatum: post tuber oculiferum, post processus areae IV, secundum margines laterales; area I punctis vitellinis anterioribus 6, quorum 4 limbo anteriori impositis; tuber oculiferum puncto uno; areae II et III punctis singulis mediis, sulci transversi II—III lineis vitellinis (singulis) in medio interruptis. Trochanteres et partes basales femorum (vix autem tarsi) corpore dilutiores.

Long. corp. ♂ 4,5; long. scuti 4,5; lat. scuti 3,8; palpi 6,3; pedes I 20, II 51, III 33,5, IV 46.

Long. corp. ♀ 5; long. scuti 4,7; lat. scuti 4,2; palpi 6,3; pedes I 19, II 47, III 30,5, IV 42.

Patria: Venezuela. E. SIMON has collected 2 males and a single female at St. Estéban in the month of March 1888. They are all preserved in the Zoological Museum of Copenhagen.

Remark: In the Roewerian system the female must belong to the genus *Cynorta*, the male to *Poecilæma* (!).

#### *Poecilæma marginale* Banks.

*Poecilæma aurivillii* Sørensen in manuscr.

*Cynorta marginalis* Banks, Proc. Acad. Philad., 1909, p. 225.

*Cynorta marginalis* Roewer, Weberkn. d. Erde, 1923, p. 312.

5 mm longum, nigre rufo-brunneum, vittis ambabus anterioribus lateralibus sulphureis notatum; tuber oculiferum subtiliter coriaceum tantum; limbus anterior coriaceus; limbus lateralis discretus; scutum subtiliter coriaceum granis parvis anterioribus ambobus et processibus posterioribus ambobus; coxæ IV et ventralia primum et anale coriacea tantum; palporum pars femoralis tuberculo interiore apicali armata; calcaneus I astragalo non duplo brevior; articuli tarsales: 6, 14, 9, 11; processus terminalis unguiculis paullo brevior.

Tuber oculiferum duplo latius quam altius, supra manifesto excavatum, subtiliter coriaceum tantum.

Scutum convexum. Sulcus transversus primus procurvus debilis, postremus sat manifestus; ceteri desunt. Limbus anterior leviter discretus, coriaceus; tubercula extra antennas posita brevia, robusta, obtusa. Limbus lateralis discretus, lævis; pars lata exterior pæne erecta. Orificia glandularum foetidarum vix obiecta. Scutum ceterum subtiliter coriaceum, granis parvis anterioribus ambobus (in area secunda non ex-

pressis). Area prima impressione posteriore media suborbiculari, lata non profunda, lineam procurvam utrinque emittente. Processus leviter reclines, subparalleli, conici, obtusi, spatio interapicali duplo breviores. Limbus posterior scuti et segmenta dorsalia libera tria anteriora subtiliter coriacea, ordinibus singulis granulorum remotorum; anale dorsale subtiliter coriaceum, impressionibus ambabus latis, haud profundis. Coxæ et ventralia primum et anale subtiliter coriacea tantum; cetera ordinibus singulis granulorum remotorum.

Antennarum pars globosa articuli primi granulis et ordine granorum exteriorum et posteriorum supra ornata.

Palporum pars trochanterica æque longa ac pars patellaris, tuberculo inferiore apicali munita. Pars femoralis triplo longior quam crassior, ordine inferiore tuberculorum parvorum (circiter 16) sensim majorum et tuberculo setigero interiore apicali armata; ultra carinam dorsalem lævem crenulata. Partis patellaris margo interior sat anguste extenuatus, in apicè angulatus, supra quem tuberculum parvum adest. Pars tibialis triplo longior quam latior, parte femorali vix brevior; margines interior haud anguste, exterior haud late extenuati, primum recti, sensim paullo latiores, deinde rotundate paullo angustiores; apex parte latissima paullo angustior; anguli interior aculeo (sive seta robusta), exterior rotundatus aculeo gracili armati. Pars tarsalis depressa parte tibiali vix duplo brevior; pars propior marginum leviter extenuata, setis robustis aliquot utrinque munita, quarum maxima est interior submedia. Unguis parte tarsali plus quam duplo brevior.

Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali brevi, humillima, rotundata. Femora subrecta, sublævia. Calcanei I et II astragalo non duplo breviores; III articulis tarsalibus proximis tribus subæqualis; IV articulo tarsali primo æqualis. Articuli tarsales: 6, 14, 9, 11. Processus terminalis unguiculis gracilibus paullo brevior.

Differentia sexualis incognita.

Nigre rufo-brunneum; limbus lateralis vitta lata sulphurea (partem anteriorem multo majorem limbi excipiente) notatus, punctis mediis, partim confluentibus rufo-brunneis ornata. Limbus posterior scuti et segmenta dorsalia tria anteriora lineis transversis singulis marginalibus sulphureis. Pedes rufo-testacei nigro punctati; apices breves femorum et tibiaram et patellæ totæ fuscæ.

Long. corp. 5; long. scuti 4,5; lat. scuti 4; palpi 5; pedes I 16, II 37, III 22, IV 32.

Patria: America centralis. Specimen unicum vidi, a cl. BOVALLIUS captum, in Museo Holmiensi asservatum.

Remarks: When SØRENSEN wrote his description it was new to science and SØRENSEN named it *Poecilæma aurivillii*. It is, however, certainly identical with the species *Cynorta marginalis* described by BANKS in 1909 from Costa Rica. — In the system of ROEWER it should be placed within the genus *Cynorta* on account of the 6-jointed tarsus I.

*Poecilæma withi* n. sp. (K. L. Henr.).

*Poecilæma andree* Sorensen in manuscr. (nec PERTY).

4,5 mm longum, brunneo-nigrum, vittis sat angustis luteo-albis, anteriore Y-formi et posteriore transversa, pone concava et processibus areae IV circumfusa; tuber oculiferum granulis sat dispersis ornatum; limbus lateralis manifeste discretus; scutum subtilissime coriaceum, granis parvis anterioribus ambobus et processibus posterioribus ambobus; coxæ IV granis parvis et granulis; palporum pars femoralis tuberculo interiore apicali armata; calcaneus I astragalo paullo longior; articuli tarsales: 7, 16, 9—10, 11; processus terminalis unguiculis æqualis.

Tuber oculiferum humile latum sat longum, late et sat profunde excavatum, subtiliter coriaceum, granulis sat dispersis ornatum.

Scutum sat alte convexum, post processus leniter declive. Sulci transversi primus procurvus latus et postremus rectus manifesti; ceteri plane desunt. Limbus anterior discretus, subtilissime coriaceus; tubercula extra antennis posita magna, brevia, rotundata. Limbus lateralis manifeste discretus, subtilissime coriaceus, punctis impressis (vel foveolis) præditus, ceterum lævis. Orificia glandularum foetidarum tota fere obiecta. Areae subtilissime coriaceæ; prima impressione orbiculari sat profunda nec ampla prædita; secunda (non expressa) granis parvis ambobus. Processus graciles, subcylindrici, obtusi, leviter reclines et divergentes, spatio interapicali subæquales. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granulorum parvulorum; anale (et dorsale et ventrale) granulis pusillis haud ordinatim dispositis. Coxæ granis parvis et granulis; venter ceterum subtilissime coriaceus.

Antennarum pars globosa articuli primi granis exterioribus et posterioribus prædita.

Palporum pars trochanterica æque longa ac pars patellaris, in apice incrassata, tuberculo inferiore robusto, obtuso. Pars femoralis duplo longior quam crassior, extra carinata, ordine inferiore apicem fere attingente tuberculorum sat densorum (circiter 12) et tuberculo interiore apicali armata; ultra carinam dorsalem leviter serratam lævis. Partis patellaris margo interior anguste extenuatus, manifeste angulatus, ultra (et supra) quem tuberculum adest. Pars tibialis plus quam duplo longior quam latior, parti femorali subæqualis; margo interior anguste extenuatus, subrectus, exterior sat anguste extenuatus, primum rectus sensimque latior, deinde prope apicem rotundate angustior; anguli rotundati, exterior aculeo et tuberculo parvo, interior tuberculo setigero sat robusto. Pars tarsalis parte tibiali triplo fere brevior, primum depressa, marginibus anguste extenuatis, deinde angustior, leviter compressa; (præter setas) aculeis interioribus duobus, quorum primus robustior. Unguis procerus parte tarsali parte tertia brevior.

Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali humili, rotundata, lævi. Femora recta, lævia. Calcanei astragalo I paullo longior, II vix duplo, III parte tertia breviores; IV tarso duplo brevior. Articuli tarsales: 7, 16, 9—10, 11. Processus terminalis æque longus atque unguiculi.

*Differentia sexualis incognita.*

Brunneo-nigrum, vittis sat angustis luteo-albis notatum, quarum anterior Y-formis est, sulco transverso primo propinqua, ante in maculam dilatata; e qua vitta transversa exit, pone concava, processus includens, marginem lateralem attingens, sensim paullo angustior; vitta perangusta marginalis, ceteras conjungens, luteo magis tincta adest. (Post partes exteriores vittæ Y-formis adsunt puncta singula; pars media ejusdem vittæ transversim breviter bis dilatata.) Pedes rufo-brunnei, apicem versus paullulo dilutiores; calcanei et tarsi sordide testacei.

Long. corp. 4,5; long. scuti 3,75; lat. scuti 3,5; palpi 4; pedes I 16, II 42, III 24, IV 33.

Patria: Brasilia. Specimen unicum vidi, ad São Paulo de Olivença captum, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hafniensi asservatum.

Remarks: SØRENSEN considered this species identical with *P. andreae* Perty, though he was well aware that it differed from the description of this latter on several points e. g. in that the spines of area IV were placed within the posterior, pale, transversal band. There is no doubt that it is quite a new species, which I propose to name after the late arachnologist Dr. C. WIRTH who began the revision of the present paper.

**Rhaucus** (Simon).

*Ortonia* p. p. Wood, Trans. Amer. Philos. Soc. Philad. N. S., vol. XIII, 1869, p. 438.

*Rhaucus* + *Erginus* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 200.

*Metarhaucus* + *Rhaucus* + *Flirtea* + *Pararhaucus* + *Neorhaucus* + *Meterginus* + *Poecilama* p. p. Roewer, Weberkn. d. Erde, 1923, p. 341, 349, 345, 378, 305, 379, 364. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 3, 1928, p. 588, 592, 595.

Corpus (plus minusve) robustum. Scutum subrectangulum vel oblonge trapezoidale, erga apices coxarum IV leviter latius (pone dilatationem sat prærupte angustius; extra antennas non productum).

Area quarta eminentiis majoribus ambabus instructa.

Orificia glandularum foetidarum manifeste magna sunt rimæ transversæ longæ, quarum labia leviter elevata (quare loci orificiorum clypeati sunt), præsertim anterius, ita arcuata sunt, ut orificia in medio fere oclusa supra autem orbiculariter fere hient.

Antennarum pars globosa articuli primi eminentia majore superiore, interiore apicali prædita.

Palporum robustorum pars femoralis fortissime compressa; pars tibialis utrinque fortiter dilatata, marginibus (etiam interiore) valde extenuatis, leniter orbiculariter fere arcuatis; pars tarsalis aculeis sat robustis armata, quorum maximus est interior primus (submedius).

Pedes sæpissime breves. Coxæ IV non dilatatæ (coxis III duplo latiores), carina dorsali apicali transversa (manifesta) instructæ.

Unguiculi integri.

Differentia sexualis magna. Mas hisce notis insignis: parte propiore tarsi I manifeste incrassata; articulo secundo antennarum supra articulationem basilarem elevato, digitis in basi hiantibus; femoribus et tibiis (III et) IV ordinibus inferioribus eminentiarum manifeste majorum. — Glandis penis (*Rh. fusci* et *alphæ*) lamina (inferior) apicem versus paullo latior; balanus (superior) primum cylindricus, deinde subito angustatus S-formis, deorsum curvatus; processus medius deest.

*Conspectus subgenerum.*

- I. Scutum a tubere oculifero usque ad eminentias magnas areæ quartæ (non expressæ) rectum; tuber oculiferum eminentiis vix præditum; pedes longi.  
Ortonia Wood.
- II. Scutum sulco transverso primo manifeste depressum, deinde altius; tuber oculiferum vittis ambabus eminentiarum (granorum) præditum:
1. Eminentiae magnæ areæ quartæ in basi leviter tantum incrassatæ; pedes longiores ..... *Erginus* E. Sim.
  2. Eminentiae magnæ areæ quartæ suo tuberi impositæ; pedes breves...  
*Rhaucus* E. Sim.

Subgenus *Ortonia* Wood.

*Ortonia* p. p. Wood, loc. cit.

Tuber oculiferum eminentiis vix præditum.

Scutum dorsale, a latere inspectum, a tubere oculifero usque ad eminentias majores posteriores rectum. Sulci transversi debiles aut desunt.

Pedes longi, vix robusti, II quam IV manifesto longiores.

Genus *Ortonia*, ut a WOOD fundatum est, non valet, quod articulo secundo antennarum supra articulationem basalem elevato creatum est. Hæc nota autem marem tantum generum variorum familiarum diversarum demonstrat. Genus *Ortonia* sensu WOOD duas species continet, quarum altera (*bilunata* Wood) ad familiam Cosmetidarum, altera (*ferox* Wood) ad familiam Gonyleptidarum pertinet. Quia autem mihi videtur, *Ortoniam bilunatam* speciei sequenti perpropinquam esse, nomen generis — quamquam haud aptum — adoptavi.

*Rhaucus* (*Ortonia*) *vittatus* n. sp.

Mas 4,5 mm longa, brunnea vittis latis ellipticis ambabus ornata; tuber oculiferum leviter excavatum; limbus lateralis non discretus, punctis impressis præditus; scutum coriaceum granis parvis anterioribus humillimis ambobus et processibus proceris posterioribus ambobus; palporum pars femoralis intus inermis, margo exterior partis patellaris vix extenuatus; calcaneus I astragalo parte tertia brevior; articuli tarsales: 8, 19, 10, 12; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humile latum, supra late et leviter excavatum, subtilissime coriaceum et granulis perpusillis ornatum.



Scutum sat convexum æque latum ac longum. Sulci transversi primus debilis, punctis impressis ambobus (brunneis) præditus, quintus manifestus, ceteri desunt. Limbus anterior discretus, subtiliter coriaceus. Limbus lateralis non discretus, punctis impressis (vel foveolis). Labium anterius orificiorum glandularum foetidarum ultra posterius prominens. Scutum ceterum coriaceum granulis perpusillis ornatum. Area prima impressione oblonga; secunda (non expressa) granis parvis humillimis ambobus. Processus reclines, leviter divergentes, granulis paucis præditi, longi, proceri, obtusi, spatio interapicali longiores. Limbus posterior scuti et segmenta dorsalia libera subtiliter coriacea; anale dorsale et ventrale granulis perpusillis. Venter coriaceus; coxæ et ventrale primum granulis dispersis remotis; cetera ventralia ordinibus singulis granulorum.

Antennarum pars globosa articuli primi tuberculis conicis acutis, interiore apicali et exterioribus paucis.

Palporum pars trochanterica parte patellari manifeste longior, in apice leviter incrassata, in medio leniter coarctata, tuberculo inferiore sat magno armata. Pars femoralis duplo longior quam crassior, ordine inferiore tuberculorum (circiter 14) armata, quorum priora brevia, partim confluentia, cetera vicissim fere majora et minora sunt; intus inermis; ultra carinam dorsalem, tuberculis procurvis acutis serratam, lævis. Partis patellaris margo exterior vix, interior manifeste extenuatus, interior in apice acutangulus. Pars tibialis manifesto longior quam latior, parte femorali paullo brevior; apex leviter concavus parte latissima parte tertia angustior; angulus exterior sat acutus tuberculo perminuto et aculeo uno (præter quem margo aculeis quatuor armatus est), interior rotundatus aculeo uno. Pars tarsalis parte tibiali vix duplo brevior, primum depressa, marginibus sat late extenuatis, deinde compressa; aculeis exterioribus octo et interioribus tribus armata. Unguis parte tarsali duplo brevior.

Coxæ IV coxis III parte tertia latiores, carina transversa superiore apicali humili rotundata, Femora I et II subrecta, III et IV lævia; IV granulis ornata. Calcanei astragalo I parte tertia, II vix duplo breviores; tarso III vix duplo, IV plus quam duplo breviores. Articuli tarsales: 8, 19, 10, 12. Processus terminalis unguiculis paullo brevior.

Differentia sexualis (femina incognita): Maris antennarum articulus secundus incrassatus ante transversim leviter plicatus; pars elevata leviter compressa, parte cetera brevior; digiti in basi fortiter hiantes, mobilis incurvus immobili manifeste longior, dente basali magno robusto, brevi, leviter compresso, obtuso. Pars propior tarsi I parte ulteriore dimidio crassior. Femora III apicem versus ordine inferiore granorum conicorum acutorum; IV ordinibus inferioribus ambobus eminentiarum conicarum acutarum, apicem versus majorum, quarum ultimæ sunt tubercula minora.

Brunneus. Scutum inter tuber oculiferum et processus vittis latis ambabus notatum, in medio latioribus, intra serratis, luteis, fusco cinctis, puncto suo impresso brunneo ornatis. Segmenta dorsalia libera et venter fusciora. Palpi rufo-testacei. Antennæ et pedes fulva, tarsis infuscatis.

Long. corp. 4,5; long. et lat. scuti 4; palpi 6; pedes I 23, II 55, III 32, IV 45.

Patria: America septentrionalis. Specimen unicum, marem, vidi, in republica Texas captum, quod ill. E. SIMON mihi benevolentissime dedit, et quod nunc in Museo Zool. Hauniensi asservatur.

Remark: In ROEWER's system this species must belong to the genus *Poecilama*.

#### Subgenus *Erginus* Simon.

*Erginus* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 200.

Tuber oculiferum vittis ambabus eminentiarum (granorum) minorum præditum.

Scutum dorsale sulco transverso primo manifeste depressum, deinde usque ad eminentias majores areæ quartæ altius, adversus apicem coxarum IV leviter latius.

Area quarta eminentiis magnis ambabus instructa, in basi leviter tantum incrassatis.

Pedes longiores et robustiores.

#### *Rhaucus* (*Erginus*) *simonis* n. sp. (C. With).

*Erginus serratus* E. Simon in schedula.

*Rhaucus* (*Erginus*) *serratus* W. Sørensen in manusc.

5,5 mm longus, brunneus, vittis luteis, priore V-formi et posteriore transversa notatus, quæ lineis ambabus arcuatis, sibi propinquis aut confluentibus, conjuncti sunt; tuber oculiferum late et profunde excavatum, granis parvis ornatum; limbus lateralis vix discretus punctis impressis; areæ coriaceæ, II granis ambobus, IV processulis ambobus; palporum pars femoralis intus inermis; coxæ IV ordine laterali anteriore granorum densorum trium; calcaneus I astragalo duplo brevior; articuli tarsales: 7, 17—19, 10, 12; processus terminalis unguiculis paullo brevior.

Tuber oculiferum sat magnum, latum, supra late et profunde excavatum, vittis ambabus granorum parvorum præditum.

Scuti sulci transversus secundus et tertius pæne obsoleti, quartus et quintus manifesti, extus obsoleti. Limbus anterior discretus, extus tumidus, lævis. Limbus lateralis vix discretus, leviter coriaceus, foveolis dispersis ornatus. Labium anterius orificiorum glandularum foetidarum posteriore altius, ultra id autem non prominens. Areæ coriaceæ, subtiliter oblique rugosæ; prima impressione posteriore media magna, sat profunda; secunda granis conicis ambobus. Processuli areæ quartæ reclines, paralleli, in basi late conici, parce granulati, deinde sat subito angustiores proceri, obtusi, spatio interapicali subæquales. Limbus posterior et segmentum dorsale liberum primum lævia; secundum et tertium ordinibus singulis granulorum; anale dorsale parce granulatum. Anale ventrale læve; coxæ et ventrale primum ante transversim manifesto rugosa, subtiliter coriacea; cetera ventralia granulata.

Antennarum pars globosa articuli primi præter tuberculum interius apicale tuberculo exteriori medio et ordinibus exteriori et posteriore granorum magnorum

et majorum supra prædita — quæ eminentiæ omnes sunt conicæ subacutæ — et præterea supra granulata.

Palporum pars trochanterica parte patellari manifesto longior, apicem versus paullo crassior, tuberculo inferiore apicali conico munita. Pars femoralis duplo longior quam crassior, ordine inferiore, apicem fere attingente, tuberculorum obtusorum (circiter 12) armata, quorum ultima parva; intus inermis; ultra carinam dorsalem leviter et parce serratam sublævis. Partis patellaris margo interior angustissime extenuatus, in apicem angulatus, supra quem tuberculum perminutum apicale adest. Pars tibialis manifesto longior quam latior, æque longa ac pars femoralis; anguli producti, interior aculeo uno, exterior tuberculo et duobus aculeis armatus, præter quos margo exterior aculeo submedio armatus est. Pars tarsalis parte tibiali vix duplo brevior, primum depressa, marginibus sat late extenuatis, deinde leviter compressa; aculeis exterioribus septem ad novem et interioribus duobus et spina sat robusta, citra aculeos posita. Unguis parte tarsali duplo brevior.

Coxæ IV coxis III duplo latiores, carina transversa superiore apicali, in medio manifesto altiore, et ordine transverso laterali anteriore granorum densorum (trium). Calcanei astragalo I duplo, II triplo breviores; articulo tarsali primo III longior, IV brevior. Articuli tarsales: 7, 17—19<sup>1)</sup>, 10, 12. Processus terminalis incurvus unguiculis paullo brevior, non autem tenuior.

Differentia sexualis: Antennarum articulus secundus feminae geniculatus; maris validus, ante transversim plicatus, parte elevata æque longa ac parte cetera, vix compressa, supra leniter rotundata; digiti breves in basi hiantes, mobilis fortiter inclinatus, dente subbasali longo robusto munitus. Pedes præsertim III et IV maris quam feminae robustiores. Pars propior tarsi I parte ulteriore maris duplo, feminae non crassior. Maris femora III et IV et tibiæ III et IV, leviter compressæ, ordinibus binis eminentiarum acutarum, apicem versus majorum, quarum proximæ sunt grana, ultimæ in pedibus III tubercula, in pedibus IV processuli, dum eminentiæ maximæ feminae sunt grana.

Brunneus, vittis luteis duabus notatus; quarum prior V-formis ante sensim latior, puncta brunnea utrinque bina, margini laterali propinqua, includens, dum posterior, ante processus scuti posita, transversa undulata, extus paullo latior, in margine laterali anguste breviter procurrens, ante quam linea transversa brevis arcuata, et pone quam linea transversa brevis subrecta adest. Quæ vittæ et lineæ lineis ambabus arcuatis, sibi aut propinquis aut confluentibus, conjunctæ sunt. Limbus posterior scuti linea posteriore interrupta notatus. Palpi flavescentes; antennæ fulvæ; pedes fulvi, IV (et III) patellis et parte ulteriore femorum et tibiæ brunneis.

Long. corp. 5,5 (♀ 6); long. scuti 5; lat. scuti 4,5; palpi 7; pedes I 18, II ♀ 33, III 23, IV 31 (♀ 29).

Patria: Columbia. Specimina duo vidi, feminam in Museo Vindobonensi asservatam et marem, quem ill. E. SIMON mihi benevolentissime dedit et qui nunc in Museo Zool. Hafniensi asservata.

<sup>1)</sup> tarsi II maris defuere.

Remarks. Dr. SØRENSEN gave this species the name *Erginus serratus*, but as ROEWER has used the name *Meterginus serratus* for a related species, I have altered the name to *E. Simoni*. It is very nearly related to *Meterginus prosopis* Roewer from Ecuador and Columbia; once I thought of referring the species of SØRENSEN to this latter, but the following differences are surely too great for that: ROEWER's species measures 8 mm, and its "Augenhügel... vollständig glatt und unbewehrt". The armature of the antennæ differs, as the first segment of *prosopis* "innen apical eine Gruppe aus 3 grösserer Zähnen trägt", and so does the structure of the palps, as the pars trochanterica of *prosopis* is "unbewehrt" and as the dorsal margin of pars femoralis "mit einer vollständigen Körnchenlängsreihe besetzt". The characteristic colour differs only in small details. (With).

To the subgenus *Erginus* Sørensen further referred the following species described by E. SIMON, which he, however, did not know from autopsy:

- R. (E.) devillei* E. Simon (Ann. Soc. Ent. Belg. XXII, 1879, p. 203) — in ROEWER's Weberkn. d. Erde (p. 342) referred to the genus *Metarhaucus*.  
*R. (E.) militaris* E. Simon (ibid. p. 203) — in ROEWER's Weberkn. d. Erde (p. 347) referred to the genus *Flirtea*.  
*R. (E.) serripes* E. Simon (ibid. p. 204) — in ROEWER's Weberkn. d. Erde (p. 348) referred to the genus *Flirtea*.  
*R. (E.) papilionaceus* E. Simon (ibid. p. 205) — in ROEWER's Weberkn. d. Erde (p. 347) referred to the genus *Flirtea*.  
*R. (E.) latesulphureus* E. Simon (ibid. p. 207) — in ROEWER's Weberkn. d. Erde (p. 383) referred to the genus *Meterginus*.  
*R. (E.) marginellus* E. Simon (ibid. p. 208) — in ROEWER's Weberkn. d. Erde (p. 382) referred to the genus *Meterginus*.  
*R. (E.) ventricosus* E. Simon (ibid. p. 209) — in ROEWER's Weberkn. d. Erde (p. 349) referred to the genus *Flirtea*.  
*R. (E.) granulatus* E. Simon (ibid. p. 211) — in ROEWER's Weberkn. d. Erde (p. 348) referred to the genus *Flirtea*.

#### Subgenus *Rhaucus* Simon.

*Rhaucus* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 213.

Tuber oculiferum vittis ambabus eminentiarum (granorum) præditum.

Scutum dorsale sulco transverso primo manifeste depressum, deinde usque ad eminentias majores areæ quartæ (sæpissime gradatim) altius; adversus apices coxarum IV leviter latius, pone quam dilationem sat prærupte angustius est.

Area quarta scuti eminentiis majoribus (sæpissime tuberculis) ambabus instructa, quæ e basi sua plus minusve elevata, eminentiis (granis) densis ornata, imposita sunt.

Pedes breves et robusti, III et IV æque (aut subæque) longi.

Articuli partis posterioris tarsi I manifeste gradatim crassiores. Feminae pars propior tarsi I articulo ultimo partis posterioris saltem non crassior.

*Conspectus specierum hic descriptarum.*

- A. Tarsus I in articulos quinque divisus. (Areae secunda et tertia granis magnis binis; coxæ IV turba granorum laterali anteriore) . . . . . *Rh. aurolineatus* Cambr.
- B. Tarsus I in articulos sex divisus:
- I. Areae secunda et tertia eminentiis (granis) binis præditæ, ceteris paullo majoribus:
- a. Niger, striis quinque sulcos transversos sequentibus sanguineis. Tuber leviter excavatum. Calcaneus I astragalo triplo brevior  
*Rh. vulneratus* E. Sim. ♀.
- b. Fuscus, fere niger, striis sulcos transversos primum et quartum, et limbum lateralem ante sequentibus, lineis sordide luteis. Tuber profunde excavatum. Calcaneus I astragalo non triplo brevior  
*Rh. trilineatus* n. sp.
- II. Areae secunda et quinta eminentiis majoribus (tuberculis) binis  
*Rh. tuberculatus* n. sp.
- III. Area tantum secunda (præter quartam) eminentiis ambabus ceteris manifesto majoribus:
- a. Femora IV nec turba nec ordine granorum laterali anteriore prædita  
*Rh. muticus* n. sp.
- b. Femora IV aut turba aut ordine granorum laterali anteriore prædita:
1. Calcaneus I astragalo parte tertia brevior . . . . . *Rh. fuscus* n. sp.
2. Calcaneus I astragalo duplo brevior:
- + Carina transversa apicalis coxæ IV humilis, in medio saltem non altior:  
§ Coxæ I processulo dorsali anteriore obtuse bicuspidato præditæ . . . . . *Rh. tristis* n. sp.  
§§ Coxæ I tuberculo dorsali anteriore humili obtuso præditæ  
*Rh. reticulatus* n. sp.
- ++ Carina transversa apicalis coxæ IV granis prædita in medio vix altior . . . . . *Rh. vulneratus* E. Sim. ♂.
- +++ Carina transversa apicalis coxæ IV in medio altior:  
§ Tuber oculiferum leviter excavatum . . . . . *Rh. alpha* n. sp.  
§§ Tuber oculiferum late et profunde excavatum:  
£ Articulus secundus antennarum ordinibus anterioribus tribus eminentiarum haud manifestarum, carinas non formantium . . . . . *Rh. geographicus* n. sp.  
££ Articulus secundus antennarum prope basin carinis anterioribus longitudinalibus tribus . . . . . *Rh. limbatus* n. sp.

## C. Tarsus I in articulos septem (vel ultra) divisus:

- I. Eminentiae majores areae quartae sunt processuli suo tuberi magno conico impositi ..... *Rh. togatus* n. sp.  
 II. Eminentiae majores areae quartae sunt tubercula, suo tuberi conico imposita ..... *Rh. obscurus* n. sp.

**Rhaucus aurolineatus** Cambr.

*Rhaucus aurolineatus* Sørensen in manuscr.

*Neorhaucus aurolineatus*, Cambridge Biol. Centr. Amer. Arach., vol. II, 1904, p. 572.

*Neorhaucus aurolineatus* Roewer, Weberkn. d. Erde, 1923, p. 305.

