

DIPLOPODA COLLECTED BY THE SOVIET ZOOLOGICAL EXPEDITION TO THE SEYCHELLES ISLANDS IN 1984

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A collection of Diplopoda from the Seychelles has turned out to comprise 31 species, of which six are new to science: *Rhinotus densepilosus* sp. n., ?*Spirobolellus simplex* sp. n., ?*Eucartia mauriesi* sp. n., ?*E. hoffmani* sp. n., *Sechelleptus unilineatus* sp. n. and *Diglossosternoides curiosus* gen. et sp. n. Besides, *Dactylobolus* gen. n. has been erected for *Spirobolus bivirgatus* KARSCH, 1881 and *Mystalides pumilus* ATTEMS, 1910. Three (pan)tropical antropochores are new to the Seychelles fauna: *Rhinotus purpureus* (POCOCK, 1894) (= *Orsilochus acuticonus* ATTEMS, 1910, = *Paraburenia insulana* VERHOEFF, 1939, both syn. n.), *Pseudospirobolellus avernus* (BUTLER, 1876) and *Hypocambala helleri* SILVESTRI, 1897. *Solaenobolellus* HOFFMAN, 1981 has been formally synonymized under *Benoitulus* MAURIÈS, 1980, syn. n. *Sechelliosoma* MAURIÈS, 1980, originally proposed as a subgenus of *Cyliosomella* VERHOEFF, 1924, has been elevated to full generic status. A brief zoogeographical analysis of the millipede fauna of the Seychelles (41 species, at least 27 genera, 15 families, and 8 orders) shows the fauna to be a bon mélange of elements of various origins, with Malagasy influence being the strongest, but also with a pronounced participation of Southeastern Asian and Australian (together with Papuan) components. With 54 figures.

Introduction — Upon an agreement between the government of the Republic of Seychelles and the Soviet Union, as a Soviet contribution to the “Man And Biosphere” program, Project No. 7: “Natural Resources of Islands and their Rational Use”, on board the research vessel “Akademik Alexandr Vinogradov”, in July—August of 1984 a team of Soviet zoologists visited several islands of the Seychelles Republic. The soil biologists Drs S. I. GOLOVATCH, L. B. RYBALOV, A. A. ZAKHAROV, G. M. DLUSSKY (all from Moscow), and L. FILATOVA (Vladivostok) managed, among other soil/litter invertebrates, a good number of millipedes. The purpose of the present paper is to put on record this fine collection. Besides, a sample containing another new species and belonging to the collection of the Zoological Museum of the University of Copenhagen, has been incorporated in our study.

The Seychelles fauna of Diplopoda may be considered as being fairly well-known. Since MAURIÈS (1980a) has already given a complete historical of explorations of the Seychelles millipede fauna, we need not repeat it here. Moreover, MAURIÈS (1980a) provided a full list of the millipedes encountered in that archipelago, as well as presented descriptions of several new taxa and redescriptions of a few poorly known species. Altogether, not fewer than 28 millipede species have hitherto been reported from the Seychelles. Of them,

21 have been rediscovered in the fresh samples at hand, additional 6 appear to be new to science, and 4 more (incl. a *Lophoturus* sp.) new to the fauna of the Seychelles. The material comprising 31 species is mainly deposited in the Zoological Museum of Moscow State University, Moscow (ZMMU), some part has been shared with and/or returned to the Zoological Department of the Hungarian Natural History Museum, Budapest (HNHM), the Senckenberg-Museum, Frankfurt/M. (SMF), and the Zoological Museum of the Copenhagen University, Copenhagen (ZMUC). At the locality data, when otherwise not stated, the collector is the USSR Zoological Expedition.

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POLYXENIDA

Lophoproctidae

Lophoturus sp. — Locality: Aldabra, Assumption Atoll, in litter, 12–14. VIII. 1984, 1 ♀ (ZMMU).

Remarks: This species appears to be the first representative of the entire order Polyxenida in the Seychelles millipede fauna. Other congeners are known to be widespread on numerous, even the most remote, archipelagos within the tropical belt (see HOFFMAN 1979). With only one damaged specimen at hand, more material is necessary to establish the identity of the above species.

SPHAEROTHERIIDA

Sphaerotheriidae

Sechelliosoma forcipatum (BRÖLEMANN, 1896) — Localities: Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 1 ♂, 1 ♀ and 3 juveniles (ZMMU), 1 ♂ (HNHM). — Silhouette Isl., above La Passe, 2 km E of Mt. Pot-à-Eau, 500 m, tropical mist forest on ridge, 24–25. VIII. 1984, 1 ♂ and 2 ♀♀ (ZMMU). — Félicité Isl., 26–29. VIII. 1984, 1 ♀ and 1 juvenile (ZMMU). Same locality and date, *Calophyllum* forest, 1 ♀ and 1 juvenile (ZMMU). — Material examined: 13 specimens.

Remarks: This species, believed to be endemic to some granitic islands of the Seychelles, has been adequately redescribed and redepicted (as *Cyliosomella forcipatum* — sic!) by MAURIÈS (1980a), who even erected for it a separate subgenus, *Sechelliosoma*. The material at hand fully agrees with the species concept.

The whole combination of the features given by MAURIÈS for his *Sechelliosoma* seems to be very convincing and quite sufficient for allotting *Sechelliosoma* a full generic status.

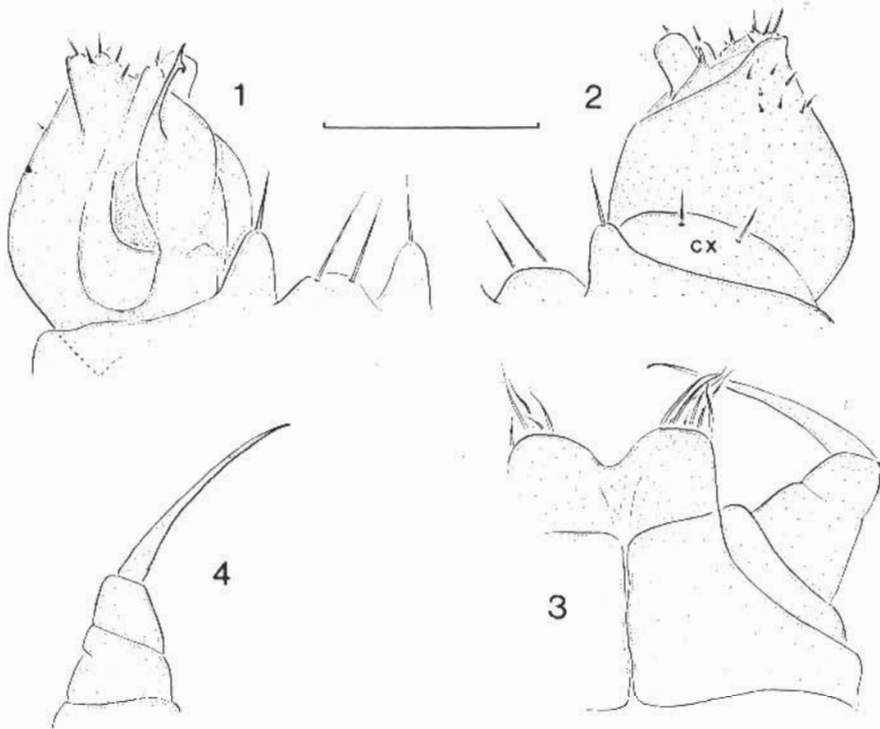
POLYZONIIDA

Siphonotidae

Rhinotus vanmoli MAURIÈS, 1980 — Localities: Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 2 ♂♂ and 1 ♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM). — Silhouette Isl., tropical mist forest on ridge, above La Passe, 400 m, on fruits of *Labinia*, 24–25. VIII. 1984, 1 ♀ (ZMMU). — Material examined: 6 specimens.

Remarks: Like *R. crassiceps* (ATTEMS, 1900), this species has two transverse rows of fine, delicate setae, sometimes varying in length from relatively short to short, but the colouration of the sample at hand is uniformly whitish to yellowish. The gonopods show quite a close resemblance with those depicted and described by MAURIÈS (1980a) from the types derived from Silhouette Island. The only difference concerns the presence of a strongly reduced coxite of the anterior gonopods, traceable from the frontal side. This coxal remain carries a couple of strong setae, like in *R. purpureus* and in the new species below (Figs 1–7).

Rhinotus purpureus (POCOCK, 1894) (Figs 1–4) — **Localities:** Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 1 ♂ and 1 ♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM). Same locality, Brilliant near Victoria, secondary tropical forest, 30. VIII. 1984, 1 ♂ (ZMMU). — Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5–9. VIII. 1984, 2 ♂♂, 6 ♀♀ (ZMMU), 1 ♂ and 1 ♀ (ZMUC). Same locality and date, in rotten wood, 1 ♂ (ZMMU). Same locality, coconut plantation near soil section, 8. VIII. 1984, leg. L.B. RYBALOV et S.I. GOLOVATCH, 2 ♂♂, 8 ♀♀ and 1 juvenile (ZMMU). — Farquhar Atoll, under *Ficus bengalensis*, 16–19. VIII. 1984, 1 ♂ and 2 ♀♀. Same locality and date, under *Hernandia*, 2 ♀♀. Same locality and date, coconut plantation, under bark, 1 ♂. Same locality, coconut plantation with herbs, ferns & *Tournefortia*, profile 5, site 17, 18. VIII. 1984, leg. L.D. FILATOVA, 2 ♂♂ and 1 ♀. Same locality, a model of soil population in the gradient forest (*Calophyllum*) — coco with *Fimbristylis*, middle part, ca. 250 m offshore from lagoon, 18. VIII. 1984, leg. L.D. FILATOVA, 1 ♀. Same locality, young coconut plantation ca. 150–200 m offshore and N of settlement, with grassland of *Stenotaphrum complanatum*, 16. VIII. 1984, leg. L.B. RYBALOV, 1 ♂ and 1 ♀. Same locality, *Scaevola* bush with sparse coco palms and *Casuarina* trees on lagoon sand embankment ca. 50–70 m off settlement, 17. VIII. 1984, leg. L. B. RYBALOV, 2 ♂♂. Same locality, pitfall traps, line 3, under *Scaevola*, 16–19. VIII. 1984, 1 ♂ and 2 ♀♀. Same locality, under *Scaevola*, singled



Figs 1–4. *Rhinotus purpureus* (Pocock, 1894): 1–3 = a male from Silhouette Island. 1 = anterior gonopods, frontal view, 2 = anterior gonopods, caudal view, 3 = posterior gonopods. — 4 = telopodite of the left posterior gonopod of a male from Farquhar Atoll. Scale 0.1 mm.

1 ♂ and 1 ♀ (all ZMMU). — Silhouette Isl., tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 2 ♂♂ and 1 ♀ (ZMMU). Same locality and date, 400 m, in rotten *Labinia* fruits, 1 ♀ (ZMMU). — Material examined: 51 specimens.

Remarks: An account of the species name history and its geographical distribution was given by MAURIÈS (1980b). It was originally described from Africa (POCOCK 1894), where it had probably been introduced, and subsequently frequently reported from the native area of the species: Central America, Caribbean Islands, etc. Its occurrence in the samples at hand represents now a species new to the fauna of the Seychelles. In the western part of the Indian Ocean the same species has been reported as *Orsilochus acuticonus* ATTEMS, 1910 (Madagascar) and *Paraburenia insulana* VERHOEFF, 1939 (Mauritius), both syn. n. (s. ATTEMS 1910, VERHOEFF 1939).

Being an obvious introduction, *R. purpureus* demonstrates a vast distribution in the Seychelles. It occurs both in the seminatural conditions of a mist indigenous forest on granitic islands (Silhouette) and in the evidently deteriorated habitats on granitic islands (Mahé, botanical gardens) and atolls (Poivre, Farquhar).

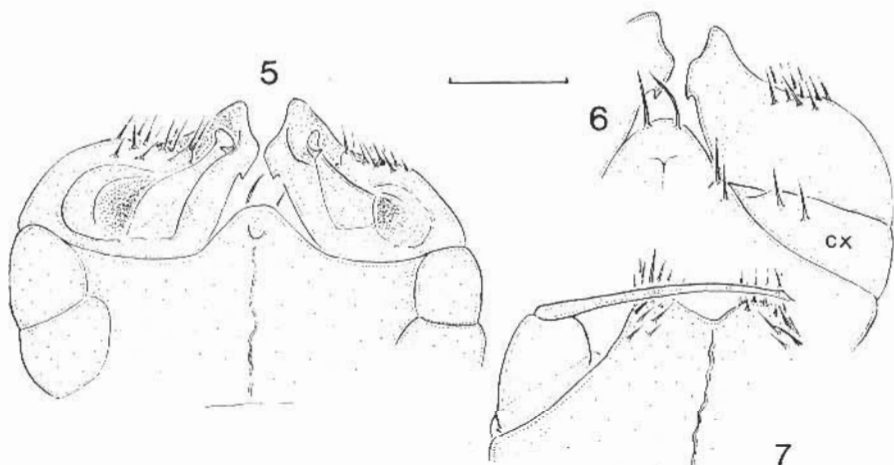
Rhinotus densepilosus sp. n.

