Milliped Miscellany

by

C. A. W. JEEKEL

Xystodesmidae.

Riukiaria hoffmani nov. spec.[1])

Locality: "Liu Kiu Oschima, DOEDERLEIN 1880", 3 ♂♂.

Colour: probably completely bleached, pale yellowish brown all over.

Width: ♂ holotype 8,0 mm, ♂ paratypes 8,4 and 8,5 mm.

Head and antennae: Labrum very weakly emarginate, tridentate. Surface of clypeus, frons and vertex shining, densely and very finely punctulate. Clypeus moderately impressed towards labral area, otherwise weakly convex, with above the labrum a number of coarsely impressed, possibly setiferous but now hairless, pits. Below and somewhat mesad of the antennal sockets on each side a similar pit. Frons not demarcated from vertex. Vertex moderately convex, with 2 plus 2 hairless pits arranged in a transverse row. Vertigial sulcus weakly impressed, ending on level with upper margins of the antennal sockets. Laterally of the antennal sockets a strongly developed swelling, with behind it an equally well developed antennal groove. Antennal sockets separated by about 1½ times the length of the second joint. Antennae of moderate length and moderately setiferous. Joints 2 to 5 inclusive of subequal length, the 6th slightly longer. Each joint somewhat narrower than the preceeding one.

Collum: broader than head. Broadly subtrapezoidal in dorsal aspect with the anterior margin widely convex and the posterior margin broadly emarginate in the middle. Latero-posterior edge rather sharply rounded (Fig. 1, 1). Surface smooth, finely punctulate. Marginal ridge narrow, slightly widening in the latero-posterior edge.

Body segments: weakly constricted by a waist of moderate width, which is anteriorly and posteriorly not distinctly demarcated by sulci, but gradually passes into pro- and metazonites. Waist weakly longitudinally striate. Prozonites not dull, especially the posterior portion with fine, short, undulating, longitudinal striae. Metazonites dorsally moderately convex, without transverse furrow or impression. Surface shining with very fine, weak punctulae. Width of anterior segments gradually increasing up to the 7th somite, of posterior segments decreasing from about the 16th. Lateral keels well developed but not very widely expanded (Fig. 1, 2 etc.). The anterior margins from 2nd to about 6th thrust forward. Anterior margin rather strongly rounded in anterior segments, more widely so on posterior segments. Posterior margins straight to somewhat emarginate. Marginal rim well developed, somewhat broader in porebearing keels. Sides below the keels rugulose to finely granulose. Pleural keels present as rather strong swellings on the anterior segments, especially well developed above the anterior legs of each segment, gradually disappearing and absent in second part of the body.

Sternites and legs: Sternites of postgenital segments very

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[1]) Dedicated to R. L. HOFFMAN, Clifton Forge (Va.), U.S.A.

