

A new genus of centipede, *Australoschendyla* (Chilopoda: Geophilomorpha: Schendylidae), from Western Australia

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Abstract – A new centipede genus *Australoschendyla* and two new species, *A. capensis* and *A. albanensis*, (Chilopoda: Geophilomorpha), are described from the Exmouth and Albany areas in Western Australia.

INTRODUCTION

Geophilomorph centipedes in the family Schendylidae are characterised by their mandibles having both a dentate and a pectinate lamina. Until now the only schendylid centipede known from Australia was the introduced European species *Schendyla nemorensis* (C.L. Koch 1837), found in Tasmania. (R. Mesibov, pers. comm). In the collections of the Western Australian Museum are several very small geophilomorphs of one species collected in Cape Range near Exmouth and of another species from the Bluff near Albany. They are clearly schendylids from the structure of the mandibles.

Schendylid taxonomy is complicated by the fact that it relies on factors to distinguish between genera that are not necessarily distinctive only of those genera. The two new Western Australian species are clearly closely related yet they do not key out to an existing genus in any guides (Attems 1929, 1947; Chamberlin 1947; Crabill 1961).

The Western Australian specimens have both one and two coxal pores per coxa in the same genus whereas the keys differentiate between either one or two as the sole number for a genus. The genus *Schendylurus*, from Africa and South America, is similar in some respects but *Schendylurus* species all have two coxal pores per coxa and lack the well developed claws on the last legs that the new species have (Brolemann and Ribaut 1912). For discussions about whether the presence or absence of features like claws on the last legs is in fact a valid generic one and a discussion of some other schendylid taxonomic matters, see Hoffman and Pereira (1991), Pereira and Hoffman (1993, 1995).

The two new species are very similar and rather than choose an existing genus and redefine it to include them, I have placed them in the new genus, *Australoschendyla*.

All specimens are lodged in the Western Australian Museum, Perth (WAM).

SYSTEMATICS

Family Schendylidae

Australoschendyla gen. nov.

Type species

Australoschendyla capensis sp. nov.

Diagnosis

Very small schendylid centipedes with one or two coxal pores per coxa. Second maxillary telopodites with claws with spines on the dorsomedial edge. Last legs with claws.

Description

Very small centipedes, white to yellowish white in alcohol, with a trace of yellowish brown on the forcipular segment. Labrum consists of sidepieces with several pointed fimbriae, midpiece an arch of blunt teeth. First maxillae with lateral palpi and articulated telopodites. Anterior border of the second maxillary coxosternite concave with no notch. Secondary maxillary telopodites with well developed apical claws which have spines on the dorsomedial edge (Figures 9, 12). Mandible of typical schendylid form with both pectinate and dentate laminae. Lamina basalis visible (Figures 2, 10). Forcipular coxosternite without chitinlines (pleurograms), the anterior border concave. The poison-claws have a number of incisures giving them a distinctly crenulate appearance. Poison calyx situated in the tibia/tarsus. Sternal pore-groups are present. Claws of all legs except the last pair with a ventral spiniform spur (Figures 7, 13). Telopodites of the last legs with apical claws. Anal pores absent.

Australoschendyla capensis sp. nov.

Figures 1–11

Material Examined

Holotype

♀, Cape Peninsula, site TL-6, Western Australia,

Australia, 22°10'S, 113°59'E, pitfall traps, 18 May–4 June 1990, J.M. Waldock (WAM 92/1318).

Paratypes

Australia: Western Australia: 1 ♂, Cape Peninsula, site TL-12, 22°10'S, 113°59'E, pitfall traps, 22 May–4 June 1990, J.M. Waldock (WAM 92/1322); 2 ♀, 1 ♂, same data as holotype (WAM 92/1317, 92/1319–20); 1 ♂, Cape Peninsula, gorge near cave C.256, 22°01'S, 114°03'E, 27 May 1990, J. Waldock (WAM 92/1315); 1 ♂, Cape Peninsula, near cave C.254, *Eucalyptus* sp. leaf litter, 22°02'S, 114°02'E, 30 May 1990, J.M. Waldock (WAM 92/1316).