(Figs 5–7)

Localities: Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 1 ♂ (holotype). — Silhouette Isl., mist mountainous tropical forest on top of the profile, above La Passe, 560 m, 25. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♂ and 1 juv. ♂. — Material examined: 3 specimens. — Holotype male and 1 juv. male paratype are deposited in ZMMU, 1 male paratype in HNHM.

Description: Length ♂♂ 8–9 mm, juv. 4 mm, midbody width ♂♂ 0.8–0.9 mm, juv. 0.5 mm, number of segments excluding telson 47–48 (♂♂) and 25 (juvenile).

Coloration: Holotype in alcohol marble brownish, with a wide, rather, irregular yellowish-whitish axial stripe on dorsum everywhere but pygidium, which is dark brown. Legs and head (but not antennae) yellowish. Paratype



Figs 5–7. *Rhinotus densepilosus* sp. n., holotype male from Mahé Island: 5–6 = anterior gonopods, frontal and caudal views, respectively, 7 = posterior gonopods. Scale 0.1 mm.

male much paler, uniformly yellowish, but with traces of a whitish axial stripe on dorsum, entire pygidium dark brown.

Eyes rudimentary, blackish: one single big ocellus on each side, antennae very short and clavate, rostrum about two thirds as short as antennae. Ozopores begin from segment 5, where lie evidently more ventrad than on subsequent terga, about midlength of metasomite. Pubescence somewhat shorter to very short, in numerous irregular rows, externally reminding of *Siphonophora*; a couple of strong hairs on vertex. Pilosity in paratype very dense, irregular, relatively long, very fine, the hairs at least in five rows.

Gonopods: Anterior gonopods very much like in *R. crassiceps* (ATTEMS, 1900), but medial sternal elevation carries only a single pair of strong setae (Figs 5—6), coxite traceable on aboral side (*cx* in Fig. 6, like in, e.g., *R. purpureus*), and telopodite stronger subsecuriform distally than in *crassiceps*. Posterior gonopods (Fig. 7) especially abundantly setose on paramedian sternal elevations, telopodite appears to be only two-jointed.

Remarks: This species is marked by its fine, dense and highly irregular pilosity of the metaterga, as well as by certain particulars of the gonopod structure.

SPIROBOLIDA

Spirobolellidae

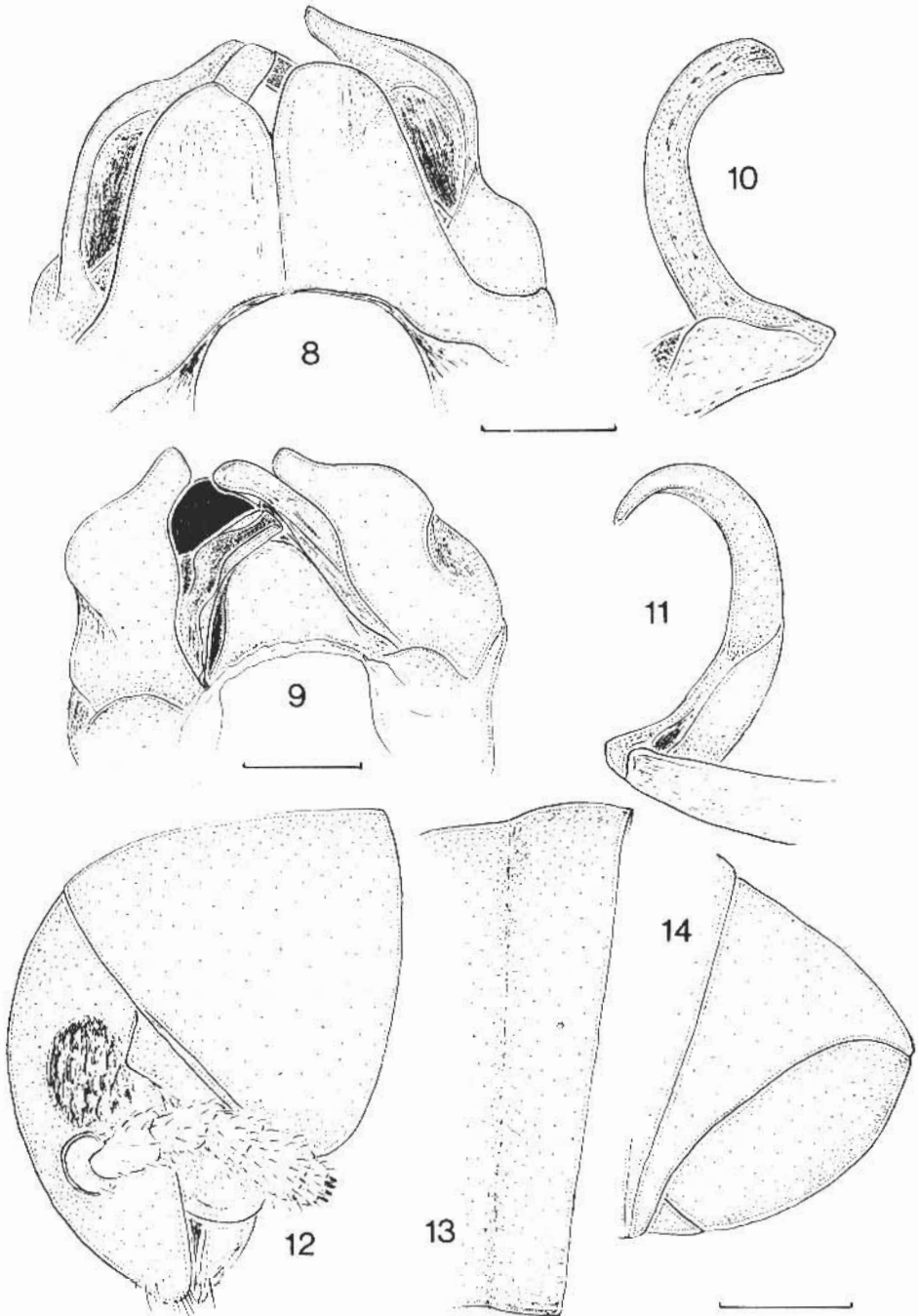
Paraspirobolus dictyonotus (LATZEL, 1895) — Localities: Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5—9. VIII. 1984, 21 ♂♂, 22 ♀♀ and 9 juveniles (ZMMU). Same locality and date, in *Casuarina* litter, 2 ♂♂, 5 ♀♀ and 2 juveniles (ZMMU). Same locality, in rotten wood, 5. VIII. 1984, 13 ♂♂, 12 ♀♀ and 5 juveniles (ZMMU). Same locality, coconut plantation with grass and many coco shells, ca. 350 m S of settlement and 70 m off lagoon coast, 6—7. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 9 ♂♂, 9 ♀♀ and 3 juveniles (ZMMU). Same locality, coconut plantation with single *Scaevola* bushes and herb *Sparobolus*, coastal embankment, 6. VIII. 1984, leg. L. D. FILATOVA, 1 ♀ (ZMMU). Same locality, coconut plantation with *Scinerus*, grazed patch, 6. VIII. 1984, leg. L. D. FILATOVA, 2 ♂♂ and 1 juvenile (ZMMU). Same locality, coconut plantation with ferns and herb *Stenotaphrum*, 7. VIII. 1984, leg. L. D. FILATOVA, 8 ♂♂, 29 ♀♀ and 7 juveniles (ZMMU). Same locality and date, coconut plantation with *Leucena* fragments, ferns, *Tournefortia*, leg. L. D. FILATOVA, 1 juvenile (ZMMU). Same locality, coconut plantation with *Calocasia* and ferns, 8. VIII. 1984, leg. L. D. FILATOVA, 31 ♂♂, 16 ♀♀ and 19 juveniles (ZMMU), 3 ♂♂ and 3 ♀♀ (HNHM), 2 ♂♂ and 2 ♀♀ (SMF), 2 ♂♂ and 2 ♀♀ (ZMUC). Same locality, singled, 22 ♂♂, ♀♀ and juveniles (ZMMU). Same locality, coconut plantation near soil section, 8. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 3 ♂♂, 11 ♀♀ and 2 juveniles (ZMMU). — Farquhar Atoll, singled, 16—19. VIII. 1984, 1 juvenile (ZMMU). — Silhouette Isl., strand *Calophyllum* and coco forest, fern *Polypodium sphagodes* and herb *Stenotaphrum complanatum* on sand ca. 5—10 m offshore, 25. VIII. 1984, leg. L. B. RYBALOV, 1 juvenile (ZMMU). — Material examined: 280 specimens.

Remark: A species widespread through commerce, it has already been reported from the Seychelles (ATTEMS 1900, MAURIÈS 1980a).

?*Spirobolellus simplex* sp. n.

(Figs 8—14)

Locality: Praslin Isl., I. IV. 1951, leg. Galathea Expedition, 1 ♂ (holotype) and 1 ♀ (paratype). — Material examined: 2 specimens, both in poor condition. — Holotype male and paratype female are deposited in ZMUC.



Figs 8—14. ?*Spirobolellus simplex* sp. n., holotype male from Praslin Island: 8—9 = coleopods frontal and caudal views, respectively, 10—11 = phallopod telopodite. Scale 0.2 mm. — 12 = head and collum, 13 = a midbody ring, 14 = caudal end of body. Scale 0.4 mm.

Description: Length ca. 16 mm (holotype male), and ca. 21 mm (paratype female), width on midbody 1.0 and 1.6 mm, respectively. Body with 34 (–2) and 36 (–1) segments, including telson.

Coloration: Black-brown, metazona marbled and translucent; starting from somites 4–5 dorsum with a paramedian pair of rather wide, pale brownish stripes divided by a similarly wide, blackish, axial stripe until telson; similar but wider and more obscure, paler stripes also ventro-laterally. At least collum and telson a little paler than body rings. Legs and ventrum brownish, also paler than background.

Eyes black, very flat, with about 20 obscure ocelli in a rounded field on each side of head. Antennae very short, clavate (Fig. 12). Supralabral setae 4+4, labral ones 6+6. Collum regularly rounded laterally, with a thin antero-premarginal stria reaching only to lateral curvature. Ozopores obscure, lying at about midlength of metazona. Metazonital striation very thin, rather sparse, incomplete, more or less oblique, far from reaching ozopore level. Prozonital striation even more obscure and more oblique, hardly traceable but sub-ventrally, sometimes almost reaching ozopore level, but normally far below it. Midbody rings modestly constricted (Fig. 13). Epiproct almost continuing outline of rather convex anal valves (Fig. 14), latter very feebly margined, but without traces of a premarginal sulcus.

Legs very short, normal, only male coxae 3 and, less so, 4 somewhat enlarged, being swollen disto-ventrally.

Gonopods (Figs 8–11): Coleopod with a bimodal, medially divided sternum swollen posteromedially in a single, rounded piece; coxites + telopodites only modestly higher than sternum, apically scapuliform, with inner coxal fold being laminate and somewhat groove-shaped. Phallopods unciform, extremely simple, without any traces of outgrowths or lobes more like in e.g., Pseudospirobolellidae.

Remarks: JEEKEL (1986) recently provided an excellent account of Spirobolellidae, with special reference to the Australian fauna. Since the type-species of *Spirobolellus*, *S. chrysochirus* POCKOCK, 1894 from Sumatra, is known from the female sex only, the assignment of any species to *Spirobolellus* is bound to be highly arbitrary. Still, *Spirobolellus* s. auct. is a very large genus, with no fewer than 11 generic categories enlisted as its subjective junior synonyms and encompassing at the moment over 80 species from the East Indies, Micronesia, Australia, New Caledonia, Central and Northern America, and the West Indies (except Jamaica) (HOFFMAN 1979, JEEKEL 1986).

Accepting *Spirobolellus* as a temporary accommodation for the above new species, the latter's medially divided sternum of the coleopods deserves special attention. As DR. MAURIÈS (in litt.) pointed out, being a rule in certain American spiroboloids (e.g. Messicobolidae), this character occurs extremely rarely amongst the other Spirobolida. There seems to be only a single hitherto

described species vividly resembling ?*S. simplex* sp. n., namely *S. chrysogrammus* (POCOCK, 1894) from Celebes, as depicted by CARL (1912b). The similarity is indeed striking, although the coleopods in ?*S. simplex* sp. n. appear to be somewhat more elaborate, whereas the phallopods more simple than in *S. chrysogrammus* sensu CARL (1912b). Unfortunately, there are serious doubts if CARL really dealt with POCOCK's species. Besides, to further engrave the situation, Spirobolellidae are known to display quite a degree of variability in coleopod morphology when attaining maturity, with penultimate males displaying particularly simple coleopods (see review in JEEKEL 1986). However, judged from the low (2) number of apodous segments in the holotype of ?*S. simplex* sp. n., we believe we face a fullgrown male possessing the gonopods with fully expressed characters.