8 mm longus, fuscus, lineis sulcos transversos sequentibus et lineolis ambabus obliquis areae primae aut fulvis pæne auratis aut luteis notatus; tuber oculiferum late excavatum, granis praeditum; areae granis sat densis, secunda et tertia granis magnis binis, quarta tuberculis ambobus; palporum pars femoralis intus inermis, pars patellaris teres; coxae IV tubere laterali anteriore granito; calcaneus I astragalo triplo brevior; articuli tarsales: 5, 10—13, 8—9, 9—10; processus terminalis unguiculis non duplo brevior.

Tuber oculiferum humillimum latum, supra late excavatum, praeter vittas granorum laeve.

Scuti sulci transversi secundus, tertius, quartus vix arcuati, extus obsoleti. Limbus anterior non discretus, laevis. Limbus lateralis leviter discretus, granis minoribus dispersis pone ornatus. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens, quare orificium supra vix dilatatum est. Areae granis sat densis, ordinatim vix dispositis; secunda et tertia granis magnis binis, quarta tuberculis sat parvis ambobus obtusis, suae basi humillime conicae impositis. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis dispersis. Anale ventrale ordinibus duobus granorum minorum remotorum; coxae (omnes) granis dispersis; ventrale primum granis parvis dispersis; ventralia cetera ordinibus singulis granulorum. Sulcus transversus posterior segmenti ventralis primi profundus.

Antennarum pars globosa articuli primi praeter grana tuberculis interiore apicali magno et exterioribus duobus supra instructa.

Palporum pars trochanterica aequae longa ac pars patellaris, in apice incrassata, tuberculis inferioribus et parvis superioribus binis. Pars femoralis dimidio longior quam crassior ordine inferiore tuberculorum robustorum (6—8) obtusorum armata, intus inermis; ultra carinam dorsalem tuberculis serratam brevem serrata; tubercula dorsalia inferioribus vix cedunt. Pars patellaris teres. Pars tibialis parte femorali vix longior; apex truncatus parte latissima haud multo angustior; angulus exterior tuberculo uno et aculeis duobus, interior aculeo uno armatus. Partes patellaris et tibialis supra granulatae. Pars tarsalis parte tibiali paullo brevior, in basi leviter

depressa, marginibus non extenuatis; aculeis robustis exterioribus (3—)4 et interioribus (2—)3 armata. Unguis parte tarsali vix dimidio brevior.

Coxæ I processulo dorsali anteriore erecto robusto, obtuse bicuspidato; IV quam III duplo latiores, tubere laterali anteriore amplo, granis majoribus sat densis prædito, et superiore apicali carina transversa robusta, sat magna, granis serrata. Femora leviter serrata; I (cum tibiis) granulis, cetera (cum tibiis) granis ornata. Calcanei I astragalo triplo brevior, II articulo tarsali primo multo longior, III incrassatus articulo tarsali primo æqualis, IV incrassatus paullo longior quam crassior. Articuli tarsales: 5, 10 (♀)—13 (♂), 8 (♂)—9 (♀), 9 (♂)—10 (♀). Processus terminalis robustus unguiculis non duplo brevior.

Differentia sexualis: Mas quam femina major et humilior et saturatius coloratus. Area prima quam quarta in mare altior, in femina humilior. Antennarum articulus secundus feminae leviter geniculatus, maris validus, ante transversim plicatus, parte elevata leviter compressa rotundata parte cetera brevior; digiti in basi hiantes, mobilis dente submedio robusto obtuso. Palporum pars tibialis maris æque latus ac longus, feminae manifeste longior quam latior. Pedes maris multo crassiores quam feminae. Pars propior tarsi I in mare parte posteriore duplo fere crassior, in femina articulo ultimo paullo tenuior; articulus primus calcaneo maris brevior, feminae subæqualis. Eminentiae pedum (præsertim III et IV) maris majores, ita ut femora et tibiæ III et IV ordinibus inferioribus binis tuberculorum acutorum instructa sunt, apicem articuli versus sensim majorum.

Fuscus (mas fere niger), lineis sulcos transversos sequentibus notatus, sordide luteis (♀) aut læte fulvis pæne auratis, margines laterales non attingentibus; partes exteriores leviter dilatatae lineæ primæ a parte cetera separatæ. Area prima lineolis obliquis (sive punctis) ambabus, extra tuber oculiferum positus, fulvis. Pedes aut brunnei (♀) aut (♂) scuto vix dilutiores; apicem versus vix dilutiores.

Long. corp. 8 (♀ 8); long. scuti 7 (♀ 6); lat. scuti 6 (♀ 5,5); palpi 8; pedes I 13 (♀ 12), II 21 (♀ 22,5), III 16, IV 21,5 (♀ 22).

Patria: Columbia. Specimina duo vidi, marem et feminam, in collectione ill. comitis KEYSERLINGII asservata.

Remarks: Cambridge's description is rather insufficient; but as the colour is quite identical and as no differences are found between the descriptions, I refer them to the same species. SØRENSEN, too, used the name *aurolineatus* for the species described here. The editor has not, however, seen SØRENSEN's specimens.

#### **Rhaucus vulneratus Simon.**

*Rhaucus vulneratus* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 213.

*Rhaucus vulneratus* Roewer, Weberkn. d. Erde, 1923, p. 349.

Femina 8 mm longa, mas 6,5; niger striis quinque sulcos transversos sequentibus sanguineis; tuber oculiferum præter vittas granorum granis posterioribus præditum; limbus anterior leviter discretus lævis; limbus lateralis lineis et punctis impressis; scutum granis densis dispersis; areæ II—IV (♀) sive II et IV (♂) granis magnis binis;

palporum pars femoralis intus inermis; coxæ IV tubere amplo laterali anteriore et carina transversa superiore apicali, in medio vix altiore granis præditæ; calcaneus I astragalo vix triplo brevior; articuli tarsales: 6, 11—12, 7—8, 8—9; processus terminalis unguiculis vix crassior et non duplo brevior.

Tuber oculiferum humile latum, supra leviter lateque excavatum, præter vittas granorum granis posterioribus perpaucis præditum.

Scuti sulci transversi secundus, tertius, quartus vix arcuati leves. Limbus anterior leviter discretus, lævis. Limbus lateralis latus, lineis et punctis impressis, ordine exteriori granorum minorum et adversus aream III granis minoribus dispersis. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens, quare orificium vix dilatatum est. Area prima impressione levi media posteriore et granis inæqualibus posterioribus dispersis densis; ceteræ — in femina — granis densis inæqualibus ordinatim vix dispositis, — in mare — præter ordines singulos granorum majorum granis anterioribus minoribus; areæ secunda, tertia, quarta in duabus feminis granis magnis rotundis binis; in mare uno grana magna in area tertia desunt. Limbus posterior et segmenta dorsalia libera tria ordinibus singulis granorum majorum ornata; anale dorsale granis dispersis. Anale ventrale vittis duabus granorum parvorum; operculum genitale et coxæ granis dispersis, anteversum et extrorsum majoribus; ventrale primum granulis dispersis; margo posterior ejusdem et ventralia cetera ordinibus singulis granulorum densorum. Sulcus transversus posterior segmenti ventralis primi profundus.

Antennarum pars globosa articuli primi præter tuberculum interius apicale granis sat densis supra ornata.

Palporum pars trochanterica tuberculo bigemino inferiore apicale, et tuberculo superiore medio et granis superioribus apicalibus ambobus. Pars femoralis dimidio longior quam crassior, ordine inferiore tuberculorum robustorum (6—8), et ordine dorsali tuberculorum (4—6) serrata; intus inermis. Partis patellaris margo interior anguste extenuatus. Pars tibialis parte femorali vix brevior; apex truncatus parte latissima haud multo angustior; anguli robusti, exterior tuberculo uno et aculeis duobus, interior aculeo uno. Pars tarsalis parte tibiali paullo brevior, ad basin leviter depressa, marginibus non extenuatis; aculeis robustis exterioribus 3—5 et interioribus 3—4. Unguis partis tarsalis suo dimidio brevior.

Coxæ I processulo dorsali anteriore brevi, breviter biramo; IV tubere amplo laterali anteriore, granis majoribus densis prædite, et superiori apicali carina transversa robusta, in medio vix altiore, granis prædita. Femora granis, patellæ et tibiæ granulis, III et IV granis prædita; grana femorum et tibiæ III et IV in ordines disposita, magna acuta sunt. Calcanei I astragalo vix triplo brevior, II astragalo quadruplo brevior, III et IV paullo longiores quam crassiores. Articuli tarsales: 6, 11—12, 7—8, 8—9. Processus terminalis unguiculis vix crassior et non duplo brevior.

Differentia sexualis. Antennarum articulus secundus ante transversim plicatus, in mare fortiter, et in femina leviter granulatus, in mare leviter elevatus. Tarsi I pars propior in femina articulo ultimo paullo tenuior, in mare fere duplo crassior.



Niger striis quinque, sulcos transversos sequentibus, quarum prima latera versus sensim latior est, ceteris latior et manifestius procurva, et quinta ceteris brevior, sanguineis. Area I ornata est sanguineis punctis vel lineolis brevibus, orbes interruptos formantibus, ambos, extra tuber oculiferum positos. Membra fusca, tarsis vix dilutioribus.

Long. corp. 8 (♂ 6,5); long. scuti 6,5 (♂ 5,7); lat. scuti 5,5 (♂ 5); palpi 6,5 (♂ 6); pedes I 11 (♂ 11,7), II 17,5 (♂ 18,5), III 14,5 (♂ 14), IV 18 (♂ < 19).

Patria. SIMON's specimen is from Brazil, ROEWER has seen specimens from Columbia (Paramo) and from Ecuador. Dr. SØRENSEN has examined 3 specimens collected by Prof. BÜRGER in Venezuela and belonging to the Museum of Göttingen; one female was collected at Paramo Bogotá, another female at Monte rodondo Buenavista, and the male was taken at Paramo Ubaque 3500 m.

Remarks. In SIMON's specimens only three spines were observed on each side of the tarsal segment of the palps. SIMON as well as SØRENSEN call the transverse stripes "sanguinei"; I think they are more properly termed bronze-coloured. As the second segment of the antennæ is only slightly elevated in the male, SØRENSEN rightly regards it as an abnormality. On account of the small differences in the granulation of the scutum, SØRENSEN does not exclude the possibility that the male and the females do not belong to the same species.

#### *Rhaneus tuberculatus* n. sp.

Femina 7,5 mm longa, rufo-fusca, lineolis obliquis anterioribus ambabus et lineis transversis quatuor luteis notata; tuber oculiferum leviter excavatum; limbus lateralis non discretus, ordine exteriori granulorum paucorum et lineis punctisque impressis præditus; areæ (prima excepta) granis magnis, quorum plurima in ordines singulos disposita, secunda tuberculis minoribus, quarta tuberculis binis; palporum pars femoralis intus pæne inermis, coxæ IV ordine transverso laterali anteriore granorum; calcaneus I astragalo duplo brevior; articuli tarsales: 6, 18—19, 8, 9—10; processus terminalis unguiculis non duplo brevior.

Tuber oculiferum sat magnum, latum, supra leviter lateque excavatum, vittis ambabus granorum sat densorum ornatum.

Scutum alte convexum. Partes exteriores sulcorum transversorum secundi, tertii, quarti obsoletæ. Limbus anterior discretus, lævis. Limbus lateralis non discretus, erga coxas IV ordine granulorum paucorum præditus, intra quæ adsunt impressiones irregulares, punctis et lineis formatæ. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens, itaque orificium supra vix orbiculare. Area prima granis dispersis et impressione posteriore media irregulariter triangula; ceteræ granis magnis præditæ, quorum plurima in ordines singulos disposita; secunda tuberculis minoribus ambobus; quarta tuberculis ambobus, reclinibus, obtusis. Tubercula areæ quartæ conica, subacuta, reclinia, suo tuberi magno conico imposita. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis vix ordinatim dispositis. Coxæ et ventrale primum granis minoribus

sat parce; anale ventrale ordinibus duobus vix manifestis, cetera ordinibus singulis granorum minorum.

Antennarum pars globosa articuli primi (præter tuberculum interius apicale conicum) granis et granulis et posterioribus granis magnis supra scabra. Articulus secundus (num semper?) ante planus punctisque impressis ornatus.

Palporum pars trochanterica æque longa ac pars patellaris, in apice leviter incrassata, tuberculis inferioribus duobus, quorum interius majus, et superiore uno. Pars femoralis vix duplo longior quam crassior, ordine inferiore tuberculorum (circa 10) obtusorum armata et tuberculo minuto interiore subapicali munita; ultra carinam dorsalem serrata. Partis patellaris margo interior angustissime extenuatus, ultra medium paullo latior, angulatus, supra quem tuberculum procerum adest. Pars tibialis dimidio longior quam latior, æque longa ac pars femoralis; apex vix concavus parte latissima parte tertia angustior; anguli vix producti, interior aculeo uno, exterior tuberculo et duobus aculeis densis armatus. Pars tarsalis parte tibiali haud multo brevior, apicem versus angustata, marginibus non extenuatis; aculeis sat robustis exterioribus septem, sibi æqualibus, et interioribus tribus. Unguis parte tarsali vix duplo brevior.

Pedes minus robusti. Coxæ I tuberculo dorsali anteriore obtuso, prope basin anteversum producto; IV quam III duplo latiores, carina transversa superiore apicali, granis prædita, in latere anteriore leviter elevata et ordine granorum densorum ornata. Femora arcuata, granis undique ornata, III et IV ordinibus inferioribus binis granorum magnorum, conicorum obtusorum, apicem articuli versus sensim majorum. Patellæ et tibiæ granulatae. Calcanei astragalo I duplo, II plus quam duplo breviores; articulo tarsali primo III manifesto, IV vix longiores. Articuli tarsales: 6, 18—19, 8, 9—10. Processus terminalis unguiculis non duplo brevior.

Differentia sexualis incognita (mare incognito). Feminæ pars propior tarsi I articulo ultimo vix tenuior.

Rufo-fuscus. Luteæ sunt: lineolæ obliquæ ambæ, inter tuber oculiferum et orificia glandularum foetidarum positæ; lineæ transversæ quatuor, quarum prima, procurva brevis, sulcum transversum primum pone contingit; secunda et tertia, suo sulco congruentes, arcuatae sunt; postrema brevis ante sulcum quintum posita est. Antennæ et palpi et pedes a metatarsis dilutiores.

Long. corp. 7,5; long. scuti 6; lat. scuti 5; palpi 7; pedes I 12, II 22, III 17, IV 22.

Patria: Columbia. Specimen unicum vidi, feminam, in collectione ill. comitis KEYSERLINGII asservatum.

Remarks. This species, which in the Roewerian system must belong to the genus *Flirtea*, is very much like *quinquelineatus* E. Sim., the differences being very slight, cfr. ROEWER'S Weberkn. d. Erde p. 346. As the editor has not seen the specimen described above, he dare not decide whether they are identical or not. Therefore he prefers to maintain the species as a new one, as proposed by SØRENSEN.

*Rhaucus trilineatus* n. sp.

7 mm longus, fuscus pæne niger, sulci transversi primus, quartus, quintus et limbus lateralis ante lineis sordide luteis notati; tuber oculiferum profunde excavatum; limbus lateralis sulcis longitudinalibus duobus et ordine exteriori granulorum; areae granis magnis dispersis, secunda et tertia granis permagnis binis, quarta tuberculis parvis ambobus; palporum pars femoralis intus inermis; coxæ IV ordine transverso laterali anteriore granorum; calcaneus I astragalo plus quam duplo brevior; articuli tarsales: 6, 13, 9, 10; processus terminalis unguiculis parte tertia brevior.

Tuber oculiferum humillimum latum, supra late et profunde excavatum, vittis ambabus granorum haud regularibus præditum.

Scutum sat alte convexum. Sulci transversi secundus, tertius, quartus lati, leves, extus obsoleti. Limbus anterior leviter discretus, lævis. Limbus lateralis discretus latus sulcis longitudinalibus duobus, anteriore lato et posteriore exteriori, et ordine exteriori granulorum ornatus. Orificia glandularum foetidarum supra ovaliter dilatata. Areae granis magnis dispersis sat densis (area quarta paullo minoribus), prima impressione posteriore media levi suborbiculari, secunda et tertia granis binis, ceteris paullo majoribus. Tubercula areae quartæ parva, suo tuberi humiliter conico imposita. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis parvis dispersis et impressione posteriore transversa interrupta. Coxæ granis sat magnis dispersis; ventrale primum granulis pusillis, cetera ordinibus singulis granorum parvorum. Impressio transversa ventralis primi profunda lata.

Antennarum pars globosa articuli primi tuberculis, interiore apicali magno conico obtuso et parvis exterioribus, et granis posterioribus prædita.

Palporum pars trochanterica æque longa ac pars patellaris, tuberculo robusto inferiore armata, supra inermis. Pars femoralis extra leviter convexa, plus quam dimidio longior quam crassior, a basi ultra medium ordine inferiore tuberculorum parvorum haud densorum armata, intus inermis; ultra carinam dorsalem humilem latam, itaque haud manifestam, eminentiis inæqualibus serratam, quarum maximæ sunt tubercula, inferioribus non minora, articulus leviter serratus. Pars patellaris intus vix extenuata et tibialis granulis supra ornata. Pars tibialis paullulo longior quam latior, parte femorali manifesto brevior; apex truncatus parte latissima haud multo angustior; angulus exterior tuberculo uno et aculeis duobus, interior aculeo uno armatus. Pars tarsalis parte tibiali paullo brevior, in basi leviter depressa, marginibus non extenuatis, aculeis exterioribus quatuor et interioribus tribus armata. Unguis parte tarsali plus quam duplo brevior.

Coxæ I tuberculo magno dorsali anteriore compresso, acute bicuspidato; IV quam III non duplo latiores, lateraliter ante leviter elevatæ et ordine transverso granorum densorum et tuberculo magno dorsali apicali brevi, robusto, vix conico, granis prædita. Femora et patellæ et tibiæ I et II vix, III et IV manifesto arcuata; I et II granulis, III et IV granis prædita. Calcanei astragalo I plus quam duplo, II triplo

breviores; articulo tarsali primo III longior, IV brevior. Articuli tarsales: 6, 13, 9, 10. Processus terminalis æque crassus atque unguiculi, quibus est parte tertia brevior.

Differentia sexualis (femina incognita). In mare: area prima quam quarta altior. Antennarum articuli secundi pars elevata parte cetera brevior, leviter compressa, supra rotundata, ante plicata; digiti in basi leviter hiantes, mobilis dente submedio robusto obtuso. Pars propior tarsi I parte posteriore duplo longior et crassior. Femora III et IV ordinibus inferioribus binis tuberculorum conicorum acutorum; tibiæ III et IV ordinibus inferioribus binis granorum magnorum acutorum.

Fuscus pæne niger. Sulcus transversus primus linea angusta extus dilatata, quartus lineis ambabus late separatus, quintus linea media brevi; limbus lateralis ante sulcum transversum primum linea longitudinali haud bene circumscripta; quæ lineæ sordide luteæ sunt. Pedes I et II manifesto, III et IV vix dilutiores; metatarsi et tarsi luteo-testacei, metatarsi manifesto nigro anulati.

Long. corp. 7,25; long. scuti 6,25; lat. scuti 5,5; palpi 7,5; pedes I 13,5, II 23, III 18, IV 23.

Patria: Columbia. Specimen unicum, marem, vidi, in collectione ill. comitis KEYSERLINGII asservatum.

Remark: This species must in the Roewerian system be placed in or near the genus *Metarhaucus*.

#### **Rhaucus muticus n. sp.**

Femina 7 mm longa, fusco-castanea lineis transversis quinque luteis notata; tuber oculiferum late excavatum; limbus lateralis pone coxas III non discretus, granis parvis et granulis et impressionibus oblongis ornatus; areæ granis majoribus et minoribus, secunda granis magnis ambobus; palporum pars femoralis intus inermis; coxæ IV in lateribus anterioribus muticæ; calcaneus I astragalo duplo brevior; articuli tarsales: 6, ?, ?, 10; processus terminalis unguiculis vix duplo brevior.

Tuber oculiferum latum, supra late excavatum, præter vittas granorum granis minoribus posterioribus paucis ornatum.

Scuti sat alte convexi sulci transversi arcuati, extus obsoleti. Limbus anterior non discretus, lævis. Limbus lateralis pone sulcum transversum primum non discretus, ordine exteriori granulorum remotorum et granis parvis dispersis et impressionibus oblongis irregularibus. Scutum totum subtiliter coriaceum. Areæ granis majoribus et minoribus dispersis; secunda granis magnis ambobus rotundatis; quarta tuberculis ambobus, subconicis, suæ basi conicæ, granis magnis densis asperæ, impositis. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis densis dispersis. Coxæ granis dispersis; ventrale primum granulis dispersis, anale ordinibus duobus, cetera ventralia ordinibus singulis granulorum.

Antennarum pars globosa articuli primi præter granula tuberculis interiore apicali et exteriori basali minore supra prædita.

Palporum pars trochanterica parte patellari longior, in apice incrassata, tuberculo inferiore apicali robusto. Pars femoralis dimidio longior quam crassior, ordine

inferiore tuberculorum obtusorum (circiter octo) armata, intus inermis; ultra carinam dorsalem longam, tuberculis serratam, sublævis. Pars patellaris intus angustissime extenuata. Pars tibialis parte femorali paullo brevior, parte tarsali dimidio longior; apex truncatus parte latissima haud multo angustior; anguli tuberculis singulis muniti, ante quæ ordo utrinque adest spinularum sat multarum, quarum præsertim interiores graciles. Partes patellaris, tibialis, tarsalis supra granulatae. Pars tarsalis primum depressa, marginibus extenuatis, deinde compressa, spina interiore submedia robusta et aculeis interiore subapicali et (sex aut septem) exterioribus armata. Unguis parte tarsali non duplo brevior.

Coxæ I processulo dorsali anteriore biramo, obtuso; IV quam III duplo latiores, ante neque turba nec ordine granorum laterali anteriore præditæ, exteriore apicali carina transversa, granis serrata. Femora leviter arcuata, granis prædita, quorum inferiora femorum III et IV majora et subacuta sunt. Patellæ et tibiæ I et II granulis, III et IV granis, quorum inferiora tibiæ IV majora et subacuta. Calcanei I astragalo duplo, II non triplo, III triplo breviores; IV articulo tarsali primo vix brevior. Articuli tarsales: 6, ?, ?, 10. Processus terminalis unguiculis non tenuior, vix duplo autem brevior.

Differentia sexualis incognita.

Fusco-castaneus, lineis quinque luteis notatus, sulcos sequentibus, limbos laterales non attingentibus, in lateribus anteversum curvatis; area prima scuti lineolis utrinque singulis luteis notata, irregularibus, angulatis. Pedes a tibiis dilutiores.

Long. corp. 7; long. scuti 6,5; lat. scuti 5,5; palpi 6; pedes I 13,5, II (sine tarso) 20; III (sine tarso) 16; IV 25.

Patria. Columbia. Specimen unicum, feminam (ovipositore protruso), vidi, in Museo Vindobonensi asservatum.

Remarks. This species seems to be nearly related to *R. quinque-lineatus* E. Sim., which ROEWER referred to his genus *Flirtea* (Weberkn. d. Erde p. 346). However, it differs from this latter species in colour and in a few other features. SIMON's species has in addition to the five transverse yellow lines similar ones along the posterior margin of the three free somites. SIMON does not mention the two grana in the first abdominal somite. As ROEWER refers the species to his genus *Flirtea*, in which this structure is found, this character probably is not found in all specimens of *R. quinque-lineatus*.

#### *Rhaucus fuscus* n. sp.

7 mm longus, fuscus, lineolis obliquis in area prima ambabus et vittis angustis transversis brevibus ambabus et linea posteriore sordide luteis notatus; tuber oculiferum late et sat profunde excavatum; limbus lateralis vix discretus ordine haud manifesto granulorum; areæ granis haud manifesto ordinatim dispositis, secunda granis magnis ambobus; palporum pars femoralis tuberculo setigero interiore munita; coxæ IV turba granorum magnorum laterali anteriore; calcaneus I astragalo parte tertia brevior; articuli tarsales: 6, 14, 9, 10; processus terminalis unguiculis vix duplo brevior.

Tuber oculiferum latum sat humile, supra late et sat profunde excavatum, vittis ambabus granorum densorum.

Scutum sat alte convexum. Sulci transversi secundus, tertius, quartus leves. Limbus anterior discretus lævis. Limbus lateralis vix discretus, secundum coxam IV ordine haud manifesto granulorum. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens. Area prima, secunda, quarta granis dispersis, tertia et quinta ordinibus singulis haud manifestis granorum, secunda granis magnis ambobus. Tubercula areae quartae obtusa, suo tuberi conico imposita. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis parvis dispersis. Coxae granis; ventrale primum granis parvis, anale ordine posteriore granulorum et granulis parce dispersis, cetera ventralia ordinibus singulis granulorum.

Antennarum pars globosa articuli primi (praeter tuberculum interius apicale conicum) granis exterioribus et posterioribus praedita, supra ceterum sublævis.

Palporum pars trochanterica aequae longa ac pars patellaris, in apice leviter incrassata, tuberculo inferiore obtuso armata. Pars femoralis plus quam duplo longior quam crassior, extra manifesto convexa, ordine inferiore tuberculorum sat majorum (ca. 8) et tuberculo setigero interiore apicali munita; ultra carinam dorsalem serratam crassam (itaque haud manifestam) serrata. Partis patellaris margo interior peranguste extenuatus, in apice angulatus. Pars tibialis parte tertia longior quam latior, parti femorali aequalis; apex vix excavatus parte latissima vix parte tertia angustior; anguli singulis tuberculis et aculeis armati, quorum aculeorum interior robustior. Pars tarsalis parte tibiali vix parte tertia brevior, primum depressa, marginibus vix extenuatis, deinde vix compressa; aculeis exterioribus 5—7 et interioribus 3 armata. Unguis sat robustus parte tarsali non duplo brevior.

Coxae I tuberculo dorsali anteriore obtuso, prope basin graciliter producto; IV quam III duplo latiores, carina transversa superiore apicali, granis praedita, in medio altiore, et turba laterali anteriore granorum magnorum praedita. Femora arcuata, II vix; I et II et omnes patellae et tibiae granulis, III et IV granis, infra majoribus et acutis. Calcanei astragalo I parte tertia, II plus quam duplo breviores, articulo tarsali primo III manifesto, IV paullo longiores. Articuli tarsales: 6, (12—)14(—15), (8—)9, (9—)10. Processus terminalis aequae crassus atque unguiculi, quibus vix duplo brevior est.

Differentia sexualis. In mare: antennarum pars elevata articuli secundi ante parce plicati crassior quam altior, rotundata; digiti in basi leviter hiantes, mobilis dente submedio robusto munitus. Pars propior tarsi I parte ulteriore vix dimidio crassior. Femora et tibiae III et IV ordinibus inferioribus binis granorum magnorum conicorum acutorum, apicem versus sensim paullo majorum. Lamina (inferior) glandis penis in apice leviter emarginata, aculeis apicalibus arcuatis utrinque trinis et posterioribus utrinque binis.

Fuscus. Sordide luteae sunt: lineolae ambae obliquae extra tuber oculiferum positae, vittae angustae transversae breves ambae, erga apices coxarum IV positae, ante quas

ipse margo limbi lateralis brevis est, et linea transversa limbi posterioris. Membra dilutiora; pedes apicem versus dilutiores.

Long. corp. 7; long. scuti 6,25; lat. scuti 5,5; palpi 7; pedes I 13,5, II 24, III 20, IV 24.

Patria: Columbia. Exempla quatuor vidi, duos mares et duas feminas, in collectione ill. comitis KEYSERLINGII asservata.

Variatio: In femina altera: vittæ transversæ in limbo laterali prorsus non productæ; area secunda et quarta vittis angustis transversis singulis, late interruptis; area quinta linea transversa media. — In mare altero: palporum pars femoralis spinula tenui interiore armata; pars patellaris intus vix extenuata; vittæ (lineæ) ambæ areæ primæ majores, quia pone tuber oculiferum attingunt; limbi lateralis margo vix coloratus.

Remark: This species must in the Roewerian system be referred to the genus *Flirtea*.

**Rhaucus tristis n. sp.**

Femina 8 mm longa, fusca aut cinnamomea, flavis vittis angustis in area prima, punctis limbi lateralis partim confluentibus, linea flava in quoque sulco transverso notata; tuber oculiferum late excavatum; limbus lateralis ante discretus, foveolis vel punctis impressis præditus; areæ (prima excepta) granis, quorum majora in ordines singulos disposita, secunda tuberculis minoribus ambobus; palporum pars femoralis spina debili interiore subapicali armata, pars tibialis duplo fere longior quam latior; coxæ processulo dorsali anteriore obtuso bicuspidato, IV ordine transverso laterali anteriore granorum; calcaneus I astragalo duplo brevior; articuli tarsales: 6, 15—16, 8, 9; processus terminalis unguiculis parte tertia brevior.

Tuber oculiferum sat magnum latum, supra late excavatum, vittis ambabus (vix manifeste expressis) granorum.

Scutum alte convexum. Limbus anterior discretus sat tumidus, lævis. Limbus lateralis ante discretus, foveolis vel punctis impressis et adversus coxam IV granulis paucis dispersis præditus. Area prima anterior oblique plicata, et impressione posteriore media haud manifeste triangula, extra quam grana parva pauca adsunt; ceteræ granis præditæ, quorum majora in ordines singulos disposita; secunda tuberculis minoribus ambobus obtusis. Tubercula areæ quartæ conica, manifesto reclinia, suo basi humiliter conicæ, granis densis præditæ, imposita. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum; anale dorsale granis dispersis. Coxæ et ventrale primum granis (in ventrali minoribus); anale ordinibus duobus haud manifestis, cetera ordinibus singulis granulorum.

