

An undescribed ‘giant’ millipede from Praslin Island, Seychelles archipelago

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Abstract: An undescribed ‘giant’ millipede from a high canopy woodland vestige on Praslin Island is illustrated and its biotope and invertebrate cohorts discussed with a view to promoting ongoing research. The millipede is believed to be closely related to or synonymous with *Sechelleptus* Mauriès, 1980. Notes on other myriapods observed in the Seychelles archipelago during November 2019 are provided.

Key words: Millipede, spirostreptid, undescribed, Praslin, woodland, relict.

During 2019 the writer visited the Seychelles archipelago and undertook studies of the invertebrate fauna sanctioned by permit issued by the Seychellois government. Even with that in place the collection of specimens was limited to a minimum. The prime purpose of this article is to alert future researchers to the presence of an apparently undescribed species of large millipede in the archipelago.

On 8 November 2019 a stop was made just south-east of Anse Lazio, Praslin island 04°29'S 55°70'E 56m a.s.l. in an area of dense high canopy lowland woodland. The woodland contained notably large marginal trees of Jack Fruit *Artocarpus heterophyllus* Lam. including large fallen trees from which an apparently undescribed species of *Ocholissa* (Coleoptera, Salpingidae) was recovered. The woodland contained a significant quantity of fallen shaded degraded wood some of which had lain in place for decades and had contributed to the formation of thick beds of humified litter. The invertebrate fauna beneath a large deeply-bedded log proved of considerable interest, the most obvious species being two large millipedes of particularly striking appearance (Fig 1, 2), breeding populations of the xylophagous blaberid cockroach *Panesthia angustipennis angustipennis* (Illiger, 1801) (Fig. 3 left) and larvae of the callirhipid beetle *Callirhipis philiberti* Fairmaire, 1891 (Fig. 3 right). With the benefit of hindsight more time should have been allocated to this site and specimens should have been retained.

The two millipedes, each some 80mm long, evidently belong to a species unknown in the archipelago; the combination of black somatic colouration with a lustrous oleaginous sheen and vividly contrasting pink legs tentatively suggest a spirostreptid millipede related to *Sechelleptus* Mauriès, 1980 of which *Sechelleptus seychellarum* (Dejardins, 1834) is well-known in the archipelago. This suggestion was tentatively supported by Dr S. Golovatch (*in litt.*, 20 November 2019) but without a specimen no firm diagnosis can be made. There are no previous records of ‘giant’ millipedes on Praslin but Silhouette supports a smaller endemic species *Sechelleptus unilineatus* Golovatch & Korsós, 1992 and Mayotte supports the endemic *Sechelleptus arborivagus* VandenSpijgel, Henrard & Mathys, 2021. A related Praslin endemic is therefore by no means impossible.

This assemblage of species raises some important questions about the development of such assemblages over time and how native status is defined. Hájek (2008) believed that *Callirhipis philiberti* was a ‘geologically recent’ colonist from Asia where the cockroach genus *Panesthia* is speciose (Wang, Wang & Che, 2014). Scott (1926) documented *Callirhipis philiberti* in the Seychellois highlands and the present writer encountered larvae at 220m altitude in virgin forest on Morne Blanc, Mahé, on 10 November 2019. However one may regard the age in time of this Praslin species assemblage it is clearly well subsumed in Seychellois historical ecology; the introductory discussion in Kelly & Samways (2003) has precise relevance to these findings.

There has been a great deal of discussion amongst specialists on the identity of *Spirobolus praslina* (Saussure & Zehntner, 1897; 1902) cited by Gerlach & Marusik (2010). Mauriès (1980) was unable to establish the identity of an immature male of this species but it is scarcely conceivable that he would have confounded it with anything resembling the diplopod illustrated here (Figs 1, 2), even ignoring the placement of *S. praslina* within *Spirobolida* Cook, 1895.



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Fig. 1. Undescribed millipede of spirostreptid affinity, 80mm long, Praslin, Seychelles archipelago, 8 November 2019.