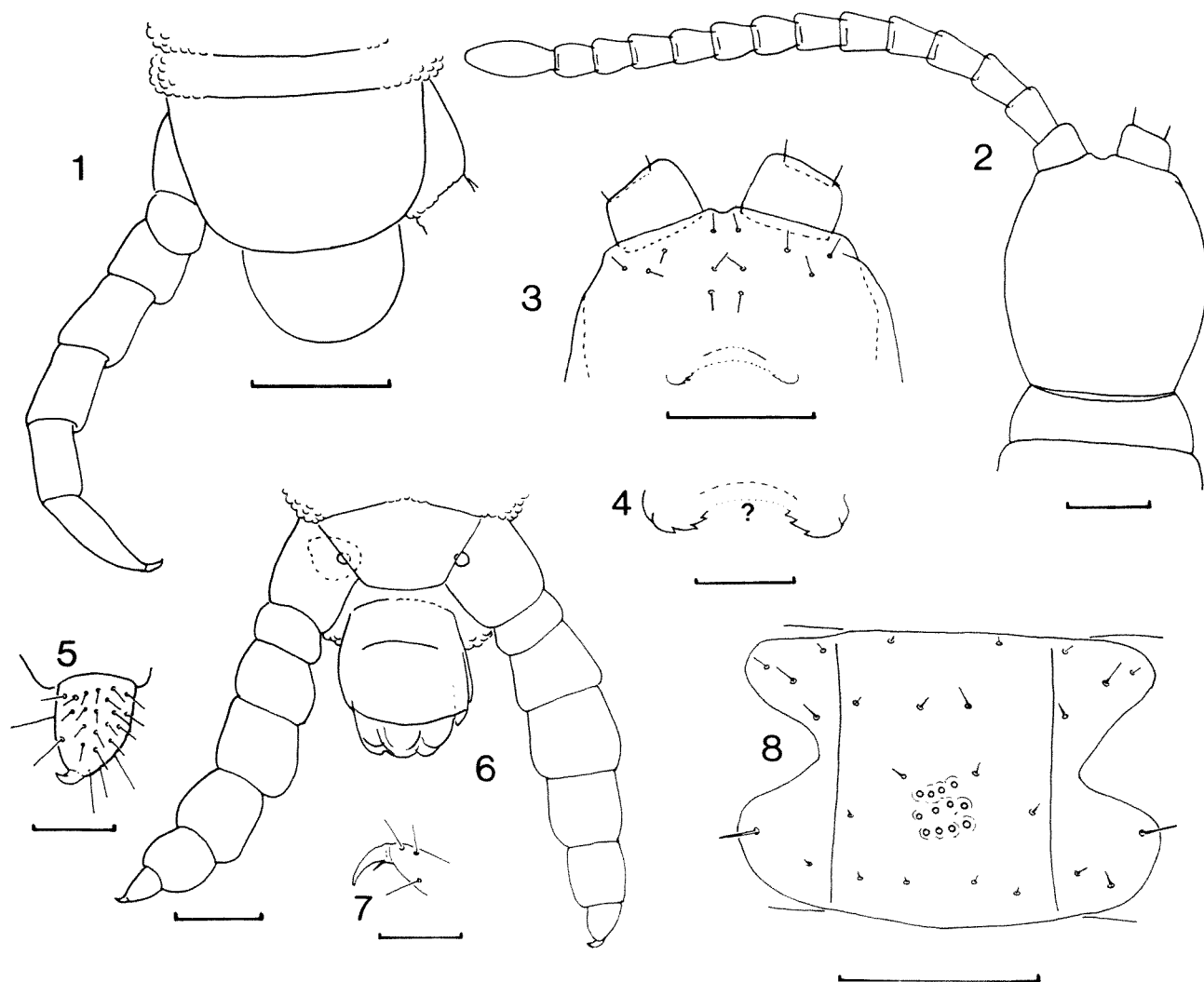
Diagnosis

With one coxal pore on each side, forcipules two thirds the length of the head capsule.