Pseudospirobolellidae

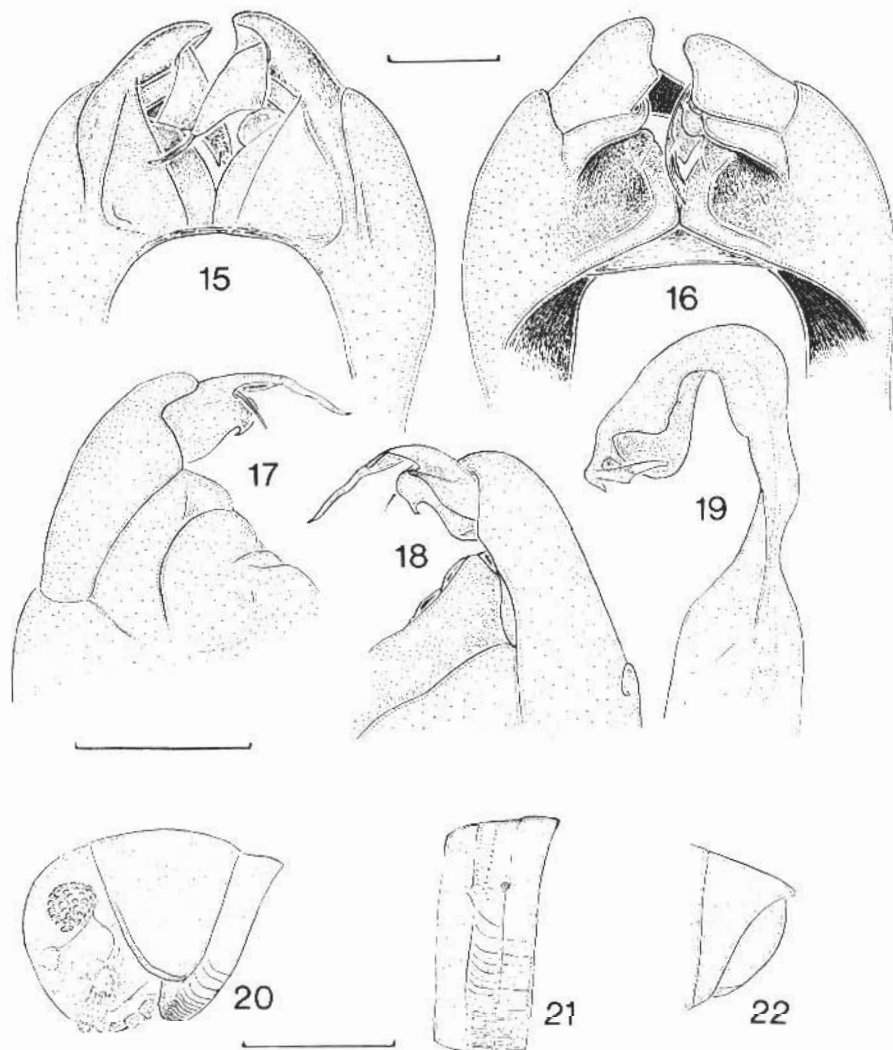
Pseudospirobolellus avernus (BUTLER, 1876). — Localities: Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 1 ♂ (HNHM). — Amirantes, Poivre Atoll, coconut plantation, 5–9. VIII. 1984, 1 ♂ (ZMMU). — Félicité Isl., singled 26–29. VIII. 1984, 1 ♂ and 1 ♀ (ZMMU). — Material examined: 4 specimens.

Remarks: This pantropical species has been discussed and adequately illustrated by HOFFMAN (1981). It has been recorded from different islands in the Indian Ocean (e.g. Comoro, Mauritius), being now new to the fauna of the Seychelles!

Benoitolus flavicollis MAURIÈS, 1980 (Figs 15–22). — Localities: Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 11 ♂♂, 5 ♀♀ and 1 juveniles (ZMMU), 4 ♂♂ and 4 ♀♀ (SMF), 3 ♂♂ and 3 ♀♀ (HNHM), 3 ♂♂ and 2 ♀♀ (ZMUC). Same locality, Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 2 ♀♀ (ZMMU). — Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5–9. VIII. 1984, 5 ♂♂ and 19 ♀♀. Same locality and date, pitfall traps, 85 ♂♂, ♀♀ and juveniles. Same locality, coconut plantation with grass, ca. 300 m S of settlement, 6. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 295 ♂♂, ♀♀ and juveniles. Same locality, coconut plantation with grass and many coco shells, ca. 350 m S of settlement and 70 m off lagoon coast, 6–7. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 589 ♂♂, ♀♀ and juveniles. Same locality, coconut plantation near soil section, 8. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 594 ♂♂, ♀♀ and juveniles. Same locality, *Cocos nucifera* plantation, rotten wood, 6 ♂♂, 7 ♀♀ and 1 juvenile (all ZMMU). Silhouette Isl., La Passe, 25 m a.s.l., under bark of *Cocos* log, 22. VIII. 1984, 1 ♂ and 3 ♀♀. Same locality, near La Passe, 150 m, 22–25. VIII. 1984, 4 ♂♂, 1 ♀ and 1 juvenile. Same locality, *Cocos* plantation on sandy terrace with *Stenotaphrum complanatum*, pitfall traps, 23–25. VIII. 1984, 3 ♂♂, 5 ♀♀ and 2 juveniles. Same locality, tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 1 ♂ and 3 ♀♀. Same locality, lower forest border with single coco palms, grass *Asistacia* and *Oplismenus*, trees *Cinnamomum*, *Latania*, *Mangifera*, bush *Tabebuia*, slope 15–20°, 60–70 m a.s.l., E exposition, 24. VIII. 1984, leg. L. B. RYBALOV, 2 ♂♂ and 1 ♀ (all ZMMU). — Praslin Isl., along road to and nearby Vallée-de-Mai, litter, 29. VIII. 1984, 1 ♀ and 5 juveniles. Same locality and date, sifted litter, 3 ♂♂ and 3 ♀♀ (all ZMMU). — No label, 1 ♀ (ZMMU). — Material examined: 1679 specimens.

Remarks: MAURIÈS (1980a, in litt.) described and illustrated his *B. flavicollis* not quite fully, probably due to the limited material he had at his disposal. The abundant samples at hand allow to correct and complete the species variability range quite significantly. Thus at least in Mahé one can notice considerable deviations in both tergal striation and phallopod con-

formation. Sometimes the collar striae do not extend too much laterally, the body rings' striation is situated rather far below the ozopore level, and the phallopod is relatively slender on the apical third, i.e. close to what MAURIÈS (1980a) noted in the original description. The other extreme in the variation range seems to be especially well represented by Poivre samples (Figs 15—22), often less so by Mahé and Silhouette, when the collar stria practically reaches the caudal margin, the striation on the body rings extends much higher and



Figs 15—22. *Benoitolus flavicollis* MAURIÈS, 1980, a male from Poivre Atoll: 15—16 = coelopods, caudal and frontal views, respectively, 17—19 = left phallopod, frontal, caudal and postero-lateral views, respectively. Scale 0.2 mm. — 20 = head, collum, and first body ring, 21 = a midbody ring, 22 = caudal end of body. Scale 1.0 mm.

almost reaches the ozopore level, behind the suture dividing pro- and mesozona there are two subparallel rows of obscure sigilla starting from about the ozopore level and crossing the entire dorsum, and the phallopod is somewhat thicker and bigger in its distal third. DR. MAURIÈS (in litt.) also advised us that his original illustrations are wrong in showing the collar stria so rudimentarily, and the metazonal striation so low. Our drawings (Figs 15–22) are meant to complete MAURIÈS' (1980a) otherwise good descriptions.

The species has been observed as remarkably abundant on Poivre Atoll, Amirantes, being there a millipede superdominant. As obviously endemic to the Seychelles and most probably originated on the granitic islands, *B. flavicollis* displays, besides the surprisingly pronounced variation range discussed above, a very clear tolerance to synanthropization. We may even predict that, given a chance, it might become some day well established on numerous other oceanic atolls of the tropical belt.

HOFFMAN (in litt.) suggests that his *Solaenobolellus*, a monobasic genus erected for *S. birgitae* HOFFMAN, 1981 from Thailand, is probably nothing else but a junior synonym of *Benoitolus*. Indeed, the similarity between the two genera/species concerned is striking enough to agree with his opinion, with *Benoitolus* having a year's priority over *Solaenobolellus* (syn. n.). Differences between both species, however, are unquestionably strong enough to keep them separate, in particular due to the presence of sole pads, somewhat slenderer phallopods, distally less clear-cut telopodite of the coleopods in *B. birgitae* (comb. n.).

With the above synonymy confirmed, we think it also appropriate to reallocate *Benoitolus* within Pseudospirobolellidae, following HOFFMAN (1981). Besides, MAURIÈS (1980a) also admitted the somewhat arbitrary placement of his *Benoitolus* within Spirobolellidae, regarding the alternative Pseudospirobolellidae plausible as well.

As a result, *Benoitolus* may be regarded as a genus more probably south-eastern Asian than Seychellean in origin, thus providing another good example of ancient zoogeographic connections between the millipede faunules of Southeast Asia and the Seychelles.

Pachybolidae

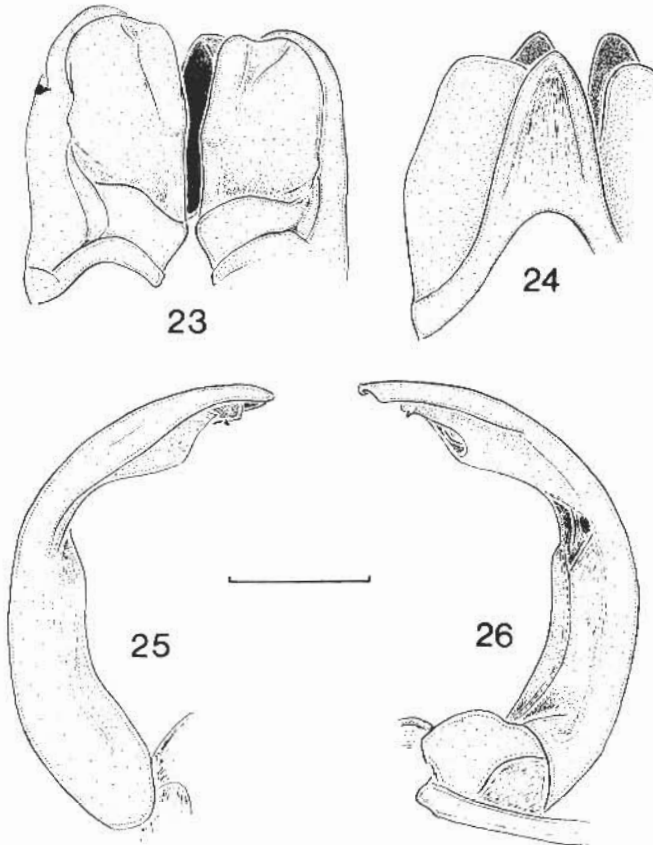
?*Eucarlia urophora* (POCOCK, 1893) (Figs 23–26). — Localities: Aldabra¹ Assumption Atoll, 12–14. VIII. 1984, 1 ♂ (ZMMU). — Silhouette Isl., tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 1 ♀ (ZMMU). Same locality and date, 480 m a.s.l., leg. L. D. FILATOVA, 1 ♂ (ZMMU). Same locality, in forest of *Albinia*, 24. VIII. 1984, leg. L. D. FILATOVA, 1 ♂ and 3 ♀♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM). — Material examined: 9 specimens.

Remarks: This poorly known species originally described from Mahé (POCOCK 1893) from a single female has since been only once adequately re-described and illustrated (ATTEMS 1900) sub *Trigoniulus urophorus*. Later, when

splitting the obviously too commodius *Trigoniulus*, ATTEMS (1938, 1953) referred this species to *Eucarlia* s. str. MAURIÈS (1980a) practically agreed with this reallocation, although with reservations, as *Eucarlia* (?) *urophorus* (sic!).

The new samples at hand appear to be somewhat different from what ATTEMS (1900) depicted, in particular the phallopod (Figs 25—26) does not have any proximal mesial branch ("H" in Fig. 35, ATTEMS 1900). Due to this, the resemblance with *Eucarlia* (the type-species *Trigoniulus velox* CARL, 1912 from the Aru and Kei Islands) becomes especially clear at least in phallopod conformation.

If those small differences (cp. Figs 34—36 in ATTEMS 1900 and our Figs 23—26) are not an artifact, and actually two different species possessing the dramatically curved epiproct inhabit the Seychelles, we face a dilemma, for ATTEMS' (1900) assignment of his samples to *urophorus* is no less arbitrary



Figs 23—26. ?*Eucarlia urophora* (Pocock, 1893), a male from Assumption Atoll: 23—24 = coxopods, caudal and frontal views, respectively, 25—26 = phallopod telopodite.
Scale 1.0 mm.

than ours, same as synonymization of "Spirobolus" *curvicauda* de SAUSSURE et ZEHNTNER, 1897, from Madagascar, under "Spirobolus" *urophorus* (s. SAUSSURE & ZEHNTNER 1902).

Another difficulty arises from the fact that practically the entire classification of Pachybolidae is a real mess. Prior to a thorough revision of this family, almost any generic allocation ought to be understood as temporary. In HOFFMAN's (1979, in litt.) opinion, the name *Eucarlia* should be retained solely for the Papuan species having the deeply indented distal edge of the coleopod telopodite as in *velox* and a few others. However, if one uses this highly stringent definition of *Eucarlia*, a lot of forms from the East Indies and elsewhere would have to be merged/remerged with the big lump which represents nowadays the genus *Trigoniulus*. Therefore, we prefer rather to somewhat broaden the concept of *Eucarlia* stressing the complete absence of a distinct solenophorous branch on the phallopod as the only guideline feature. So redefined for the time being, *Eucarlia* appears to incorporate several Seychelles pachybolids, including *urophora*, although with inevitable qualifications.