Antennarum pars globosa articuli primi (præter tuberculum magnum interius apicale) tuberculo exteriori apicali et granis supra prædita, quorum exteriora et posteriora majora.

Palporum pars trochanterica æque longa ac pars patellaris, in apice leviter incrassata, tuberculis inferioribus duobus armata, quorum interius majus. Pars femoralis vix duplo longior quam crassior, extra leviter convexa, ordine inferiore

tuberculorum inæqualium obtusorum (circiter decem) et spina debili interiore subapicali armata; ultra carinam dorsalem serratam brevem granis paucis ornata. Partis patellaris margo interior manifeste extenuatus, supra quem tuberculum apicale adest. Pars tibialis duplo fere longior quam latior, parti femorali æqualis; apex truncatus parte latissima paullo angustior; anguli exterior tuberculo et interior aculeis singulis armati. Partes patellaris et tibialis supra granulatae. Pars tarsalis parte tibiali parte tertia brevior, apicem versus angustior, marginibus non extenuatis; aculeis exterioribus sex et interioribus tribus, interdum quatuor, armata. Unguis parte tarsali vix duplo brevior.

Coxæ I processulo dorsali anteriore robusto, obtuse bicuspidato (sive ante breviter producto); IV quam III duplo latiores, carina transversa magna superiore apicali, granis crenulata, et ordine transverso laterali anteriore brevi granorum. Femora II recta; I leviter, III, IV arcuata; femora I et II et patellæ et tibiæ III et IV granulis, III et IV granis prædita, infra magnis acutis. Calcanei astragalo I duplo, II plus quam duplo breviores, articulo tarsali primo III manifeste, IV paullo longiores. Articuli tarsales: 6, 15—16, 8(—9), 9. Processus terminalis unguiculis parte tertia brevior.

Differentia sexualis (mare incognito). Feminae pars propior tarsi I articulo ultimo paullo tenuior.

Fuscus aut cinnamomeus. Flava sunt: vittæ angustæ ambæ anteriores laterales angulatæ areæ primæ; puncta partim confluentia limbi lateralis erga apicem coxæ IV posita; lineæ arcuatæ omnium sulcorum transversorum, quarum prima (extra interdum bifida) et quinta breves; lineæ laterales singulæ, in medio interruptæ, limbi posterioris et segmentorum dorsalium liberorum trium anteriorum. Membra (præter femora III et IV) dilutiora.

Long. corp. 8; long. scuti 5,5; lat. scuti 5; palpi 6,5; pedes I 13,5, II 25, III 19,5, IV 25.

Patria: Columbia. Exempla vidi, feminas tres, in collectione ill. comitis KEYSERLINGII asservata, quarum una nunc in Museo Zool. Hafniensi asservata.

Remarks: In addition to these three females, Dr. SØRENSEN also has determined several others but has apparently not finished his studies; they belong to Professor GÖLDI's collections; they were collected in the following three localities:

- 1) Alto Sibaté, in the month of February 1897, at a height of 2800 m — two females and a single male,
- 2) Paramo Ubaque, in the month of February, at a height of 3200 m — a single female (collected by E. BAY); ibidem at a height of 3800 m — a single male.
- 3) Paramo Bogotá, in the month of January 1897 — 14 females and 2 males.

Variatio. Limbus lateralis adversus coxam IV punctis flavis aut nonnullis partim confluentibus, aut duobus, aut uno ornatus, aut plerumque destitutus. Lineæ transversæ flavæ prima et secunda linea aut lineis interdum conjunctæ.

The yellow spots near the anterior lateral corner of the first area always seem to be present, but their development varies from one specimen to another; in some



specimens we observe as many as six more or less fused spots, forming a reticulated structure; in others only a few small spots are found. As previously stated, the yellow marginal spots in front of the fourth pair of coxæ are often wanting e. g. in the 16 specimens from Paramo Bogotá. The first and the fifth yellow transverse stripes are distinctly shorter than the others, sometimes very short. In one specimen a transverse row of yellow spots was found between the second and the third line; and in another between the fourth and the fifth stripe. In some specimens the fifth stripe was dissolved into yellow spots, and in a single female it consisted of two spots only; in the same animal all the other stripes were divided by a longitudinal darker narrow line. — With the exception of a single cinnamon-coloured female, one of the three originally examined by Dr. SØRENSEN, all the other 20 specimens were more or less dark brown.

**Abnormality.** In a single female from Paramo Bogotá an abnormality was observed which is similar to "the split segment" found in other Arthropods. The first and the second abdominal tergites were apparently quite normal; the third, however, showed a marked asymmetry. On the left side the structure was rather regular, but on the right side the usual spine was represented by a short obtuse tubercle; the yellow stripes along the front margin of the third and fourth abdominal somites are, as seen in figure 26, very irregular. The fifth tergite is apparently longer than usual; the hinder margin is somewhat irregular and the two yellow spots not quite symmetrical. The first free abdominal somite consists of a left portion, extending somewhat beyond the middle, and a right much shorter portion. The two following tergites are slightly asymmetrical as far as the yellow stripes are concerned, but in other respects scarcely abnormal. The abnormality described is probably due to traumatism before the last ecdysis.

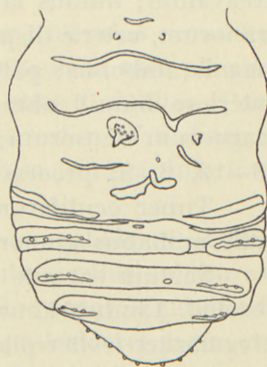


Fig. 26. *Rhaucus tristis* n. sp.  
Abnormal female.

In the Arachnids a similar structure was first noticed and figured in *Stylocellus sumatranus* Westw., one of the *Cyphophthalmi* (HANSEN & SØRENSEN: On two Orders of Arachnids 1904, p. 97, pl. II fig. 2a); WITH later on found the same abnormality in insects as well as in three Chelonethi (WITH Ann. Mag. Nat. Hist. (7) XV 1905, p. 136—141, and WITH Trans. zool. Soc. London XVIII 1908, p. 307); it has not yet been described in Crustaceans or in Myriopods.

**Remarks.** Behind the operculum genitale connecting the two spiracula a low but distinct transverse keel is found in the male; the operculum and the area between the fourth pair of coxæ is distinctly more slender in the males than in the females, a sexual difference which, as far as I know, has not previously been observed, but nevertheless is rather common among these animals. The second segment of the antennulæ is strongly produced upwards in the male. The armature of the fourth pair of femora is distinctly more developed in the male and the three proximal tarsal segments in the fifth pair of legs are strongly dilated.

In several specimens larvæ of mites, attached to the limbs or trunk by their proboscis, were found.

In the Roewerian system this species is to be referred to the genus *Flirtea*.

**Rhaucus reticulatus n. sp.**

7 mm longus, fuscus, maculis reticulatis areæ primæ et singulis mediis limborum lateralium, sulphureis, lineis sordide flavis sulcorum (quinto excepto), anulo compresso transverso, ante aperto areæ quintæ notatus; tuber oculiferum levius excavatum; limbus lateralis vix discretus, irregulariter plicatus; area quinta ordine granorum, ceteræ dispersis granis majoribus et minoribus et granulis, secunda granis magnis ambobus; palporum pars femoralis intus inermis; coxæ I tuberculo dorsali anteriore humili obtuso, IV ordine duplici transverso laterali anteriore granorum magnorum densorum; calcaneus I astragalo vix duplo brevior; articuli tarsales: 6, 18—19, 8, 9; processus terminalis unguiculis duplo brevior.

Tuber oculiferum humile latum, supra levius lateque excavatum, coriaceum, vittis ambabus granorum præditum.

Scutum sat alte convexum. Sulci transversi secundus, tertius et quartus extus obsoleti. Limbus anterior non discretus, lævis. Limbus lateralis vix discretus, latus, irregulariter leviter plicatus, ceterum lævis. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens; orificium itaque supra leviter tantum dilatatum. Area prima granis magnis et parvis dispersis et impressione posteriore media, subovali, profunda, cum sulco transverso primo sulco sat profundo conjuncta, lineolas utrinque singulas arcuatas emittente; secunda et tertia granis paucis et granulis dispersis; quarta granis majoribus et minoribus; quinta ordine brevi interrupto granorum densorum; secunda granis magnis ambobus. Tubercula areæ quartæ suo tuberi conico imposita. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum densorum; anale dorsale granis parvis dispersis. Coxæ et ventrale primum granis dispersis; anale ventrale ordinibus duobus granulorum, anteriore paucorum, posteriore densorum; cetera ordinibus singulis granorum. Impressio transversa ventralis primi profunda et lata.

Antennarum pars globosa articuli primi tuberculis apicalibus, interiore et exteriore, conicis, sat magnis, et granis exterioribus et posterioribus ornata.

Palporum pars trochanterica æque longa ac pars patellaris, in apice incrassata, tuberculo inferiore robusto armata, supra lævis. Pars femoralis extra leviter convexa, dimidio longior quam crassior, ordine inferiore a basi usque ad medium tuberculorum densorum robustorum (circiter septem) armata, intus inermis; ultra carinam dorsalem humilem robustam, crenulatam sublævis. Pars patellaris intus carinata. Partes patellaris et tibialis supra granulatae. Pars tibialis paullo longior quam latior, parti femorali æqualis; margo exterior apicem versus aculeis quatuor, anguli exterior tuberculo uno et interior aculeo uno armati; apex truncatus parte latissima parte tertia angustior. Pars tarsalis parte tibiali parte tertia brevior, prope basin depressa;

aculeis exterioribus septem et interioribus tribus armata. Unguis parte tarsali duplo brevior.

Coxæ I tuberculo dorsali anteriore humili obtuso; IV quam III vix duplo latiores, carina transversa superiore apicali, crenulata, (saltem in specimine unico) in medio humiliore; in latere anteriore leviter elevatæ et ordine duplici transverso granorum magnum densorum ornatae. Femora I manifesto, II vix, III et IV leviter arcuata, granis prædita. Patellæ et tibiæ I et II granulis, III et IV granis ornatae. Calcanei astragalo I vix duplo, II duplo, III plus quam duplo breviores; IV articulo tarsali primo longior. Articuli tarsales: 6, 18—19, 8, 9. Processus terminalis æque crassus ac unguiculi, iisdem autem duplo brevior.

Differentia sexualis (femina incognita). Mas: antennarum articulus secundus validus; pars elevata parte cetera brevior, compressa, supra subungulata, ante plicata; digiti in basi leviter hiantes, mobilis dente submedio robusto obtuso munitus. Pars propior tarsi I parte posteriore duplo crassior. Femora III et præsertim IV ordinibus inferioribus binis tuberculorum parvorum conicorum acutorum. Grana inferiora tibiæ III et IV apicem versus majora.

Fuscus. Area prima maculis reticulatis ambabus, extra tuber oculiferum positis; pars media limbi lateralis macula oblonga reticulata; quæ maculæ sordide sulphureæ sunt. Lineis sordide flavis notata sunt: sulci transversi primus (breviore), secundus et tertius (angustis), quartus (in medio late interruptis); limbus posterior et segmenta dorsalia libera tria anteriora (in medio late interruptis). Area quinta anulo compresso transversò ante aperto sordide flavo. Palpi et pedes fusco-brunnei; metatarsi olivacei, irregulariter obsolete nigro reticulati. Calcanei et tarsi infuscati.

Long. corp. 7; long. scuti 6; lat. scuti 5,5; palpi 8; pedes I 14, II 24, III 19, IV 24.

Patria: Columbia. Specimen unicum vidi, marem, in collectione ill. comitis KEYSERLINGII asservatum.

Remarks. Like *tristis* and *muticus* this species also — which in the Roewerian system belongs to the genus *Flirtea* — is related to *quinquelineatus* E. Sim.; possibly they are all to be referred to one species.

#### **Rhaucus alpha n. sp.**

7 mm longus, fuscus; area prima punctis confluentibus olivaceis, literam A plerumque formantibus, limbus lateralis punctis confluentibus olivaceis reticulatus; tuber oculiferum leviter excavatum granis præditum; areæ (prima excepta) ordinibus singulis granorum, secunda granis magnis ambobus; palporum pars femoralis intus inermis, partis patellaris margo interior vix extenuatus; coxæ IV turba granorum magnum laterali anteriore et carina apicali, in medio altiore; calcaneus I astragalo vix duplo brevior; articuli tarsales: 6, 13, 9, 10; processus terminalis unguiculis duplo brevior.

Tuber oculiferum latum humile, sat leviter excavatum, præter vittas granorum ambas granis posterioribus dispersis ornatum.

Scutum post sulcum transversum primum non gradatim altius. Sulci transversi secundus, tertius et quartus debiles. Limbus anterior discretus, subtiliter coriaceus, granulis parvis remotis præditus. Limbus lateralis leviter discretus, erga coxam IV granis parvis dispersis ornatus, quorum exteriora ordinem formant. Labium anterius orificiorum glandularum foetidarum ultra posterius prominens. Area prima granis minoribus dispersis; ceteræ granis minoribus et parvis sat dispersis et ordinibus singulis granorum majorum remotorum; secunda granis magnis ambobus. Tubercula areæ quartæ subconica rotundata, suo tuberi conico, granis densis ornato, imposita. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum, ante magnorum, pone minorum; anale dorsale ordinibus duobus haud manifestis granorum minorum. Anale ventrale ordine posteriore et vitta anteriore parca granorum parvorum; coxæ granis minoribus; margo posterior segmenti ventralis primi et segmenta cetera ordinibus singulis granorum parvorum. Sulcus transversus segmenti ventralis primi profundus et latus.

Antennarum pars globosa articuli primi tuberculis apicalibus, interiore et exteriori, conicis, et granis exterioribus et posterioribus, ceterum granulis prædita. Articulus secundus granulis ante ornatus, quæ in ordines tres haud manifestis disposita sunt.

Palporum pars trochanterica æque longa ac pars patellaris, in apice leviter incrassata, tuberculis inferioribus duobus armata, quorum interius multo majus est. Pars femoralis extra leviter convexa, vix duplo longior quam crassior, ordine inferiore tuberculorum densorum (circiter undecim) armata, intus inermis; ultra carinam dorsalem manifestam serratam sublævis. Partis patellaris margo interior vix extenuatus. Partes patellaris et tibialis granulis parvis supra ornatae. Pars tibialis parte tertia longior quam latior, parti femorali æqualis; apex truncatus parte latissima paullo angustior; angulus exterior tuberculo et exteriori aculeo, interior aculeo armatus. Pars tarsalis parte tibiali parte tertia brevior, sat angusta, marginibus prope basin leviter extenuatis, deinde sensim paullo angustior; aculeis exterioribus sex et interioribus tribus armata. Unguis parte tarsali duplo brevior.

Coxæ I tuberculo robusto dorsali anteriore obtuso, ante subconice producto; IV quam III vix duplo latiores, carina transversa superiore apicali, obliqua, in medio altiore, granis parvis serrata, et turba minore laterali anteriore granorum magnorum paucorum densorum, cujus basis leviter elevata est. Femora II vix, cetera leviter arcuata; I et II (et tibiæ III et IV) granis parvis, III et IV granis magnis prædita. Calcanei astragalo I vix duplo, II plus quam duplo, III fere triplo breviores; IV articulo tarsali primo paullo longior. Articuli tarsales: 6, (12—)13(—14), 9, 10. Processus terminalis unguiculis duplo brevior.

Differentia sexualis. Mas: antennarum articulus secundus robustus, ante plicatus; pars elevata vix compressa, rotundata, parte cetera manifesto brevior; digiti sat leviter hiantes, mobilis sat fortiter inclinatus dente magno subbasali armatus. Femora III et fusiformia IV et tibiæ III et IV ordinibus inferioribus binis tuberculorum parvorum subacutorum. Pars propior tarsi I parte ulteriore duplo fere crassior.

Lamina (inferior) glandis in apice manifesto emarginata, aculeis apicalibus arcuatis utrinque trinis, et posterioribus utrinque binis multo majoribus.

Fuscus. Area prima maculis ambabus lateralibus, lunatis, duplicibus (literæ A plerumque similibus) olivaceis; limbus lateralis erga coxam IV punctis olivaceis reticulate confluentibus, vittam angustam extenuatam brevem in aream tertiam emittentibus; limbus posterior linea transversa, late interrupta, olivacea; segmentum dorsale primum plerumque linea simili, in mare perlevi. Palpi et pedes dilutiores; pedes aream versus dilutiores; metatarsi et tarsi rufo-testacei. Coloratio olivacea scuti interdum tam debilis est, ut tantum lineæ parvæ arearum primæ et tertiæ et limbi lateralis remaneant. Apud feminam unam omnes areæ punctis olivaceis confluentibus et sulci transversi lineis indeterminatis ornata.

Long. corp. 7; long. scuti 6,25; lat. scuti 6; palpi 7,5; pedes I 17, II 30, III 22, IV 29.

Patria: Columbia. Specimina duo vidi, mares, in collectione ill. comitis KEYSERLINGII asservata, alterum ad urbem Sta Fé de Bogotá captum.

In addition to the above-mentioned two males Dr. SØRENSEN has examined several specimens from Columbia, all belonging to Professor GÖLDI's collections, viz.

- 1) two females and one male from Paramo Bogotá,
- 2) two females and one male from Alto Sibaté, collected February 2nd, 1897, at a height of 2800 m.,
- 3) a single male from Paramo Monserrata, collected January 31st, 1897, at a height of 2800 m.

Remarks. In the specimens examined a pair of grana bigger than the others were found in the fifth (the fourth abdominal) somite; a similar pair was sometimes seen in the sixth (fifth abdominal) somite. The two grana of the first abdominal tergite are only slightly bigger than the other grana of the somite, but more pointed and situated on a small, low tubercle. As pointed out by Dr. SØRENSEN, the coloration of the scutum varies from one specimen to another.

The male is very characteristic by its very robust, distally enlarged and serrated fourth pair of femora. The operculum genitale between the coxæ is slightly excavated from one side to the other in the males, but slightly vaulted in the females.

To the trunk and limbs of several specimens larves of acari were attached.

This species must certainly be referred to the Roewerian genus *Flirtea*. The species, however, also bears some similarity to *Metarhaucus reticulatus* Roewer (Weberkn. d. Erde p. 343), which possesses bigger grana in the first as well as in the second abdominal somite.

#### ***Rhaucus geographicus* n. sp.**

7 mm longus, fuscus, olivaceo-luteis fusco punctatis notatus: maculis ambabus areæ primæ, vittis dorsalibus ambabus arcuatis, lineas introrsum emittentibus, cum vitta brevi limbi lateralis vitta transversa conjunctis; tuber oculiferum late et profunde excavatum; limbus lateralis non discretus, ordine granorum parvorum; areæ

granis densis dispersis, secunda granis magnis ambobus; palporum pars femoralis tuberculo parvo interiore apicali armata; coxæ IV turba granorum laterali anteriore et carina apicali, in medio altiore; calcaneus I astragalo fere triplo brevior; articuli tarsales: 6, 15—16, 10, 12; processus terminalis unguiculis duplo brevior.

Tuber oculiferum latum, late et sat profunde excavatum, vittis angustis ambabus granorum magnorum ornatum.

Scutum æque latum ac longum, post sulcum transversum primum non gradatim altius. Sulci transversi secundus, tertius et quartus leves. Limbus anterior discretus lævis. Limbus lateralis non discretus, erga coxam IV ordine granorum præditus. Labium anterius orificiorum glandularum foetidarum ultra posterius manifeste prominens; orificia supra leviter dilatata. Area prima granis dispersis sat densis et impressione posteriore media manifesta parva haud profunda subtriangula; ceteræ granis dispersis densis; secunda granis magnis ambobus rotundatis. Tubercula areæ quartæ robusta, suo tuberi late conico imposita. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum sat densorum; anale dorsale impressionibus destitutum, granis superioribus densis dispersis. Ventrale primum ante sublæve, cujus margo posterior et segmenta cetera et pars interior coxarum (IV) granulis ornata sunt.

Antennarum pars globosa articuli primi præter tuberculum interius apicale conicum granulis superioribus dispersis et ordine exteriori posteriore granorum ornata, quorum exteriora basale et apicale ceteris multo majora sunt.

Palporum pars trochanterica æque longa ac pars patellaris, procera, in apice leviter incrassata, tuberculis inferioribus duobus, quorum interius majus est, et superiore uno. Pars femoralis dimidio longior quam crassior, extra leviter convexa, ordine inferiore tuberculorum robustorum subæqualium, sensim majorum (circiter novem), et tuberculo parvo interiore subapicali truncato setigero armata; ultra carinam dorsalem serratam sat longam sublævis. Partis patellaris margo interior anguste extenuatus, in apice vix productus. Pars tibialis paullo longior quam latior, parti femorali æqualis; apex angulatus parte latissima articuli parte tertia angustior; anguli vix producti, exterior tuberculo et duobus aculeis densis, interior aculeo uno, armati. Pars tarsalis parte tibiali parte tertia brevior; margines prope basin leviter extenuati, quare articulus apicem versus manifesto angustior est; aculeis exterioribus quinque (aut sex) et interioribus tribus armata. Unguis parte tarsali parte tertia brevior.

Coxæ I processulo dorsali anteriore robusto, in apice leviter inciso; IV quam III duplo fere latiores, carina transversa apicali, in medio multo altiore pæne acute triangula, præditæ, in latere anteriore elevatæ et turba granorum ornata. Femora I subrecta, cetera leviter arcuata; I et II granulis, III et IV granis, quorum inferiora majora conica sunt. Patellæ et tibiæ III et IV granulis superioribus et granis inferioribus ornata. Calcanei astragalo I et II duplo et dimidio breviores; articulo tarsali primo III manifesto, IV vix longiores. Articuli tarsales: 6, (13—)15—16(—17), 10(—11), 12(—13). Processus terminalis fortiter incurvus, unguiculis duplo brevior.

Differentia sexualis. Mas: antennarum articulus secundus robustus, ante vix

plicatus; pars elevata vix compressa, rotundata, parte cetera manifesto brevior; digiti in basi vix hiantes, mobilis sat fortiter inclinatus dente haud magno subbasali armatus. Femora III et (cylindrica) IV et tibiæ III et IV ordinibus inferioribus binis tuberculorum parvorum subacutorum; tibia III processulis (eminentiis ceteris multo majoribus) inferioribus apicalibus destituta. Pars propior tarsi I parte posteriore duplo fere crassior (feminæ articulo ultimo crassior).

Fuscus. Olivaceo-luteæ sunt: maculæ magnæ ambæ, irregulares, reticulatæ areæ primæ; vittæ binæ arearum secundæ, tertiæ, quartæ, arcuatæ, confluentes; linea similis tenuis areæ quintæ; vitta brevis limbi lateralis, erga partem posteriorem coxæ IV posita, cum arcu areæ tertiæ vitta transversa conjuncta. Quæ figuræ omnes fusco punctatæ, quia eminentiæ (anulo cinctæ) fuscæ sunt. Limbus posterior scuti et segmenta dorsalia libera tria anteriora lineis singulis late interruptis olivaceo-luteis. Pedes dilutiores; femora I et II luteo punctata; metatarsi sordide flavi, anguste nigro anulati.

Long. corp. 7; long. et lat scuti 6; palpi 7; pedes I 13,5, II 26, III 21, IV 26.

Patria: Columbia. Exempla quatuor vidi, feminas tres et marem unum, in collectione ill. comitis KEYSERLINGII asservata, quorum femina una nunc in Museo Zool. Hafniensi asservata est.

In addition to the four above-mentioned specimens Dr. SØRENSEN examined two males, forming part of Professor GÖLDI's collection, the one from Lagune Ubaque and the other from Pacho & Zipaquirá taken at a height of 2000—2200 m, March 27th; the editor has seen a third male from La Onion, Chingusa, collected at a height of 1000—2400 m, and scarcely examined by Dr. SØRENSEN.

Remarks. In the last mentioned male the gaping of the antennæ was only slightly pronounced, but in the two others it was well marked and the tooth at the base of the movable finger was well developed. In the specimen from Pacho all the yellowish spots were fused to a reticulated system. In the last mentioned specimen the exterior ventral process of the trochanterical portion was wanting on the right side and very small on the left side; the proximal portion of the left tarsus I consisted of 4 segments and that of the right as usual of 3 only.

The species belongs to the genus *Flirtea* in the Roewerian system.

#### ***Rhaucus limbatus* n. sp.**

Femina 7,5 mm longa, fusca pæne nigra; partes exteriores areæ primæ et limbus lateralis olivaceo-luteo reticulata; area secunda et tertia vittis transversis singulis olivaceo reticulatis; tuber oculiferum late et profunde excavatum; limbus lateralis non discretus, ordine granorum parvorum; areæ granis densis dispersis, secunda tuberculis ambobus; antennarum articulus secundus prope basin carinis anterioribus longitudinalibus tribus; palporum pars femoralis tuberculo interiore apicali munita; coxæ IV carina transversa apicali in medio altiore, et tubere granis prædito, laterali anteriore; calcaneus I astragalo duplo brevior; articuli tarsales: 6, 12—14, 10, 12; processus terminalis unguiculis parte tertia brevior.

Tuber oculiferum latum et humile, late et profunde excavatum, vittis ambabus latis granorum densorum.

Scutum manifesto longius quam latius. Sulcus transversus quartus debilis. Limbus anterior discretus, lævis. Limbus lateralis non discretus, erga coxas IV ordine granorum parvorum ornatus. Labium anterius orificiorum glandularum foetidarum ultra posterius manifeste prominens; orificia supra leviter dilatata. Area prima granis dispersis sat densis et impressione posteriore transversa,  $\cup$ -formi; ceteræ granis dispersis densis; secunda tuberculis ambobus rotundatis. Tubercula areae quartæ subglobosa, suæ basi humiliter conicæ imposita. Limbus posterior scuti et segmenta dorsalia libera tria anteriora ordinibus singulis granorum sat densorum; anale dorsale impressionibus transversis, anteriore interrupta et posteriore (media), et ordinibus duobus granorum. Coxæ granis dense dispersis; pars anterior ventralis primi granulis paucis dispersis; anale ordinibus duobus, cetera ventralia ordinibus singulis granorum minorum.

Antennarum pars globosa articuli primi (præter tuberculum interius apicale conicum) granulis superioribus dispersis et ordine exteriori superiore granorum ornata, quorum exteriora basale et apicale ceteris multo majora sunt. Articulus secundus (in femina geniculatus) prope basin carinis anterioribus tribus, per longitudinem ductis.

Palporum pars trochanterica æque longa ac pars patellaris, procera, in apice leviter incrassata, tuberculis inferioribus duobus, quorum interius majus est, et superiore uno. Pars femoralis non duplo longior quam crassior, extra leviter convexa, ordine inferiore tuberculorum (circiter novem) vicissim majorum et minorum, armata et tuberculo interiore apicali conico munita; ultra carinam dorsalem serratam, brevem humilem, itaque haud manifestam, serrata. Partis patellaris margo interior anguste extenuatus, in apice leviter productus. Partes patellaris et tibialis supra granulatae. Pars tibialis parte vix tertia longior quam latior, parte femorali manifesto brevior; apex angulatus parte latissima articuli parte tertia angustior; anguli manifesto producti, exterior tuberculo et duobus aculeis densis, interior aculeo uno, armati. Pars tarsalis parte tibiali haud multo brevior, apicem versus vix angustior, marginibus non extenuatis; aculeis exterioribus sex et interioribus tribus armata. Unguis parte tarsali vix duplo brevior.

Coxæ I processulo dorsali anteriore robusto, in apice leviter inciso; IV quam III duplo fere latiores, carina transversa in medio altiore superiore apicali et tubere laterali anteriore, granis prædita. Femora II recta, cetera arcuata; I et II granulis, III et IV granis ornata, quorum inferiora majora conica sunt. Patellæ et tibiæ III et IV granulis superioribus et granis inferioribus præditæ. Calcanei astragalo I duplo, II triplo breviores; III et IV articulo tarsali primo longiores. Articuli tarsales: 6, 12—14, 10, 12. Processus terminalis unguiculis parte tertia brevior.

Differentia sexualis? (mare incognito). Feminae pars propior tarsi I articulo ultimo vix tenuior.

Fuscus pæne niger. Area prima extra et post tuber oculiferum et limbus lateralis usque ad apicem coxæ IV olivaceo-luteo reticulata; areae secunda et tertia vittis latis



transversis reticulatis sordide olivaceis (vitta areæ secundæ interrupta). Limbus posterior et segmenta dorsalia libera tria anteriora lineis singulis interruptis olivaceis. Pedes brunneo-rufescentes; tibiæ rufo-testaceæ nigro punctatæ; metatarsi testacei dense anguste nigro anulati.

Long. corp. 7,5; long. scuti 6,5; lat. scuti 5,5; palpi 7; pedes I 13, II 25, III 18, IV 24.

Patria: Columbia. Specimen unicum vidi, feminam, in collectione ill. comitis KEYSERLINGII ASSERVATUM.

Species tres nuper descriptæ, *Rh. alpha*, *Rh. geographicus*, *Rh. limbatus*, sibi magnopere affines sunt.

Remark. This species must likewise in the Roewerian system be referred to the genus *Flirtea*.