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Fig. 2. Undescribed millipede of spirostreptid affinity, 80mm long, Praslin, Seychelles archipelago, 8 November 2019.



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Fig. 3. Praslin, 8 November 2019. Deep wood mould bed, lowland high canopy woodland relict. Left. The cockroach *Panesthia angustipennis angustipennis*. Right. Late instar elateriform larva of the callirhipid beetle *Callirhipis philiberti*.

Myriapod records, Seychelles archipelago, November 2019

The following records can be brought forward, mostly of species that are well authenticated in the Seychelles archipelago. Taxonomy follows Sierwald & Spelda (2021).

***Scolopendra subspinipes subspinipes* Leach, 1815 (Scolopendromorpha, Scolopendridae).**

Mahé, Anse La Mouche, 04°74'S 55°48'E 68m a.s.l., under felled *Eucalyptus globulus* Labill., high canopy woodland, immature example 25mm long with characteristic blue colouration, 3 November 2019. Praslin, Anse Lazio, raised beach, 04°29'S 55°70'E 7m a.s.l., supra-littoral scrub woodland over raised beach sediments, large adult, 8 November 2019.

***Rhinotus purpureus* (Pocock, 1894) (Diplopoda, Siphonotidae).**

Mahé, Anse La Mouche, 04°73'S 55°48'E, 4m a.s.l., littoral woodland three under fairly dry rafted log, 13 November 2019, together with the pholcid spider *Pholcus longiventris* (Simon, 1893). Pantropical species.

***Benoitulus flavicollis* Mauriès, 1980 (Diplopoda, Pseudospirobolellidae).**

Mahé, Anse La Mouche, 04°74'S 55°48'E, 35m a.s.l., two under fungoid bark of dead *Adenanthera pavonina* L., 11 November 2019. *Ibid.*, one under fungoid log of *Falcataria moluccana* (Miq.) Barneby & J.W.Grimes, 12 November 2019 with breeding achatinid tramp snail *Subulina octona* (Bruguère, 1789). Tropical tramp species (Enghoff, 2001).

***Leptogoniulus sorornus* (Butler, 1876) (Diplopoda, Pachybolidae).**

Mahé, Anse La Mouche, 04°74'S 55°48'E, 35m a.s.l., one under wet fungoid bark of dead *Adenanthera pavonina* L., 11 November 2019. Praslin, Vallée de Mai, 04°33'S 55°73'E, 193m a.s.l., wet woodland floor litter, closed canopy old growth Coco de Mer *Lodoicea maldivica* (J.F. Gmelin) Persoon, 8 November 2019. Pantropical tramp species evidently of humid biotopes.

***Trigoniulus corallinus* (Eydoux & Souleyet, 1842) (Diplopoda, Pachybolidae).**

Mahé, Anse Forbans, 04°77'S 55°52'E, 4m a.s.l., numerous amongst organic litter sea-rafted into crevices, rocky littoral headland, 7 November 2019. Several other synanthropic records on Mahé.

***Desmoxys planata* (Pocock, 1895) (Diplopoda, Paradoxosomatidae)**

Mahé, Morne Seychellois National Park, Mission Ruins, 04°65'S 55°44'E 448m a.s.l., in long dead tree stump, 26.9°C, 76% Relative Humidity, 1400 hrs, 12 November 2019 (Fig. 4).



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Fig. 4. *Desmoxytes planata*. Mahé, Morne Seychellois National Park, Mission Ruins, 12 November 2019.

Acknowledgements

Dr Sergei Golovatch (Moscow) kindly commented on images. Professor Michael J. Samways (Stellenbosch) provided helpful discussions of *Sechelleptus* spp., provided high quality images of *Sechelleptus seychellarum* and encouraged this publication. Dr Maxwell V. L. Barclay (NHMUK, London) determined larvae of *Callirhipis*, a matter facilitated by Dr Maxim Nabozhenko (Dagestan).

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