?*Eucarlia mauriesi* sp. n.

(Figs 27—33)

Locality: Silhouette Isl., tropical mist forest on ridge, above La Passe, 540—590 m, 24—25. VIII, 1984, 4 ♂♂, 6 ♀♀ and 1 juvenile, 1 ♂ and 1 ♀♀. — Material examined: 13 specimens. — Holotype male, 3 male, 6 female and 1 juvenile paratypes are deposited in ZMMU, 1 male and 1 female paratypes in HNHM.

Etymology: The species name honours DR. J.-P. MAURIÈS (Paris), prominent specialist in Diplopoda, whose contributions to the Seychelles fauna served us as the main guideline (MAURIÈS 1980a).

Description: Length ca. 32—39 (♂♂) and 35—46 mm (♀♀), width 4.0—4.4 (♂♂) and 4.6—6.5 mm (♀♀). Holotype ♂ ca. 39 mm long and 4.4 mm wide. Number of segments excluding telson 44(0), 46(0) and 50(0) (♂♂, last the holotype) and up to 47—50(0) (♀♀).

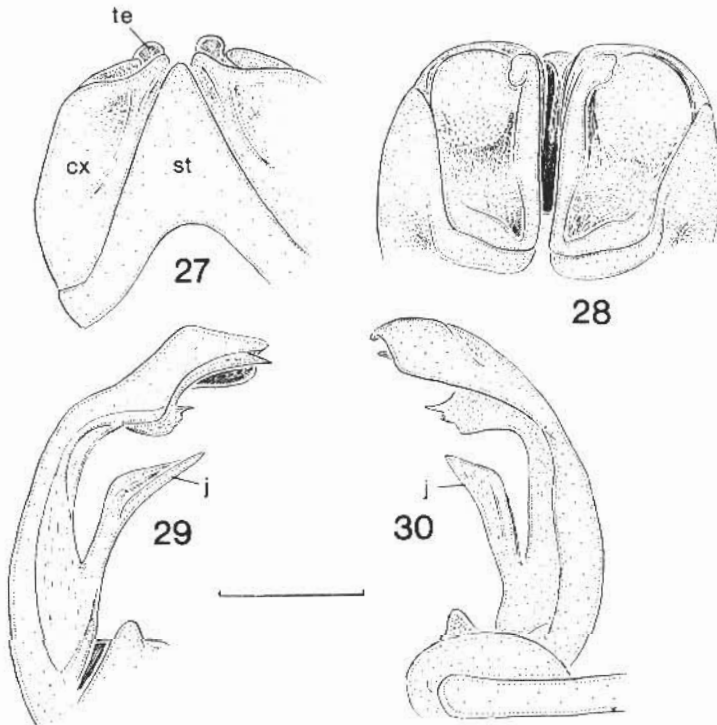
Coloration: Holotype orange-pinkish, with a broad (narrow only on collum), uniformly orange, axial stripe, sides (dark) grey-brown, very modestly annulated due to darker pinkish metazona, closer to and on ventrum gradually turning pale orange, antennae pinkish(-yellowish), legs orange(-yellowish). Paratypes same, sometimes a little more or less bright.

Body cylindrical, anterior postcollar constriction absent, body parallel-sided from collum until last 8—10 somites whereupon rather rapidly attenuating. Antennae relatively slender (Fig. 31), long, apically with four normal sensory cones. Cheeks moderately excavated for antennae to hinge into. Eyes (blackish-)brown, somewhat underdeveloped, about 20 indistinct ocelli in a relatively small, rounded ocular field on each side of head. Frontal suture distinct. Labrum typical, deeply notched, with three medial teeth. Labral setae

6—7+6—7, supralabral setae 2+2, very widely separated on each side. Collum (Fig. 31) laterally normally rounded, stria along anterior margin well-developed, reaching to caudal margin. Surface generally smooth, dull. Metazonital striation rather dense and regular ventrad, tending to grow less regular toward pore-level, with traces sometimes even above pores (Fig. 32); prozonital striation extremely delicate, net-like, oblique, better expressed ventrad and closer to suture between pro- and metazona. Latter suture very poorly developed, almost no constriction, traceable rather as a row of minute sigilla crossing entire dorsum. Tergal limbus practically even, devoid of crenulation. Ozopores inconspicuous, lying in very shallow excavations just behind/at suture, starting from somite 6. Epiproct (Fig. 33) practically wanting, anal valves with a very modest sulcus along margin.

♂♂ legs rather short, stout, pregonopodal coxae ventrally somewhat swollen, more so on pairs 3—4, tarsi of holotype with evident sole pads until the last body quarter, sometimes absent, claws very long, curved, dorsally with a spiniform seta at base, all podomeres sparsely setose.

Gonopods: Coleopods (Figs 27—28) with subtriangular, relatively narrowly rounded sternum (*st*) almost as high as coxites (*cx*), latter subtending



Figs 27—30. ?*Eucarlia mauriesi* sp. n., a paratype male from Silhouette Island: 27—28 = coleopods, frontal and caudal views, respectively, 29—30 = phallopod telopodite. Scale 1.0 mm

subquadrate telopodites (*te*); latter with prominent, pubescent swellings on distal half, mesially with rounded ridges turning into thumb-shaped processes at tip. Phallopods (Figs 29–30) unusual in having a strong, lobe-shaped, parabasal, mesial process (*j*) proximad of rather inconspicuous solenophorous part.

Remarks: Differs primarily by the characteristic shape of the phallopod, particularly by its parabasal process and distal fringes.

?*Eucarlia hoffmani* sp. n.

(Figs 34–40)

Localities: Farquhar Atoll, coconut plantation with herbs, ferns and *Tournefortia*, profile 5, site 7, 18. VIII. 1984, leg. L. D. FILATOVA, 10 juveniles and 1 fragment. Same locality, sparse coconut plantation with fragments of *Scaevola*, profile 5, site 23, 17. VIII. 1984, leg. L. D. FILATOVA, 1 ♀ and 5 juveniles. Same locality, *Cocos*, profile 5, site 11, 18. VIII. 1984, leg. L. D. FILATOVA, 13 juveniles and 1 fragment. Same locality, *Scaevola* bush with sparse coco palms and *Casuarina* trees on lagoon sand embankment ca. 50–70 m off settlement, 17. VIII. 1984, leg. L. B. RYBALOV, 1 ♀ and 10 juveniles. Same locality, coconut plantation with some *Casuarina* trees ca. 100 m W offshore & 0.5 km S of settlement. 16–17. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♂ (holotype), 3 ♀♀, 2 juv. ♂♂, and 12 juveniles. — Without number, 1 ♀ and 1 juv. ♂ (HNHM), 3 juveniles (ZMMU). — Material examined: 63 specimens. — Holotype male, 5 female and 55 juvenile paratypes are deposited in ZMMU, 1 female and 1 juv. male paratype in HNHM.

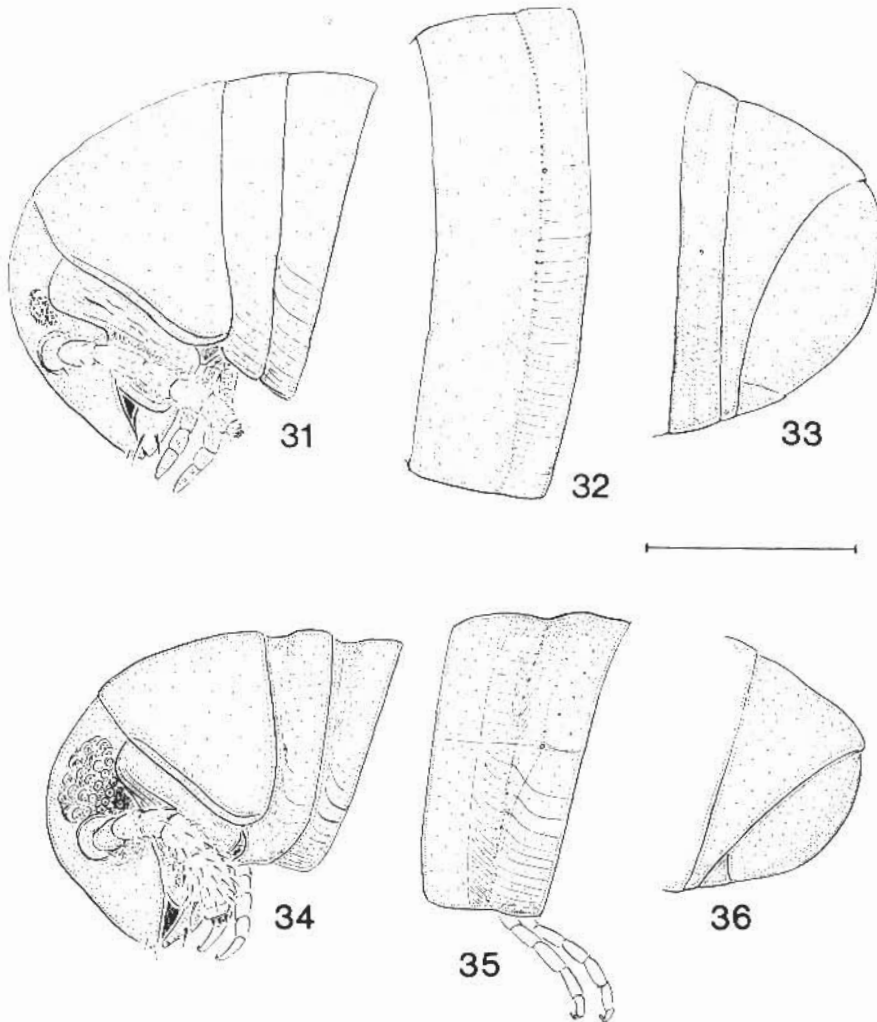
Etymology: The species name honours PROF. RICHARD L. HOFFMAN, father of modern diplopodology, whose help and encouragement are noteworthy.

Description: Length of adults and subadults 18–19 (♂♂) and 19–23 mm (♀♀), width 1.4–1.5 (♂♂) and 1.8–1.9 mm (♀♀). Holotype ca. 19 mm long and 1.5 mm wide. Number of segments of both adults and subadults (without telson) 36–38, holotype with 37(0) body rings.

Coloration: Holotype rather uniformly dark grey-brown, somewhat annulated due to pale (yellow-)whitish rear third to quarter metazona; prozona entirely (yellowish-)white, mesozona marble-brown, remaining metazona (blackish-)brown; legs (pinkish-)white, antennae and ventrum pale brownish to whitish. Paratypes sometimes slightly paler or darker, but pattern remains quite constant.

Body relatively slender, slightly moniliform, cylindrical, with anterior postcollar constriction rather evident (somites 2–5), onward parallel-sided, very poorly and gently attenuating on 6–7 penultimate somites, rapidly tapering only on telson. Antennae (Fig. 34) moderately long, clavate, cheeks prominently excavated for antennae to hinge into. Eyes very large, rounded, ocelli convex, black, ca. 35 in each ocular field. Collum normal, premarginal stria anterolaterally reaching to caudal edge, not subtended ventrally by projection on somite 2. Frontal suture distinct. Labrum normal; supralabral setae 2+2, very widely separated and rather poorly set apart from 6–7+6–7 labral setae. Surface dull, smooth. Metazonal striation distinct, sparse, rather far from reaching pore-level; mesozona striated more densely and

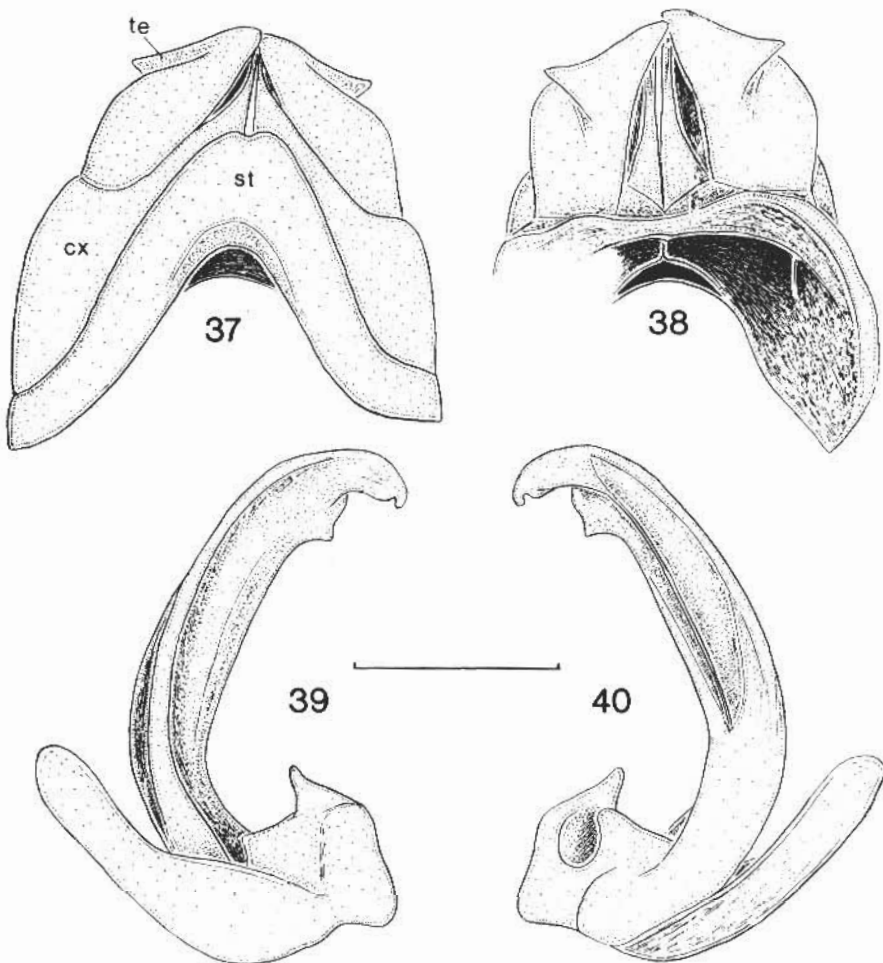
faintly, with traces of striae over (almost) entire dorsum; prozona completely smooth. Sutures between zona rather distinct, constriction between meso- and metazona very well-developed (Fig. 35), also emphasized by a row of sigilla over entire dorsum. Hind tergal limbus practically even. Ozopores lying at about $1/3$ of metazonal length behind suture (Fig. 35), starting from somite 6. Epiproct very poorly developed, just a bit hanging over caudal outline of anal valves (Fig. 36); latter very faintly sulcate along caudal margin.