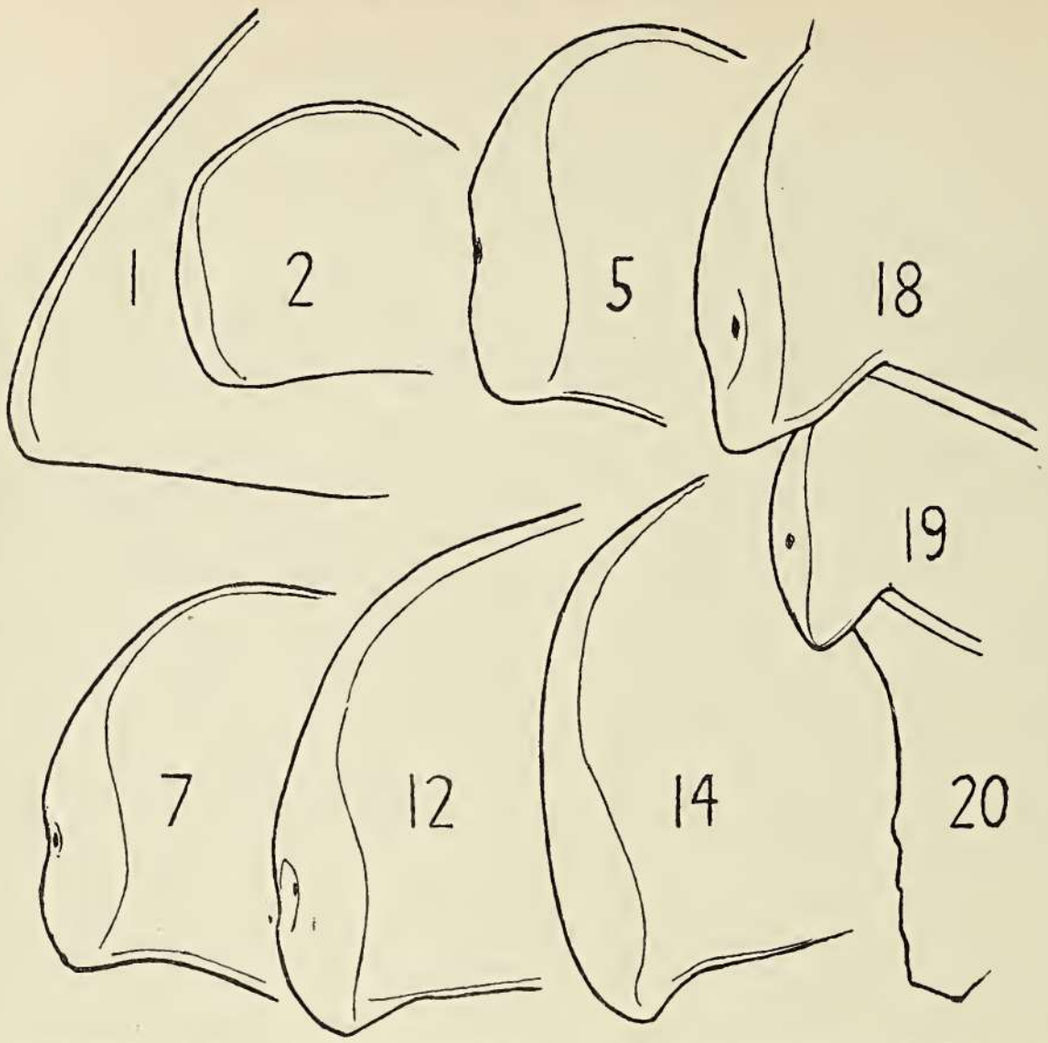

Fig. 1. *Riukiaria hoffmani* n. sp., dorsal aspect of the lateral keels of the left side of segments 1, 2, 5, 7, 12, 14, 18 and 19.

