New Species of Linognathus and Polyplax *(Anoplura)*.

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*Linognathus peleus nov. sp.*

(Figs. 1-2.)


Fig. 1.--*Linognathus peleus* nov. sp., female (A) and male (B).
NEW SPECIES OF LINOGNATHUS AND POLYPLAX.

Female (Fig. 1a).—Length 2·1 mm. Head elongate, the forehead parabolic with a transverse band on the venter; antennae set well forward; hind head with the lateral margins gradually broadening from base to apex; dorsal with a distinct, irregular sclerotic pattern, the setae of medium length; pharynx with brushes, mouth-parts extending beyond posterior margin of the head.

Thorax shorter than the head; sternal plate absent.

Abdomen elongate oval, the setae arranged dorsally and ventrally into median and lateral groups. Spiracles large with distinct markings. Gonopophyses (Fig. 2a) elongate with a few short setae on their inner margins; genital plate spatulate.

Male (Fig. 1b).—Length 1·6 mm. Head and thorax as in the female. Abdomen terminating posteriorly in a pointed process. Genitalia (Fig. 2b) with the basal plate long and slender, likewise the parameres; endomeral piece well developed.

A very distinct species apparently belonging to the tibialis group. It can be distinguished by the shape of the head, the female genital region, male genitalia, and apex of the abdomen of the male.
Livognathus damaliscus nov. sp.

(Figs. 3-4.)

Males and females (including the holotype, a male, and allotype) taken off Damaliscus albilfrons (blesbok), Zoological Gardens, Johannesburg (coll. G. Martinaglia), and females off Damaliscus dorcas (Bontebok), Bredasdorp, C.P. (coll. Austin Roberts).

Fig. 3.—Livognathus damaliscus nov. sp., female (A) and male (B).

Female (Fig. 3A).—Length 1·75 mm. Head elongate; the forehead acutely pointed with a transverse band on the venter; antennae elongate, set about the middle; dorsum with a distinct, irregular sclerotic pattern, the setae of medium length; hand head with lateral margins convex and sclerotic; pharynx with brushes; mouth-parts extending beyond posterior margin of head.

Thorax shorter than the head; sternal plate present, very narrow.
NEW SPECIES OF LINOGNATHUS AND POLYPLAX.

Abdomen elongate oval, sparsely haired, the setae which are short and slender arranged in normal pattern. Spiracles medium sized without markings. Gonopophyses (Fig. 4A) small, rounded posteriorly, with a row of setae on their inner margins; genital plate subtriangular.

Male (Fig. 3B).—Length 1·55 mm. Head and thorax as in the female. Abdomen terminating posteriorly in a short, broad lobe. Genitalia (Fig. 4b) with the basal plate long and slender; parameres each with a pointed expansion on their inner margins and pointed at their apices; endomeral piece elongate, extending almost to the base of the parameres and pointed in front. This species belongs to the tibialis group. The female can be distinguished by the shape of the genital plate and gonopophyses, and the male by the genitalia, especially the shape of the endomeral plate.

Linognathus damaliscus nov. sp.
(Figs. 5-6.)

Males and females (including the holotype, a male, and allo type) taken off Aepyceros melampus (Impala), between Pretoria and Johannesburg; also females (mostly slightly immature) off some host species, Rustenburg District, Transvaal.

Female.—Length 1·85-2 mm. Head short and broad; forehead rounded; antennae situated slightly forward beyond the middle; hind head with lateral margins distinctly angulate and constricted posteriorly; pharynx with well-developed brushes; mouth-parts extending beyond posterior margin of the head.
Thorax short and broad, of ordinary form; sternal plate present, slender.

Abdomen elongate oval, similar to other species of the *breviceps* group, the setae sparse and short except for a median pair on each segment dorsally and ventrally; long marginal setae present on segments vi to viii, and a single long seta near the spiracle on the second segment. *Spiracles* small. *Gonophyses* (Fig. 6a) elongate with long setae on posterior margin; genital plate racquet-shaped.

![Image](image_url)

**Fig. 5.**—Linognathus aepycerus nov. sp., head of male.

**Male.**—Length 1·19 mm. Similar to the female in general characters, except that the abdomen is pointed posteriorly. *Genitalia* (Fig. 6b) with the basal plate long and slender; parameres slender, without notches on their inner margins; endomeral piece long and slender, pointed in front. This species belongs to the *breviceps* group. Both sexes can be distinguished from *L. angulatus* (Piaget) by the shape of the head, and the male also by the genitalia. In the male of *L. angulatus* the parameres are slightly notched at their apices. From other species belonging to the group the females can be distinguished, *inter alia*, by the shape of the genital plate, and the males by the genitalia.

*Polyplax subtaterae* nov. sp.

(Fig. 7.)


**Female.**—Length 1·34 mm. *Head* slightly longer than broad; antennae set close to the anterior margin, which is almost truncate; hind head with prominent post-antennal angles and strongly constricted occipital region, lateral margin straight. Antennae with the first segment dilated.
New Species of Linognathus and Polyplax.

Thorax about as long as the head, with the lateral angles roundly convex; on the dorsum there is one short seta on each side above the spiracle and a long one on the submargin. Sternal plate as in fig. 7A. Abdomen with the tergal and sternal plates short and very narrow, the tergal plates of the second and eighth segments each with about eight setae, and the remainder with about twenty or more setae. Sternal plate of the second segment with ten setae, those of the median segments with about seventeen setae, and of the seventh six setae; between the ends of each sternal plate on the third to seventh segments and the corresponding paratergal plates there is a single seta.

Fig. 6.—Linognathus aepycerus nov. sp., A, genital region of female; B, male genitalia.

Paratergal plates (fig. 7A) as follows: Those of the second segment distinctly divided longitudinally, each portion with a single seta, and the dorsal portion with a tapering process; plates of the third to sixth segments each with a small tooth at each posterior angle; those of the third and fourth segments each with a short ventral seta and a very long dorsal seta; those of the fifth and sixth segments with two very short setae; plates of the seventh and eighth segments small, especially the latter, each with two long setae.

Male.—Length 1·15 mm. Head about as broad as long, with the lateral margins of the hind head rounded, otherwise as in the female. Antennae with the basal segment much dilated and with the third segment strongly modified. Thorax similar to that of the female.
Abdomen as in *P. werneri* (Glink), except that the sternal plates are smaller, and there is only one seta on each of the median segments between the sternal plates and the corresponding paratergal plates; also the long setae on the third and fourth paratergal plates are much longer, being as long as the three following segments. Genitalia as in *P. werneri*. This species belongs to the *praeccisa* group, and appears to be intermediate between *P. taterae* Ferris and *P. werneri* (Glink). From *P. taterae*, *P. praeccisa* and *P. biseriata* it can be distinguished in having the short setae on the paratergal plates much shorter, and the male also by the genitalia. From *P. werneri* the male can be distinguished, apart from the characters given above, by the shape of the sternal plate.

Fig. 7.—*Polyplax subtaterae* nov. sp., A. paratergal plates of female; B. sternal plate.