Figs 31—33. *?Eucarla mauriesi* sp. n., a paratype male from Silhouette Island: 31 = head, collum and first rings of body, 32 = a midbody ring, 33 = caudal end of body. Scale 2.0 mm. — Figs 34—36. *?Eucarla hoffmani* sp. n., a paratype male from Farquhar Atoll: 34 = head, collum and first rings of body, 35 = a midbody ring, 36 = caudal end of body. Scale 1.0 mm.

Legs relatively long, slender, when stretched, well surpassing half of midbody diameter in adults. ♂♂ with distinct tarsal sole pads gradually coming to naught till segment 18; ♂♂ coxae 3–4 moderately swollen distoventrally; claws very long, curved, dorsally at base with a moderately long seta; podomeres sparsely setose.

Gonopods: Coleopods (Figs 37–38) with a low, prominent, apically very poorly bimodal sternum (*st*); coxite low, simple, mesially with a ridge-like lobe tending to subtend high telopodite (*te*); latter also simple, somewhat higher than coxa, with a peculiar, triangular, prominent outgrowth distolaterad, apically almost pointed. Phallopod (Figs 39–40) simple, with a coxal



Figs 37–40. *?Eucarlia hoffmani* sp. n., holotype male from Farquhar Atoll: 37–38 = coleopods, frontal and caudal views, respectively, 39–40 = phallopod telopodite. Scale 0.5 mm.

vesicle and a subtriangular projection, without distinct branches mesally, distally with a subtriangular, phylloid lobe, apically narrowly unciform.

Remarks: Differs from congeners by the particularly simple phallopod, as well as by the peculiar shape of the coleopod.

Interestingly, the subadults and adults of this species are extremely difficult to distinguish, for they differ only in the degree of development of the genitalia and some correlated characters. Moreover, the largest specimens at hand overlap in the number of somites. Thus, the single mature male (holotype), also easily recognizable due to the well-developed tarsal pads, has 37(0) body segments, while this number in subadult males varies from 36(0–1), 37(0–4) up to 38(0–3). The same occurs in females, with both adults and subadults having 36(–1), 37(0) to 38(0) somites. Only dissecting reveals the state of development of the vulvae. This strange overlap is perhaps evidence of periodomorphosis.

The fact that *?E. hoffmani* sp. n. has so far been encountered only on a small atoll island lying closer to Madagascar than to the main Seychelles implies that we face an obvious introduction. Indeed, it is just impossible to believe that a local endemic could have evolved on Farquhar, this statement being further reinforced by the evidence that all the other millipede species met on that atoll (5) appear to be introductions widespread through commerce. The source area of *?E. hoffmani* sp. n. is still to be discovered.

Leptogoniulus naresi (Pocock, 1893) — **Localities:** Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 10 ♂♂, 6 ♀♀ and 14 juveniles (ZMMU), 3 ♂♂ and 3 ♀♀ (HNHM), 1 ♂, 1 ♀, 2 juveniles (ZMUC). Same locality, Brillant near Victoria, secondary tropical forest, 30. VIII. 1984, 2 ♂♂, 3 ♀♀ and 1 juvenile (ZMMU). Same locality, Agricultural Experimental Station, on vegetation, 1. VIII. 1984, 6 ♂♂, 4 ♀♀ and 1 juvenile (ZMMU). Same locality, secondary forest near Victoria, 21. VIII. 1984, 1 ♀ (ZMMU). — Farquhar Atoll, 16–19. VIII. 1984, 3 ♀♀ and 4 juveniles. Same locality, *Scaevola* bush with sparse coco palms and *Casuarina* trees on lagoon sand embankment ca. 50–70 m off settlement, 17. VIII. 1984, leg. L. B. RYBALOV, 5 juveniles. Same locality, coconut plantation with herbs, ferns and *Tournefortia*, profile 5, site 17, 18. VIII. 1984, leg. L. D. FILATOVA, 7 juveniles. Same locality and date, sparse coconut plantation with fragments of *Scaevola*, profile 5, site 23, 1 juvenile. Same locality, *Cocos*, profile 6, site 11, 5 juveniles. Same locality, young coconut plantation ca. 150–200 m offshore and N of settlement, with grassland of *Stenotaphrum complanatum*, 16. VIII. 1984, leg. L. B. RYBALOV, 1 juvenile. Same locality, *Scaevola* bush with sparse coco palms and *Casuarina* trees on lagoon sand embankment ca. 50–70 m off settlement, 17. VIII. 1984, leg. L. B. RYBALOV, 1 ♀. Same locality and date, under *Scaevola* bushes, pitfall traps, line 3, 1 juvenile. Same locality and date, *Cocos* plantation, singled, 1 juvenile (all ZMMU). — Silhouette Isl., near La Passe, 22–25. VIII. 1984, 2 ♂♂, 6 ♀♀ and 1 juvenile. Same locality, *Cocos* plantation on a sandy terrace with *Stenotaphrum complanatum*, pitfall traps, 23–25. VIII. 1984, 1 ♀ and 4 juveniles. Same locality, tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 8 ♂♂, 8 ♀♀ and 3 juveniles. Same locality, La Passe, 25 m a.s.l., under bark of *Cocos* log, 22. VIII. 1984, 33 ♂♂, ♀♀ and juveniles. Same locality, coconut stand among huge stones near a path above La Passe, 25 m a.s.l., 23. VIII. 1984, leg. L. B. RYBALOV, 3 ♀♀ and 5 juveniles. Same locality, lower forest border with single coco palms, grass *Asistacia* and *Oplismenus*, trees *Cinnamomum*, *Latania*, *Mangolifera*, bush *Tabebia*, slope 15–20°, 60–70 m a.s.l., E exposition, 24. VIII. 1984, leg. L. B. RYBALOV, 1 ♂, 1 juv. ♂, 1 ♀ and 1 juvenile. Same locality, strand *Calophyllum* and coco forest, fern *Polypodium sphenodes* and herb *Stenotaphrum complanatum* on sand, ca. 5–10 m offshore, 25. VIII. 1984, leg. L. B. RYBALOV, 1 ♀. Same locality, forest of *Albinia*, 24. VIII. 1984, leg. L. D. FILATOVA, 2 ♀♀. Same locality,

tropical forest above La Passe on top of profile, 480 m. a.s.l., 23. VIII. 1984, leg. L. D. FILATOVA, 1 ♀ (all ZMMU). — Félicité Isl., 26–29. VIII. 1984, 1 ♀ and 4 juveniles. Same locality, *Calophyllum spinney* ca. 30 m offshore, 2 m a.s.l., with *Ipomea* at the beginning of the profile, 27. VIII. 1984, leg. L. B. RYBALOV, 1 juvenile. Same locality, coconut plantation with *Stachytrophia*, *Stenotaphrum* and *Desmodium* on a flat sand terrace ca. 30 m offshore, NE part, 28. VIII. 1984, leg. L. B. RYBALOV, 1 ♂, 1 ♀ and 1 juvenile. Same locality and date, on terrace, singled, 1 ♂, 3 ♀♀ and 1 juvenile. Same locality and date, profile 6, site 3, *Cocos*, leg. L. D. FILATOVA, 4 ♀♀ and 1 juv. male. Same locality and date, site 2, 8 juveniles (all ZMMU). — La Digue Isl., 28. VIII. 1984, 2 ♂♂, 6 ♀♀ and 1 juvenile (ZMMU). — Praslin Isl., along road to and nearby Vallée-de-Mai, 29. VIII. 1984, 6 ♂♂, 10 ♀♀ and 9 juveniles. Same locality and date, secondary forest near Vallée-de-Mai, 3 ♂♂, 2 ♀♀ and 2 juveniles. Same locality and date, in leaves, 1 juvenile. Same locality and date, sifted litter, 1 ♀ (all ZMMU). — Material examined: 239 specimens.

Remark: A pantropical species, it has already been recorded from the Seychelles (POCOCK 1893, BRÖLEMANN 1896, ATTEMS 1900, MAURIÈS 1980a).

Trigoniulus lumbricinus (GERSTÄCKER, 1873) — **Localities:** Mahé Isl., Agricultural Experimental Station, on vegetation, 1. VIII. 1984, 1 ♂ (ZMMU). — Farquhar Atoll, under *Hernandia*, 16–19. VIII. 1984, 2 juveniles (ZMMU). — Material examined: 3 specimens.

Remarks: This species has already been mentioned from the Seychelles Islands by MAURIÈS (1980a), as *Trigoniulus goesi* (PORAT, 1876). It is a pantropical species, and some comments on its geographical and morphological variability have recently been made by GOLOVATCH & KORSÓS (1990).

Dactylobolus gen. n.

Type-species: *Spirobolus bivirgatus* KARSCH, 1881.

Etymology: The name derives from the presence of a fingershaped process on the aboral side of the coleopod telopodite, a character singular for Pachybolidae.

Diagnosis: A relatively small pachybolid, 25–30 mm long, body typically with about 40 segments. Lateral side of head excavated as a shallow antennal groove but lacking an acutely edged overhanging laterad of ocellaria. Ocelli rather small, numerous, typically about 35 in each ocular field, well-developed. Supralabral setae 2+2, very widely separated; labral setae 6–7+6–7. Antennae short, robust, apically with four normal sensory cones. Collum normal, laterally broadly rounded, not subtended ventrally by projection of somite 2. Segments almost not constricted, very delicately rugose, subventrally striation denser, more longitudinal, growing increasingly oblique dorsad on pro- and mesozona and even slightly surpassing pore-level there but not on metazona. Pores starting from somite 6, lying just in front of suture between meso- and metazona. Dorsum smooth on prozona, with scattered horseshoe-shaped markings on mesozona, and scattered simple pits on metazona. Legs short, male tarsi with sole pads excepting a few posteriormost legpairs, male coxae 3–7 ventrally swollen. Epiproct short, blunt, posterior edge only slightly produced.

Coleopods (Figs 41–42) very stout and strong; sternite (*st*) high, somewhat shorter than both coxite (*cx*) and telopodite (*te*); coxa not subtending

telopodite; latter apically produced into a lobe, on aboral side with a characteristic ridge-like finger (*f*). Phallopods (Figs 43—45) with traces of (?) primary articulation at midlength (*k*), free solenomerite (sub)apical and surrounded with more or less phylloid structures.

Remarks: Even though *Dactylobolus* gen. n. is really rather close to *Stenobolus* (CARL 1918, HOFFMAN 1962), we perceive the affinities as probably better expressed with *Spiromimus* DE SAUSSURE et ZEHNTNER, 1901 and *Pygodon* DE SAUSSURE et ZEHNTNER, 1901 (both from Madagascar, with the latter perhaps being just a subgenus or even a strict synonym of the former, which is more in accordance with BRÖLEMANN 1914 than with HOFFMAN 1979) as well as with *Atlanticobolus* HOFFMAN, 1979, judged from the phallopod conformation and, in particular, the retention of (?pseudo)segmentation. However, the coleopod morphology and, especially, the development of a finger on the aboral side of the telopodite are unique.