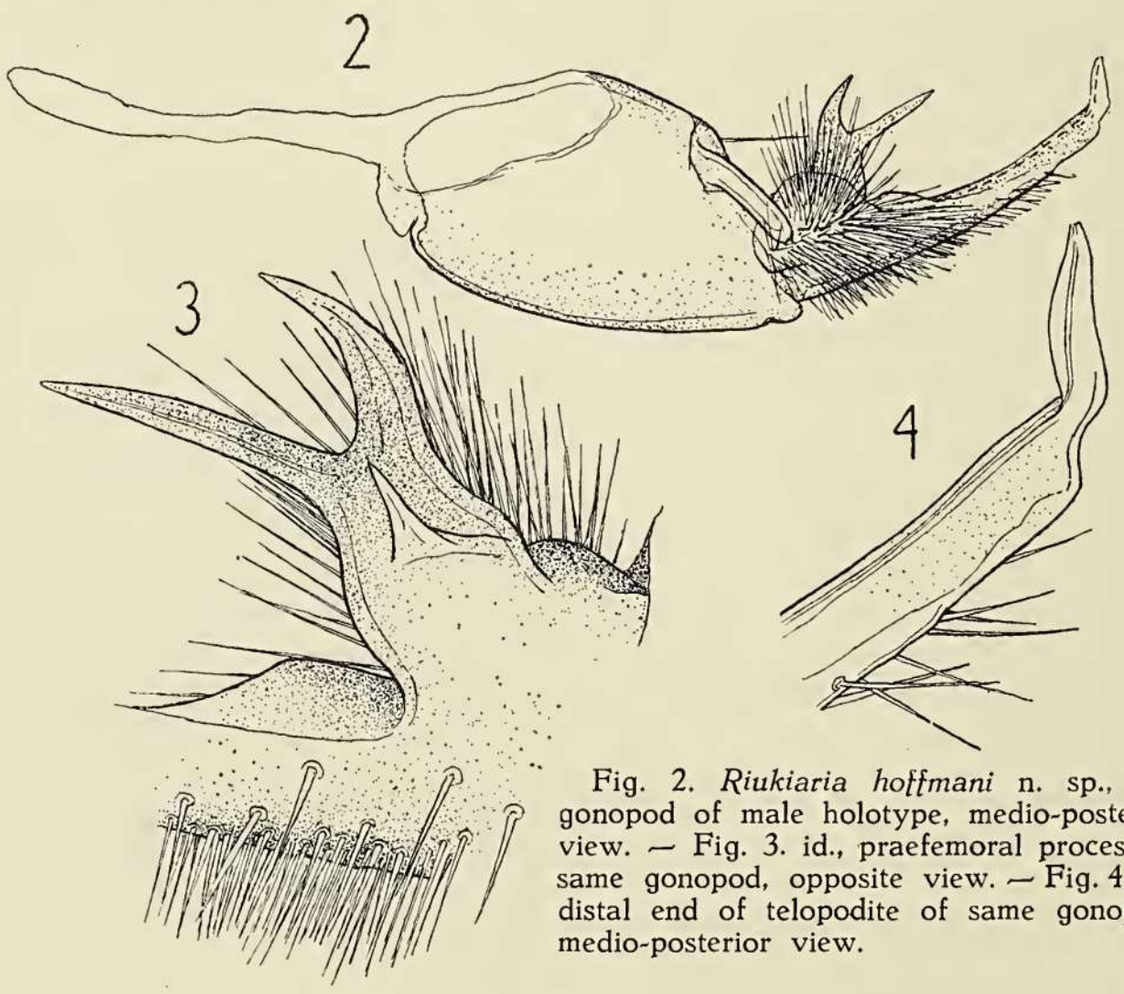

Fig. 2. *Riukiaria hoffmani* n. sp., left gonopod of male holotype, medio-posterior view. — Fig. 3. id., praefemoral process of same gonopod, opposite view. — Fig. 4. id., distal end of telopodite of same gonopod, medio-posterior view.

broad, about two times as broad as long, finely coriaceous, hairless, without transverse or longitudinal impressions. Sternite of 4th segment with two rather weak tubercules, of fifth segment with four tubercules, of 6th segment with two transversely elongate knobs between the anterior legs, somewhat excavated between the posterior legs. Sternite of 7th segment with rather large elliptical gonopod opening, of which especially the posterior margin is elevated. Legs of moderate length, rather thick. Femur > tarsus > praefemur > tibia = coxa > postfemur. Claw rather long, not exceeded by the terminal bristles of the tarsus. All joints of legs ventrally rather strongly setiferous, hairs rather long. Distal joints also dorsally setiferous. Coxae of second pair with strong truncate medio-distal processes. Praefemora from 3rd pair onward provided with a conical protuberance, which gradually becomes a well developed unciform process on posterior legs.

Anal segment: Sides of tail moderately converging, its end rather narrowly truncate. Valves rugulose, marginal rims ventrally narrow, dorsally broader and set off less sharply from the surface. Anal scale subsemicircular, rugulose. Setiferous tubercules slightly projecting.