**Rhaucus togatus n. sp.**

6 mm longus, læte fusco-cinnamomeus, vittis latis ambabus sulphureis notatus; tuber oculiferum late et profunde excavatum; limbus lateralis vix discretus, punctis impressis ornatus; areæ parce granulatae, secunda tuberculis ambobus, quarta processulis ambobus suo tuberi magno conico impositis; limbus posterior et segmenta dorsalia libera sublævia; pars femoralis palporum intus inermis; coxæ IV turba granorum densorum laterali anteriore; calcaneus I astragalo duplo brevior; articuli tarsales: 7, 19—20, 10—11, 12; processus terminalis procerus, unguiculis paullo brevior.

Tuber oculiferum limbo anteriori contiguum, sat magnum, late et profunde excavatum, vittis ambabus granorum parvorum paucorum.

Scutum sat alte convexum, post sulcum transversum primum non gradatim altius. Sulci transversi secundus, tertius, quartus leves. Limbus anterior (præsertim in medio) leviter discretus, lævis. Limbus lateralis vix discretus, punctis impressis sat densis ornatus, ceterum lævis. Areæ disperse et parce granulatae; prima impressione posteriore media orbiculari; secunda tuberculis ambobus humilibus, sat amplis, rotundatis; partes areæ, quibus tubercula imposita sunt, leviter sed ample elevatae. Processuli areæ quartæ suo tuberi magno conico impositi sunt. Limbus posterior scuti et segmenta dorsalia libera vix granulata. Coxæ granulis; ventralia primum et anale sublævia; margo posterior primi et segmenta cetera ordinibus singulis granulorum. Sulcus transversus segmenti ventralis primi arcuatus, profundus, latus.

Antennarum pars globosa articuli primi tuberculis conicis subacutis, anteriore apicali et exterioribus apicali et minore basali, item granis marginalibus prædita.

Palporum pars trochanterica parte patellari manifeste longior, in apice leviter incrassata, tuberculis inferioribus duobus armata, quorum interius majus; supra lævis. Pars femoralis vix duplo longior quam crassior, extus leviter convexa, ordine inferiore, partes duas articuli excipiente, tuberculorum (circiter octo) apicem articuli versus sensim majorum, armata, intus inermis (seta parva sat appressa, apici propinqua, munita); ultra carinam dorsalem humilem serratam sublævis. Partis patellaris margo interior angustissime extenuatus, in apice vix angulatus. Pars tibialis paullo

longior quam lator, parte femorali paullulo brevior; margines valde extenuati, interior subtiliter crenulatus, exterior (præter setas) aculeis medio uno et apici propinquis tribus, præter quos angulus exterior tuberculo et aculeo, interior aculeo armatus; apex vix concavus parte latissima articuli duplo fere angustior. Pars tarsalis parte tibiali parte tertia brevior; margines prope basin anguste extenuati, ante quos articulus sat subito angustior est; aculeis exterioribus septem (aut octo) et interioribus tribus armata. Unguis sat procerus, parte tarsali non duplo brevior.

Pedes breviores, sat robusti. Coxæ I processulo dorsali anteriore humili, vix inciso, in summo anteversum conice producto; IV quam III non duplo latiores, carina

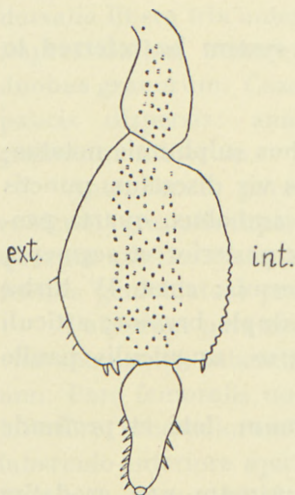


Fig. 27. *Rhaucus togatus* n. sp.  
Palpi partes patellaris, tibialis et tarsalis.  
(W. Sør. del.)

transversa superiore apicali, granis fortiter crenulata, in latere anteriore leviter elevatæ et turba granorum densorum ornatæ. Femora IV leviter, cetera vix arcuata; I et II granulis superioribus et granis inferioribus, III granis, infra apicem versus majoribus. Tibiæ IV tuberculis parvis superioribus. Calcanei astragalo I vix duplo, II triplo fere breviores; III et IV articulo tarsali primo manifesto longiores. Articuli tarsales: 7, (18—)19—20(—23), 10—11, (11—)12(—13). Processus terminalis procerus unguiculis paullo brevior.

Differentia sexualis. Mas: articulus secundus antennarum ante plicatus; pars elevata compressa, rotundata, subæque longa ac pars cetera; digitus mobilis sat fortiter inclinatus, dente subbasali magno armatus. Pars propior tarsi I parte posteriore plus quam duplo crassior (in femina: articulo ultimo tenuior). Femora (et tibiæ) III et IV ordinibus inferioribus binis eminentiarum conicarum acutarum, apicem articuli versus majorum, quarum ultimæ sunt tubercula.

Læte fusco-cinnamomeus, vittis latis ambabus sulphureis, ante acuminatis, extra et intra serratis, a marginibus lateralibus recessis, erga apicem coxarum IV lineam prorsam emittentibus; pars media scuti vittis paullo angustior, post processulos areæ quartæ subito angustata, deinde sensim lator. Segmenta dorsalia libera tria anteriora lineis transversis singulis, interruptis. Membra dilutiora; pedes I et II et trochanteres et bases breves femorum III et IV et metatarsi et tarsi III et IV testacea. Metatarsi anguste nigro anulati.

Long. corp. 6; long. scuti 5; lat. scuti 4,75; palpi 6,5; pedes I 19, II 38, III 26, IV 36.

Patria: Columbia. Exempla septem vidi, mares quinque et feminas duas, in collectione ill. comitis KEYSERLINGII asservata, quorum quinque ad urbem Sta. Fé de Bogotá capta sunt. Mas unus nunc in Museo Zool. Hafniensi asservatus.

Variatio. In femina altera: limbus anterior manifeste discretus; area secunda clypeate elevata, ubi tubercula imposita sunt; area prima et limbus lateralis (parte exteriori angusta excepta) sordide sulphureo reticulata, dum in areis ceteris tantum

lineæ arcuatæ (partes exteriores sulcorum sequentes) sulphureæ adsunt. — In mare uno: articulus secundus antennarum non elevatus; limbus posterior scuti et segmenta dorsalia libera et ventralia omnia manifesto granulata.

Animal junius (certe generis *Rhauci*, et fortasse *Rh. togati*), ad Sta. Fé de Bogotá captum): Long. corp. 4; long. scuti 3,5; palpi 7,5; pedes IV 28. Palpi (relative) sat robusti; pars trochanterica parti patellari subæqualis; pars femoralis partibus patellari et tibiali conjunctis vix longior, femore III paullo minus crassa; pars tibialis parte tibiali duplo fere longior; pars tarsalis parte tibiali manifesto (parte tertia) brevior; partes omnes teretes, trochanterica tuberculo inferiore apicali munita, ceteræ inermes; unguis subulatus. — Tuber oculiferum latum, late et profunde excavatum, in tumulos ambos, sat late separatos, pæne divisum. — Area scuti secunda processulis ambobus parvis; quarta processibus ambobus longis, conicis, acutis, reclinibus, sublævibus. — Fuscum, lineis dilutis ornatum: media et transversis, sulcos sequentibus; limbi anterior et lateralis et posterior diluti.

Remark. This species must be referred to the genus *Meterginus* in the Røwerian system.

***Rhaucus obscurus* n. sp.**

7 mm longus, fuscus; area prima lineolis obliquis sordide flavis, sulci transversi (excepto primo) lineis sordide flavis notata; tuber oculiferum late et leviter excavatum; limbus lateralis leviter discretus, lineolis et punctis impressis et ordine exteriori granulorum ornatus; area granulis dispersis et granis ordinatim dispositis, secunda granis magnis ambobus, quarta tuberculis ambobus, suo tuberi conico impositis; palporum pars femoralis spinula interiore subapicali armata; coxæ IV turba granorum laterali anteriore; calcaneus I astragalo vix duplo brevior; articuli tarsales: 7, 19, 9, 10; processus terminalis unguiculis longis duplo brevior.

Tuber oculiferum humile latum, supra late et leviter excavatum, vittis ambabus granorum minorum paucorum ornatum.

Scutum sat alte convexum. Limbus anterior leviter discretus, lævis. Limbus lateralis leviter discretus, lineolis et punctis impressis et ordine exteriori granulorum præditus. Labium anterius orificiorum glandularum foetidarum ultra posterius leviter prominens. Area prima impressione posteriore media haud profunda (aut orbiculari aut  $\smile$ -formi et granis dispersis); secunda granis magnis ambobus et granulis sat dispersis; tertia præter granula sat dispersa ordine granorum; quarta granis dispersis; quinta ordine brevi interrupto granorum densorum. Tubercula areae quartæ suo tuberi conico haud magno, granis parce prædita, imposita. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum densorum; anale dorsale granis minoribus dispersis. Ventrale primum (parvis) et coxæ granis dispersis sat densis; anale ordinibus duobus, cetera ordinibus singulis granorum parvorum. Impressio transversa ventralis primi profunda lataque. E marginibus spiraculorum carinæ binæ obliquæ exeunt, leviter convergentes.

Antennarum pars globosa articuli primi tuberculis conicis, interiore apicali magno et exterioribus basali et apicali, et granis exterioribus et posterioribus prædita.

Palporum pars trochanterica æque longa ac pars patellaris in apice leviter incrassata, tuberculis inferioribus duobus armata, quorum interius majus. Pars femoralis duplo fere longior quam crassior, extra leviter convexa, ordine inferiore tuberculorum (circiter 6) magnorum, sensim majorum et spinula interiore subapicali armata; ultra carinam dorsalem serratam humilem brevem leviter serrata. Partis patellaris margo interior angustissime extenuatus, subtiliter crenulatus, supra quem tuberculum parvum apicale adest. Partes patellaris et tibialis supra granulatae. Pars tibialis dimidio longior quam latior, parte femorali manifeste brevior; apex vix concavus parte latissima parte tertia angustior; anguli vix producti, exterior tuberculo et aculeis lateralibus (3—4), interior aculeo robusto armati. Pars tarsalis parte tibiali parte tertia brevior, apicem versus angustata, aculeis exterioribus sex aut septem et interioribus tribus aut quatuor armata. Unguis parte tarsali duplo brevior.

Coxæ I processulo dorsali anteriore conico, ante leviter producto; IV quam III vix duplo latiores, carina transversa superiore apicali, crenulata, et turba granorum densorum laterali anteriore. Femora II vix, I leviter, III et IV manifesto arcuata; omnia granis prædita. Patellæ et tibiæ I et II granulis, III et IV granis ornatae. Calcanei astragalo I vix duplo, II plus quam duplo breviores; articulo tarsali primo III manifesto, IV vix longiores. Articuli tarsales: 7, (17—)19, 9, (9—)10(—11). Processus terminalis æque crassus atque unguiculi longi, quibus autem duplo brevior est.

Differentia sexualis. Mas: articulus secundus antennarum robustus; pars elevata parte cetera brevior, leviter compressa, supra rotundata, ante plicata; digiti in basi leviter hiantes, mobilis dente submedio robusto obtuso munitus. Pars propior tarsi I parte posteriore triplo longior et duplo crassior (in femina articulo ultimo vix tenuior). Femora III et præsertim IV ordinibus inferioribus binis tuberculorum parvorum (in femina granorum magnorum) conicorum acutorum, apicem articuli versus sensim majorum.

Fuscus. Area prima lineolis obliquis angulatis ambabus sordide flavis, pone extenuatis. Sulci transversi secundus, tertius, quartus, quintus lineis angustis singulis sordide flavis notati; limbus posterior et segmenta dorsalia libera duo anteriora lineis singulis interruptis. Membra brunnea; metatarsi testacei irregulariter anguste nigro reticulati; tarsi infuscati.

Long. corp. 7,5 (♀ 7); long. scuti 5,75 (♀ 6); lat. scuti vix 5; palpi 7,5 (♀ 7); pedes I 15 (♀ 13), II 24 (♀ 23), III 19 (♀ 18), IV 24 (♀ 23).

Patria: Columbia. Exempla tria vidi, mares duos et feminam unam, in collectione ill. comitis KEYSERLINGII asservata.

Variatio: In specimine uno eminentiæ magnæ areæ quartæ sunt: tubercula parva obtusa, suo tuberi parvo granis parce ornato imposita. In specimine altero linea sulci quarti bipartita. In femina area prima lineis curvis utrinque binis notata.

Remarks. This species must be referred to the genus *Meterginus* in the Roeserian system.

### Cynorta Simon.

*Cosmetus* p. p. Perty Delectus animal, III, 1833, p. 208.

*Flirtea* + *Gnidia* C. L. Koch, Übers. d. Arachnidensyst. 1839. Fasc. II, p. 20, 21.

*Cynorta* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 195.

*Cynorta* e. a. Roewer, Weberkn. d. Erde, 1923, p. 310 etc. — Suppl.: Abh. naturw. Ver. Bremen, XXVI, 3, 1928, p. 554 ff.

Tuber oculiferum eminentiis parvis sæpissime ornatum, in ordines (aut vittas) ambos sæpe distributis.

Scutum dorsale sæpissime leviter convexum, pone coxas III manifesto latius.

Area quarta (interdum non expressa) eminentiis majoribus ambabus instructa.

Orificia glandularum foetidarum sunt foramina brevia, lata, infra latiora (leviter proclivia), supra processum coxalem non aut vix visibilibus.

Antennarum articulus primus in apice interiore superiore muticus.

Palporum sat gracilium pars tibialis sat fortiter dilatata; margo interior minus dilatatus, subrectus, exterior a basi usque ad apicem leniter arcuatus, nec apicem versus angustior, (in *Cynorta holmbergi* tamen margo exterior apicem versus sat subito angustior, quare in latere leniter angulatus est.)

Pedes breviores. Coxæ IV vix dilatatae, aut (sæpissime) eminentia majore conica aut carina transversa instructae. Pars propior tarsi I parte posteriore aut non aut paullo crassior (in mare vix crassior quam in femina) aut in mare manifesto crassior.

Unguiculi integri.

Differentia sexualis aut (in subgenere *Prasiæ*) structura articuli secundi antennarum demonstratur aut (in subgenere *Cynortæ*) parva crassitudine (et interdum armatura) femorum IV aut (in subgenere *Abriæ*) crassitudine partis propioris tarsorum I, III, IV. — Penis (*C. dimorphæ*) lamina (inferior) sat crassa, in apice sat profunde incisa, aculeis utrinque senis munita, quorum bini apicales perlongi, curvati, processum (medium) laminæ oppressum amplectentes; balanus (superior) deplanatus.

Tarsi I articulus primus secundo in *C. quadrimaculata* non, in *C. V-albo* paullo, speciebus ceteris longior.

Nomen *Cynortæ*, a C. L. Koch datum, servavi, etsi species ab hoc autore descriptæ, altera certe, altera verisimiliter, ad genus *Poecilæmatis* pertinent.

#### *Conspectus specierum hic descriptarum.*

A. Differentia sexualis magnitudine articuli secundi antennarum demonstratur.

Pars femoralis intus inermis. Subgenus *Prasia*:

- I. Tarsus I in articulos ultra sex divisus. Areæ quarta processulis binis, ceteræ (prima excepta) granis binis. . . . . *C. (Pr.) fallax* n. sp.
- II. Tarsus I in articulos sex divisus. Area IV tuberculis binis:
  - a. Grana parva bina in areis II—III adsunt. . . . . *C. (Pr.) venezuelana* n. sp.
  - b. Grana parva bina in areis II—III desunt. . . . . *C. (Pr.) clypeata* n. sp.

B. Differentia sexualis parva, crassitudine (et interdum armatura) femorum IV demonstratur. Subgenus *Cynorta*:

I. Tarsus I in articulos quinque divisus:

a. Palporum pars femoralis intus inermis:

+ Pedes II æque longi ac pedes IV . . . . . *C. (C.) sayi* E. Sim.

++ Pedes IV pedibus II manifesto longiores . . . *C. (C.) depressa* n. sp.

b. Palporum pars femoralis tuberculo magno interiore apicali armata

*C. (C.) ambigua* n. sp.

II. Tarsus I in articulos sex divisus:

a. Scutum eminentiis magnis ambabus (areae quartæ) instructum:

+ Palporum pars femoralis intus armata:

§ Coxæ IV tuberculo exteriori apicali conico instructæ:

£ Scutum manifesto longius quam latius. *C. (C.) leviarcuata* n. sp.

££ Scutum paullo longius quam latius:

& Coxæ IV coriaceæ tantum; tuber oculiferum leviter excavatum; palporum pars patellaris non angulata . .

*C. (C.) vidua* n. sp.

&& Coxæ IV granulis pusillis; tuber oculiferum non excavatum; palporum pars patellaris in apice utrinque angulata . . . . . *C. (C.) gervaisii* n. sp. ♂.

§§ Coxæ IV in apice muticæ . . . . . *C. (C.) dimorpha* n. sp. ♀.

++ Palporum pars femoralis intus inermis . . . *C. (C.) centralis* n. sp. ♀.

b. Scutum eminentiis magnis, quatuor:

+ Eminentia magnæ scuti areis secundæ et quartæ impositæ:

§ Palporum pars femoralis intus armata:

£ Scutum granulatum:

& Sulcus transversus primus depressus. *C. (C.) koelpeli* Roewer.

&& Sulcus transversus primus obsoletus. *C. (C.) modesta* n. sp.

££ Scutum coriaceum:

& Tuber oculiferum subtilissime coriaceum, ceterum læve; livide cinnamomeum, vittis angustis flavis . . . . .

*C. (C.) calycina* n. sp.

&& Tuber oculiferum supra oculos ordine singulo granorum; cinnamomeum maculis densis flavis . . . . .

cfr. *C. (Abria) innominata* n. sp.

§§ Palporum pars femoralis intus inermis:

£ Scutum granis densis præditum . . . . . *C. (C.) holmbergi* W. S.

££ Scutum coriaceum . . . . . *C. (C.) quadrimaculata* Gerv.

++ Eminentia magnæ scuti areis quartæ et quintæ impositæ . . . . .

*C. (C.) V-album* E. Sim.

c. Scutum eminentiis magnis sex instructum:

+ Scutum granis dispersis et densis ornatum. cfr. *C. (C.) V-album* E. Sim.

- ++ Scutum coriaceum ..... *C. (C.) cubana* Banks.  
 +++ Arearum partes media et posterior granis inæqualibus haud  
 densis ornatae ..... *C. (C.) caraibica* n. sp.  
 III. Tarsus I in articulos septem (vel ultra) divisus... *C. (C.) dimorpha* n. sp. ♂.  
 C. Pars propior tarsi I et partes proximæ tarsorum III—IV parte posteriore mani-  
 festo crassior in mare. Subgenus *Abria* ..... *C. (A.) innominata* n. sp. ♂.

#### Subgenus *Prasia* n.

*Cynorta* pp. + *Eucynorta* pp. + *Metarhaucus* pp. + *Flirtea* pp. + *Euerginus* pp.  
 Roewer, Weberkn. d. Erde, 1923, p. 310, 328, 341, 345, 359.

Scutum a latere inspectum a tubere oculifero usque ad eminentias magnas (areæ quartæ) subrectum, sulcis transversis undulatum.

Orificia glandularum foetidarum sunt foramina brevia, lata, verticalia (in et brevi supra marginem posita), processu coxali plane fere abscondita.

Differentia sexualis magnitudine articuli secundi antennarum demonstratur.

#### *Cynorta (Prasia) fallax* n. sp.

4,5 mm longa, fulva, lineis transversis luteis quatuor notata, linea media interrupta conjunctis; tuber oculiferum late et profunde excavatum, granis utrinque trinis; areæ coriaceæ et (prima excepta) granis binis præditæ, quarta processibus ambobus; pars femoralis palporum intus inermis; coxæ IV turba laterali anteriore granorum paucorum; calcaneus I astragalo haud multo brevior; articuli tarsales: 7, 15, 9, 10; processus terminalis unguiculis longis paullo brevior.

Tuber oculiferum humile, latum, late et profunde excavatum, coriaceum, ordinibus ambobus granorum trinorum ornatum.

Scutum convexum, pone altius, sulco transverso primo vix profundius quam sulcis ceteris divisum; erga coxas IV manifesto latius. Sulcus transversus primus manifestus, ceteri lati leves, partibus exterioribus obsoletis. Limbus anterior discretus coriaceus; tubercula extra antennas posita robusta, breviter conica, subacuta. Limbus lateralis pone non discretus, coriaceus. Areæ coriaceæ; prima impressione posteriore media, orbiculari, levi; secunda granis, tertia et quinta et limbus posterior granis magnis binis conicis obtusis. Processus areæ quartæ reclines, paralleli, conici, subacuti, spatio interapicali longiores; extra quos grana utrinque singula adsunt. Segmenta dorsalia libera tria anteriora ordinibus singulis granorum sat densorum; anale dorsale granis et impressione transversa lata, non profunda. Coxæ et ventrale primum lævia; ventralia cetera vix granulata.

Antennarum pars globosa articuli primi ordine marginali granorum supra prædita.

Palporum pars trochanterica parte patellari manifesto longior, tuberculo inferiore armata. Pars femoralis plus quam duplo longior quam crassior, ordine inferiore tuberculorum sat procurvorum majorum et minorum (circiter duodecim) armata,

intus inermis; supra carinam dorsalem lævem lævis. Partis patellaris margo interior angustissime extenuatus, in apice angulatus. Pars tibialis dimidio longior quam latior, parte femorali paullo brevior; margines valde extenuati, leniter arcuati, interior leviter, exterior sat fortiter; apices producti, exterior tuberculo conico et aculeo uno (citra quem setæ robustæ adsunt) et interior aculeo uno armati. Pars tarsalis parte tibiali non duplo brevior, primum leviter depressa, deinde leviter compressa, præter setas aculeo uno interiore submedio armata. Unguis sat procerus, parte tarsali vix duplo brevior.

Pedes breviores graciliores; III et IV anterioribus manifesto robustiores. Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali, sat crassa, subquadrata, et turba laterali anteriore granorum haud densorum præditæ. Femora leviter arcuata, granulis superioribus, I et II granis inferioribus ornata. Calcanei astragalo I haud multo, II haud duplo breviores; articulo tarsali primo III subæqualis, IV brevior. Articuli tarsales: 7, 15, 9, 10. Processus terminalis unguiculis longis gracilibus paullo brevior.

Differentia sexualis (femina incognita). Mas: Pars elevata articuli secundi antennarum parte cetera multo brevior, leviter compressa; digiti robusti in basi leviter hiantes, mobilis dente subbasali compresso conico munitus. Pars propior tarsi I parte posteriore paullulo crassior. Femora III et IV ordinibus inferioribus binis eminentiarum sat acutarum, apicem articuli versus majorum, quarum posteriores in pedibus IV sunt tubercula.

Obscure fulva, lineis transversis luteis quatuor notata, quarum anterior, sulco transverso primo propinqua, procurva est, et quarta (pone processus posita) procurva, arcuata, margines laterales attingentes; secunda et tertia (suo sulco congruentes) latitudinem scuti fere dimidiam excipientes; secunda extus procurva, lineam primam pæne attingens. Quæ lineæ linea interrupta media conjunctæ sunt. Venter, palpi, trochanteres pedum dilutiores. Articulus secundus antennarum vittis anterioribus testaceis ambabus — num semper? — notatus.

Long. corp. 4,5; long. et lat. scuti 4; palpi 5,25; pedes I 11, II 21,5; III 14; IV 19,5.

Patria: India occidentalis. Specimen unicum vidi, marem, quod ill. E. SIMON mihi benevolentissime dedit, nunc in Museo Zool. Hafniense asservatum.

Remarks. This species cannot be referred to any of ROEWER's genera.

#### *Cynorta (Prasia) venezuelana* n. sp.

*Prasia striata* Sørensen in manuscr.

5,25 mm longa, castanea, macula media in areis I—II sordide flavo-olivacea, punctis castaneis armata, unde exeunt striæ obliquæ adversus coxas II et linea media posterior, et lineis transversis notata; tuber oculiferum late et profunde excavatum, granulis armatum; areæ coriaceæ; secunda et tertia granis binis, quarta tuberculis parvis; pars femoralis palporum intus inermis; coxæ IV turba laterali anteriore grano-



rum paucorum; calcaneus I astragalo plus quam duplo brevior; articuli tarsales: 6, 12—13, 8, 9; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humillimum, latum, late et profunde excavatum, granulis paucis dispersis et vittis ambabus granulorum magnorum, intra et supra suum oculum positis.

Scutum convexum, pone paullulo altius, adversus coxas IV manifesto latius. Sulci primus et quintus manifesti, ceteri obsoleti. Scutum totum coriaceum, granulis pusillis sat densis dispersis. Limbus anterior discretus; pars media dense granulata; tubercula extra antennas posita robusta, leviter conica, obtusa. Limbus lateralis latus impressionibus irregularibus. Area secunda et tertia granis parvis binis, quarta tuberculis parvis, breviter conicis, manifesto brevius quam grana areae primae separatis; area quinta ordine transverso granorum parvulorum. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum densorum conicorum acutorum; anale dorsale granis paullo minoribus, dispersis obtusis. Coxæ et ventrale primum granulis parvis dispersis; anale ventrale ordinibus duobus; ventralia cetera ordinibus singulis granulorum, pone majorum.

Antennarum pars globosa articuli primi granis superioribus conicis obtusis densis et inferioribus paucis scabra; maris grana marginalia manifesto majora sunt.

Palporum pars trochanterica parte patellari vix brevior, tuberculo inferiore armata. Pars femoralis non duplo longior quam crassior (in femina non dimidio) ordine inferiore tuberculorum parvorum obtusorum densorum (circiter 15); intus inermis; ultra carinam dorsalem prope basin peraltam, in femina crenulatam, medium articuli attingentem, in mare lævem paullo ante apicem sensim evanescentem, lævis. Partis patellaris margo interior anguste extenuatus, in apice angulatus. Pars tibialis dimidio longior quam latior, parti femorali æqualis; margines valde extenuati, leviter arcuati, interior leviter, exterior sat fortiter; apices rotundate producti, aculeis gracilibus singulis muniti. Pars tarsalis parte tibiali non duplo brevior, primum depressa, marginibus extenuatis, deinde leviter compressa, præter setas aculeo haud robusto uno interiore submedio armata. Unguis procerus parte tarsali non duplo brevior.

Pedes breviores sat robusti; pedes III—IV in mare quam I—II manifesto, in femina vix crassiores. Coxæ IV quam coxis III duplo latiores, turba sive ordine breviora transversa laterali anteriore granorum trium sive quatuor et carina transversa apicali tri- aut bicuspidata. Femora arcuata, II leviter, et granulata. Calcanei astragalo I—II plus quam duplo breviores; articulo tarsali primo III subæqualis, IV paullo longior quam crassior. Articuli tarsales: 6, (11—)12—13(—15<sup>1</sup>), 8, 9. Processus terminalis æque crassus atque unguiculi et his paullo brevior.

Differentia sexualis. Articulatus secundus antennarum maris robustus, supra articulum basale elevatus; pars elevata leviter compressa, parte cetera duplo brevior; digiti in basi leviter hiantes. Pars propior tarsi I parte posteriore in mare paullo, in femina non crassior. Femora IV feminae vix, maris manifesto adversus apicem in-

<sup>1</sup>) In a single female 15 joints were found on the left side, while the right leg had 12 joints.

crassata; in femina granulis, in mare granis infra majoribus vel tuberculis prædita; tibiæ IV in femina granulis pusillis, in mare lateraliter granis ornatae.

Opacæ castanea. Sordide flavo-olivaceæ sunt: 1) macula media areæ primæ et secundæ, punctis castaneis ornata, unde exeunt vitta lata in tuber oculiferum inter oculos (partem anteriorem vix attingens), striæ obliquæ, ante sulcum transversum primum positæ, adversus coxas II, linea media posterior (sæpe interrupta, punctis formata), 2) lineæ transversæ, sæpe punctis formatae, sulcos anteriores ceteros manifestantes, quæ autem sæpe desunt, exceptis illis, quæ post tubercula scuti positæ sunt, post quæ lineolæ breves transversæ adsunt. Membra corpore dilutiora; apices pedum testacei.

Long. corp. (♂) 5,25; long. scuti 4,75; lat. scuti 4,20; palpi 5,75; pedes I 10,5, II 18, III 13, IV 16,5.

Pulli et adolescentes. Junius (e Zorozal). Pars trochanterica palporum tuberculo acuto apicali inferiore armata. Area secunda tuberculis binis, tertia granis et quarta processulis acutis binis armata. Articuli tarsales: 2, 2, 3, 3. — Pulli (e La Moka). Sulci transversi omnes manifesti. Area secunda et quarta tuberculis binis, tertia granis ambobus. Palporum pars trochanterica sine tuberculo inferiore. Pedes pallide rosacei, fusco anulati. The colour is according to SØRENSEN in other respects scarcely different from that of the adults, but somewhat lighter. Long. corp. 3,2; long. scuti 2,7; lat. scuti 1,8; palpi 5,5; pes II 12. One specimen, which was scarcely 1 mm long, had according to SØRENSEN hardly increased in size since it left the egg, and would surely pass a first ecdysis before the tarsal segments 2, 2, 3, 3, would appear.

Patria: Venezuela. The late Dr. MEINERT sifted a single male at Caracas July 5th—12th, 1891, and 2 males, 4 females and 3 pulli at La Moka. SIMON has collected 3 females at Caracas and a single female and a young animal at Zorozal.