***Dactylobolus bivirgatus* (KARSCH, 1881) comb. n.**

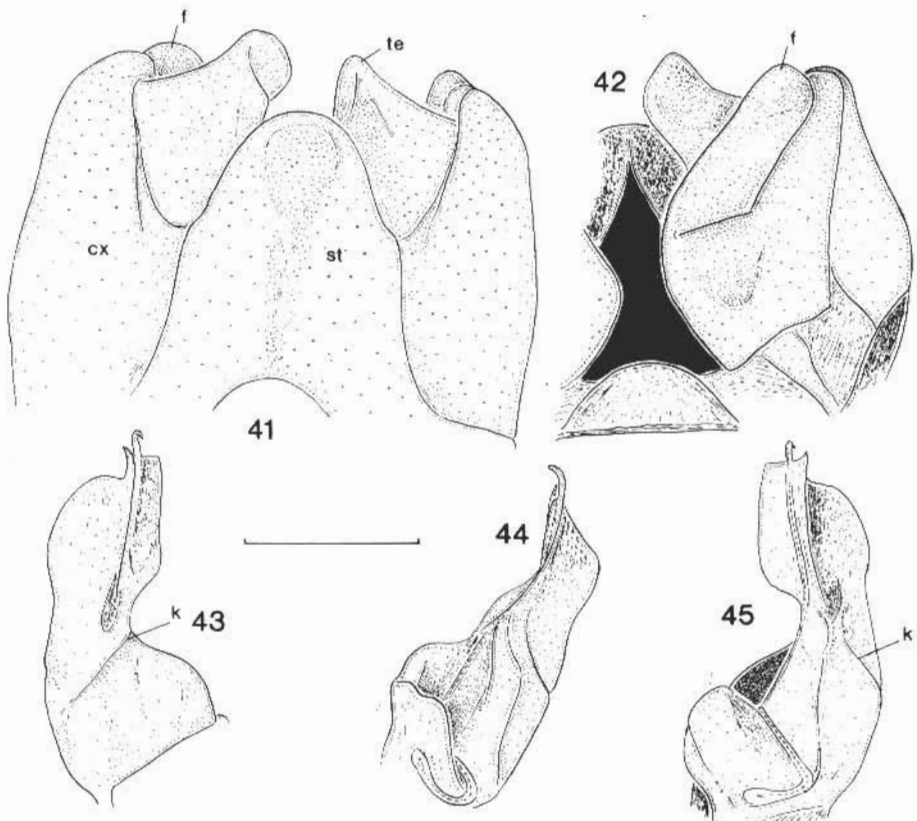
(Figs 41—45)

Localities: Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5—9. VIII. 1984, 1 ♀ and 7 juveniles (ZMMU). Same locality and date, in *Casuarina* litter, 1 juvenile (ZMMU). Same locality, coconut plantation, in rotten wood, 5. VIII. 1984, 1 ♂ and 6 ♀♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM). — Aldabra, Assumption Atoll, 12—14. VIII. 1984, 2 juveniles (ZMMU). Same locality and date, in scrub, 10 juveniles (ZMMU). Same locality and date, pitfall traps, line 2, 3 juveniles (ZMMU). Same locality and date, under *Terminalia*, 1 ♂, 1 ♀ and 2 juveniles (HNHM). Same locality, *Casuarina* on southern coast, 13. VIII. 1984, 10 juveniles (ZMMU). Same locality, *Scaevola*, *Tournefortia* and *Surinama* bush on sand embankment S of settlement, 13. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 1 ♀ and 10 juveniles (ZMMU). Same locality, *Casuarina* spinney S of settlement near coconut plantation, ca. 15 m offshore, 13. VIII. 1984, leg. S. I. GOLOVATCH, 7 juveniles (ZMMU). Same locality, profile 3, site 11, *Scaevola* and *Casito*, 13—14. VIII. 1984, leg. L. D. FILATOVA, 1 ♀ and 5 juveniles (ZMMU). — Farquhar Atoll, 16—19. VIII. 1984, 1 juvenile ♂, 9 juveniles and fragments. Same locality and date, under *Hernandia*, 1 juvenile ♂. Same locality and date, under *Casuarina*, 2 juvenile ♀♀. Same locality and date, *Tournefortia* bush, 4 juveniles. Same locality and date, pitfall traps under *Casuarina*, line 2, 4 juveniles. Same locality and date, under *Scaevola* bushes, 3 juveniles. Same locality and date, under *Ficus*, 5 juveniles. Same locality and date, under *Calophyllum* — *Casuarina*, 1 juvenile. Same locality, *Scaevola* bush with sparse coco palms and *Casuarina* trees on lagoon sand embankment ca. 50—70 m off settlement, 17. VIII. 1984, leg. L. B. RYBALOV, 4 juveniles. Same locality, coconut plantation, a model of soil population along a radius from a palm trunk till outside canopy, 18. VIII. 1984, leg. S. I. GOLOVATCH, 2 ♀♀ and 47 juvenile. Same locality and date, a model of soil population in the gradient forest (*Calophyllum*) — coco with *Fimbristylis*, middle part, ca. 250 m offshore from lagoon, leg. S. I. GOLOVATCH, 15 juveniles. Same locality, coconut plantation with herbs, ferns & *Tournefortia*, profile 5, site 17, 18. VIII. 1984, leg. L. D. FILATOVA, 1 ♀ and 36 juveniles. Same locality, sparse coconut plantation with fragments of *Scaevola*, profile 5, site 23, 17. VIII. 1984, leg. L. D. FILATOVA, 2 juveniles. Same locality, (all ZMMU). — Material examined: 208 specimens.

Remarks: Originally described as *Spirobolus bivirgatus* by KARSCH (1881) from Comoro Islands and Madagascar, this poorly-known species has since been only once reallocated and illustrated, namely by ATTEMS (1910)

who also reported this form from the Seychelles (Aldabra) and Pemba Island near Zanzibar as *Mystalides bivirgatus*. Both CARL (1918) and HOFFMAN (1962) noted the close affinities between *Mystalides bivirgatus* and the monobasic genus *Stenobolus* CARL, 1918 from India and the Maldives. However, JEEKEL (1971) showed that both *M. bivirgatus* and *M. pumilus* ATTEMS, 1910 belong to a genus different from *Aphistogoniulus* SILVESTRI, 1897 (= *Mystalides* ATTEMS, 1910), so both SPAULL (1976) and MAURIÈS (1980a) again referred to this species as "*Spirobolus*" *bivirgatus*.

We fully agree with JEEKEL's (1971) idea and, with fresh samples at hand, take the opportunity to formalize the issue by establishing a new genus to encompass both *bivirgatus* and *pumilus*.



Figs 41—45. *Dactylobolus bivirgatus* (KARSCH, 1881) comb. n.: 41—42 = coleopods, frontal and caudal views, respectively, 43—45 = phallopod telopodite. Scale 0.5 mm.

CAMBALIDA

Cambalopsidae

Hypocambala anguina (ATTEMS, 1900) — Locality: Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 3 ♂♂, 2 ♀♀ and 1 juvenile (ZMMU), 2 ♂♂ and 1 ♀ (HNHM). — Material examined: 9 specimens.

Remarks: It has already been reported from the Seychelles (MAURIÈS 1980a), and is known to be widespread throughout the tropics.

Hypocambala helleri SILVESTRI, 1897 — Locality: Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 2 ♂♂ (ZMMU). — Material examined: 2 specimens.

Remarks: New to the fauna of the Seychelles! This species has been adequately known and illustrated (e.g. JEEKEL 1963, MAURIÈS 1983), thus being easily recognizable. It has hitherto been recorded in Celebes, Fiji, Aru Islands, Thailand, as well as strictly synanthropically in the USA and Guiana.

SPIROSTREPTIDA

Spirostreptidae

Charactopygus atratus (KARSCH, 1881) — Localities: Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 1 ♂ (ZMMU). — Silhouette Isl., tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 1 juvenile. Same locality, La Passe, 25 m a.s.l., under bark of *Cocos* log, 22. VIII. 1984, 1 ♀ (all ZMMU). — La Digue Isl., 28. VIII. 1984, 5 ♂♂ and 3 ♀♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM), 1 ♂ (ZMUC), 1 ♂ (SMF). — Material examined: 15 specimens.

Remarks: This species has been reported from Madagascar (SAUSSURE & ZEHTNER 1902) and some immediately adjacent islets as well as on several granitic islands of the Seychelles (MAURIÈS 1980a).

Sechelleptus sechellarum (DESJARDINS, 1834) — Localities: Silhouette Isl., tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 5 ♀♀ and 1 juvenile (ZMMU), 1 ♀ (HNHM). — Félicité Isl., 26–29. VIII. 1984, 1 ♂ and 1 juvenile (ZMMU). — Material examined: 9 specimens.

Remarks: This large and impressive species, the generotype of *Sechelleptus*, is endemic to several granitic islands of the Seychelles (MAURIÈS 1980a).

Sechelleptus unilineatus sp. n.

(Figs 46–49)

Localities: Silhouette Isl., mist mountainous tropical forest on top of the profile, above La Passe, 560 m, 25. VIII. 1984, leg. S. I. GOLOVATCH, 2 ♂♂ and 4 juveniles (incl. holotype). Same island, oligodominant tropical forest, Mt. Pot-à-Eau, 550 m, 23. VIII. 1984, leg. S. I. GOLOVATCH, 2 ♀♀ and 8 juveniles. — Material examined: 16 specimens. — Holotype male, 1 male, 1 female and 6 juvenile paratypes are deposited in ZMMU, 1 female and 6 juvenile paratypes in HNHM.

Description: Length ♂♂ 50–55 mm, ♀ 53 mm, juv. 25 mm, midbody width 4.0, 4.5–4.8 and 2.6 mm, respectively, number of segments excluding telson 61(–2)–63(–1) (♂♂), 53 (incomplete), 62(–3) (♀) and 51(–8)–52(–7) (juveniles).

Coloration: Holotype in alcohol reddish brown-greybrown, with an irregular, rather broad, yellowish axial stripe on the dorsum starting from somite 2 and ending on pygidium, axial dorsal line very thin, practically wanting, pore

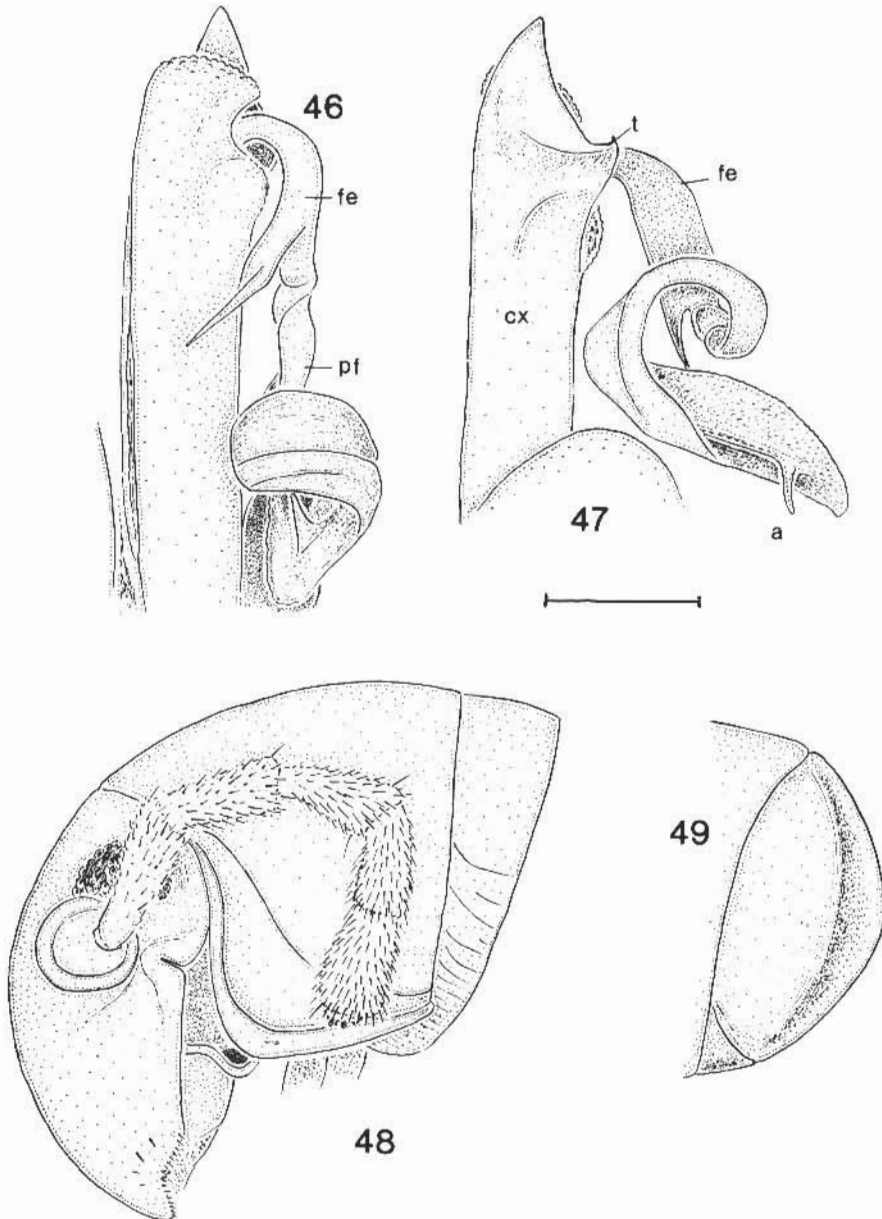
level marked as a rather thin, interrupted, more or less obscure grey line; body below ozopore level somewhat paler, grey-yellowish. Head marble reddish with a paramedian pair of clear marbled spots between antennal sockets and a subtrapeziform brown band between ocular fields; antennae dark brown, ocular field blackish brown. Collum broadly brown along anterior and narrowly brown along posterior margins, inbetween marbled; sides of pygidium and entire anal valves brown. Legs marble reddish.