Gonopods (Figs. 2—4): very small. Acropodites crossing each other in situ. Coxa comparatively large, about as long as telopodite. Tracheal stalk long and straight, equalling the length of the coxa. Telopodite almost entirely composed of the praefemur, which is densely setiferous. Demarcation between praefemur and femur very oblique, almost parallel to the axis of the telopodite. At its end the femur has a thin lappet, which may be regarded as solaenomerite. Praefemoral process shorter than telopodite, ending in three spiniform processes.

♀ unknown.

Remarks: The new species is readily distinguished from other species of the genus by the praefemoral process of the gonopods, which is short and subdivided in three processes, instead of being undividedly lanceolate, as in the other species.

The type material of this species, which was kindly submitted to me for study by Dr F. Gouin, will be preserved in the Museum at Strasbourg, France. One paratype has been retained for the collection of the Zoological Museum at Amsterdam.

Leptodesmidae.

Alocodesmus gracilicornis (Brölemann).

1898 *Leptodesmus g.* Brölemann, Ann. Soc. Ent. France **67**: 292, pl. 25, fig. 114—120, pl. 26, fig. 121—126. (1)

1931 *L. (Desmoleptus) g.* Attems, Zoologica Stuttg. **30** (79): 21.

1938 *Maracayopus venezuelanus* Verhoeff, Zool. Jahrb. Syst. **71**: 4, pl. 1, fig. 1—4. (2)

1938 *L. (D.) g.* Attems, Tierreich **69**: 31, fig. 31.

1940 *Alocodesmus v.* Attems, Tierreich **70**: 551, fig. 699.

1950 *Dromodesmus celer* Chamberlin, Zoologica N. Y. **35**: 142, fig. 17. (3)

Distribution: Venezuela: San Esteban (1), Maracay (2), Rancho Grande (3).

Remarks: The above synonymy has been established upon a comparison of the descriptions and drawings of the three forms. Both Ver-

HOEFF and CHAMBERLIN apparently have described their material ignorant of BRÖLEMANN's excellent diagnosis, while the latter author also appears to have overlooked the one given bij VERHOEFF. The slight discrepancies that may exist between the three descriptions are to be considered as individual variations or differences of interpretation rather than as characters of specific value.

Catharodesmus validus (Attems).

1898 *Leptodesmus* v. Attems, Denks. Ak. Wien **67** : 394, pl. 6, fig. 138—139. (1)

1902 *L. v.* Carl, Rev. Suisse Zool. **10** : 604. (2)

1931 *C. v.* Attems, Zoologica Stuttg. **30** (79): 38.

1938 *C. v.* Attems, Tierreich **69** : 56, fig. 61.

1943 *Cyclorhabdoides spadix* Schubart, Pap. Av. Dep. Zool. **3** : 137, fig. 19—21. (3)

Distribution: Paraguay (1, 2); Brazil: Mato-Grosso, Salobra (3).

Remarks: It seems that there can be no doubt that SCHUBART's *spadix* is conspecific with *validus* of ATTEMS. However, whether this species has to be separated generically from *Catharodesmus* or not, is a point I am unable to judge.

Spirostreptidae.

Nesostreptus Attems.

1926 *N.* Attems, in: Kükenthal-Krumbach, Handb. d. Zool. **4** : 199.

1927 *N.* Attems, Arch. Natg. **92A** : 253.

Type (by monotypy): *N. novarae* Attems 1927.

Up to now the genus *Nesostreptus* has remained a monotypic one, but is has become evident that the following species should be referred to it:

N. novarae Attems 1927 (synonym: *Alloporus maranguapensis* Schubart 1945) from Madeira (?) and Brazil, Ceará.

N. setiger (Brölemann 1902) from Brazil, Sao Paulo, Paraná, Bahia, Amazonas, Pará, and France. The apparent large distribution of this species may be due, at least partly, to wrong identifications.