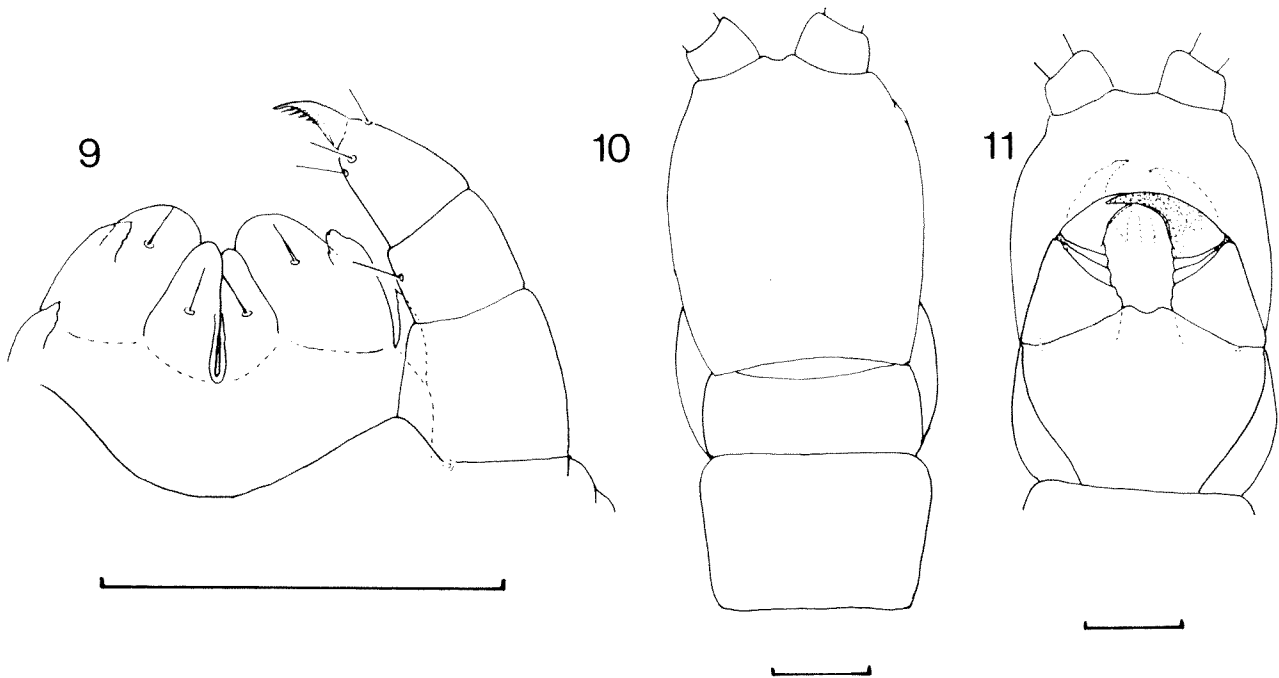
Description

Number of trunk segments: 41 and 43. Length: 13 mm.

Colour: colourless to yellowish white, head and forcipular segment slightly darker. Head capsule: slightly longer than wide, sides convex, a notch at the front between the antennae. Length about a third of that of the antennae (Figures 2, 10). Antennae: first segment very much wider than long; second to seventh, longer than wide; the rest wider than long or about equal except the last which is equal in length to the previous two (Figure 2). Forcipules: two-thirds the length of the head capsule. Seen from above the forcipules bulge outward at their base, beyond the margin of the head capsule (Figures 10, 11). Clypeus: with two post-antennary setae and a band of ten intermediate clypeal setae (Figure 3). Labrum: well marked sidepieces with at least three sharp teeth, is not well defined (Figure 4). Maxillae: first maxillae with two palpi per side; apical claw of the second maxillary telopodite with about seven spines on dorsomedial edge (Figure 9). Pore-groups: from first to 16th segment, gland openings



Figures 1–8 *Australoschendyla capensis* sp. nov., ♀ WAM 92/1318 (Figures 1–4, 7, 8); ♂ WAM 92/1322 (Figures 5, 6): 1, last trunk segment, from above; 2, head and antenna, from above; 3, clypeus; 4, labrum, central area obscured; 5, metatarsus of last ♂ leg; 6, last trunk segment, from below; 7, apical claw of eighth right leg; 8, fourth segment with pore-group. Scale lines equal 0.1 mm except for Figures 4, 5 and 7 where they equal 0.05 mm.