Body cylindrical, gently and gradually attenuating, anterior body constriction very feeble, traceable on segments 2–6(7). About 30–35, rather convex ocelli in each rounded triangular ocular field; antennae short (a bit shorter in females), in situ reaching to midlength of somite 3, slightly clavate; supralabral setae 2+2, labral setae 8+8 (paratype male 7+7). Collum (Fig. 48) with a pair of distinct lateral striae, one submarginal, beginning from about level of ocular field and ending at caudal corner, and the other slighter sinuate, set obliquely, run close to the antero-lateral corner (in paratype male somewhat better off and obliquely); surface of collum smooth, very feebly rugose only postero-laterally.

Metazonital striation quite dense, rather irregular, increasingly dense and better visible towards ventrum on several anteriormost somites, at best reaching to ozopore level on somites 5–6, increasingly poorly developed towards posterior body end and towards dorsum, on midbody somites ending rather well below ozopore level, on posterior body third ending very far away from ozopore level. Suture between meso- and metazona as a thin line, rather densely beaded, very feebly sinuated anteriorly in front of ozopores; suture between pro- and mesozona as an extremely thin line, sometimes markedly grey; body surface generally shiny, especially dorsally, less so ventrally and subventrally, surface of metazona feebly rugose, that of mesozona entirely smooth, whereas prozona covered with extremely fine and irregular, transverse striae. Ozopores small, inconspicuous, start from segment 6, lie well behind metazonital suture, at about one-third of metazonital length. Epiproct absent (Fig. 49), anal valves very distinctly margined, with a deep premarginal sulcus (intermediate between types b and c of KRABBE 1982), subanal scale darkish, not particularly pale as in females, spindle-shaped.

Legs rather short, slender, on leg-pair 1 no coxal outgrowth, starting from leg-pair 3 sole pads on both postfemora and tibiae well developed, gradually disappearing towards caudal body end, first on postfemora till about hind body third, and later even on tibiae till about the hind quarter; claws very long, about twice as short as tarsus, slightly curved; all telopodite joints subequal in length on midbody somites.

Gonopods: Frontal piece of coxite moderately higher than caudal, almost pointed, on distal quarter with trace of a lateral tooth (*t* in Fig. 47). Caudal piece apically roughly papillate, rounded bluntly. Telopodite (Figs 46–47)



Figs 46—49. *Sechelleptus unilineatus* sp. n., paratype male from Silhouette Island: 46—47 = right gonopod, frontal and caudal views, respectively. Scale 1.0 mm. — 48 = head, collum and first body ring, 49 = caudal end of body. Scale 2.0 mm.

with a distinct demarcation between femoral (*fe*) and postfemoral (*pf*) part, femorite with a prominent, pointed process, postfemorite spiralled, ribbon-shaped, broad and long, preapically with a distinct tooth (*a*) terminating seminal groove.

Paratypes: Coloration in male generally pale grey-brownish, reddish tint, axial stripe is hardly traceable, visible on dark pygidium; head marble reddish brown, with a couple of paler, larger paramedian spots between antennal sockets, and also four little spots inbetween, a subtrapeziform band between ocular fields, latter blackish, occipital suture as a thin grey-brownish line; antennae dark grey-brownish; ozopores may also be markedly blackish dots; otherwise like holotype. Females pale, somewhat less brightly colored, axial dorsal line visible, brownish, rather clear against background of middorsal stripe, pygidium rather grey than brown, subanal scale entirely pale. Juveniles uniformly dark brownish grey.

Legs in females a bit shorter, without any modification.

R e m a r k s : This species appears to belong to a large species swarm mostly assigned to the genus *Rubanostreptus* (KRABBE 1982), a junior synonym of *Sechelleptus* MAURIÈS, 1980, **syn. n.** The new Seychelles species seems to be especially close to *S. praepolitus* (ATTEMS, 1910), *S. obscuratus* ATTEMS, 1910, *S. speculorbis* ATTEMS, 1910, *S. procerus* ATTEMS, 1951 (all from Madagascar), but differs by certain details of gonopod structure.

SIPHONOPHORIDA

Siphonophoridae

Siphonophora braueri (ATTEMS, 1900) — **L o c a l i t y :** Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 1 juv. ♂ (ZMMU). — Material examined: 1 specimen.

R e m a r k s : Unfortunately, in the absence of mature males, it was impossible to identify the single specimen with complete certainty. However, the identity seems to be well justified, because this species is believed to be endemic to Mahé Island (ATTEMS 1900, MAURIÈS 1980a).

This species is known to be the genotype of *Siphonophorella* ATTEMS, 1953, but MAURIÈS (1980b) correctly sees quite close affinities of this form with his *Siphonophora filiformis* MAURIÈS, 1980, from Guadeloupe. Unfortunately, the type-species of *Siphonophora*, *S. portoricensis* BRANDT, 1837, remains unknown, though the close relationships displayed between the Caribbean and Seychelles species seem to provide a reliable basis for treating them within *Siphonophora*.

Siphonophora silhouettensis MAURIÈS, 1980 — **L o c a l i t y :** Silhouette Isl., mist mountainous tropical forest on top of the profile, above La Passe, 560 m, 25. VIII. 1984, leg. S. I. GOLOVATCH, 2 juveniles (ZMMU). Same locality, Mt. Pot-à-Eau, 550 m, oligodominant tropical forest, 23. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♂, 3 ♀♀ and 8 juveniles (ZMMU), 1 juvenile (HNHM). — Material examined: 15 specimens.

R e m a r k : This species seems to be restricted to Silhouette Island. Its reallocation within *Siphonophora* is grounded on the same presumptions as *S. braueri* (see above).

***Siphonophora* sp.** — **L o c a l i t y :** Silhouette Isl., mist mountainous tropical forest on top of the profile, above La Passe, 2560 m, 25. VIII. 1984, leg. S. I. GOLOVATCH, 1 juv. ♂, 1 juv. and 5 juveniles (ZMMU). — Material examined: 7 specimens.

Remarks: There is no mature male in the sample at hand, but some external characters (e.g. strong and relatively long tergal pubescence), which differ this form from the only *Siphonophora* recorded so far from Silhouette Island (MAURIÈS 1980a), show that it may well be a distinct species.

Pterozonium tropiphora (ATTEMS, 1900) — **Locality:** Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 1 ♂ and 1 juvenile (ZMMU). — Material examined: 2 specimens.

Remarks: This species is endemic to the Seychelles millipede fauna, recorded so far from Mahé, Silhouette, Frégate and Praslin Islands (ATTEMS 1900, MAURIÈS 1980a). Easy to recognize due to its pronounced paraterga.

POLYDESMIDA

Paradoxosomatidae

Chondromorpha xanthotricha (ATTEMS, 1898) — **Localities:** Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 2 ♂♂ and 4 ♀♀ (ZMMU). — Farquhar Atoll, 16–19. VIII. 1984, 2 ♀♀ and 7 juveniles. Same locality, a model of soil population in the gradient forest (*Calophyllum*) — coco with *Fimbristylis*, middle part, ca. 250 m offshore from lagoon, 18. VIII. 1984, leg. S. I. GOLOVATCH, 3 ♀♀ and 51 juveniles. Same locality and date, under *Scaevola* bushes, 17 ♂♂, ♀♀ and juveniles. Same locality and date, under *Calophyllum* + *Casuarina*, 3 ♀♀. Same locality and date, *Cocos* plantation, 1 ♀ (all ZMMU). — Silhouette Isl., near La Passe, 22–25. VIII. 1984, 1 ♂, 2 ♀♀ and 7 juveniles (ZMMU). Same locality, mist mountainous tropical forest on top of the profile, above La Passe, 560 m, 25. VIII. 1984, leg. S. I. GOLOVATCH, 1 juvenile (ZMMU). — Félicité Isl., *Calophyllum* spinney ca. 30 m offshore, 2 m a.s.l., with *Ipomea* at the beginning of the profile, 27. VIII. 1984, leg. L. B. RYBALOV, 6 ♂♂, 24 ♀♀ and 18 juveniles. Same locality and date, coconut plantation with *Stachytarpheta*, *Stenotaphrum* and *Desmodium* on a flat sand terrace ca. 30 m offshore, NE part, 28. VIII. 1984, leg. L. B. RYBALOV, 2 ♂♂, 8 ♀♀ and 5 juveniles. Same locality and date, singled, 1 juvenile. Same locality and date, profile 6, site 3, *Cocos*, leg. L. D. FILATOVA, 3 ♂♂, 16 ♀♀ and 14 juvenile. Same locality and date, site 2, leg. L. D. FILATOVA, 23 ♂♂, 22 ♀♀ and 78 juveniles (all ZMMU). — La Digue Isl., 28. VIII. 1984, 1 ♀ (ZMMU). — Material examined: 329 specimens.

Remarks: A pantropical species, for the first time it has been reported from the Seychelles by MAURIÈS (1980a).

Desmoxyles planata (POCOCK, 1895) — **Localities:** Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 8 ♂♂ and 4 ♀♀ (ZMMU), 1 ♂ and 2 ♀♀ (HNHM). — Silhouette Isl., near La Passe, 22–25. VIII. 1984, 1 ♂ and 1 juvenile. Same locality and date, tropical mist forest on ridge, above La Passe, 540–590 m, 24–25. VIII. 1984, 3 ♂♂. Same locality and date, in *Labinia* fruits, 2 ♂♂. Same locality and date, 400 m, 1 ♀. Same locality and date, tropical forest above La Passe, 400 m a.s.l., in axilla of *Labinia* leaves, 3 ♂♂ and 7 juveniles (all ZMMU). — Praslin Isl., along road to and nearby Vallée-de-Mai, 29. VIII. 1984, 1 ♀ (ZMMU). — Material examined: 30 specimens.

Remarks: This species is known to be pantropical and has already been mentioned from the Seychelles by MAURIÈS (1980a) as *Pratinus planatus*.

Orthomorpha coarctata (SAUSSURE, 1860) — **Localities:** Mahé Isl., Victoria, Botanical Gardens, 30–31. VII. 1984, 7 ♂♂ and 21 ♀♀ (ZMMU), 1 ♂ and 1 ♀ (HNHM). — Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5–9. VIII. 1984, 1 ♂ and 2 juveniles. Same locality, coconut plantation with grass and many coco shells, ca. 350 m S of settlement and 70 m off lagoon coast, 6–7. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 1 ♂. Same locality and date, singled, 1 ♀. Same locality, coconut plantation with *Scinerus*, grazed patch, 6. VIII. 1984, leg. L. D. FILATOVA, 1 ♂ and 2 juveniles. Same locality, coconut plantation with *Calocasia* and ferns, 8. VIII. 1984, leg. L. D. FILATOVA, 1 ♂ (all ZMMU). — Farquhar Atoll, 16–19. VIII. 1984, 3 ♀♀ and 2 juveniles (ZMMU). — Silhouette Isl., near La Passe, 22–25. VIII. 1984, 1 juvenile. Same locality, coconut plantation on a sandy terrace ca. 640 m offshore, 2 m a.s.l., grassland of *Stenotaphrum complanatum*, 23. VIII. 1984, leg. L. B. RYBALOV, 1 juvenile. Same locality and date, pitfall traps, 3 ♂♂ and 6 ♀♀ (all ZMMU). — Félicité Isl., 26–29. VIII. 1984, 1 juvenile. Same locality and date, *Calophyllum* and *Mangolifera*, 7 juveniles. Same locality, *Calophyllum* spinney ca. 30 m offshore, 2 m a.s.l., with *Ipomea* at the beginning of the profile, 27. VIII. 1984, leg. L. B. RYBALOV, 8 ♂♂, 14 ♀♀ and 1 juvenile.

Same locality, profile 6, site 3, *Cocos*, 28. VIII. 1984, leg. L. D. FILATOVA, 9 ♂♂ and 16 ♀♀. — Same locality and date, site 2, leg. L. D. FILATOVA, 17 ♂♂, 27 ♀♀ and 39 juveniles. Same locality, coconut plantation with *Stachytrophia*, *Stenotaphrum* and *Desmodium* on a flat sand terrace ca. 30 m offshore, NE part, 28. VIII. 1984, leg. L. B. RYBALOV, 2 ♀♀. Same locality, coconut plantation near site 5 of the profile, slope 5–10°, 27. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♀. Same locality and date, *Cocos* plantation on terrace, pitfall traps, line 2, 4 ♂♂, 3 ♀♀ and 10 juveniles. Same locality and date, singled, 11 ♂♂, 6 ♀♀ and 1 juvenile (all ZMMU). — Material examined: 232 specimens.

Remark: A pantropical species, it has already been reported from the Seychelles (BRÖLEMANN 1896, MAURIÈS 1980a).

Diglossosternoides gen. n.

Type-species: *Diglossosternoides curiosus* sp. n.

Diagnosis: A relatively small (ca. 1 cm long) paradoxosomatid with paranota moderately developed, fore femora of male without adenostyles, sterna between male legpairs 3 and 4 each with a subtrapeziform, setose lamina. Tarsal brushes absent.

Gonopods relatively simple and high, coxite moderately long, prefemur normally shaped, femorite suberect, slender and long, without evidence of torsion; demarcation between femorite and postfemoral part absent, latter with a process; tibiotarsus well-developed, long, ribbon-shaped, with both lamina lateralis and lamina medialis evident, simple, in situ directed laterad, supporting a long, flagelliform, free solenomerite without sheathing it.