N. nigricollis (Schubart 1947) from Brazil, Mato-Grosso.

N. pandeirus (Schubart 1950) from Brazil, Minas Gerais.

N. recifensis (Schubart 1950) from Brazil, Pernambuco.

N. araraquarensis (Schubart 1950) from Brazil, Sao Paulo.

N. sicki (Schubart 1950) from Brazil, Mato-Grosso.

N. oyapokanus (Attems 1914) from French Guiana.

The species described by BRÖLEMANN and SCHUBART have been located in the genus *Alloporus* Porat 1872 so far. However *Alloporus* is based on *A. dissimilis* Porat 1872, a species of which the gonopods have never been described. Later, a number of South African species have been added, especially by ATTEMS, and the generic diagnosis of *Alloporus* was completed as regards the structure of the gonopods. However it is evident that ATTEMS assigned his species to the genus *Alloporus* merely on account of the presence of repugnatorial pores on the fifth somite. Since this character appears independently in widely separated places of the system, and as the South African Spirostreptidae which have pores on the fifth somite belong to at least two very different generic

categories, the use of the name *Alloporus* for one of these must be purely arbitrary.

Still, even if the type of *Alloporus* should prove to belong to the group of species to which the generic name has been attributed, it is evident that these South African species are more closely related to the likewise South African genus *Doratogonus* Attems 1914 than to the South American forms. Therefore the majority of these are referred here to *Nesostreptus*. The differences between *Nesostreptus* and the African species of *Alloporus* are not only demonstrated in the gonopods, but also in the praefemora of the first legs of the male. In *Nesostreptus* the medial sides of these are parallel to each other, whereas in *Alloporus* they are strongly converging towards the distal margin of the coxosternum.

The remaining species from South America so far referred to *Alloporus* are species dubiae, except *'Alloporus' princeps* (Brölemann 1902) the generic position of which has to be reconsidered ; it may belong in the neighbourhood of *Conchostreptus* Schubart.

N. oyapokanus was described as a *Scaphiostreptus*. Its gonopod structure leaves no doubt as to its close relationship to the other *Nesostreptus*-species. The absence of pores on the 5th somite, implied by the original reference to *Scaphiostreptus*, needs verification.

Orthoporus neglectus (Porat).

1894 *Spirostreptus n.* Porat, Bih. Sv. Vet.-Akad. Handl. **20** (5): 74, pl. 4, fig. 37—37c, pl. 5, fig. 51.

Distribution: Previous record: Cameroons. Present material: Nigeria, S. Afikpo Division, 8 Nov. 1950 (Coll. J. L. Gregory), 1 ♂, 1 juv. ♂, 2 ♀♀.

This species was found in a small collection of Spirostreptidae and Odontopygidae, reported injurious to yams in Nigeria, which was forwarded to me for identification by Dr W. J. Hall, Director of the Commonwealth Institute of Entomology, London.

Owing to the absence of sufficient data concerning the sexual characters of the male in the original description, the species since has sunk into an obscurity which has been a credit to its name. From the present material the following notes were made.

ad. ♂ 49(—4) segments (?, fragmented specimen), width 2,3 mm.
juv. ♂ 57(—6) segments, width 2,2 mm.
ad.? ♀ 59(—2) segments, width 2,6 mm.
ad.? ♀ 56(—3), segments, width 2,5 mm.

Attention may be drawn to the fact that the adult male had no less than 3 apodous segments, aside the anal ring. This unusual condition implies a mode of development, different from that generally met with in the Spirostreptidae. As far as I am aware the juveniles in this family pass some stages in which a number of caudal somites is legless, before attaining their definite number of segments, with only the anal ring apodous. Further development apparently is epimorphotic, during which the larvae increase in size, while the sexual characters, e.g. the gonopods become fully developed. In the present case it seems that the juveniles come to maturity before reaching the epimorphotic stage.