Variatio. Eminentia majores areæ tertiæ desunt in femina, quam ill. SIMON apud oppidum Caracas legit; in femina altera macula anterior scuti in puncta dissoluta. In femina (e Zorozal) ordines singuli granorum adsunt in area tertia et quarta, et macula anterior scuti vix adest.

Remarks. This species is certainly related to the different species for which ROEWER has erected the genus *Metarhaucus*, and in several respects, especially the colour, it shows great similarity to *M. ohausi* ROEWER (Weberkn. d. Erde p. 344). As it differs in the following features the 2 species are scarcely identical. In *venezuelana* the tubercles of the 5th area (4th abdominal) are wanting, the tubercula extra antennas are much larger, the armature of coxa IV is less developed, the proximal segments of tarsus I are less thickened in the male, and the armature of the fourth femur differs distinctly in the male, as the ventral surface is adorned with an inner, better developed as well as an outer, less developed distal row of teeth, and as the dorsal surface bears a row of 12 distal teeth.

*Cynorta (Prasia) clypeata* n. sp.

6,8 mm longa, fusca, macula media clypeata in area prima sordide lutea, punctis fuscis notata, armata; sulcus quartus eodem modo ornatus; tuber oculiferum latum

et vix excavatum, ordinibus ambobus granorum paucorum ornatum; scutum coriaceum et granulis paucis armatum; area quarta tuberculis binis acutis armata; pars femoralis intus inermis; coxæ IV turba laterali anteriore granorum paucorum; calcaneus I astragalo triplo brevior; articuli tarsales: 6, 12—13, 7, 8; processus terminalis unguiculis paullo brevior.

Tuber oculiferum perhumile latum, supra vix excavatum, coriaceum, subtiliter granulatum, ordinibus ambobus granorum prope oculum suum positis notatum.

Scutum convexum, pone paullo altius; adversus coxas IV manifesto latius. Suleus primus manifestus; ceteri leves, extus obsoleti. Scutum totum coriaceum et granulis parce ornatum; granulæ in areis quarta et quinta ordines singulos formant. Limbus anterior sat discretus, coriaceus; tubercula extra antennas posita magna, robusta, conica, rotundata. Limbus lateralis pone non discretus, coriaceus, impressionibus posterioribus, sæpe longis, densis et impressionibus magnis supra coxas II et III singulis positus. Area quarta tuberculis binis leviter conicis acutis. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum conicorum acutorum densorum; anale dorsale granis sat densis. Coxæ et ventrale primum granulis dispersis densis; anale dorsale ordinibus duobus, cetera ordinibus singulis granorum rotundorum, pone sensim paullo majorum, ita ut posteriora grana tamen minora sunt.

Antennarum pars globosa articuli primi granis minoribus, leviter conicis supra densis, et tuberculo exteriori apicali conico uno aut duobus.

Palporum pars trochanterica parte patellari dimidio fere longior, tuberculo inferiore armata. Pars femoralis in mare plus quam (in femina vix) duplo longior quam crassior, ordine inferiore tuberculorum humilium rotundorum (c. 16); intus inermis; ultra carinam dorsalem brevem, in mare humilem, in femina sat altam, in mare vix, in femina vix aut leviter crenulatam, lævis. Partis patellaris margo interior anguste extenuatus, in apice leviter angulatus. Pars tibialis paullo, tamen manifesto longior quam latior, parte femorali paullo brevior; margines valde extenuati, leniter arcuati, interior leviter, exterior fortiter; apices producti, exterior tuberculo parvo at aculeo haud robusto, citra quem setæ adsunt. Pars tarsalis parte tibiali duplo brevior, primum leviter depressa, deinde leviter compressa; præter setas multas aculeo gracili uno interiore submedio armata. Unguis parte tarsali duplo brevior.

Pedes breves robusti, III—IV manifesto robustiores. Coxæ IV coxis III plus quam duplo latiores, carina transversa superiore apicali serrata (dens medius hujus in mare ceteris major est), et ordine transverso anteriore laterali granorum magnorum; grana maris majora et plura sunt. Calcanei I astragalo triplo, II paullo quam duplo breviores; III (paullo), et IV articulo tarsali primo breviores; IV longior quam crassior. Articuli tarsales: 6, (11—)12—13(—14<sup>1</sup>), 7(—8), 8. Processus terminalis unguiculis paullo brevior neque tenuior.

Differentia sexualis. Pars elevata articuli secundi antennarum parte cetera multo

<sup>1</sup>) This latter number only in two males and a single female.

brevior, leviter compressa; digiti feminae leviter hiantes, maris fortiter hiantes, mobilis in basi dente submedio munitus. (A rather great difference is observed in the different males, as the elevated portion in some specimens is about one third of the remaining portion, but in others only one fourth or one fifth). Femora IV feminae apicem versus ordine inferiore granorum magnorum, maris clavatum granis magnis ubique, quorum majora (apicem versus posita) superiora et praesertim inferiora tubercula sunt; patellae IV in femina granis, in mare granis magnis et interioribus tuberculis parvis. (The lower interior row of femur IV consists of ca. 17 rather strong teeth, of which the middle ones are somewhat hooked with the point directed towards the end, and the lower exterior row consists of ca. 15 obtuse teeth, of which the four apical ones are much the longer). Pars cterior tarsi I in mare parte posteriore manifesto, in femina vix crassior.

Fusca; area prima macula media clypeata magna sordide lutea, punctis brunneis ante et pone notata, ornata, cujus pars anterior producta partem mediam tuberis oculiferi occupat. Sulcus quartus linea eodem modo colorata notatus; sulci II—III lineis brevibus, in puncta pauca saepissime dissolutis, notati; linea interrupta maculam areae primae et lineam sulci quarti conjungit, saepissime in punctula pauca dissoluta. Area quinta saepe, tertia raro ordinibus singulis transversis punctulorum ornata.

Long. corp. 6,8; long. scuti 5,7; lat. scuti 4,8; palpi 6; pedes I 12, II 21, III 14,5; IV 18.

Patria: Venezuela. Cand. mag. CHR. LEVINSSEN (LØFTING) has collected 16 females and 8 males at Las Trinchéras December 22nd, 1893.

Variation. In a single male small but distinct grana were observed in the first and second abdominal somite corresponding to the median pair of other species. — In mare uno area quinta ordine granorum conicorum densorum ornata, subaeque magnorum ac granorum limbi posterioris; scutum saepe subtiliter reticulate sulcatum. In femina una areae I—V ordine singulo granorum minorum ornatae, dum eminentiae magnae areae quartae modo grana sunt.

Abnormality. According to SØRENSEN, tarsus IV in a specimen which I have not seen, showed the following abnormality: On the one side the proximal portion was five-segmented, the middle portion was not marked out and the terminal portion undivided without terminal process; on the other side with eight segments, the proximal portion was six-segmented and the middle as well as the terminal portion undivided, the terminal process of the latter was rudimentary. In a single female tarsus IV consisted on the right side of a long basal segment, shorter than the remaining five segments, but longer than the two following and the three terminal ones; the following five segments decrease somewhat towards the sixth; the seventh is very short; the eighth is rounded, as long as the two following and without claws and terminal process; the tarsus on the left side is quite normal. In a single specimen with eight segments in tarsus IV the terminal segment on the right side was abnormal.

Remarks. In the Roewerian system this species must be referred to the genus *Euerginus* and is nearly related to *E. australis* Roewer (Weberkn. d. Erde, p. 363).

It is also in colour and general appearance similar to *C. (Pr.) venezuelana* W. Sør. described above.

To the subgenus *Prasia* Sørensen further referred the following three species viz. *Cynorta (Prasia) picta* Perty (Delectus animalium, 1833, p. 208, tab. XL fig. 5) — in ROEWER'S Weberkn. d. Erde referred (p. 346) to the genus *Flirtea*.

Hanc speciem in Museo Berolinensi vidi. — Tuber oculiferum supra late et sat profunde excavatum, granulis prope oculos positis ornatum. Tubercula scuti, extra antennas posita, magna vix conica, obtusa. Coxæ IV tuberculo superiore apicali magno compresso, bifido. Coxæ (IV) et ventrale primum sublævia; ventrale anale ordinibus duobus, ventralia cetera ordinibus singulis granorum minorum. Tarsus I in articulos sex divisus.

*Cynorta (Prasia) phalerata* C. L. Koch (Die Arachniden vol. VII, 1839, p. 117, fig. 591) — in ROEWER'S Weberkn. d. Erde (p. 319) referred to the Genus *Cynorta*.

Hanc speciem in Museo Berolinensi vidi. — Tubercula scuti, extra antennas posita, parva conica, acuta.

*Cynorta (Prasia) quadripustulata* E. Simon (Ann. Soc. Ent. Belg. XII, 1879, p. 196) — in ROEWER'S Weberkn. d. Erde (p. 328) referred to the genus *Eucynorta*.

#### Subgenus *Cynorta* m.

*Libitioides* + *Metacynorta* + *Gnidia* + *Eucynorta* + *Eucynortula* + *Cynorta* + *Cynortula* + *Cynortellana* + *Cynortoides* + *Erginulus* + *Euerginus* Roewer, Weberkn. d. Erde, p. 296, 304, 308, 328, 332, 310, 322, 321, 335, 350, 359.

#### *Cynorta sayi* Simon.

*Gonyleptes ornatum* Wood (nec Say), On the Phalangeæ of the Unit. States of America, 1870, p. 37.

*Cynorta Sayi* Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 200.

*Cosmetus albolineatus* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 592.

*Libitioides ornata* Roewer, Weberkn. d. Erde, 1923, p. 296.

5 mm longa, læte fulva, lineis albis ornata; sulci transversi primus manifestus, ceteri obsoleti; tuber oculiferum granulis parvis dispersis; areæ subtilissime granulatae, secunda et quinta granis binis, quarta tuberculis ambobus; palporum pars femoralis intus inermis; pedes breves, II saltem æque longi ac IV; coxæ IV tuberculo majore (aut processulo in mare) subrecto; calcaneus I æque longus atque articulus tarsalis primus; articuli tarsales: 5, 8, 6, 6; processus terminalis unguiculis brevior. — Patria: America septentrionalis.

Addenda et corrigenda: Scutum, a latere inspectum, a tubere oculifero usque ad tubercula areæ quartæ lævissime arcuatum; tubercula extra antennas posita perbrevia, rotundata. Orificia glandularum foetidarum processu coxali (non oppresso)

vix detecta. Limbus posterior scuti ordine granorum præditus. Palporum pars femoralis vix duplo longior quam crassior, intus inermis, ultra carinam dorsalem leviter crenulatam lævis. Partis patellaris margo interior leviter extenuatus, crenulatus. Pars tibialis duplo longior quam latior, parte femorali vix longior. Calcaneus I articulo tarsali primo æqualis, ceteri manifesto breviores. Articuli tarsales: 5, (7—)8(—9), 6, 6. Pars propior tarsi I parte posteriore non crassior; articulus primus secundo longior.

Variatio. Exempla quatuor, mares duo et feminae duæ, e republica Texas, in Museo Holmiensi asservata, et femina e republica Carolina septentrionali, quam ill. E. SIMON mihi benevolentissime dedit, brunneo-rufa sunt et linea transversa media interrupta carent. Exempla in Museo Holmiensi asservata partem tantum parvam, V-formem, lineæ Y-formis demonstrant; quæ in exemplo uno plane deest.

Remarks. The grana of the fourth abdominal somite in one of the three specimens examined are represented by three grana, in another a few somewhat smaller ones are present in addition to the two bigger ones, and in a third specimen two very small grana are found.

SØRENSEN thought that *Cosmetus albolineatus* described by himself in 1884 was identical with *Gonyleptes ornatus* Say 1821 — but not with *Gonyleptes ornatum* Wood 1868, the name of which was altered by SIMON 1879 to *Cynorta sayi*. ROEWER, however, identified *albolineatus* with the latter species and in this I quite agree with him. (HENRIKSEN).

*Cynorta depressa* n. sp.

5,25 mm longa, rufescens testacea, lineis duabus sordide albo-luteis notata, anteriore brevi procurva, posteriore undulata; tuber oculiferum humile, supra pæne sulcatum; scutum subplanum granis magnis quatuor præditum, areis secundæ et quartæ impositis; anale ventrale granis posterioribus; coxæ IV læves; palporum pars femoralis intus inermis; pedes breves, IV quam II manifesto longiores; coxæ IV processulo subconico, trochanteres IV tuberculo parvo interiore apicali; calcaneus I articulo tarsali primo brevior; articuli tarsales: 5, 8, 6, 6; processus terminalis unguiculis duplo brevior.

Tuber oculiferum non latum, duplo latius quam altius, supra anguste (non autem profunde) excavatum, pæne sulcatum, ordinibus ambobus granulorum præditum.

Scutum subplanum, a latere inspectum a tubere oculifero usque ad eminentias areæ quartæ leviter arcuatum, sulco transverso primo tamen leviter depressum; post coxas III dilatatum, ultra apices coxarum IV paullulo prominens. Sulcus transversus primus manifestus procurvus, ceteri lati, pæne obsoleti. Limbus anterior discretus, subtiliter granulatus; tubercula extra antennas posita brevia, obtusa. Limbus lateralis discretus, pone sensim latior, præsertim pone carinatus, granis exterioribus dispersis ornatus. Orificia glandularum foetidarum processu coxali non appresso vix oblecta. Areæ subtiliter granulatae; secunda et quarta granis magnis binis rotundatis ornatae, quorum posteriora anterioribus majora sunt. Area quinta ordine brevi granorum,

quorum ambo sæpe majora sunt; limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum prædita; anale dorsale granis dispersis sat densis. Anale ventrale granis posterioribus; coxæ et ventrale primum lævia; segmenta cetera (saltem extus) ordinibus singulis granorum minorum.

Antennarum pars globosa articuli primi granis marginalibus et granulis superioribus ornata.

Palporum pars femoralis vix duplo longior quam crassior, ordine inferiore submedio tuberculorum subæqualium paucorum (5—6) munita, intus inermis; ultra carinam dorsalem brevem crenulatam lævis. Partis patellaris margo interior anguste extenuatus, sæpissime leviter crenulatus. Pars tibialis duplo longior quam latior, parte femorali vix parte tertia brevior; margo interior sat angustus levissime arcuatus in apice productus, exterior prope basin sæpissime crenulatus, in apice vix angulatus, quare apex vix truncatus est. Pars tarsalis apicem versus leniter angustior, marginibus non extenuatis. Unguis parte tarsali vix duplo brevior.

Pedes breves, robustiores. Coxæ IV coxis triplo latiores, processulo apicali, in basi depresso, ceterum subconico, vix curvato, subobtusio. Trochanteres IV tuberculo parvo interiore apicali, conico, obtuso. Femora arcuata, II leviter, IV sat fortiter; femora omnia et patellæ et tibiæ IV granulis prædita, infra majoribus. Calcanei I, II, III articulo tarsali primo breviores; IV manifesto brevior quam crassior. Articuli tarsales: 5, (7—)8(—)9, 6, 6. Tarsi I articulus primus secundo longior. Processus terminalis unguiculis duplo brevior et vix minus crassus.

Differentia sexualis exigua: Mas quam femina paullo major et robustior. (Pars propior tarsi I parte posteriore in mare vix, in femina non crassior).

Rufescens testacea, lineis duabus sordide albo-luteis notata, quæ oculum sat facile effugiunt, quarum anterior procurva, sulco primo propinqua, brevis, æque longa ac latitudo tuberis oculiferi, et posterior post grana majora posteriora scuti posita est, in medio sæpissime late interrupta, undulata, limbos (nec margines) laterales sæpissime attingens. Pedes paullo dilutiores.

Long. corp. 5,25; long. scuti 4,75; lat. scuti 4,5; palpi 3,75; pedes I 8,5, II 13,5, III 11, IV 15,5.

Patria: America centralis. Exempla septem vidi, in Museo Dresdenensi asservata, quorum quatuor mares et tres feminas esse judico.

Variatio: Exemplum unum unicolor.

Remarks. This species is nearly related to *C. ornata* Wood, described above, and is thus to be referred to the genus *Libitoides* in the Roewerian system — in spite of the different armature of the third and fourth abdominal somites.

#### *Cynorta ambigua* n. sp.

5 mm longa, fusca pæne nigra; luteæ sunt striæ angustæ longitudinaliter per aream secundam usque ad quintam ductæ et margo limbi posterioris; tuber oculiferum latum et granis parvis dispersis parce ornatum; scutum inter lineas luteas granis parvis dispersis et in areis II et IV granis ambobus, ceteris majoribus aut vix majori-

bus præditum; limbus posterior granis ambobus majoribus; pars femoralis palporum tuberculo magno subacuto interiore apicali armata; unguis parte tarsali suo dimidio brevior; coxæ IV carina serrata apicali superiore; calcaneus I articulo tarsali primo paullo brevior; articuli tarsales: 5, 9—10, 6, 6; processus terminalis unguiculis tenuior et duplo fere brevior.

Tuber oculiferum humillimum latum, supra subplanum, coriaceum, granis parvis et granulis parce dispersis ornatum.

Scutum totum subtilissime coriaceum, a sulco transverso primo leviter et æqualiter convexum, post coxas III haud paullo latius et post coxas IV haud paullo angustius. Sulcus transversus primus procurvus manifestus, quintus levis, ceteri extra strias luteas deleti. Limbus anterior latus, manifesto discretus, in parte media subtiliter granulatus; tubercula extra antennas posita brevia, robusta, obtuse truncata. Limbus lateralis latus, libratus, vix discretus, adversus coxas IV punctis impressis et granis parvis sat dispersis haud densis. Orificia glandularum foetidarum plane obtecta. Area prima foveola rotunda sat profunda, post tuber oculiferum posita, et granis parvis posterioribus sat parce prædita, ceteræ intra strias luteas granis parvis sat densis præditæ, extra eas læves aut sublæves. Area secunda et quarta granis magnis aut sat magnis binis rotundatis præditæ inter se magis separatis in area secunda quam in area quarta. Limbus posterior præter ordinem granorum parvorum granis majoribus ambobus; segmenta dorsalia libera tria anteriora ordinibus singulis granorum, granis scuti majorum; anale dorsale granis minoribus densis. Coxæ IV infra granis parvis; segmentum ventrale primum granis sat parvis; anale vitta posteriore et ordine anteriore granorum sat parvorum, cetera ventralia ordinibus singulis.

Antennarum pars globosa articuli primi granis parvis paucis.

Palporum pars trochanterica in apice fortiter incrassata et tuberculo inferiore subapicali brevi subrotundato prædita. Pars femoralis dimidio longior quam crassior, ordine inferiore longo tuberculorum obtusorum circiter decem, quorum submedia circiter quinque ceteris manifesto majora sunt; supra ultra carinam crenulatam, in medio altam, vix serrata; tuberculo interiore apicali magno subacuto. Partis patellaris margo interior sat late extenuatus, crenulatus vel serratus, in apice productus. Pars tibialis duplo longior quam latior, in apice subtruncati anguli leviter armati. Pars tarsalis in parte basali leviter depressa, spinis exterioribus 3—4 et interioribus 1—2. Unguis parte tarsali sua dimidia brevior.

Pedes breves. Coxæ IV coxis III triplo latiores, carina apicali superiore serrata; granis magnis lateralibus anterioribus tribus sibi propinquis. Trochanter IV tuberculo interiore apicali subacuto. Femora arcuata et patellæ et tibiæ granis prædita. Grana ordinis inferioris et interioris femoris IV in femina paullo, in mare manifesto majora quam cetera. Calcaneus I articulo tarsali primo paullo brevior, II vix brevior; III paullo longior quam crassior, IV crassior quam longior. Articuli tarsales: 5, 9—10, 6, 6. Processus terminalis unguiculis tenuior et duplo fere brevior.

Differentia sexualis. Eminentia majores arearum II et IV maris granis magnis, feminae sat magnis, ceteris haud multo majoribus; eminentia majores limbi posterioris



granis segmentorum dorsalium liberorum in mare sæpe, in femina manifesto majores sunt. Spinæ partis tarsalis in mare multo robustiores quam in femina. Pars propior articulo ultimo tarsorum I maris dimidio fere, feminae non, III maris paullo, feminae non crassior. Pedes robustiores in mare quam in femina.

Fusca pæne nigra, striis nigris angustis, interdum interruptis luteis per longitudinem arearum secundæ, tertiæ et quartæ ductis, sulcos transversos primum et quartum non attingentibus, adversus sulcum secundum et tertium breviter introrsum arcuatis, sibi subparallelis (pone vix convergentibus), subæque longe a sese atque a marginibus lateralibus separatis. Trochanteres I—III brunnescente testacei; membra cetera corpore paullo tantum dilutiora.

Long. corp. 5; long. scuti 4,3; lat. scuti 4; palpi 4; pedes I 7,8; II 13,2; III 19,3; IV 13.

Patria: Venezuela. Dr. SØRENSEN has examined 2 males and 2 females collected at Pacho and Zipaquira (near Bogotá) at a height of 2000—2200 m on March 27th, 1897, by Professor BÜRGER, as well as a male and a female from Tequendama in old wood. All the specimens belong to the Museum of Göttingen.

Variation. In a single male a pair of bigger grana was observed in the second abdominal somite, in the female from Tequendama not only a pair of bigger grana was observed in the second, but also a single big granum on the left side of the fourth somite.

Remarks. According to Dr. SØRENSEN this species is an intermediary form between *Cynorta* and *Libitia*. In the Roewerian system it will form a new genus near to *Libitoides* and *Eulibitia*. It seems related to and is in several respects, especially in colour, similar to *Eulibitia maculata* Roewer (Weberkn. d. Erde, p. 298) from Columbia and Ecuador, but it differs by the granular tuber oculiferum and the areæ which are only granular in the middle with a very characteristic difference between the central and the lateral portion, while *E. maculata* has the scutum "überall mit winzigen Körnchen regellos bestreut"; add to this that ROEWER does not mention the inner apical tubercle of the femoral part of the palps and that his species has no big granules in the first and the third somites, and the fourth somite "mit einem mittleren Paare deutlicher, wenn auch sehr niedriger Tubercle".

To the fourth femur of the female from Tequendama a larva of a mite was found attached on the left side.

#### *Cynorta leviarcuata* n. sp.

*Cynorta arcuata* Sørensen in manuscr.

6—7 mm longa, rufo-cinnamomea, lineis cinereo-luteis notata; tuber oculiferum humillimum, late excavatum, granulis dispersis ornatum; scutum longius quam latius, læve, eminentiis quatuor præditum, quarum anteriores parvæ; limbus lateralis non discretus, lævis; anale ventrale vitta posteriore granulorum; coxæ (IV) læves; pars femoralis palporum spinula interiore subapicali armata; apex partis tibialis

truncatus; coxæ IV tuberculo apicali procero; calcaneus I astragalo duplo brevior; articuli tarsales: 6, 12, 8, 9; processus terminalis unguiculis parte tertia brevior.

Tuber oculiferum humillimum, transversum, supra manifeste lateque excavatum, quare oculi elevati sunt, granulis densis dispersis ornatum, intra oculos positus.

Scutum convexum; a latere inspectum a tubere oculifero usque ad eminentias areæ quartæ rectum, pone non altius; longius quam latius; inter coxas III et IV manifesto latius. Sulci transversi quinque sat manifesti. Limbus anterior leviter discretus, alte emarginatus, lævis; tubercula extra antennas posita parva, conica, subacuta. Limbus lateralis non discretus, lævis. Orificia glandularum foetidarum vix oblecta. Areæ læves; secunda granis parvis humilibus ambobus; quarta eminentiis ambobus obtusis. Segmenta dorsalia libera tria anteriora ordinibus singulis granorum, pone majorum, in segmento tertio conicorum, subacutorum. Anale dorsale granis sat densis dispersis. Anale ventrale vitta posteriore granulorum majorum; coxæ et ventrale primum lævia; segmenta cetera ordinibus singulis granulorum pusillorum.

Antennæ robustæ; pars globosa articuli primi granis superioribus, quorum marginalia majora densa conica sunt, et inferioribus conicis prædita. Articulus secundus (in utroque sexu) manifesto geniculatus, lævis.

Palporum pars femoralis vix duplo longior quam crassior, in latere exteriori manifesto convexa, ordine inferiore tuberculorum (circiter octo) sensim majorum et spinula (sive grano setigero) interiore subapicali armata; ultra carinam dorsalem leviter serratam lævis. Partis patellaris margo interior vix extenuatus. Pars tibialis duplo longior quam latior, parte femorali vix brevior; margines ultra medium paralleli, aculeis utrinque binis aut trinis armati, interior rectus angustus, exterior leviter rotundatus, quare apex truncatus parte latissima paullulo angustior est. Pars tarsalis longa, parte tibiali non duplo brevior; margines non extenuati aculeis haud robustis exterioribus sex et interioribus tribus armati. Unguis parte tarsali non duplo brevior.

Pedes breves, robustiores. Coxæ IV tuberculo exteriori procero, conico, obtuso, leviter curvato, appresso. Femora leviter arcuata, I et II granulis acutis ornata. Calcanei I astragalo duplo brevior; II articulis tarsalibus primo et secundo conjunctis subæqualis; III articulo tarsali primo brevior; IV vix longior quam crassior. Articuli tarsales: 6, (11—)12(—13), 8, (8—)9. Tarsi I articulus primus secundo longior. Processus terminalis recessus, unguiculis parte tertia brevior, vix autem minus crassus.

Differentia sexualis. Pedes, præsertim III et IV, maris robustiores. Pars ceterior tarsi I parte ulteriore in mare vix (articulo ultimo non), in femina non crassior. Femora III et IV feminæ granulis ubique ornata. Maris femora III ordine inferiore tuberculorum parvorum gracilium conicorum, acutorum, remotorum; IV ordine superiore tuberculorum parvulorum robustorum, conicorum, remotorum, et ordine inferiore processulorum conicorum acutorum, sibi contiguorum pectinata, quorum medii longissimi diametro articuli longiores sunt. Patellæ et tibiæ IV maris granulis ornata, quorum inferiora majora sunt.

Rufo-cinnamomea. Lineæ cinereo-luteæ: anterior V-formis (sulco transverso primo propinqua) interrupta, margines laterales non attingens; posterior (sulco

quarto congruens) fortiter undulata, marginibus lateralibus subcontigua. Quæ lineæ tribus lineis conjunctæ sunt: media interrupta debili et lateralibus ambabus integris, quæ arcubus trinis subcircularibus formatæ sunt, in lineas breves, sulcos transversos secundum, introrsus productis; quæ lineæ ambæ partes fere duas latitudinis scuti excipiunt. Ante partem anteriorem lineæ sulco transverso quarto subcongruæ adsunt puncta utrinque singula. Area quinta linea transversa notata, cum præcedente lineis brevibus tribus conjuncta. Limbus posterior scuti linea late interrupta. Pedes paullo dilutiores; metatarsi et tarsi late fusco anulati; tarsi I et II infuscati.

Long. corp. 6 (♀ 6,75); long. scuti 5,5 (♀ 6); lat. scuti 4,75 (♀ 5,5); palpi 5,5; pedes I 12, II 21 (♀ 22), III 15, IV 19.

Patria: Mexico. Specimina duo vidi, marem et feminam, ad oppidum Vera Paz capta, in collectione ill. comitis KEYSERLINGII asservata.

Variatio: Specimini alteri (feminæ) grana ambo areæ secundæ et ordo granorum limbi posterioris defuere. — Eminentia majores ambæ areæ quartæ affuerunt: feminæ grana magna humilia, maris processuli conici, leviter reclines, paralleli.

Remarks. In the Roewerian system this species must belong to the genera *Euerginus* or *Erginulus*. It is interesting that the male possesses processuli on the 4th area (as *Erginulus*), the female grana (as *Euerginus*). In both Roewerian genera there are several species that show a similar pattern to this new species. — Dr. SØRENSEN has proposed the name *C. arcuatus* for this species, but as ROEWER has already used this specific name (for an *Erginulus*) I have altered it to *leviarcuata*.

#### *Cynorta vidua* n. sp.

6,5 mm longa, nigra; scutum præter punctula lineis anteriore V-formi et posteriore undulata et lateralibus ambabus cinereis notatum; pedes lutei maculis et striis nigris notati; tuber oculiferum leviter excavatum; limbus lateralis leviter discretus, impressionibus irregularibus præditus; scutum paullo longius quam latius; areæ coriaceæ tantum, quarta (non expressa) processibus parvis ambabus; coxæ IV et segmenta ventralia coriacea tantum; palporum pars femoralis tuberculo interiore apicali, pars patellaris intus anguste extenuata; coxæ IV tuberculo parvulo conico; calcaneus I æque longus atque articulus tarsalis primus; articuli tarsales: 6, 11, 7, 7; processus terminalis æque longus atque unguiculi.

Tuber oculiferum plus quam duplo latius quam altius, supra late et leviter excavatum, subtilissime coriaceum, ordinibus ambobus granorum parvorum ornatum.

Scutum convexum; a latere inspectum, totum æqualiter sat alte arcuatum; inter coxas III et IV latius. Sulci transversi primus procurvus et postremus rectus sat debiles; ceteri plane obsoleti. Limbus anterior leviter discretus, subtilissime coriaceus; tubercula extra antennis posita parva, conica, obtusa. Limbus lateralis leviter discretus impressionibus irregularibus præditus. Orificia glandularum foetidarum perlata, plane obtecta. Areæ subtilissime coriaceæ, ceterum læves, prima post tuber oculiferum impressione orbiculari lata haud profunda. Processus parvi (areæ quartæ) subrecti, paralleli, robusti, breviter conici, acuti. Limbus posterior et seg-

menta dorsalia libera tria anteriora ordinibus singulis granulorum humilium; anale dorsale præter granula dispersa impressione transversa interrupta sæpissime præditum. Anale ventrale ordine posteriore granulorum parvorum; ventralia cetera et coxæ (IV) subtilissime coriaceæ, ceterum lævia.