Figures 9–11 *Australoschendyla capensis* sp. nov.: 9, first and second maxilla from below, ♀ WAM 92/1318; 10, 11, ♂ WAM 92/1322: 10, head and forcipular segment from above; 11, head and forcipular segment from below. Scale lines equal 0.1 mm.

form a circular group in posterior half of sternite (Figure 8). Last trunk segment: presternite constricted medially. Metasternite trapeziform. One coxal pore present on each side, partly covered by metasternite. Last legs of female quite slender with few setae while those of male are greatly swollen and densely covered below with short setae. Metatergite D-shaped (Figures 1, 5, 6).

Australoschendyla albanensis sp. nov.

Figures 12–22

Material Examined

Holotype

♂, Bald Head, Albany, Western Australia, Australia, 10 May 1969, D.D. Giuliani (WAM 92/1623).

Paratype

Western Australia: Australia: 1 ♀, same data as holotype (WAM 92/1624).

Diagnosis

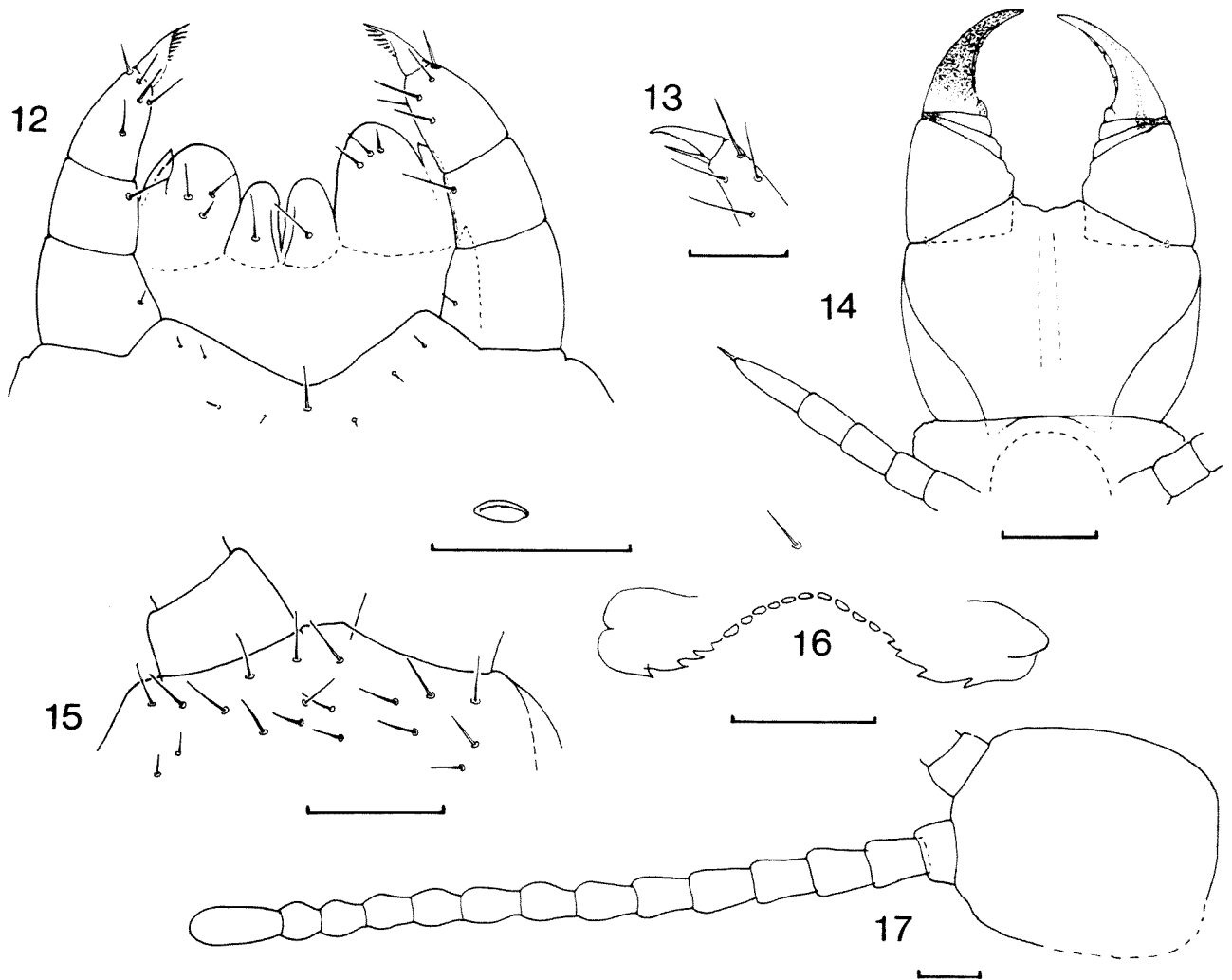
With two coxal pores on each side, forcipules equal in length to the head capsule.