The legs of the male (Fig. 5) have no pads on the two penultimate joints, although the postfemora are provided with rudiments of these. The praefemora of the first pair of the male (Fig. 6) are quite cha-

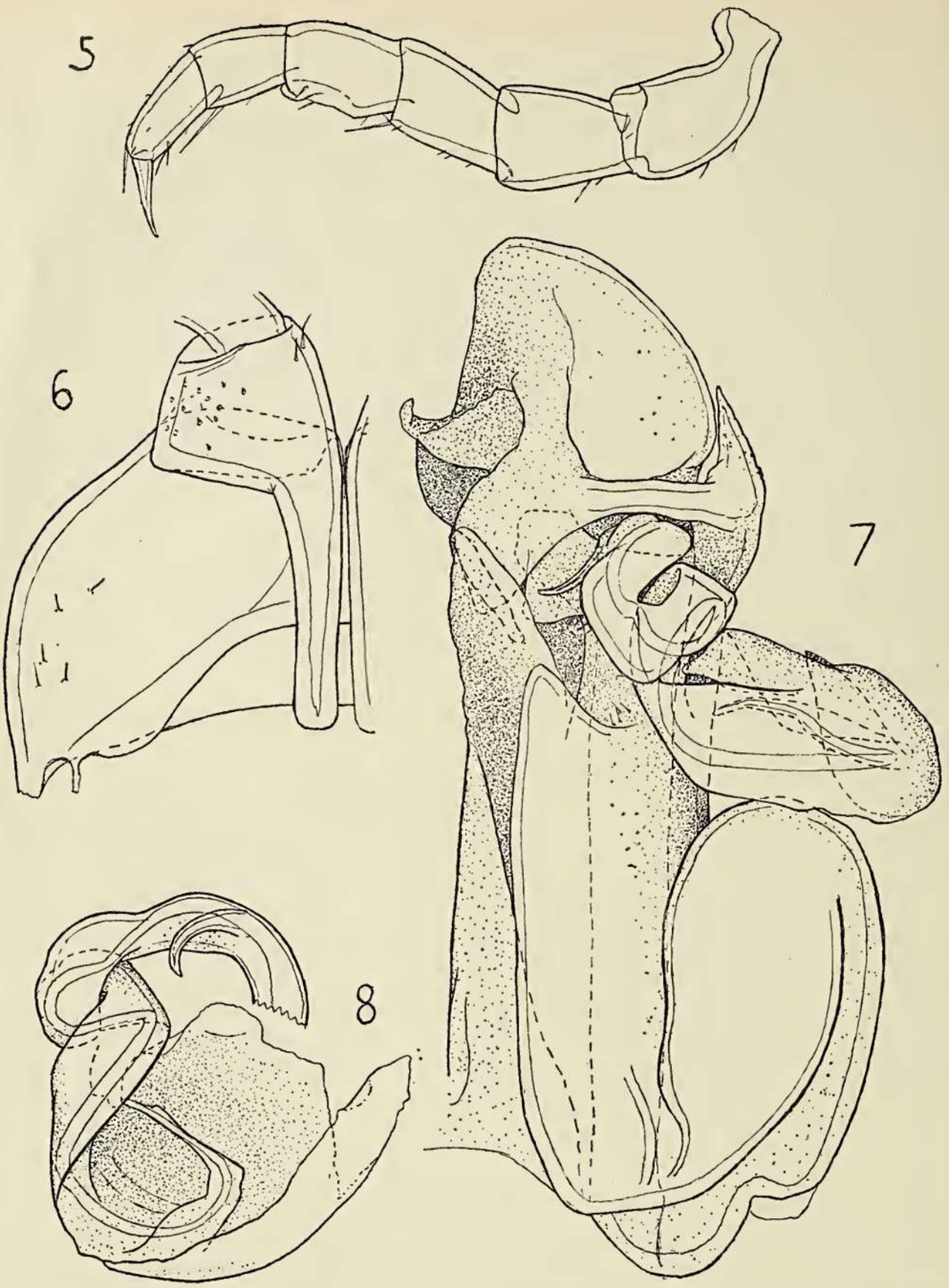

Fig. 5. *Orthoporus neglectus* (Porat), postgenital leg of male from the anterior part of the body. — Fig. 6. id., left part of coxosternum and praefemur of left leg of the first pair of the male, anterior view. — Fig. 7, id., right gonopod of male, anterior view. — Fig. 8. id., telopodite of left gonopod of male.