Antennarum pars globosa articuli primi grano interiore apicali et ordine posteriore granorum; pars superior cetera leviter granulata; granis conicis inferioribus prædita.

Palporum pars femoralis fortiter compressa, dimidio longior quam crassior, ordine inferiore tuberculorum densorum, sensim paullo majorum et tuberculo interiore apicali armata; ultra carinam dorsalem vix crenulatam vix crenulata. Partis patellaris margo interior anguste extenuatus, in apice angulatus. Pars tibialis duplo longior quam latior, æque longa ac pars femoralis; margo interior angustus, exterior leviter arcuatus, quare apex parte latissima paullo angustior et basi paullo latior est; apex interior in tuberculum productus, exterior muticus. Pars tarsalis parte patellari paullo longior, depressa; margines propiores extenuati; setis tantum munita. Unguis parte tarsali duplo brevior.

Pedes robustiores. Coxæ IV tuberculo parvulo exteriori apicali conico appresso. Trochanteres IV grano interiore apicali. Femora leviter arcuata, granulis parvis vix aspera. Calcanei I et II articulo tarsali primo æqualis; III et IV subæque crassi ac longi. Articuli tarsales: 6, (10—)11, 7, 7(—8). Tarsi I articulus primus secundo longior. Processus terminalis æque longus atque unguiculi, quibus dimidio fere crassior est.

Differentia sexualis exigua: Pars propior tarsi I parte ulteriore in mare paullo, in femina vix crassior. Femora IV maris quam feminae paullo crassiora, in apice feminae vix, maris manifesto crassiora; eodem modo granulata. In exemplo unico virili tuberculum coxale multo majus quam in femina, cujus tuberculum oculum facile effugit.

Nigra, lineis et punctulis cinereis notata: linea V-formi anteriore (sulco primo propinqua), e qua lineæ ambæ breves laterales (non autem marginales) pone interruptæ, retrorsus exeunt; linea tenuissima, acute undulata, post processus scuti posita, ante quam linea transversa interrupta sæpe adest. Scutum ordinibus transversis tribus (duobus ante, uno post processus positus) punctulorum; limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis punctulorum. Antennæ luteæ, luteo notatæ; palpi nigri. Pedes lutei; trochanteres maculis binis nigris; femora maculis singulis basalibus nigris et striis quaternis, in apice confluentibus, quare apices nigri sunt. Patellæ nigræ; partes basalis brevissima et ulterior tibiæ nigræ; metatarsi et tarsi nigro-lutei.

Long. corp. 6,5; long. scuti 5,5; lat. scuti 5; palpi 5,5; pedes I 12, II 22, III 16, IV 21.

Patria: America centralis. Exempla quatuor vidi, marem unum et feminas tres, in Costa Rica a cl. BOVALLIO capta, in Museo Holmiensi asservata, exemplum unum tamen nunc in Museo Hafniensi.

Variatio: In femina una processus terminalis pusillus.

Remarks: I have examined the single female in the Copenhagen Museum. In this it may be correct to speak about rows of grana in femora III—IV. The colour

was more brown; corresponding to the sulci between the first and second, and between the third and fourth abdominal somite on each side, semicircular yellowish lines facing forwards and inwards were observed; behind the fourth abdominal somite a transverse yellowish line was seen.

In the Roewerian system this species must belong to the genus *Eucynorta* since legs III—IV are but very little thicker than I—II. The colour does not allow of a reference to any described species though the patterns are formed as commonly in the genera *Eucynorta* and *Eucynortula*.

*Cynorta gervaisii* n. sp.

7 mm longa, fulva, maculis magnis quatuor et lineis ambabus dilute flavis notata; tuber oculiferum non excavatum, læve; limbus lateralis non discretus; scutum tuberculis ambobus posterioribus præditum; coxæ (IV) granis pusillis; palporum pars femoralis spina interiore subapicali armata, pars patellaris tuberculis apicalibus utrinque singulis; coxæ IV processulo exteriori conico; calcaneus I articulo tarsali primo paullo longior; articuli tarsales: 6, 9, 7, 8; processus terminalis robustus, unguiculis paullo brevior.

Tuber oculiferum humile latum, supra non excavatum (potius levissime transversim convexum) leviter reticulatum, ceterum læve.

Scutum leviter convexum, a tubere oculifero usque ad tubercula rectum, pone non altius, post coxas III haud paullo latius. Sulci transversi primus procurvus et quintus manifesti; ceteri desunt. Limbus anterior vix discretus lævis; tubercula extra antennas posita magna, brevia, vix conica, rotundata. Limbus lateralis non discretus, punctis impressis sat latis in parte latissima sua præditus. Orificia glandularum foetidarum supra breviter detecta. Scutum totum leviter reticulatum, ceterum læve; tubercula ambo posteriora (areæ quartæ non expressæ imposita) humilia, breviter conica, obtusa; intra et post maculas posteriores adsunt impressiones ambæ amplæ. Area prima post tuber oculiferum impressione sat profunda. Limbus posterior et segmenta dorsalia tria anteriora ordinibus singulis granulorum prædita, ante paucorum, pone densorum. Anale dorsale granulis dispersis; anale ventrale ordine posteriore granulorum et granulis anterioribus paucis dispersis. Ventrale primum læve, cetera ordinibus singulis granulorum. Coxæ granulis pusillis.

Antennarum pars globosa articuli primi granulis et ordine posteriore granorum conicorum acutorum et granulo simili interiore apicali supra et granis acutis infra ornata. Articulus secundus geniculatus, glaber.

Palporum pars femoralis triplo fere longior quam crassior, extra manifesto convexa, ordine inferiore longo tuberculorum sibi æqualium (circiter decem) et spina (cujus aculeus tenuis est) interiore subapicali armata; ultra carinam dorsalem leviter serratam lævis. Pars patellaris tuberculis apicalibus conicis utrinque singulis munita; margo interior sat late extenuatus vix crenulatus. Pars tibialis dimidio longior quam latior, parte femorali vix parte tertia brevior; margo interior anguste extenuatus, subrectus, in apice leviter rotundatus, exterior a basi usque ad apicem

arcum magnum describens, quare apex manifeste angustatus est; apex exterior in tubercula duo productus. Partis tarsalis pars ceterior marginum paulum extenuata; aculeis interioribus gracilibus tribus et exterioribus adhuc gracilioribus quinque aut sex armata. Unguis parte tarsali duplo brevior.

Pedes breves robusti. Coxæ IV coxis III duplo latiores, processulo exteriore conico, leviter curvato, acuto. Trochanteres IV tuberculo parvo interiore apicali conico. Femora arcuata; II sublævia, cetera granulis ubique prædita. Calcanei I articulo tarsali primo paulo longior; II articulis tarsalibus primo et secundo conjunctis æqualis; III paulo longior quam crassior; IV manifesto crassior quam longior. Articuli tarsales: 6, 9, 7, 8. Pars ceterior tarsi I parte posteriore paulo crassior; articulus primus secundo longior. Processus terminalis unguiculis paulo brevior.

Differentia sexualis (femina incognita). Mas: Femora IV ordine inferiore granorum, apicem versus majorum. Patellæ IV ordine interiore tuberculorum. Tibiæ IV (præter grana) ordinibus integris interiore et exteriore processulorum densorum, conicorum, obtusorum, et ordine superiore a basi usque ad medium tuberculorum sensim breviorum. Metatarsi IV ordine superiore granorum acutorum, ceterum granulis præditi.

Fulva, maculis magnis quatuor dilute flavis, puncta fulva includentibus ornata, quarum anteriores aræ primæ impositæ irregulariter quadrangulæ, lateribus undulatis, et posteriores limbis lateralibus erga apices coxarum IV impositæ suborbiculares, intra serratæ sunt. Item adsunt lineæ ambæ dilute flavæ angulatæ, extra tubercula scuti positæ.

Long. corp. 7,25; long. scuti 6,5; lat. scuti 6; palpi 6; pedes I 11,5, II 21,5, III 15,5, IV 19,5.

Patria: America centralis. Specimen unicum vidi, marem, in Yucatan captum, in collectione ill. Comitum KEYSERLINGII asservatum.

Remark: In the Roewerian system this species must be referred to the genus *Euerginus* and is related to the species *E. serrotibialis* Cambr. (ROEWER, Weberkn. d. Erde, p. 362) from which, however, it differs as to colour and in the structure of femur IV.

#### *Cynorta dimorpha* n. sp.

6—7 mm longa, fusca, luteis vitta anteriore reticulata et linea posteriore transversa notata, lineolas emittente; tuber oculiferum humillimum, late excavatum, vittis ambabus granulorum; limbus lateralis granulis dispersis et plicis longitudinalibus; aræ granulata, secunda granis ambobus, longe remotis, amplis, non magnis, quarta tuberculis ambobus; limbus posterior et segmenta dorsalia libera granis parvis ornata; coxæ granulata; pars femoralis palporum tuberculo interiore apicali armata; coxæ IV muticæ; calcaneus I astragalo duplo brevior; processus terminalis unguiculis vix brevior. — In mare paulo robustiore pedes longiores; articuli tarsales maris: 7, 16, 9, 10, femina: 6, 12—15, 8, 8—9.

Tuber oculiferum humillimum, multo latius quam altius, supra late excavatum, coriaceum vittis ambabus granulorum et granulis pusillis dispersis ornatum.

Scutum convexum, a latere inspectum a sulco transverso primo ad tubercula scuti altius; inter coxas III et IV latius. Sulci transversi primus procurvus et quintus rectus manifesti, lati, ceteri obsoleti. Limbus anterior vix discretus, lævis. Limbus lateralis vix discretus granulis dispersis et plicis longitudinalibus præditus. Orificia glandularum foetidarum plane fere oblecta. Scutum totum coriaceum. Areae granulis dispersis, secunda granis longe separatis, ambobus humilibus, rotundatis; quarta tuberculis ambobus sat parvis, humilibus, rotundatis, quorum basis a parte apicali manifeste limitata est. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum densorum; anale dorsale granis parvis dispersis; coxæ granulis dispersis; ventralia omnia ordinibus singulis granulorum.

Antennarum pars globosa articuli primi præter granula ordine posteriore et interiore granorum vix conicorum.

Palporum pars trochanterica tuberculo robusto inferiore apicali obtuso. Pars femoralis dimidio longior quam crassior, ordine inferiore tuberculorum parvorum densorum (circiter duodecim), quorum submedia maxima sunt, et tuberculo, manifesto majore, interiore apicali obtuso armata; ultra carinam dorsalem crenulatam lævis. Pars patellaris supra apicem productum marginis interioris anguste extenuati, basin versus angustioris, tuberculo minuto munita. Pars tibialis duplo longior quam latior, æque longa ac pars femoralis; margo interior sat late extenuatus; anguli in tubercula producti, interius aculeo armatum, exterius muticum; margo exterior prope apicem aculeis parvis (circiter quatuor aut quinque). Pars tarsalis parte tibiali duplo brevior; margines non extenuati aculeis aliquot muniti, quorum modo interior submedius sat robustus est. Unguis parte tarsali non duplo brevior.

Pedes breves, sat robusti. Coxæ IV submuticæ (carinula transversa, vix manifesta). Femora vix arcuata, ubique granulata; patellæ et tibiæ III et IV supra granulatae; pedes IV a basi femorum usque ad apicem metatarsorum ordine interiore granorum subcylindricorum. Calcanei I astragalo duplo, II triplo breviores, III et IV manifesto longiores quam crassiores. Articuli tarsales: 6—7, (11—)12—16(—18), 8—9, (8—)9—10. Tarsi I articulus primus secundo longior. Processus terminalis unguiculis vix brevior.

Differentia sexualis: Mas quam femina paullo robustior; scutum feminae quam maris convexius; pedes maris quam feminae longiores. Articuli tarsales maris: (6—)7<sup>1</sup>),

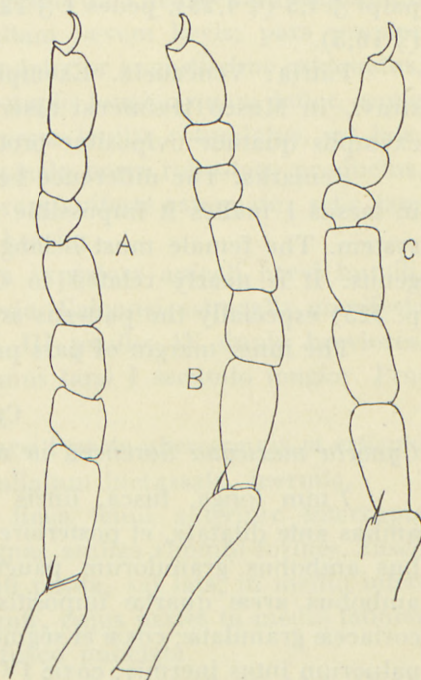


Fig. 28. *Cynorta dimorpha* n. sp. Tarsus I (dexter).

A maris normalis, B maris abnormis, C feminae.

<sup>1</sup>) Mari uni tarsus I alter sexpartitus (Fig. 28 B), alter septempartitus.

(15—)16(—18), (8—)9, (9—)10; feminae 6, (11—)12—15(—17), 8(—9), 8—9(—10). Tarsi I pars propior parte posteriore paullo crassior, in mare quam in femina vix magis.

Fusca. Luteae sunt vitta anterior lata, reticulata, sulcum transversum primum sequens, lineolas ambas retrorsum emittens, et linea late  $\sim$ -formis, post tubercula scuti posita, lineolas laterales et posteriores, reticulate inter se conjunctas, emittens. Dorsum medium punctis luteis interdum ornatum. Membra obscure olivacea; pedes testaceo punctati.

Long. corp ♂ vix 6 (♀ 7); long. scuti ♂ 5 (♀ vix 5); lat. scuti ♂ 4,5 (♀ 4,25); palpi ♂ 4,5 (♀ 4,25); pedes I ♂ 12 (♀ 9,5), II ♂ 24 (♀ 17,5), III ♂ 18 (♀ 13), IV ♂ 23,5 (♀ 16,5).

Patria: Venezuela. Exempla quindecim, ad oppidum Merida capta, perlustravi, in Museo Hafniensi asservata, septem mares<sup>1)</sup> et octo feminas, quarum in exemplis quatuor ovipositor protrusus erat.

Remarks: The difference between male and female as to the number of joints in tarsus I makes it impossible to refer this species to a single genus in ROEWER'S system. The female must belong to *Cynortula*, the male cannot be referred to any genus. It is nearly related to *Cynortula venezuelensis* Roewer (Weberkn. d. Erde p. 325) especially the patterns are almost identical.

The inner margin of pars patellaris is distinctly crenulated, with four processes.

#### *Cynorta centralis* n. sp.

*Cynorta mexicana* Sørensen in manuscr.

7 mm longa, fusca, lineis albo-luteis notata, anteriore Y-formi, in maculas ambas ante dilatata, et posteriore undulata; tuber oculiferum non excavatum, ordinibus ambobus granulorum paucorum; scutum aequè latum ac longum, tuberculis ambobus areæ quartæ impositis; limbus lateralis non discretus, coriaceus; areæ coriaceæ granulatae; coxæ et segmenta ventralia coriacea, vix granulata; pars femoralis palporum intus inermis; coxæ IV carina transversa humili apicali; calcanei astragalis manifesto crassiores, I articulo tarsali primo aequalis; articuli tarsales: 6, 11, 7, 7; processus terminalis brevis.

Tuber oculiferum perhumile, latum, supra non excavatum, coriaceum, granulis paucis (octo) ornatum, ordines ambos formantibus, inter se duplo fere longius quam ab oculo vicino separatos.

Scutum leviter convexum a tubere oculifero usque ad tubercula leviter arcuatum; aequè latum ac longum, pone coxas III dilatatum, post coxas IV angustius. Sulci transversi primus procurvus et quintus rectus manifesti; ceteri debiles, extrorsum obsoleti. Limbus anterior vix discretus, coriaceus; tubercula extra antennis posita magna, robusta, subcylindrica, leviter depressa, rotundata. Limbus lateralis non discretus, coriaceus. Orificia glandularum foetidarum supra detecta. Areæ impresse reticulatae, ante fortius; coriaceæ, granulis dispersis ornatæ. Tubercula areæ quartæ

<sup>1)</sup> In nullo mare penis protrusus. Ex uno exemplo penem autem secui.



leviter reclinia, conica, obtusa. Segmenta dorsalia libera tria anteriora ordinibus singulis granulorum; anale dorsale granulis, in ordines duos haud manifestos dispositis. Coxæ et ventrale primum coriacea, vix granulata; segmenta cetera vix granulata (anale ordinibus duobus, cetera ordinibus singulis granulorum pusillorum vix manifestorum).

Antennarum pars globosa articuli primi granis magnis posterioribus duobus supra prædita.

Palporum pars femoralis vix duplo longior quam crassior, ordine inferiore ultra medium ducto tuberculorum minorum (sive granorum) densorum inæqualium armata, intus inermis; ultra carinam dorsalem altam lævem lævis; pars propior parte posteriore multo crassior. Partis patellaris margo interior angustissime extenuatus, apicem versus non latior. Pars tibialis plus quam duplo longior quam latior, æque longa ac pars femoralis; margo exterior, apicem versus leniter rotundatus, sat late, interior anguste extenuati; uterque in tuberculum apicale breve robustum productus. Pars tarsalis latior quam crassior, margine exteriori manifeste extenuato; setis tantum munita. Unguis robustus parte tarsali duplo brevior.

Pedes sat robusti. Coxæ IV carina transversa superiore apicali brevi humili, in lateribus declivi. Femora leviter arcuata, sublævia. Calcanei astragalis manifesto crassiores; articulo tarsali primo I et II æquales, III paullo, IV duplo breviores. Articuli tarsales: 6, 11, 7, 7, Articulus tarsalis primus tarsi I secundo longior. Processus terminalis unguiculis triplo brevior.

Differentia sexualis? — Feminae pars propior tarsi I parte posteriore vix et articulo ultimo non crassior; femora IV apicem versus paullulum incrassata, inermia.

Fusca, maculis et lineis albo-luteis notata: linea tenui anteriore interrupta Y-formi (sulco primo propinqua), in maculas magnas ambas rhombi-formes, fusco punctatas ante dilatata, et linea post tubereula scuti posita, sat lata, in medio interrupta, undulata, margines laterales scuti vix attingente, cujus partes in medio latiores sunt. Membra sordide rufo-testacea, irregulariter fusco punctata.

Long. corp. 7; long. et lat. scuti 5,5; palpi 5; pedes I 11, II 19, III 14,5, IV 19.

Patria: Mexico. Specimen unicum vidi, quod feminam esse judico, ad Presidio captum, ab ill. E. SIMON benevolentissime mihi datum, nunc in Museo Zool. Hafniensi asservatum.

Remarks: This species is nearly related to the Roewerian genus *Euerginus* — or rather to *Eucynortula*, even though femora III—IV are somewhat thicker than I—II. The patterns show relationship to *Eucynortula metatarsalis* Roewer (Weberkn. d. Erde p. 334).

The species was treated in the manuscript of SØRENSEN as *mexicana* n. sp. However, since this name has become preoccupied in the meantime (by BANKS) I have altered it into *centralis*.

#### *Cynorta koelpeli* Roewer.

*Cynortula Koelpelii* Roewer, Arch. f. Naturg. LXXVIII A, 1912, p. 47.

*Cynortula Koelpelii* Roewer, Weberkn. d. Erde, 1923, p. 324.

7,5 mm longa, fulva, maculis marginalibus ambabus areæ primæ et linea posteriore transversa luteis notata; tuber oculiferum humillimum, leviter excavatum, granulis præditum; scutum granulatum ad sulcum transversum primum depressum; area secunda granis magnis, quarta tuberculis, binis instructæ; coxæ IV (infra) et ventrale primum lævia; palporum pars femoralis tuberculo interiore subapicali armata; pedes longi; coxæ IV tuberculo exteriori; calcaneus I astragalo plus quam duplo brevior; articuli tarsales: 6, 10—12, 7, 7; processus terminalis unguiculis vix brevior.

Tuber oculiferum humillimum, latum, supra leviter lateque excavatum, præter vittas granulorum ambas granulis posterioribus ornatum.

Scutum leviter convexum, a latere inspectum usque ad sulcum transversum primum vix humilius, deinde altius; a margine anteriore usque ad apices coxarum IV dilatatum, adversus coxas III leviter sinuatum. Sulci transversi primus et quintus sat profundi, ceteri leves. Limbus anterior vix discretus, granulatus; tubercula extra antennis posita robusta, non conica, subtruncata. Limbus lateralis granulis densis dispersis majoribus. Orificia glandularum foetidarum supra detecta. Areæ coriaceæ et reticulate rugosæ, granulis dispersis sat densis; secunda granis magnis ambobus rotundatis, quarta tuberculis haud robustis ambobus rotundatis. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum parvorum; anale dorsale granis parvis densis. Coxæ (IV infra) et ventrale primum lævia, ventralia cetera omnia ordinibus singulis granulorum majorum ornata.

Antennarum pars globosa articuli primi granulis densis supra scabra.

Palporum pars femoralis dimidio longior quam crassior, ordine inferiore tuberculorum minorum (circiter decem) et tuberculo interiore subapicali armata, ultra carinam dorsalem brevem lævem lævis. Partis patellaris margo interior sat anguste extenuatus. Pars tibialis plus quam dimidio longior quam latior, æque longa ac pars femoralis; margines interior subrectus anguste, exterior leviter crenulatus late extenuati, inermes; anguli in tubercula singula robusta producti; apex truncatus. Pars tarsalis parte tibiali non duplo brevior, vix latior quam crassior, marginibus non extenuatis, aculeis gracilibus interiore una et exterioribus circiter quatuor munita. Unguis parte tarsali duplo fere brevior.

Pedes longi, graciliores. Coxæ IV tuberculo exteriori apicali obtuso. Trochanteres IV tuberculo procero interiore apicali. Femora leviter arcuata, granulis aspera. Patellæ et tibiæ granulis parvis præditæ. Calcanei I astragalo plus quam duplo brevior; II et III articulo tarsali primo manifesto longiores; IV æque crassus ac longus. Articuli tarsales: 6, 10—12, 7, 7(—8). Articululus primus tarsi I secundo longior. Processus terminalis unguiculis vix brevior.

Differentia sexualis incognita.

Fulva. Area prima scuti maculis ambabus marginalibus irregularibus luteis, maculam fulvam includentibus; post tubercula areæ quartæ adest linea lutea transversa arcuata in medio interrupta, margines laterales pæne attingens, e cujus parte altissima utrinque retrorsum exit lineola brevis, in lineolam transversam desinens.

Area secunda punctis ambobus luteis notata, extra grana magna positis. Membra corpore dilutiora.

[The length of the animal and its parts is not mentioned in the manuscript of SØRENSEN.]

Patria: America centralis. Specimina tria, quæ feminas judico, ad oppidum Granada capta, in Museo Vindobonensi asservata.

Remarks: In the Sørensenian manuscript this species bears the name *koelpeli* n. sp. There is no doubt that it is quite identical with the species described by ROEWER in 1912 under the same name; moreover it is the same material (from the Museum of Vienna) on which the descriptions of both authors have been based, and the name *koelpeli* is due to SØRENSEN'S labelling.

#### *Cynorta modesta* n. sp.

4,8 mm longa, sordide fusca, lineis luteo-albidis ornata: ambabus areæ primæ et ambabus areæ quartæ; tuber oculiferum humile latum lateraliter granis parvis præditum; scutum disperse et sat dense granulatum; area secunda granis magnis, quarta tuberculis humilibus ambabus instructæ; pars femoralis palporum tuberculo robusto interiore apicali armata; coxa IV elevatione apicali superiore humili lata armata; calcaneus I astragalo duplo et dimidio brevior; articuli tarsales: 6, 9—10, 7, 7—8; processus terminalis unguiculis brevior.

Tuber oculiferum humile latum, triplo latius quam altius, supra anguste et sat profunde excavatum; in medio sublæve, ceterum granis parvis et granulis densis ornatum.

Scutum a margine anteriore usque ad tubercula areæ quartæ (non expressæ) æqualiter et leviter altius; pone coxas III latius, pone coxas IV paullo angustius. Sulci transversi quintus manifestus, primus obsoletus, foveolis rotundis sat magnis ambabus præditus; ceteri plane desunt. Limbus anterior leviter discretus, granulis paucis ornatus; tubercula extra antennis posita brevia, latiora quam longiora, obtuse truncata. Limbus lateralis non discretus, per longitudinem plicatus et vix granulatus. Scutum totum coriaceum, disperse et sat dense granulatum; areæ (non expressæ) secunda granis magnis humilibus ambobus, et quarta tuberculis humilibus obtusis ambobus. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum sat magnorum; anale dorsale granis parvis dispersis. Coxæ et segmenta ventralia posteriora granulis parce dispersis; anale ventrale ordinibus duobus, et margo posterior segmenti primi et segmenta cetera ordinibus singulis granulorum.

Antennarum pars globosa articuli primi granis parvis densis supra scabra.

Palporum pars trochanterica in apice valde incrassata, tuberculo rotundato prædita. Pars femoralis dimidio longior quam crassior, ordine inferiore, apicem non attingente, tuberculorum subcontiguorum (circiter decem), ultra carinam dorsalem sat altam non crenulatam lævis, tuberculo robusto interiore apicali armata. Partis

patellaris margo interior sat late extenuatus, prope apicem angulatus. Pars tibialis duplo longior quam latior, in apice subtruncata, vix armata. Pars tarsalis in basi leviter dilatata, vix armata. Unguis duplo brevior quam pars tarsalis.

Pedes sat longi, sat graciles; coxæ IV coxis III triplo latiores elevatione apicali superiore humili lata rotundata præditæ. Grana lateralia coxæ IV vix majora quam inferiora; in femina altera granum singulum prope apicem tuberculum parvum est. Femora leviter arcuata, granis paucis ornata. Calcaneus I astragalo duplo et dimidio brevior, II astragalo triplo longior, III et IV articulo tarsali primo manifesto breviores. Articuli tarsales: 6, 9—10, 7, 7—8. Processus terminalis unguiculis brevior.

Differentia sexualis ignota.

Sordide fusca, lineis luteo-albidis ornata: ambabus areæ secundæ obliquis, e margine laterali post orificia glandularum foetidarum orientibus, et sulcum transversum primum attingentibus, vix autem sequentibus, binis areæ secundæ et tertiæ retrorsum et extrorsum directis, ambabus areæ quartæ, subangulariter fere curvatis, tubercula itaque fere amplectentibus, a sese pone breviter separatis, extra quas puncta singula adsunt.

In the female with ovipositor protrusus the described yellowish stripes of the first abdominal somites are connected by and continued into light-brown curved lines, in such a way that the whole is seen to form an undulated system of yellowish and brown with the concavities facing inwards. In the other female a short T-shaped line was found just behind the first groove; the undulated system of the first and second abdominal somite is just indicated by a few yellow short lines, and corresponding to the fourth groove on each side a yellow slightly curved line with concavity facing forwards and almost touching the corresponding in the middle is seen; the yellow spot on each side near lateral margin better developed than in the other specimen.

Long corp. 4,8; long. scuti 4, lat. scuti 3,5; palpi > 4; pedes I 9,2, II 18,5, III 13, IV < 18.

Patria: Trinidad. The description is worked out at the base of two females (one with ovipositor protrusus) from Port of Spain, belonging to the Museum of Göttingen.

Remarks: This species seems to be nearly related to *Cynortula granulata* Roewer (Weberkn. d. Erde p. 323) from Trinidad, but it differs as to the granulation of the scutum, to the inner apical tubercle of the femoral part, and to the colour.

#### *Cynorta calycina* n. sp.

Vix 6 mm longa, lurido-cinnamomea, vittis angustis flavis notata; tuber oculiferum late excavatum, subtiliter coriaceum; scutum æque latum ac longum, totum subtiliter coriaceum, sulco transverso primo levi non depressum, eminentiis quatuor (anterior granis acutis et processulis posterioribus) ornatum; coxæ IV et ventrale primum granis minoribus; pars femoralis palporum tuberculo interiore apicali armata; pedes longi; coxæ IV tuberculo parvo exteriori; calcaneus I astragalo duplo

brevior; articuli tarsales: 6, 13—14, 8—9, 9; processus terminalis unguiculis vix brevior.

Tuber oculiferum humile latum, triplo latius quam altius, supra late excavatum, subtiliter coriaceum, ceterum læve.

Scutum paullulum convexum, a latere inspectum a tubere oculifero usque ad processulos subrectum, pone paullo altius; æque latum ac longum, post coxas III manifesto latius. Sulcus transversus primus levis; ceteri plane desunt. Limbus anterior leviter discretus, subtiliter coriaceus, ceterum lævis; tubercula extra antennas posita brevia, vix conica rotundata. Limbus lateralis vix discretus, subtiliter coriaceus. Orificia glandularum foetidarum plane oblecta. Scutum totum subtiliter coriaceum, eminentiis quatuor præditum, trapezium pone vix angustius formantibus, quarum anteriores (areæ secundæ non expressæ) sunt grana acuta et posteriores (areæ quartæ non expressæ) processuli conici, obtusi, suberecti, paralleli, spatio interapicali duplo fere breviores. Segmenta dorsalia libera tria anteriora ordinibus singulis granulorum parvorum remotorum; anale dorsale ordinibus tribus granulorum. Coxæ et ventrale primum granis minoribus sat densis, dispersis; anale ventrale ordine tantum posteriore granulorum; cetera ventralia lævia.