Description

Number of trunk segments: 45 (♂), 47 (♀). Length: to ca. 15 mm.

Colour: colourless to yellowish white, head and

forcipular segment slightly darker. Head capsule: about equal in length and breadth, sides convex, length about a third of that of the antennae (Figure 17). Antennae: first segment very much wider than long, second to seventh longer than wide, the rest wider than long or about equal except the last which is equal in length to the previous two (Figure 17). Forcipules: equal in length to the head capsule. Seen from above the forcipules bulge outwards at the base but not as prominently as in *A. capensis* (Figure 14). Clypeus: with two post-antennary setae and a band of 16 or 17 intermediate clypeal setae. One, possibly two, prelabral setae (Figures 15, 16). Labrum: well marked sidepieces with four sharp teeth the midpiece bearing about 10 blunt teeth in an arch (Figure 16). Maxillae: first maxillae with two palpi on each side, apical claw of second maxillary telopodite with five or six spines on dorsomedial edge (Figure 12). Pore-groups: indistinct, but definitely present from second to 13th or 14th segment, gland openings forming a circular group in posterior half of segment (Figure 21). Last trunk segment: as in *A. capensis* the component sclerites are difficult to distinguish, but presternite appears to be split medially. Metasternite trapeziform and covering two coxal pores on each side. Female legs narrow with sparse setae, while male legs are fatter, though not as fat as in *A. capensis*, and covered ventrally with numerous short setae. Metatergite D-shaped (Figures 18, 19, 20, 22).



Figures 12-17 *Australoschendyla albanyensis* sp. nov., ♂ WAM 92/1623: 12, first and second maxilla, from below; 13, apical claw of sixth left leg; 14, forcipules, from below; 15, clypeus; 16, labrum; 17, head and antenna, from above. Scale lines equal 0.1 mm except for Figures 13 and 16 where they equal 0.05 mm.

DISCUSSION

Schendylids do not appear to be species diverse in the southwest Pacific area. A *Mesoschendyla* is known from Java (Attems 1914), an *Adenoschendyla* from Fiji (Chamberlin 1920), a *Plesioschendyla* from New Caledonia (Ribaut 1923) and a *Eucratonyx* species from the Bismark Archipelago in New Guinea (Pocock 1898). These genera appear sufficiently distinct from each other and from *Australoschendyla* to justify their continuation as genera for the time being, but a revision of the Schendylidae and related families is much needed.