racteristically shaped, having as they do an extremely long and slender process, which is not bent in a cephalad direction. The medial sides of the praefemora are subparallel to each other. Coxosternum with a few dispersed tiny hairs at each side of the anterior surface. The latero-distal margin weakly convex.

G o n o p o d s (Fig. 7—8) with coxal part very complicated. Paracoxite large, $^2/_5$ of the length of the entire coxite. Distad of the middle the telo-

coxite is on its medial side rather deeply, obliquely incised, an incision which is visible only from a caudal view. Distad of this incision it has a hyaline folded blade on the medial side, and a proximally directed lobe arising from the anterior side, the end of which is overlapped by a blade which arises proximad of the incision. The latero-distal part of the telocoxite is more or less inflated. Distad of the opening through which passes the telopodite there is a strong transverse ridge, which ends laterally in a process the tip of which is acutely pointing distad. Pargonocoel with a triangular lappet on the medial side, somewhat distad of the middle. Medio-distal end of pargonocoel produced in two triangular lappets, the ends of both of which are concealed by the two lappets which arise on each side of the incision of the telocoxite. Around the opening which is enclosed by the processes on the medial and medio-distal side of the pargonocoel a number of tiny bristles. Telopodite of the usual *Orthoporus*-type, ending in a thin conchiform blade, on the inner side of which arises the solaenomerite. Just distad of the knee of the telopodite a small basal spine.

O. neglectus is referred here to *Orthoporus* Silvestri 1897 and not to *Scaphiostreptus* Brölemann 1902, although the presence of a basal process on the telopodite is exactly the character by which the latter genus is separated from *Orthoporus*. Since the generic value of this character is highly disputable, as I hope to prove in a forthcoming paper, I refer *neglectus* to *Orthoporus*, realising, however, that this species presents enough characters which would justify the creation of a new genus.

Amsterdam, Zoölogisch Museum, Afd. Entomologie, Zeeburgerdijk 21, August 1951.

Araschnia levana L. Op 16 en 17 Augustus 1951 ving ik op twee ca. 3 km uit elkaar liggende terreintjes in Vorden 5 *Araschnia*'s. Ondanks de regenachtige zomer kreeg ik de indruk, dat deze vlinder vrij gewoon was. Ik nam nog wel zeker 3 exx. te Vorden waar die ik niet ving, ook in diezelfde week. Vooral Buddleia werd bevlogen.

C. J. VERHEY, Bleyenburgstr. 8, Dordrecht.

Araschnia levana L. Willen zij, die op het ogenblik overwinterde poppen hebben, de niet uitkomende exemplaren vooral niet opruimen, doch bewaren, en zien of er later in het jaar wat uitkomt ? Ik houd me dan zeer aanbevolen voor een mededeling welke vorm uit die pop kwam. — Lpk.

Vroege Maartmaand. Reeds 4 Maart 1952 vloog in Artis een *Bombus lapidarius* L. en 5 Maart een *Bombus terrestris* L.

G. KRUSEMAN, Zeeburgerdijk 21, Amsterdam-O.

Cat. Ned. Macrolep. Nog verkrijgbaar bij de Bibliotheek, Zeeburgerdijk 21, Amsterdam-O., deel VIII, IX en X, à f 3.50. Zij, die deel IX bestelden, doch niet meer ontvingen, worden verzocht hun bestelling te herhalen, daar nog een aantal exx. aanwezig blijken te zijn.