Antennarum pars globosa articuli primi granulis densis superioribus et inferioribus.

Palporum pars femoralis plus quam duplo longior quam crassior, ordine inferiore tuberculorum minorum subacutorum densorum (circiter sedecim) et tuberculo interiore apicali armata; ultra carinam dorsalem crenulatam lævis. Partis patellaris margo interior anguste extenuatus et prope apicem tuberculo munitus. Pars tibialis vix duplo longior quam latior, parte femorali vix parte tertia brevior; margines valde extenuati, leviter rotunde serrati; anguli non producti, exterior tuberculo et aculeis duobus, interior aculeo uno armati; apex truncatus. Pars tarsalis parte tibiali duplo brevior, vix latior quam crassior, marginibus non extenuatis; aculeis exterioribus gracilioribus quatuor et interiore sat robusto uno armata. Unguis parte tarsali vix duplo brevior.

Pedes longi, graciliores. Coxæ IV tuberculo exteriori apicali parvo obtuso. Femora subrecta, sublævia. Calcanei astragalo I duplo, II duabus partibus breviores; articulo tarsali primo III paullo longior, IV paullo brevior. Articuli tarsales: 6, 13—14, 8—9, 9. Articulus primus tarsi I secundo longior. Processus terminalis unguiculis paullo crassior et vix brevior.

Differentia sexualis: In mare patellæ IV femoribus manifesto crassiores, granulis superioribus (in femina femoribus vix crassiores); tibiæ IV in apice manifesto (in femina vix) crassiores, ordine superiore granorum, in apice majorum; pars ceterior tarsi I parte ulteriore paullo (etiam feminæ) crassior.

Lurido-cinnamomea, vittis angustis flavis notata: Y-formi, sulco primo propinqua, quæ vittam angustam transversam, leviter undulatam, margines laterales scuti attingentem, post processulos scuti positam, pone attingit. E vitta posteriore exit utrinque vitta angusta, intra limbum marginalem posita, arcuata, quæ lineam Y-for-

mem ante attingit. Pone vittam posteriorem adest anulus transversus, fere  $\infty$ -formis, partem tertiam latitudinis scuti excipiens; post quem linea transversa adest. Limbi laterales minus manifesto flavo punctati.

Long. corp. 5,75; long. et lat. scuti 5,25; palpi 5; pedes I 14,5, II 32, III 21, IV 28.

Patria: Mexico. Specimina duo vidi, marem et feminam, ad urbem Cordova capta, in collectione ill. comitis KEYSERLINGII asservata.

Remarks: This species seems to be nearly related to *Cynorta vestita* Roewer (Weberkn. d. Erde p. 315).

#### *Cynorta holmbergi* W. Sør.

*Gnidia bipunctata* Holmberg, Solpugidos Argentinos, 1878, p. 74.

*Cosmetus Holmbergii* W. Sørensen, Naturh. Tidsskr. (3), XIV, 1884, p. 590.

*Gnidia Holmbergii* Roewer, Weberkn. d. Erde, 1923, p. 309.

6 mm longa, flavo-rufescens, maculis magnis ambabus sulphureis notata, ambitu fusco cinctis; tuber oculiferum late excavatum, granis minoribus densis ubique præditum; limbus lateralis (haud manifesto) discretus; scutum granis densis et tuberculis anterioribus ambobus et processulis posterioribus ambobus; sulcus transversus primus manifestus, ceteri indistincti; pars femoralis palporum intus inermis; pedes longiores; coxæ IV tuberculo præditæ; calcaneus I articulo tarsali primo brevior; articuli tarsales: 6, 9—10, 6, 6; processus terminalis unguiculis triplo brevior.

Addenda et corrigenda: Scutum post sulcum transversum primum sat convexum. Tubercula extra antennis posita magna, brevia, lata, rotundata. — Orificia glandularum foetidarum plane oblecta; labium anterius leviter inflatum, ultra posterius prominens; quare orificium angustatum est. — Palporum pars femoralis intus inermis, vix duplo longior quam crassior, ultra carinam dorsalem altam lævem sublævis; granis extra prædita. Partis patellaris margo interior manifesto extenuatus, apicem versus non latior, in apice non angulatus. Pars tibialis triplo fere longior quam latior, parte femorali paullo longior; anguli producti, exterior aculeo laterali armatus. Pars tarsalis desuper visa longe subtriangula, parte propiore marginum extenuata, præter setas aculeis brevioribus exterioribus tribus et interiore robustiore uno armata. — Calcanei articulo tarsali primo breviores; IV vix, ceteri manifesto longiores quam crassiores. Pars propior tarsi I ulteriore non crassior; articulus primus secundo duplo longior.

In the examined specimens the first pair of "tubercles" may sometimes rightly be termed spines, in others, however, they are only tubercles. The spines of the third somite are always bigger than those of the first somite, but are nevertheless in some specimens rather short and obtuse.

#### *Cynorta quadrimaculata* Gerv.

*Cosmetus quadrimaculatus* Gervais, Walckenaer Ins. Apt. T. III, 1844, p. 116.

*Cynorta quadrimaculata* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 196.

*Cynortellana quadrimaculata* Roewer, Weberkn. d. Erde, 1923, p. 322.

5 mm longa, rufo-fusca, maculis flavis quatuor notata; tuber oculiferum late excavatum, coriaceum; limbus lateralis vix discretus ordine granorum; scutum pone alte convexum, vix longius quam latius, tuberculis anterioribus ambobus et processibus posterioribus ambobus; coxæ IV granis dispersis; pars femoralis palporum intus inermis; pedes longiores; coxæ IV carina transversa apicali; calcaneus I articulo tarsali primo paullo longior; articuli tarsales: 6, 13—15, 8, 9; processus terminalis procerus unguiculis parte tertia brevior.

Tuber oculiferum humile, transversum, supra late et manifesto excavatum, coriaceum, ceterum læve.

Scutum vix longius quam latius, convexum, pone alte; post coxas III latius. Sulcus transversus primus manifestus latus; partes exteriores ceterorum sat manifestorum obsoletæ. Limbus anterior discretus, coriaceus; tubercula extra antennas posita magna, conica, obtusa. Limbus lateralis vix discretus, ordine submedio granorum præditus. Orificia glandularum foetidarum perlata (ut sinus desuper manifestus est) vix oblecta. Scutum totum coriaceum; area secunda tuberculis ambobus, conicis obtusis, quarta processibus leviter reclinibus, vix divergentibus, longis, rectis, conicis obtusis, spatio interapicali subæqualibus, in parte basali granulis paucis ornatis. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum remotorum; anale dorsale granis dispersis. Coxæ IV et ventrale primum granis dispersis; anale ventrale ordinibus duobus, cetera ordinibus singulis granulorum pusillorum ornata.

Antennarum pars globosa articuli primi granulis acutis dispersis supra ornata.

Palporum pars femoralis triplo fere longior quam crassior, ordine inferiore tuberculorum parvorum densorum (circiter viginti) armata, intus inermis; ultra carinam dorsalem humilem lævem lævis. Pars patellaris margo interior vix extenuatus. Pars tibialis plus quam duplo longior quam latior, parte femorali paullo brevior. Pars tarsalis vix latior quam crassior, marginibus non extenuatis; aculeis gracilibus exterioribus quatuor et interiore uno armata. Unguis parte tarsali (saltem) duplo brevior.

Pedes longiores, sat graciles. Coxæ IV carina transversa superiore apicali humili. Femora subrecta, sublævia. Calcanei I articulo tarsali primo paullo longior; II articulis tarsalibus primo et secundo et tertio conjunctis æqualis; articulo tarsali primo III paullo, IV vix breviores. Articuli tarsales (exemplis tantum duobus tarsi II defuere): 6, 13—15, 8(—9), 9. Articulus tarsalis primus tarsi I secundo non longior. Processus terminalis procerus, unguiculis parte tertia brevior.

Differentia sexualis: Mas quam femina paullo major. Pars ceterior tarsi I parte ulteriore in mare paullo, in femina vix crassior. Femora IV maris in apice sat subito incrassata et granis ubique prædita, feminæ in apice non subito incrassata, sublævia. Patellæ et tibiæ IV maris granis ornatae, feminæ sublæves.

Læte rufo-fusca, maculis flavis quatuor notata, quarum anteriores marginales, erga coxas II et III positæ, irregulariter subquadratae sunt, puncta rufo-fusca includentes, dum posteriores ante sulcum quintum positæ, submarginales, ferro equino irregulari

similes sunt (in latere exteriori aperto). Item figura T-formis sæpissime adest, lineis angustis composita, inter et post processus areæ quartæ posita. Membra testacea.

Long. corp. 5,25; long. scuti 5, lat. scuti 4,5; palpi 5; pedes I 15, II 28, III 18, IV 27.

Patria: India occidentalis. Exempla octo vidi, mares quatuor et feminas quatuor, in insula Cuba capta, in collectione ill. comitis KEYSERLINGII septem asservata et unum in Museo Zool. Hafniensi. — Ill. E. SIMON dicit: "Espèce très-répendue dans toutes les Antilles".

Observatio: Ill. E. SIMON (loc. cit.) hac de specie dicit: "Segmenta libera, scutum anale, coxæ, saltem posteriores, vix granulosa".

Remarks: The tubercles of the first abdominal somite may be termed short spines in the male examined, but not "schlanke spitze Kegeldörnchen". The character probably differs from one specimen to another.

#### *Cynorta V-album* Simon.

*Cynorta V-album* p. p. E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 198.

*Cynortoides haitiensis* Roewer, Weberkn. d. Erde, 1923, p. 336.

? *Cynorta V-album* Banks, Proc. Acad. Philad., 1903, p. 342.

nec — — Banks, II. Rep. Centr. Exper. Stat. Repub. Cuba, 1909, p. 169.

nec — — Roewer, Weberkn. d. Erde, 1923, p. 315.

5,5 mm longa, læte brunneo-rufa, lineis vitellinis anteriore V-formi et transversis duabus, inter se linea media conjunctis, notata; tuber oculiferum humillimum, vix excavatum, granulis dispersis ornatum; limbus lateralis non discretus granulis, in ordinem exteriorem partim dispositis; scutum tuberculis quatuor, areis quartæ et quintæ impositis; coxæ IV granis parvis; pars femoralis palporum intus inermis; coxæ IV tuberculo compresso; calcaneus I crassus, æque longus atque articulus tarsalis primus; articuli tarsales: 6, 15, 7—8, 8; processus terminalis unguiculis vix brevior.

Tuber oculiferum humillimum latum, supra vix excavatum, granulis dispersis ornatum, quorum media pauca.

Scutum convexum, a tubere oculifero usque ad tubercula areæ quintæ leviter arcuatum; pone coxas III latius, pone coxas IV angustius. Sulci transversi quinque manifesti, extrorsum tamen obsoleti. Limbus anterior totus discretus, granulis parvis perpauca ornatus, ad antennas emarginatus; tubercula extra antennas posita minora, conica, subacuta. Limbus lateralis non discretus, granulis parce dispersis ornatus, quorum exteriora ordinem manifestum formant. Margines orificiorum plane detectorum glandularum foetidarum in labia elevati, quæ in medio leviter producta rimam brevem, in medio coarctatam, formant. Areæ per latitudinem totam granis dispersis densis ornata; secunda granis rotundis haud multo majoribus ambobus; quarta et quinta tuberculis reclinibus binis, trapezium pone paullulo angustius formantibus, quorum posteriora anterioribus obtusis longiora, conica, acuta. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum conicorum; anale dorsale granis dispersis sat densis. Segmenta ventralia anale ordinibus duobus gra-



norum minorum, cetera omnia ordinibus singulis granulorum; coxæ granis parvis dispersis.

Antennarum pars globosa articuli primi granis densis supra scabra; articulus secundus robustus geniculatus, supra articulationem basalem autem non elevatus.

Palporum pars femoralis paullo plus quam duplo longior quam crassior, ordine inferiore tuberculorum vix acutorum (circiter duodecim) armata, intus inermis; ultra carinam dorsalem longam (apicem articuli fere attingentem) crenulatam lævis. Partis patellaris margo interior anguste extenuatus, leviter crenulatus, in apice leviter angulatus. Pars tibialis perlata, parte tertia longior quam latior, parte femorali parte sua quarta brevior; margines valde extenuati, exterior a medio leniter rotundatus, interior in apice inermi oblique truncatus, quare apex oblique truncatus parte latissima duplo fere angustior est. Pars tarsalis? (specimini meo deficit).

Pedes breves sat robusti; coxæ IV coxis III plus quam duplo latiores, tuberculo compresso granulato. Femora I et II vix, III leviter, IV plus arcuata, granis ubique ornata, quæ in femoribus IV majora sunt. Femora IV ordine inferiore interiore tuberculorum (num in altero sexu?). Patellæ et tibiæ III et IV granis ornatae. Calcaneus I crassus æque longus atque articulus tarsalis primus; II triplo brevior quam astragalus, III et IV vix longiores quam crassiores. Articuli tarsales: 6, 15, 7—8, 8. Articulus primus tarsi I secundo paullo longior. Processus terminalis unguiculis vix brevior.

Differentia sexualis: Ill. E. SIMON tantum dicit: "♀ semblable au mâle, seulement tubercules postérieurs de l'abdomen beaucoup plus petits".

Læte brunneo-rufa, lineis vitellinis notata: tribus transversis, quarum prima, sulco transverso primo propinqua, V-formis est; secunda sulco secundo congruens, interrupta brevis, margines laterales non attingens; postrema inter tubercula scuti posita (sulco quarto partim congruens) levissime undulata. Quæ lineæ omnes linea longitudinali media interrupta conjunctæ sunt. Membra obscure testacea, nigro reticulata.

Long. corp. 5,5; long. scuti 4,5, lat. scuti vix 4,5; palpi?; pedes I vix 10, II 19, III 13, IV 17.

Patria: India occidentalis; secundum ill. E. SIMON insulæ St. Domingo et Tortuga. The specimens of ROEWER (*C. haitiensis*) are from Haiti. — Specimen unicum, verisimiliter marem, vidi, quod ill. E. SIMON mihi benevolentissime dedit et quod nunc in Museo Zool. Hafniensi asservatum est.

Variatio: Ill. SIMON dicit: "scutum visiblement plus long que large".

Remarks: The three proximal segments of the first tarsus are distinctly thicker than the three terminal ones. Along the inner lower margin of the fourth femur in the male examined about 20 longer and shorter teeth were found, they are wanting terminally.

I think SØRENSEN is completely right in referring this animal to SIMON'S *C. V-album*; the armature of the scutum as well as that of the fourth femur of the male are identical. SIMON writes (p. 18): "fémurs, patellas et tibiæ garnis de fortes rugosités, denses, disposées en lignes longitudinales peu régulières, plus fortes aux fémur IV".

BANKS has, however, described a male referred by him to *C. V-album* Sim., characterized by rows of teeth in the distal fourth of the femur of the fourth leg. ROEWER seems to have found the same characteristics in SIMON'S (type-)specimens from St. Domingo, preserved in the museum of Paris. ROEWER, however, refers his species to *Cynorta*, which in the sense of ROEWER has no tubercles or spines in the fourth abdominal somite, although SIMON writes: "en arrière deux paires de tubercules: les premiers petits, arrondis, assez écartés, les seconds plus longs, coniques, sub-aigus, a peine plus resserrés". ROEWER does not mention the contradiction between his and SIMON'S statements; thus most probably 2 species have been present in the material of Simon.

ROEWER has described a new species called *Cynortoides haitiensis* which is identical with the species which formed the basis of SIMON'S description as well as with that described here. The only difference between our specimen and ROEWER'S description of *haitiensis* consists in the short legs and the armature of the scutum. The first abdominal somite of our specimen had a pair of grana scarcely bigger than the other grana of the somite; in the third somite two tubercles and in the fourth two short spines were found, while ROEWER writes about *haitiensis*: "die I Area . . . mit einem mittleren Paare niedriger, stumpfer, aber deutlich erkennbarer Tuberkel, die III und IV Area mit je einem mittleren Paare spitzer Kegeldornen, die zueinander im Quadrat stehen". These differences are certainly due to individual variations.

I think it is most correct to regard those specimens which formed the base of SIMON'S description and of which one was given to Dr. SØRENSEN, as the real types of SIMON'S *C. V-album*. *C. haitiensis* must accordingly be regarded as a synonym, and a new name must be given to BANKS' and ROEWER'S *C. V-album*; I propose *Roeweri* n. nom. the synonymy of which latter species will be as follows:

- Cynorta V-album* p. p. E. Simon, Ann. soc. Ent. Belg. XXII, 1879, p. 198.  
 ? — — Banks, Proc. Acad. Philad. 1903, p. 342.  
 — — Banks, II. Rep. Centr. Exper. Stat. Rep. Cuba, 1909, p. 169.  
 — — Roewer, Weberkn. d. Erde, 1923, p. 316.  
 — *Roeweri* n. nom.

#### *Cynorta cubana* Banks.

*Cynorta anchorata* Sørensen in manusc.

*Cynorta cubana* Banks, II Rep. Centr. Exper. Stat. Rep. Cuba, 1909, p. 169.

*Cynortoides cubana* Roewer, Weberkn. d. Erde, 1923, p. 335.

5 mm longa, rufo-tastacea, lineis albis anteriore V-formi et posteriore transversa notata; tuberculiferum late, non autem profunde, excavatum, granulis utrinque binis; limbus lateralis vix discretus, præter foveolas ordine exteriori granorum humilium; scutum paullulo longius quam latius, eminentiis magnis sex (areis secundæ, quartæ, quintæ impositis); areæ coriaceæ; coxæ IV (infra) et ventrale primum coriacea tantum; pars femoralis palporum supra vix crenulata, intus inermis; coxæ IV carina

transversa apicali sat alta et turba granorum anteriore laterali; calcaneus I astragalo duabus partibus brevior; articuli tarsales: 6, 13, 8, 9; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humile latum, late, non autem profunde, excavatum, subtiliter coriaceum; supra utrumque oculum granula bina subacuta adsunt.

Scutum convexum, paullulo longius quam latius, post coxas III leviter latius, post coxas IV leviter angustius; a tubere oculifero usque ad eminentias areæ quintæ leviter arcuatum. Sulcorum pars media manifesta, partes exteriores obsoletæ. Limbus anterior discretus tumidus lævis; tubercula extra antennas posita parva, conica, obtusa. Limbus lateralis vix discretus ordine exteriori granorum humilium et foveolis dispersis ornatus. Labium anterius orificiorum glandularum foetidarum superne manifesto inflatum. Areæ coriaceæ; secunda, quarta, quinta eminentiis majoribus binis præditæ, quarum anteriores minimæ sæpissime sunt tubercula, mediæ sunt processuli leviter reclines, conici, obtusi, spatio interapicali breviores, dum postremi sæpissime sunt processuli similes. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum, quorum maxima limbo posteriori imposita sunt; anale dorsale granis dispersis. Coxæ IV (infra) et ventrale primum coriacea tantum; ventralia cetera (etiam anale) ordinibus singulis granulorum.

Antennarum pars globosa articuli primi granis supra scabra.

Palporum pars femoralis vix duplo longior quam crassior, ordine inferiore granorum (sive tuberculorum minimorum) haud densorum (circiter duodecim) armata, intus inermis; ultra carinam dorsalem vix crenulatam lævis. Partis patellaris margo interior sat anguste extenuatus, in apice non angulatus. Pars tibialis duplo longior quam latior, æque longa ac pars femoralis; margo interior subrectus, prope apicem sensim paullo angustior; anguli non producti, exterior tuberculo minuto armatus, præter quod setæ tantum adsunt. Pars tarsalis latior quam crassior; pars propior dimidia marginum levissime extenuata, setis sat robustis tantum munita. Unguis parte tarsali duplo brevior, vix curvatus.

Pedes haud robusti. Coxæ IV coxis III duplo latiores, carina transversa superiore apicali sat alta, leviter bifida, et turba laterali anteriore granorum præditæ. Femora vix arcuata, granulis pusillis ornata. Calcanei I et II astragalo duabus partibus breviores; articulo tarsali primo III vix, IV manifesto breviores. Articuli tarsales (tarsi multis exemplis defuere. Tarsus II alter exemplo tantum uni adfuit): 6, 13, 8, (8—)9. Articulus primus tarsi I secundo duplo longior. Processus terminalis unguiculis tenuior et paullo brevior.

Differentia sexualis: Pars propior tarsi I parte ulteriore in mare paullo, in femina vix crassior. Femora IV. maris in apice leviter incrassata, obliqua, pectinibus superiore et exteriori processulorum densorum prædita, quorum medii longiores.

Læte rufo-testacea, lineis albis notata, quarum anterior V-formis (sulco primo propinqua), in apicibus paullum dilatata est, posterior transversa inter eminentias posteriores quatuor posita, leviter undulata. Quæ lineæ linea media conjunctæ sunt. Venter obscurior. Pedes paullo dilutiores.

Long. corp. 5,25; long. scuti 4,5, lat. scuti 4,25; palpi 4,75, pedes I 12, II (sine tarso) 21, III 17, IV 22.

Patria: India occidentalis. Exempla quatuor vidi, tres mares et feminam unam, in insula Cuba a cl. OTTO capta, in Museo Berolinensi asservata.

Variatio: Eminentiae areae quintae interdum tubercula, saepissime processuli sunt, eminentiis areae quartae in exemplo uno majores, saepissime breviores. In mare uno eminentiae femorum IV parvae.

Remarks: This species, of which SØRENSEN has seen specimens in the Museum of Berlin, was first named *anchorata* n. sp. by him. Later on he altered the name in the manuscript and referred the species here in question to *juncta* Gervais without, however, stating why he believed that it was identical with that species.

ROEWER has rightly referred the specimens labelled *anchorata* by SØRENSEN in the Museum to *C. cubana* Banks which in the system of ROEWER — together with *C. V-album* (= *haitiensis* Roew.) — form his genus *Cynortoides*.

#### *Cynorta caraibica* n. sp.

5 mm longa, castanea lineis vitellinis anteriore V-formi et posteriore undulata, sulcum quartum partim congruente, notata; tuber oculiferum humillimum, leviter excavatum granis prope oculos ornatum; pars media arearum granis dispersis densis; area secunda granis magnis binis, quarta et quinta processulis binis acutis; coxæ IV granis dispersis haud densis, irregularibus et carina posteriore; calcaneus I æque longus atque articulus tarsalis primus; articuli tarsales: 6, 13—15; 7—8, 8—9; processus terminalis unguiculis brevior.

Tuber oculiferum humillimum, latum, supra leviter excavatum, granis parvis dispersis ornatum, quorum media pauciora sunt.

Scutum convexum, a tubere oculifero usque ad tubercula areae quintae leviter arcuatum, post coxas III latius, post coxas IV angustius. Sulci transversi quinque manifesti, extrorsum tamen obsoleti. Limbus anterior, parte media excepta, discretus, granulis perpaucis praeditus, ad antennas emarginatus; tubercula extra antennas posita minora conica obtusa. Limbus lateralis non discretus, ordine granulorum subexteriore, in medio interrupto, ornatus, intra quem granula posteriora pauca et lineolæ aut puncta irregularia impressa adsunt. Orificia glandularum foetidarum supra tantum detecta. Arearum pars media et posterior granis inæqualibus haud densis ornata; partes anterior brevis et exterior læves; area secunda granis magnis ambobus conicis; quarta et quinta eminentiis magnis, reclinibus, binis, conicis, rectangulum formantibus, quarum posteriores acutæ, processuli sive processus parvi, duplo longiores sunt quam anteriores subacutæ, tubercula sive processuli. Scutum ceterum coriaceum. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis granorum conicorum, quorum unum in limbo posteriore ceteris paullo majus est. Anale dorsale granis dispersis sat densis. Segmenta ventralia et anale ordinibus irregularibus granorum minorum; anteriora duo lævia, cetera ordinibus singulis granulorum anteriora versus minorum. Coxæ III—IV infra parce granulatae.

Antennarum pars globosa articuli primi granis minoribus sat densis prædita; articulus secundus robustus, geniculatus, supra articulum basalem autem non elevatus.

Palporum pars trochanterica clavata, tuberculo obtuso apicali ornata. Pars femoralis plus quam duplo longior quam crassior, ordine inferiore tuberculorum obtusorum (circiter 12) armata, intus inermis; ultra carinam dorsalem longam (apicem articuli fere attingentem) leviter crenulatam, lævis. Partis patellaris margo interior manifesto extenuatus, rectus. Pars tibialis non duplo longior quam latior, parte femorali parte sua quarta brevior; margines extenuati, exterior in parte ultima tertia rotundata; interior in apice leviter productus, inermis; exterior in apice vix productus, tuberculo parvo armatus. Partis tarsalis margines prope basin leviter extenuati; aculeis minutis (vel setis robustis) exterioribus quatuor et longioribus interioribus duobus. Unguis parte tarsali duplo brevior.

Pedes breves, haud robusti; coxæ IV coxis III plus quam duplo latiores, carina transversa apicali humili granis ornata, et granis majoribus lateralibus prædita, quorum anteriora nonnulla magna densiora sunt. Trochanter IV tuberculo interiore apicali armatus. Femora II rectum, I vix, III et IV leviter arcuata; femora omnia et patellæ et tibiæ III—IV granis minoribus armata. Calcanei I—III manifesto longiores quam articulus tarsalis primus; IV brevior; calcaneus I dimidio brevior quam astragalus, II vix duplo aut duplo brevior, III manifesto, IV vix longiores quam crassiores. Articuli tarsales: 6, (12—)13—15(—16), 7—8, 8—9. Processus terminalis paullo tenuior et brevior quam unguiculi.

Differentia sexualis perexigua. Pars propior tarsi I parte posteriore in mare paullo, in femina non crassior. Articulus secundus antennarum paullulo elevatus.

Castanea, lineis duabus vitellinis notata: prima, sulco transverso primo propinqua V-formi, lineam posteriorem mediam per aut in aream secundam emittente, et posteriore, sulco quarto partim congruente, levissime undulata, marginem lateralem attingente et hic lineola vitellina anteriore; in individuis nonnullis lineolæ transversæ ambæ sulcum secundum sequentes adsunt. In femina una (e St. Thomas) lineola sinistra ante sulcum quartum deest.

Long. corp. 5; long. scuti 4,7, lat. scuti 4,2; palpi 4,5; pedes I 8,5, II 21, III > 14, IV < 18.

Patria: West Indies. Dr. SØRENSEN has seen 6 males and 6 females from St. Domingo, one female from St. Thomas, and two females from Puerto Cabello at the sea-coast, all belonging to the museum of Göttingen.

Remark: This species must be referred to the genus *Cynortoides* of the Roewerian system, and is nearly related to *C. V-album*, described above.

#### Subgenus *Abria* n.

SØRENSEN established this new subgenus, sufficiently characterized in the synoptic key, for the species treated below. The sole species belonging to the subgenus had not yet been baptized by SØRENSEN, and very few notes were left about it.

*Cynorta (Abria) innominata* n. sp.

4 mm long; light cinnamon brown with irregular and densely placed, partly confluent, whitish spots; tuber oculiferum low, deeply and widely excavated; above each eye a row of small grana; area II with two small grana and area IV with two short, black spines; femoral part of the palp with an apical, interior, clumsy process; coxæ IV laterally and anteriorly with a turba consisting of three small tubercles; calcaneus I is almost three times shorter than astragalus; tarsal segments: 6, 10—11, 7, 8; processus terminalis as long as the claws.

Tuber oculiferum low, deeply and widely excavated, showing a row of small grana above each eye.

Scutum convex, first transversal furrow distinct, the other scarcely discernible. Scutum horny, the entire surface set with dispersed grains. Limbus anterior present, in the median part very finely granulated, the tuberculæ exterior to the antennæ rather pointed. Limbus lateralis rather narrow. Area secunda with a pair of larger grains, area quarta with a pair of small tubercles (or large grains) which are placed at a distance from one another just as the grains on the 2nd area. Limbus posterior and the first 3 free tergites set with each a transversal row of granules of the same size as the granulation of the scutum. Anale dorsale without granulæ. Coxæ, ventrale primum and anale ventrale without granulæ, the other ventralia each with a single row of granules.

The globose part of the first antennal joint above set with some few granulæ of the same kind as scutum, and posteriorly a row of 4—5 larger grana.

The palp has a pars femoralis about double as long as broad, the upper margin with 3 grana set closely together, the lower margin with a row of ca. 10—12 rather long grana (or teeth), apically a small, interior, clumsy process. Pars tibialis about as long as pars femoralis, nearly double as long as broad, the margins without teeth or grana, the lower margin angular, the angle about at the distal third. The pars tarsalis half as long and half as broad as pars tibialis, set with some valid bristles. Unguis about 2 thirds as long as pars tibialis, distinctly curved.

Legs: Coxæ IV more than double as broad as Coxæ III, laterally and anteriorly with a turba consisting of three small tubercles. All trochanters smooth. Only femur III slightly arcuate. All femora with small granula. Calcaneus I a little longer than the 1st tarsal joint and about a third of astragalus, calcaneus II about as long as the 1st tarsal joint and only a fourth the length of astragalus. Calcaneus III a little longer than thick, IV a little shorter than thick. Articuli tarsales: 6, 10—11, 7, 8. Pars ulterior tarsi II tripartite. Processus terminalis nearly as long as the claws.

Differentia sexualis: Pars propior tarsi I et partes proximæ tarsorum III et IV parte ulteriore manifesto crassior in mare (non autem in femina); articulus primus articulo ultimo tarsi I duplo, III—IV dimidio crassiores.