Remarks: *Diglossosternoides* gen. n. seems to be referable either to the tribe Sulciferini, known to be especially abundantly represented in mainland Asia (s. recent review by JEEKEL 1988), particularly to the group of members in which the solenophore is directed laterad (JEEKEL 1980), or to Eustrongylosomatini (see review by HOFFMAN 1977–78). However, it differs from all the other Paradoxosomatidae but *Diglossosternum* JEEKEL, 1980 (tribe Orthomorphini, with two species from Java) in the presence of a setose lamina both between the male coxae 3 and 4, and from *Diglossosternum* by quite a disjunct gonopod structure.

The relationships of *Diglossosternoidea* gen. n. seem to be quite obscure, as the laminae between the male coxae 3 and 4, the gonopod femorite long, slender and devoid of any traces of torsion, the absence of a postfemoral sulcus, the well-developed tibiotarsus (= solenophore), curved, directed laterad and supporting a long, simple, flagelliform solenomerite, and also the characteristic, long and slender postfemoral process directed caudad appear to be a unique combination of features. Some of them bring the new genus close enough to the Sulciferini (e.g. *Tylopus*, *Hedinomorpha*, *Cawjeekelia*, etc.), some others to the Eustrongylosomatini (e.g. *Eustrongylosoma*), some more to the group of still unclassified genera formerly placed within the Sulciferini (e.g. *Polylobosoma*, *Antichirogonus*). However, *Diglossosternoides* gen. n. seems best to be

grouped amongst the *Eustrongylosomatini*, at least for the time being. Interestingly, in his review of the *Eustrongylosomatini*, HOFFMAN (1977—78) mentioned the presence of this otherwise Papuan tribe in the Caroline Islands, Micronesia, in Melanesia and in the Philippines, due to some undescribed *Eustrongylosoma* and/or its immediate allies. One of such allies might well be the new species below.

***Diglossosternoides curiosus* sp. n.**

(Figs 50—54)

Localities: Mahé Isl., Morne Blanc, 350 m, secondary tropical rainforest, 1. VIII. 1984, 1 ♂ and 2 ♀♀ (ZMMU). — Material examined: 3 specimens. — Holotype male and the two female paratypes are deposited in ZMMU.

Description: Length ♂♂ 10 mm, ♀♀ 11—12 mm, width on mid-body prozona and metazona 0.9 and 1.3 mm (♂♂), 1.0 and 1.4 mm (♀♀), respectively.

Coloration: Holotype in alcohol pale yellowish brown, rather uniform, anterior body end a little darker than posterior.

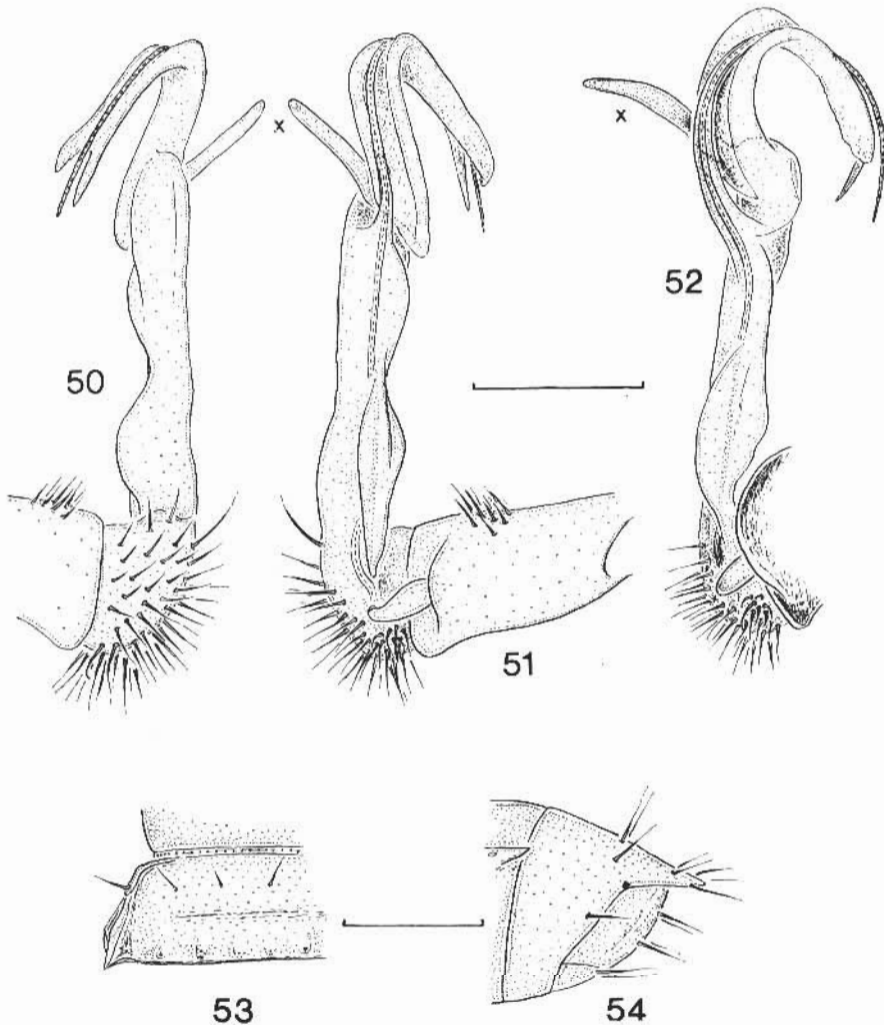
Antennae relatively long, in situ reaching beyond somite 2, slightly clavate; collum a little broader than head, which is subequal in width to somite 2, collum is subequal in width to segments 3—4, from 6th segment body parallel-sided until 16th, onward very gradually, gently tapering. Paraterga moderately developed, on somite 2 well below both collum and subsequent terga, begin to show up already from collum, set quite low, at about midheight on anterior body third and at about one third on subsequent somites, laterally margined and indentated, invariably pointed caudad starting from somite 3, lie within hind tergal contour or just a bit beyond it until somite 15 (Fig. 53), considerably projecting caudad only on somites 16—18, again worse so on 19th; on most somites paraterga slightly elevated; metaterga well convex, with a moderately deep, transverse, long sulcus at about midlength, starting from segment 5 and gradually coming to naught toward rings 18—19; each metatergum carries two transverse rows of very long hairs, one of 2+2 (regardless of the marginal 1+1) well in front of sulcus, and the other of 3+3 on small but distinct tubercles. Surface generally smooth, roughly punctured only on metazona below paraterga, otherwise modestly shiny. Epiproct long, in lateral view pointed (Fig. 54), in dorsal view subtriangular with tip rather narrowly emarginate and carrying a couple of well expressed preapical incisions laterally, sides slightly concave.

Legs moderately long, slender, not enlarged as compared to female, leg-pairs 1—2 normally reduced, without adenostyles, tarsal brushes absent completely; high, subtrapeziform laminae between both leg-pairs 3 and 4;

sterna moderately setose, between both leg-pairs 6 and 7 naked and especially well excavated.

♀♀ paratypes: Color pinkish yellowish brown, pale, posterior end somewhat paler than anterior one, antennae and legs yellowish brown like in holotype, sterna without peculiarities, legs relatively shorter than in male, without modifications, paraterga set a bit lower than in male.

Gonopods: Gonopods elongate, slender, relatively simple (Figs 50—52), coxite moderately long, telopodite with a usual, densely setose, normally sized



Figs 50—54. *Diglossosternoides curiosus* gen. et sp. n., holotype male from Mahé Island: 50—52 = right gonopod, lateral, mesal and postero-lateral views, respectively. Scale 0.2 mm. — 53 = 10th body ring, dorsal view, 54 = caudal body end, lateral view. Scale 1.0 mm.

prefemur, set off from acropodite by a subtransverse sulcus; femorite particularly long, a little enlarged parabasally, with neither evidence of torsion nor demarcation with postfemoral part, latter preapically with a most conspicuous, long and slender process (x in Fig. 52) directed ventrad; tibiotarsus as a distinct, large piece, arising near base of process x , ribbon-shaped, apically bifid, in situ directed laterad, simple, supporting a long, flagelliform, free solenomerite almost all along its length but not sheathing; seminal groove entirely mesal.

R e m a r k s : Besides the above paradoxosomatid, the Seychelles fauna is known to comprise *?Orthomorpha crinita* ATTEMS, 1900 described from the female sex only. Recently MAURIÈS (1980a) referred to another *?Orthomorpha* sp. However, the new species above is certainly different at least from *?O. crinita*, judged from ATTEMS' (1900) original description. The differences involve, e.g., a smaller size and a paler coloration in *D. curiosus* sp. n. The new form is the first reliable indigenous paradoxosomatid from the entire Malagasy subregion!

Haplodesmidae

Cylindrodesmus hirsutus (POCOCK, 1888) — **L o c a l i t i e s :** Amirantes, Poivre Atoll, coconut plantation, under *Terminalia*, 5–9. VIII. 1984, 1 juvenile. Same locality, coconut plantation with grass and many coco shells, ca. 350 m S of settlement and 70 m off lagoon coast, 6–7. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 1 ♀. Same locality, coconut plantation near soil section, 8. VIII. 1984, leg. L. B. RYBALOV et S. I. GOLOVATCH, 2 ♀♀. Same locality and date, coconut plantation with *Calocasia* and ferns, 8. VIII. 1984, leg. L. D. FILATOVA, 4 ♀♀ and 3 juveniles (all ZMMU). — Farquhar Atoll, under bark, 16–19. VIII. 1984, 2 ♀♀ (ZMMU), 2 ♀♀ and 1 juvenile (HNHM). Same locality and date, *Cocos* plantation with *Stenotaphrum complanatum*, pitfall traps, line 1, 7 juveniles (ZMMU). — Silhouette Isl., tropical mist forest on ridge, above La Passe, 540–590 m 24–25. VIII. 1984, 5 ♀♀ and 3 juveniles. Same locality, mist mountainous tropical forest on top of the profile, above La Passe, 560 m 25. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♂, 4 ♀♀ and 2 juveniles (all ZMMU). — Material examined: 38 specimens.

R e m a r k s : A pantropical species, it has already been reported from the Seychelles (ATTEMS 1900, MAURIÈS 1980a). It is known to be a parthenogenetic species (ENGHOFF 1978), and our samples are in general accordance with this.

Fuhrmannodesmidae

?Sphaeroparia sp. — **L o c a l i t y :** Praslin Isl., road to Vallée-de-Mai, 28. VIII. 1984, leg. S. I. GOLOVATCH, 1 fragment and 1 juvenile (ZMMU). — Material examined: 2 specimens.

R e m a r k s : MAURIÈS (1980a) probably referred to the same form. Our specimens are not, unfortunately, closer identifiable in the absence of males.

Cyrtodesmidae

Hyperothrix orophura ATTEMS, 1900 — **L o c a l i t i e s :** Silhouette Isl., Mt. Pot-à-Eau, 550 m, tropical forest, 23. VIII. 1984, leg. S. I. GOLOVATCH, 1 ♂ (ZMMU). — Material examined: 1 specimen.

Remarks: MAURIÈS (1980a) has already recorded this species from Silhouette. He placed it in the Oniscodesmidae, HOFFMAN (1979) regarded this monobasic genus as incertae sedis, but judged from the gonopod conformation, we reassign it within Cyrtodesmidae.

ZOOGEOGRAPHICAL NOTES

Since too many novelties have turned out just after one more short-term cruise to the Seychelles, with no fewer than six species new to science and additional four new to the local list, the following zoogeographical analysis must be understood as fairly tentative. Moreover, quite a proportion (10 out of a total of 41) of the Seychelles fauna are too inadequately known/allocated to warrant any biogeographical speculations.

However, even with evidence at hand, the millipede fauna of the Seychelles may be postulated to represent a mixture of elements of various origins. Disregarding the obvious introductions, such as *Rhinotus purpureus*, *Paraspiroboles dictyonotus*, *Pseudospirobolellus avernus*, *Leptogoniulus naresi*, *Trigoniulus lumbricinus*, *Glyphiulus granulatus*, *Hypocambala anguina*, *H. helleri*, *Oxidus gracilis*, *Chondromorpha xanthotricha*, *Desmoxytes planata*, *Orthomorpha coarctata*, *Cylindrodesmus hirsutus*, the remaining diversity is still impressive. As one might expect, the influence of the Malagasy realm is rather strong: *Charactopygus atratus*, *?Eucarlia urophora*, *Dactylobolus bivirgatus*, as well as *Spiromanus* and *Sechelleptus* (with two species apiece) all demonstrate clear relations with Madagascarian forms. The same seems to hold true at least partly with the endemic Seychellean *Hyperothrix orophura*, *?Propyrgodesmus* sp., *Siphonophora* spp. (2–3 forms), *?Sphaeroparia* sp., although their ties are more obscure.

Oriental faunal connections are rather evident as regards *Benoitolus* (one species in Thailand and the Seychelles apiece) and perhaps *Pterozonium* (several species in Southeast Asia, *P. tropiphora* in the Seychelles). Much less expected, but very clear as well, is the influence of the Australian/Papuan realm, with *Sechelliosoma forcipatum*, *Diglossosternoides curiosus*, *?Spirobolellus simplex* and probably (certain) *?Eucarlia* spp. being evidences of that. Unfortunately, until the tropical millipede fauna is better known, we refrain from further speculations. Much more work is necessary to finally assess the Seychelles diplopod fauna, let alone its zoogeographical composition.

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