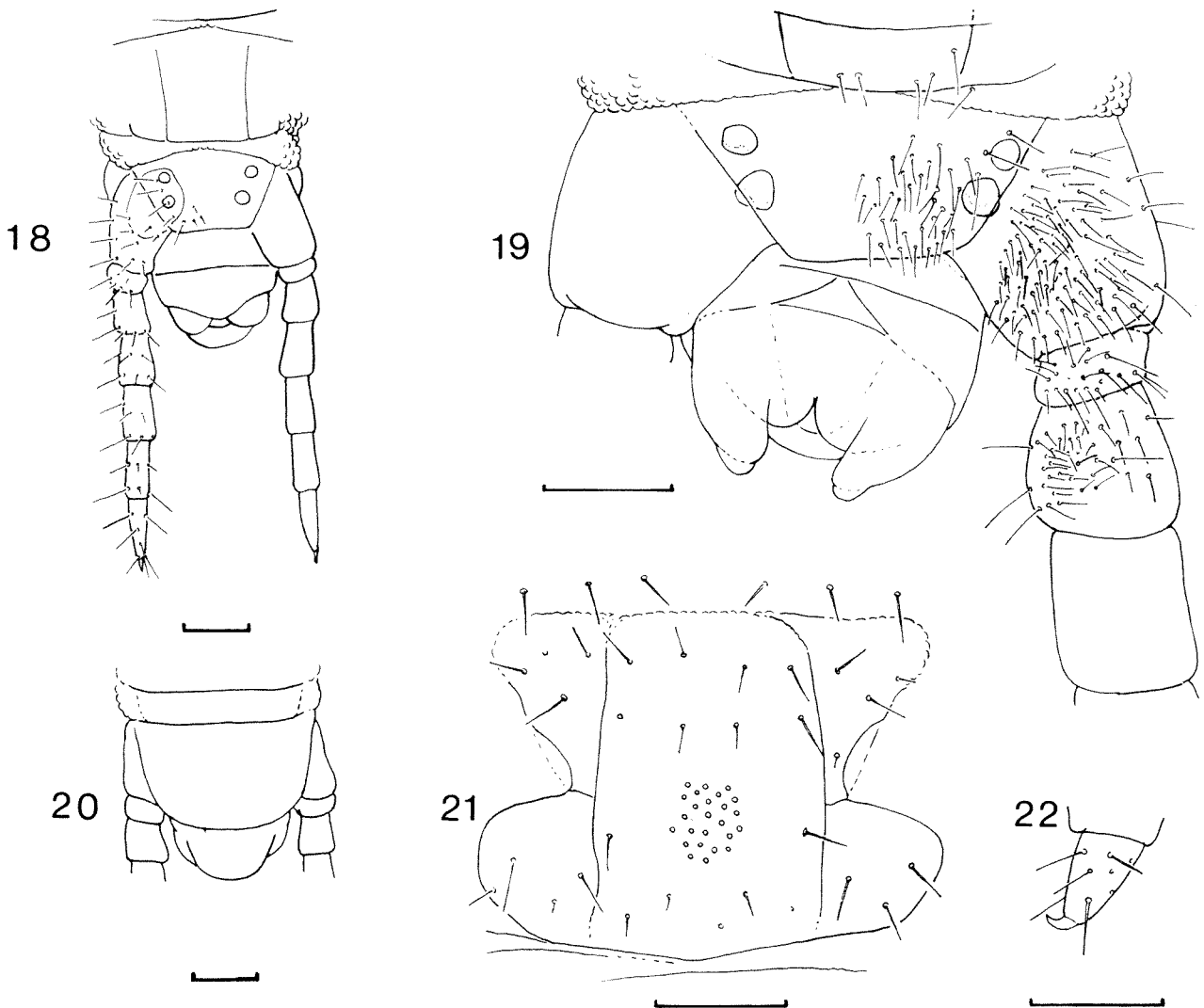
Both *A. capensis* and *A. albanyensis* are so far only known from their respective type localities. The two species can be distinguished by the length of the forcipules relative to the head capsule, by the number of coxal pores and the number of leg-pairs. These characters should be used with caution as there are likely to be more native schendylids found in Australia.

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Figures 18–22 *Australoschendyla albanyensis* sp. nov., Figures 18, 20, ♀, WAM 92/1624; Figures 19, 21, 22, ♂, WAM 92/1623: 18, last trunk segment, from below; 19, part of last trunk segment, from below, showing details of setae; 20, last trunk segment, from above; 21, sixth segment with pore-group; 22, metatarsus of last a leg. Scale lines equal 0.1 mm.

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