Colour: Light cinnamon-brown with irregular white spots which are usually confluent to a reticulate pattern, but sometimes rather reduced.

Long. corp. 4,7; long. scuti 4, lat. scuti 3,7; palpi 4; pedes I 7,5, II 17, III 11, IV 15.

Patria: Venezuela. 3 males and 5 females were collected at Towar by E. SIMON and given to Dr. SØRENSEN by him.

In the Roewerian system this species must belong to the genus *Cynorta*.

### Libitia Simon.

*Libitia* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 216.

*Libitia* + *Metalibitia* + *Paralibitia* etc. Roewer, Weberkn. d. Erde, p. 293, 294, 295 etc. — Suppl.: Abh. nat. Ver. Bremen. XXVI, 3, 1928, p. 552 ff.

Tuber oculiferum latum, inerme aut eminentiis parvis ornatum.

Scutum totum aequaliter et leviter arcuatum, extra antennas in tubercula singula productum.

Area quarta scuti dorsalis eminentiis magnis destituta; areæ quintæ aut limbo posteriori scuti autem eminentiæ magnæ interdum impositæ sunt.

Orificia glandularum foetidarum sunt foramina brevia, perlata, infra latiora, suberecta (i. e. leviter proclivia).

Antennarum articulus primus eminentia majore superiore, interiore, apicali destitutus.

Palporum pars tibialis primum leviter, deinde (ultra medium) sat fortiter dilatata, apicem versus sat subito angustata.

Pedes breves aut breviores. Coxæ IV leviter dilatatæ (coxis III triplo fere latiores) processulo aut carina transversa extus producta munitæ.

Unguiculi integri.

Remark: According to SØRENSEN *Cynorta* ambigua is related to *Libitia*.

### *Conspectus specierum hic descriptarum.*

- I. Differentia sexualis exigua, crassitudine femorum (III et) IV vix demonstratur. . . . . Subgenus *Messa* W. Sør.
  - A. Tarsus I quinquepartitus; scutum dorsale eminentiis ambabus instructum, margini posteriori propinquis (areæ quintæ impositis):
    1. Tibia II et metatarsi omnes anulis dilutis ornata. . . *M. argentina* W. Sør.
    2. Tibia II et metatarsus II anulis non ornata . . . *M. paraguayensis* W. Sør.
  - B. Tarsus I sexpartitus; limbus posterior (non autem area quinta) scuti dorsalis tuberculo aut tuberculis instructus:
    1. Calcaneus I articulo tarsali primo brevior; limbus posterior scuti tuberculis ambobus præditus . . . . . *M. scalaris* n. sp.
    2. Calcaneus I astragalo vix duplo brevior; limbus posterior scuti tuberculo uno præditus . . . . . *M. castanea* n. sp.
- II. Differentia sexualis magna, partibus propioribus tarsorum I, III, IV in-crassatis demonstratur; scutum muticum. . . . . Subgenus *Libitia* (E. Sim.).

- A. Tarsi III et IV sexpartiti ♀, quinquepartiti ♂; area secunda striolis ambabus obliquis notata ..... *M. bipunctata* n. sp.  
 B. Tarsi III et IV quinquepartiti: macula alba media aream secundam et tertiam excipiente ornata ..... *M. cordata* Gerv.

#### Subgenus *Messa* n.

*Messa* Sørensen in manuscripto.

*Metalibitia* + *Paralibitia* etc. Roewer, Die Weberkn. d. Erde. — Suppl.: Abh. nat. Ver. Bremen, XXVI, 3, 1928, p. 552.

Scutum dorsale eminentiis majoribus instructum, limbo posteriori aut propinquis aut impositis (sulcis non divisum).

Differentia sexualis exigua crassitudine femorum (III et) IV demonstratur.

Remark: I agree with SØRENSEN in considering the following 4 species as closely related mutually, only representing one subgenus (genus acc. to ROEWER).

#### *Libitia* (*Messa*) *argentina* W. Sør.

*Cosmetus argentinus* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 593.

*Paralibitia argentina* Roewer, Weberkn. d. Erde, 1923, p. 295.

3,5 mm longa, sordide testacea, vittis sordide brunneis ornata; tibia secunda et metatarsi omnes anulis dilutis notata; tuber oculiferum obsolete excavatum, læve; tubercula extra antennas posita, utrinque bina sibi propinqua, sat magna, conica, acuta; limbus lateralis non discretus; scutum coriaceum levissime arcuatum processulis parvis ambobus, areæ quintæ impositis; pars femoralis palporum vix duplo longior quam crassior, tuberculo magno interiore apicali armata; coxa IV processulo conico; calcaneus I articulo tarsali primo duplo fere brevior; articuli tarsales: 5, 7, 5, 6; processus terminalis unguiculis duplo brevior.

Patria: Respublica Argentina et Paraguay.

Addenda et Corrigenda: Scutum (a latere inspectum) a tubere oculifero usque ad eminentias magnas areæ quintæ subrectum vel levissime arcuatum. — Sulci obsoleti striis claris tamen demonstrantur (quod integumentum subcutaneum pigmento ibi caret). Orificia glandularum foetidarum plane obtecta. — Segmenta dorsalia libera tria anteriora granulis et ordinibus singulis granorum prædita, præter quæ dorsale tertium tuberculo uno medio acuto sæpissime instructum est; anale dorsale granis densis; anale ventrale ordine posteriore granorum. — Palporum pars femoralis vix duplo longior quam crassior, tuberculo magno interiore apicali armata; ultra carinam dorsalem altam leviter crenulatam subito desinentem leviter crenulata. Partis patellaris margo interior sat late extenuatus, in apice angulatus. Pars tibialis vix duplo longior quam latior, parte femorali paullo longior. Pars tarsalis depressa, marginibus præsertim exteriore prope basin extenuatis, præter setas aculeis brevibus robustis armata, interioribus 2, exterioribus 3. — Calcanei sat crassi, articulo tarsali



primo manifesto (I duplo fere) breviores; IV anulum apicalem obliquum formans. Tarsi I pars propior posteriore non crassior; articulus primus secundo longior.

Remarks: According to ROEWER "I—III Area mit je einem mittleren Paare niedriger, stumpfer aber deutlich hervortretender Tuberkeln", but they are not found in the specimens examined. The posterior margin of the third abdominal somite possesses a median well-developed process, consisting of a median bigger and on each side a smaller obtuse tooth; laterally on each side two tubercles. The tubercula extra antennas are bifurcate, the exterior tubercle being shortest.

On account of the different number of tarsal segments ROEWER refers this species to another genus than *M. paraguayensis*, viz. to *Paralibitia*.

### *Libitia* (*Messa*) *paraguayensis* W. Sør.

*Cosmetus paraguayensis* Sørensen, Naturh. Tidsskr. (3) XIV, 1884, p. 594.

*Metalibitia paraguayensis* Roewer, Weberkn. d. Erde, 1923, p. 294.

4 mm longa, sordide fusca, pictura sordide testacea ornata; metatarsi tertius et quartus anulis dilutis angustis ornati; tuber oculiferum rotundatum granulis subtilibus densis; tubercula extra antennas posita utrinque bina sibi propinqua; limbus lateralis non discretus; scutum granulis subtilibus densis levissime arcuatum processulis parvis ambobus, areæ quintæ impositis; pars femoralis palporum vix dimidio longior quam crassior, tuberculo magno obtuso interiore apicali munita; coxa IV processulo conico; calcaneus I brevior quam crassior; articuli tarsales: 5, 6, 5, 5; processulus terminalis unguiculis plus quam duplo brevior.

Patria: Republica Paraguay, Brasilia (Porte Allegre), Argentina (Bahia Blanca).

Addenda et corrigenda: Scutum (a latere inspectum) a tubere oculifero usque ad processulos scuti subrectum vel levissime arcuatum. — Tuber oculiferum et scutum granulis subtilibus densis ornata. — Sulci obsoleti scuti striis claris tamen demonstrantur. — Orificia glandularum foetidarum plane obsecta. — Areæ secunda, tertia, quarta granis perhumilibus binis interdum ornatae. Limbus posterior scuti et segmenta dorsalia libera tria anteriora granulis et ordinibus singulis granorum; anale dorsale granis densis; anale ventrale ordine posteriore granorum; coxæ et ventrale primum sublævia; ventralia cetera ordinibus singulis granulorum. — Palporum pars femoralis vix dimidio longior quam crassior, tuberculo magno obtuso interiore apicali munita; ultra carinam dorsalem leviter crenulatam subito desinentem leviter crenulata. Partis patellaris margo interior sat late extenuatus, in apice angulatus. Pars tibialis vix duplo longior quam crassior, parte femorali manifesto longior. Pars tarsalis depressa, marginibus præsertim exteriori prope basin extenuatis; præter setas aculeis utrinque binis armata. — Calcanei breviores quam crassiores; III et IV anulum



Fig. 29. *Libitia* (*Messa*) *paraguayensis* W. Sør. Palpi partes patellaris, tibialis et tarsalis. (W. Sør. del.)

obliquum apicalem formantes. Tarsi I pars propior ulteriore non crassior, articulus primus secundo longior.

Remarks. Tubercula extra antennis consist of two slender branches of which the inner one is the longer. The number of abdominal grana were, as pointed out by SØRENSEN, who examined about 90 specimens, very variable; they are generally present, but in some specimens minute or wanting especially in the two first abdominal somites; in two specimens they were rather indistinct even in the fourth abdominal somite.

*Libitia (Messa) scalaris* n. sp.

6 mm longa, dilute cinnamomea, scalis dorsalibus et linea transversa limbi posterioris luteis notata; tuber oculiferum cristis ambabus granorum (aut granulorum); scutum leviter convexum pars saltem media sulcorum transversorum manifesta; tubercula exteriora limbi anterioris coriacei obtusa; limbus lateralis ordine granulorum; areæ secunda et quarta granis binis; limbus posterior scuti tuberculis ambobus; pars femoralis palporum tuberculo magno interiore apicali armata; unguis parte tarsali non duplo brevior; coxæ IV turba anteriore-superiore granorum; calcaneus I articulo tarsali primo brevior; articuli tarsales: 6, 10—11, 6—7, 7; processus terminalis unguiculis duplo brevior.

Tuber oculiferum humillimum latum, supra leviter excavatum, coriaceum, cristis ambabus oculis propinquis granorum aut granulorum conicorum (utrinque binorum, trinorum, quaternorum).

Scutum leviter convexum, a sulco-transverso primo leviter et æqualiter arcuatum; post coxas III manifeste dilatatum, deinde post coxas IV angustatum. Sulci transversi primi procurvi pars media manifesta, exterior interrupta; secundi, tertii, quarti pars media debilis, exterior obsoleta; sulcus quintus manifestus. Limbus anterior discretus coriaceus, ante emarginatus, extra palpos fortiter obtuse productus. Limbus lateralis vix discretus latus, irregulariter rugosus, coriaceus, ordine subexteriore granulorum præditus. Orificia glandularum foetidarum plane obtecta. Areæ coriaceæ, granulis pusillis præditæ, in area quarta in ordinem transversum dispositis, in ceteris dispersis; prima granis dispersis, secunda et quarta granis binis. Area prima impressione vix manifesta, plana, post tuber oculiferum posita. Limbus posterior tuberculis ambobus reclinibus, conicis, sibi propinquis et granis conicis remotis ornatus. Segmenta dorsalia libera tria anteriora ordinibus singulis irregularibus granorum; anale dorsale granulis dispersis densis et impressione lineari transversa. Coxæ et ventrale primum coriacea (granulis perpusillis, vix manifestis); anale ventrale ordinibus duobus, posteriore granorum, anteriore granulorum; segmenta cetera ordinibus singulis granulorum.

Antennarum pars globosa articuli primi præter granula granis inferioribus marginalibus et uno anteriore interiore superiore ornata.

Palporum pars femoralis duplo longior quam crassior, ordine inferiore tuberculorum parvorum (circiter octo) et tuberculo magno interiore apicali robusto conico setigero armata; ultra carinam dorsalem vix crenulatam, leviter evanescentem, cre-

nulata. Partis patellaris margo interior anguste extenuatus, in apice leviter angulatus. Pars tibialis triplo longior quam latior, parte femorali paullo longior; pars latissima basi haud multo latior, quia margines extenuati, interior angustus, exterior apicem versus rotundatus, in apice leviter producti sunt. Pars tarsalis (persecta) rectangula, marginibus non extenuatis. Unguis parte tarsali non duplo brevior.

Pedes breves, robusti. Coxæ IV coxis III triplo fere latiores, turba (aut ordine brevi) anteriore superiore transversa granorum magnorum, et carina transversa exteriore apicali, robusta, crassa, granis ornata, extus producta. Trochanter IV grano magno apicali acuto. Femora leviter arcuata, eminentiis acutis ornata, quæ in femoribus I et II sunt grana minora, in III et præsertim IV grana majora. Patellæ et tibiæ granulis acutis ornatae. Metatarsi læves. Calcanei articulo tarsali primo breviores; I paullo, II duplo longiores quam crassiores; III et IV crassiores quam longiores. Articuli tarsales 6; 10—11; 6—7<sup>1)</sup>; 7. Tarsi I pars propior posteriore (in utroque sexu) non crassior; articulus primus secundo longior. Processus terminalis pæne pronus, fortiter incurvus, robustus, unguiculis duplo fere brevior.

Differentia sexualis: Maris (cujus penem vidi) femora III et IV robustiora, ordinibus granorum magnorum conicorum acutorum undique prædita.

Dilute cinnamomea, scalis dorsalibus et linea transversa limbi posterioris, pone tubercula posita, luteis notata. Scalæ lineis formatae sunt, quarum ambæ longitudinales, subparallelae (ante introrsus leviter curvatae) a sulco transverso primo exeuntes, lineis transversis tribus conjunctae, parti mediæ sulcorum secundi, tertii, quarti congruentibus.

Long. corp. 6; long. scuti vix 5,5; lat. scuti 5; palpi 4; pedes I 8,5; II 16; III 12; IV 14.

Patria: Columbia. Exempla quatuor vidi, duos mares et duos feminas, in collectione illustris comitis KEYSERLINGII asservata, quorum tria ad urbem St. Fé de Bogotá capta.

Variatio: In specimine uno lineæ transversæ scalarum dorsalium in medio interruptæ sunt.

Remark: This species has not been described by ROEWER, and moreover cannot be referred to any genus in ROEWER's system, and must, consequently, within this system form a new genus, near *Cocholla* and *Cynortellula* Roewer (Abh. nat. Ver. Bremen, XXVI, 3, 1928, p. 617 & 623).

#### **Libitia (Messa) castanea n. sp.**

7 mm longa, unicolore castanea; tuber oculiferum coriaceum; scutum leviter convexum; pars saltem media sulcorum transversorum (saltem vix) manifesta; tubercula exteriora limbi anterioris obtusa; limbus lateralis coriaceus tantum; limbus posterior tuberculo uno præditus; pars femoralis palporum tuberculo magno interiore apicali armata, unguis parte tarsali plus quam duplo brevior; pedes II pedibus IV

<sup>1)</sup> Tarsi III specimini tantum uni adfuere.

vix longiores; calcaneus I astragalo vix duplo brevior; articuli tarsales 6, 11, 6, 7; processus terminalis unguiculis duplo fere brevior.

Tuber oculiferum humillimum, latum, supra vix excavatum, coriaceum, ceterum læve.

Scutum leviter convexum, a tubere oculifero leviter et æqualiter arcuatum, post coxas III manifesto dilatatum, deinde post coxas IV angustatum. Sulcus transversus primus procurvus manifestus, quintus et pars media ceterorum debilis; partes exteriores obsoletæ. Limbus anterior vix discretus, coriaceus, ante emarginatus, extra palpos fortiter obtuse productus. Limbus lateralis leviter discretus, latus, tantum coriaceus. Orificia glandularum foetidarum plane oblecta. Areæ coriaceæ, prima impressionibus manifestis tribus ornata, quarum ambæ juxta tuber oculiferum positæ sunt; tertia post idem posita, magna, orbicularis, sat profunda. Limbus posterior scuti tuberculo parvo medio obtuso præditus. Coxæ IV et segmentum ventrale primum coriacea; segmenta libera et dorsalia et ventralia coriacea (et granulis perpusillis ornata).

Antennarum pars globosa articuli primi granis inferioribus et granulis posterioribus superioribus prædita.

Palporum pars femoralis triplo fere longior quam crassior, a basi ultra medium ordine inferiore granulorum densorum subcylindricorum, sensim majorum (circiter decem), et tuberculo magno interiore apicali subconico obtuso armata; ultra carinam dorsalem parce crenulatam vix crenulata. Partis patellaris margo interior angustissime extenuatus, vix crenulatus, in apicē leviter angulatus. Pars tibialis triplo fere longior quam latior, æque longa ac pars femoralis; pars latissima basi haud multo latior, quia margines extenuati, interior angustus, exterior apicem versus rotundatus, in apice leviter producti sunt. Pars tarsalis (persecta) rectangula, marginibus non extenuatis. Unguis parte tarsali plus quam duplo brevior.

Pedes breves, graciliores. Coxæ IV coxis III triplo fere latiores, in lateribus læves, carina transversa exteriorē apicali crassa, extus manifesto producta. Trochanter IV grano magno interiore apicali obtuso. Femora II subrecta, cetera arcuata; femora, patellæ, tibiæ ubique granulata; metatarsi læves. Calcanei astragalo I vix duplo, II plus quam duplo breviores; III diametro apicis sui fortiter incrassati vix longior; IV æque crassus ac longus. Articuli tarsales: 6, 11, 6, 7. Tarsi I pars propior ulteriore non crassior; articulus primus secundo longior. Processus terminalis pæne pronus, fortiter incurvus, robustus, unguiculis duplo fere brevior.

Differentia sexualis: Mas incognitus.

Unicolore castanea, opaca. Membra apicem versus dilutiora.

Long. corp. 7,25; long. scuti 6, lat. scuti 5; palpi 5,5; pedes I 11, II 20, III 14,5, IV 19,5.

Patria: Columbia. Specimina duo, feminas ovipositore protruso, vidi, ad urbem Sta. Fé de Bogotá capta, in collectione illustris comitis KEYSERLINGII asservata.

Remark: This species has not been described by ROEWER, and must according

to ROEWER's scheme be referred to a new genus, i. a. characterized by a scutum only armed with a single tubercle placed on limbus posterior.

Subgenus *Libitia* (Simon).

Scutum dorsale muticum, (sulcis divisum).

Differentia sexualis magna crassitudine partium propiorum tarsorum I, III, IV demonstratur.

*Libitia bipunctata* n. sp.

5 mm longa, fusca; area secunda punctis (striolis obliquis) notata; tuber oculiferum granulis præditum; pars media sulcorum transversorum scuti sat alte convexi manifesta; tubercula exteriora limbi anterioris coriacei truncata; limbi laterales parce subtiliter granulati; area prima post tuber oculiferum impressione orbiculari; granula limbi posterioris et segmentorum dorsalium liberorum granulis scuti non majora; pars femoralis palporum (saltem feminæ) dimidio longior quam crassior, tuberculo interiore apicali armata, crista dorsalis ejus in apice leniter rotundata; unguis parte tarsali parte tertia brevior; calcaneus I vix longior quam crassior; articuli tarsales 5, 6—7, 5(♂)—6(♀), 5(♂)—6(♀); processus terminalis unguiculis duplo brevior.

Tuber oculiferum humillimum, latum, supra vix excavatum, coriaceum, granulis dispersis ornatum.

Scutum leviter convexum, post coxas III manifeste latius, deinde post coxas IV angustius. Sulci transversi primi pars media manifesta, in impressionem desinens, procurva; secundus leviter recurvus; tertii, quarti pars media manifesta angusta partes exteriores obsoletæ. Limbus anterior discretus, coriaceus, ante emarginatus, extra palpos in tuberculum robustum truncatum productus. Limbus lateralis leviter discretus, latus, coriaceus, parce subtiliter granulatus, punctis magnis et lineis impressis irregulariter intra et ante dispersis ornatum. Orificia glandularum foetidarum processu coxali haud appresso vix obtecta. Areæ coriaceæ, granulis parvis dispersis sat densis. Area prima impressionibus tribus, sat latis, quarum una, post tuber oculiferum posita, orbicularis, sat profunda, et ambæ, juxta tuber positæ, haud profundæ sunt. Limbus posterior et segmenta dorsalia libera tria anteriora granulis densis, vix ordinatim dispositis; anale dorsale impressione transversa debili et granulis pusillis. Coxæ IV et ventrale primum coriacea, coxæ granulis parvulis, segmentum primum punctis impressis dispersis parce ornata; anale vittis duabus granulorum parvulorum remotorum; segmenta cetera ordinibus singulis granulorum parvulorum densorum.

Antennarum pars globosa articuli primi granulis superioribus præsertim pone prædita. Articulus secundus leviter geniculatus.

Palporum pars femoralis valde compressa, supra fortiter convexa, (saltem feminæ) dimidio longior quam crassior, ordine inferiore submedio tuberculorum

(circiter octo) densorum, apicem versus majorum, obtusorum, et tuberculo interiore apicali conico armata; ultra carinam dorsalem altam, in suo apice leniter rotundatam, lævis. Partis patellaris margo interior sat anguste extenuatus (plerumque vix crenulatus). Pars tibialis duplo longior quam latior, parte femorali paullo longior; margines extenuati, in apice leviter producti, interior angustus rectus, exterior apicem versus rotundatus, quare pars latissima articuli basi dimidio latior est. Pars tarsalis (perfecta) rectangula, marginibus non extenuatis. Unguis parte tarsali parte tertia brevior.

Pedes brevissimi, sat robusti. Coxæ IV coxis III triplo fere latiores, in lateribus læves, carina transversa superiore apicali rotundata, in tuberculum minutum exterius conicum, vix curvatum, obtusum producta. Trochanter IV muticus. Femora arcuata et patellæ et tibiæ granulis densis ornata, quæ in pedibus IV majora sunt. Metatarsi IV vix, ceteri non granulati. Calcanei breves; I et III vix, II vix duplo longiores quam crassiores; IV manifesto crassior quam longior. Articuli tarsales: 5, 6—7, 5(♂)—6(♀); 5(♂)—6(♀). Tarsi I pars propior posteriore non crassior; articulus primus secundo longior. Processus terminalis robustus, fortiter incurvus pæne pronus, unguiculis duplo brevior.

Differentia sexualis: Granula limbi posterioris et segmentorum dorsalium liberorum trium anteriorum in mare (nec in femina) majora quam granula scuti. Tubercula inferiora partis femoralis maris sat parva, feminae sat magna. Articuli tarsales III et IV maris 5, feminae 6. Partes propiores parte posteriore maris tarsorum I paullo, III et IV vix dimidio, feminae non crassiores. Tarsi I articulus primus articulo secundo in mare vix, in femina manifesto longior.

Fusca; area secunda striolis ambabus obliquis (ante divergentibus) olivaceo-luteis notata. Trochanteres pedum manifesto dilutiores.

Long. corp. 5; long. scuti 4,5, lat. scuti 3,75; palpi 3,25; pedes I 7,25, II 11,5, III 9,5, IV 10,5.

Patria: Columbia et Venezuela. Specimina septem vidi, feminas duas in Columbia captas, in collectione illustris comitis KEYSERLINGII asservatas, et mares tres et duas feminas a cl. Prof. BÜRGER in Venezuela (inter La Union et Chingusa, in altitudine 1000—2400 m) capta, in Museo Goettingensi asservata.

Variatio: Feminae unius striola lutea altera parvula, altera defuit; in mare uno area tertia scuti in latere altero puncto olivaceo-luteo ornata. — Variatio insolita: in mare uno tarsus IV alter quinque-, alter sex-partitus.

Remarks: This species, which is characterized by having a different number of tarsal joints in the male and the female, for which reason the female cannot be recognized as a *Libitia* sensu ROEWER, is nearly related to *Libitia fusca* Sim. but it differs by the colour, as SIMON's species is without lighter spots, by the limbus lateralis, which has not "une large bande marginale de granulations plus fortes et plus serrées", and by coxa IV which is not "pourvue d'une pointe assez courte et conique au-dessus de l'articulation du trochanter" (Ann. Soc. Ent. Belg. XXII, 1879, p. 217).

**Libitia cordata** Gervais.

*Cosmetus cordatus* Gervais, Walckenaer Insectes Apteres III, 1833, p. 117.

*Libitia cordata* E. Simon, Ann. Soc. Ent. Belg. XXII, 1879, p. 216.

*Libitia cordata* Roewer, Weberkn. d. Erde, 1923, p. 293.

Ca. 5 mm longa; fusca, macula alba media magna, aream secundam et tertiam excipiente ornata; tuber oculiferum granulis dispersis præditum; pars media sulcorum transversorum scuti sat alte convexi sat manifesta; tubercula exteriora limbi anterioris truncata, in apice leviter bifurcata; areæ granulatae; granula limbi posteriorum et segmentorum liberum trium ceteris majora; pars femoralis palporum paullo plus quam dimidio longior quam crassior, tuberculo interiore apicali armata; unguis parte tarsali duplo brevior. Calcaneus I vix longior quam crassior. Articuli tarsales: 5, 6, 5, 5; processus terminalis unguiculis paullo brevior.

Tuber oculiferum humillimum perlatum, supra vix excavatum, coriaceum, granulis parce dispersis.

Scutum leviter convexum, post coxas III paullo latius, post coxas IV angustius. Partes mediae sulcorum primi procurvi, secundi et tertii leviter et quarti distincte recurvorum manifestae; sulcus quintus in medio manifestus. Limbus anterior discretus, coriaceus, ante emarginatus, supra palpos in tuberculum robustum, truncatum, in apice leviter bifurcatum, productum. Limbus lateralis latus, non discretus, coriaceus, punctis impressis et paucis granulis dispersis, et supra coxas I impressione magna sat profunda. Orificia glandularum foetidarum processu coxali vix oblecta. Areae granulatae, partes mediae dense; impressiones adsunt: in area prima posterior, in in area II ambae anteriores magnae, puncta bina in area quinta et in limbo posteriore. Limbus posterior et segmenta dorsalia libera tria anteriora ordinibus singulis irregularibus granulorum densorum. Anale dorsale granulis dispersis; ventrale anale granulis parvis dispersis. Coxae et ventrale primum coriaceae granulatae; ventralia cetera ordinibus singulis irregularibus granulorum; ventrale primum interdum punctis impressis inter granula ornatum.

Antennarum pars globosa articuli primi granis posterioribus prædita et exterioribus.

Palporum pars femoralis paullo plus quam dimidio longior quam crassior, ordine exteriori granorum, et inferiore tertiam partem apicalem attingente tuberculorum (circiter 10) quorum ultima quatuor ceteris manifeste majora sunt, tuberculo interiore obtuso apicale armata; ultra carinam dorsalem humilem laevem laevis. Partis patellaris margo interior anguste extenuatus, leviter crenulatus. Pars tibialis duplo longior quam latior, parte femorali paullo longior; margines extenuati, in apice leviter producti; interior angustus rectus, tamen apicem versus pæne subangustior, exterior apicem versus rotundatus, quare pars latissima articuli basi dimidio latior est. Pars tarsalis in parte basale utrinque extenuata. Unguis duplo brevior.

Pedes sat robusti. Coxae IV coxis III triplo fere latiores, lateraliter granulatae,

carina transversa humili, granulis crenulata, in tuberculum exterius parvum interdum (1 ♂, 1 ♀) producta.

Femora omnia arcuata et patellæ et tibiæ omnes granis densis ornata. Metatarsi I et II vix, III et IV manifesto granulati. Calcanei I vix longior quam crassior, II et III crassior quam longior, IV duplo crassior quam longior. Articuli tarsales 5, 6, 5, 5. Processus terminalis unguibus paullo brevior.

Differentia sexualis: Partes propiores tarsorum I, III, IV in femina non crassiores quam partes posteriores, in mare I dimidio crassior, III duplo et IV dimidio crassior. Processus terminalis unguibus paullo crassior in femina, manifesto crassior in mare.

Fusca aut fusco dilutius variegata, macula magna, partem mediam arearum secundæ et tertiæ excipiens et aream quartam invadens, alba, luteo tincta, utrinque bis procurva. Venter brunneus. Antennæ et palpi flavo-testacea aut leviter fuscescentia; trochanteres et tarsi pedum I, III, IV flavo-testacei aut leviter fuscescentes; tarsus II fuscus.

♂: Long. corp. 4,75; long. scuti > 4, lat. scuti < 3,5; palpi 4,4; Pedes I 7,5, II 10,7, III 9, IV 11,5.

♀: Long. corp. 5,3; long. scuti 4,5, lat. scuti 3,6; palpi 3,8; pedes I 7, II 10,5, III 8,5, IV 10,75.

Patria: Dr. SØRENSEN has examined one male and three females, collected by Prof. BÜRGER in Venezuela 29.1.1897 at Paramo Boydla (road to Choact) and belonging to the Museum of Göttingen. The species has previously been recorded from Columbia, Guyana and Brazil.

Abnormitas: In one of the females the right tarsus II, which was scarcely shorter than the corresponding one of the left side, consisted of four segments; the two basal segments were comparatively long, the first segment of the terminal portion was very short, while the fourth segment was the longest.

Remarks: The species described here is certainly identical with SIMON'S *L. cordata* in spite of the presence of a few differences of minor importance. According to SIMON, the scutum should be "finement chagriné, nullement granuleux" and pars femoralis palporum "pourvu en dessous, dans la seconde moitié, d'une série de quatre fortes granulations égales".



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