

**A NEW GENUS AND TWO NEW SPECIES OF ISCHNOCERA
OCCURRING ON FROGMOUTHS (PODARGIDAE)**
(MALLOPHAGA)

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***Podargoecus*, n. gen.**

This genus belongs to the subfamily Philopterinae of the family Philopteridae of the suborder Ischnocera. Judging from the shape of the head and abdomen the genus is closest to some species of *Strigiphilus*; however, the male genitalia of individuals within the two genera differ greatly. *Podargoecus* may be distinguished from other genera in the subfamily by the following combination of characters:

Head large and wide. Hyaline margin of forehead prominent. Wide dorsal anterior plate with a concave anterior margin, convex lateral margins, prominent posteriorly pointing curved projection at each lateroposterior angle, and a prominent median projection on the posterior margin. Short narrow premarginal carinae. Antennae filiform and similar in both sexes. Dorsal and ventral submarginal setae long.

Thorax and legs typical of the subfamily.

Abdomen short and rounded, with tergal plates II–VIII separated medially in both sexes. Tergal plates of segments II–IV or II–V each with a posteriorly pointing projection on the margin posterior to the spiracle. One row of long setae on each tergite and sternite, except for terminal segments. Terminal segment rounded in the male and

bilobed in the female. Posterior margin of vulva broadly convex.

Male genitalia characteristic, with large thick curved paramera.

Type-species: *Podargoecus papuensis*, n. sp.

This genus is established for the two new species described below, and apparently is found only on hosts of the avian genus *Podargus* (Podargidae, Caprimulgiformes).

***Podargoecus papuensis*, n. sp.**

Male: General external morphology and chaetotaxy as illustrated in figure 1. Head length greater than width. Dorsal anterior plate as wide as long. Tergal plates of abdominal segments II, III and IV each with a posteriorly pointing projection on the margin posterior to the spiracle. Tergal plates of abdominal segments III-VIII separated medially by only a short space. Abdominal tergoventral setae are: II-8, III-8, IV-6, V-6, VI-6, VII-6 and VIII-4. Abdominal sternocentral setae are: II-2, III-4, IV-6, V-6, VI-8, VII-4 and VIII-2. Genitalia, less sac, as illustrated in figure 3.

Female: External morphology, except for terminal abdominal segments, similar to the male. Terminal abdominal segments as illustrated in figure 2.

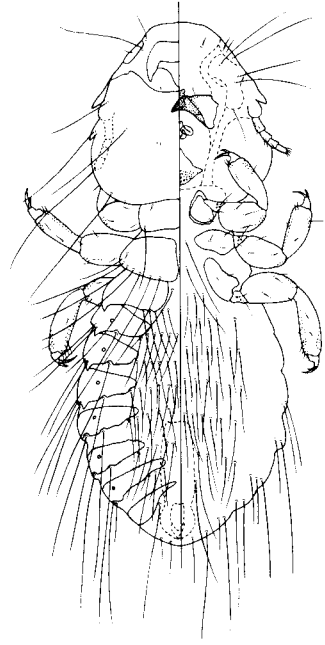
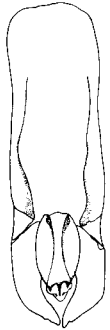
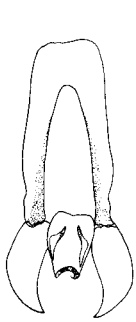
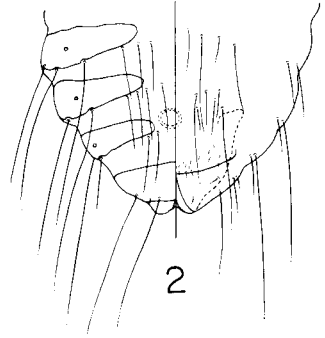
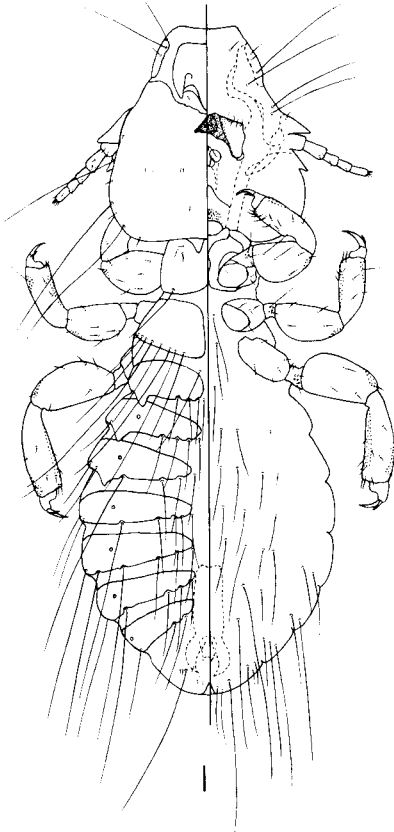
Measurements of mounted specimens:

	Male		Female	
	Length	Width	Length	Width
Head	0.70 mm	0.63	0.73	0.68
Prothorax	0.16	0.30	0.16	0.30
Pterothorax	0.16	0.45	0.16	0.44
Abdomen	1.05	0.79	1.23	0.88
Total	2.07		2.28	

Host: *Podargus papuensis* Quoy and Gaimard.

Type material: Holotype male, allotype female and 33 paratypes collected at Wau Creek, New Guinea on 22 March 1963 by P. Shanahan. Three paratypes collected at Kauli Creek, New Guinea on 26 September 1962 by H. Clissold. Eleven paratypes collected in New Guinea (no other locality data). Four paratypes collected at Port Darwin (no other locality data). Holotype, allotype and paratypes are in the Bernice P. Bishop Museum. Paratypes are in collections of the U. S. National Museum, British Museum (Natural History), the Universities of California, Kansas and Minnesota, and the senior author.

Discussion: Within the genus, this species is distinguished by the shape of the head and the dorsal anterior plate, chaetotaxy of the abdomen, and the shape of the abdominal tergal plates.



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***Podargoecus strigoides*, n. sp.**

Male: General external morphology and chaetotaxy as illustrated in figure 5. Head width equal to length. Dorsal anterior plate much wider than long. Tergal plates of abdominal segments II-V each with a posteriorly pointing projection on the margin posterior to the spiracle. Tergal plates of abdominal segments III-VII widely separated medially. Abdominal tergo-central setae are: II-10, III-12, IV-12, V-12, VI-10, VII-10 and VIII-6. Abdominal sterno-central setae are: II-6, III-10, IV-12, V-12, VI-12, VII-8, and VIII-2. Genitalia, less sac, as illustrated in figure 4.

Measurements of mounted specimen:

	Male	
	Length	Width
Head	0.57 mm	0.57
Prothorax	0.09	0.25
Pterothorax	0.13	0.31
Abdomen	0.86	0.66
Total	1.65	

Host: *Podargus strigoides* (probably *victoriae* Mathews).

Type material: Holotype male (only specimen) collected in Victoria (no other locality data) is in the collection of the British Museum (Natural History).

Discussion: This species can be separated from the type species by the shape of the head and the dorsal anterior plate, chaetotaxy of the abdomen, and shape of the abdominal tergal plates.

DISCUSSION

The two species described are the first to be recorded from the avian family Podargidae. There have been too few collections of Mallophaga from the remaining hosts of the order Caprimulgiformes to present a meaningful discussion on the possible phylogenetic affinities of the parasites in relation to those of the hosts. It is, however, worthwhile to note that modification of the heads in *Podargoecus* is found also in *Strigiphilus*, a genus found on hosts of Strigiformes. The general form of *Podargoecus* differs greatly from that of *Mulcticola* found on most hosts of Caprimulgiformes.

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Figs. 1-3. *Podargoecus papuensis* n. sp. Fig. 1. Dorsal-ventral views of male; fig. 2. Dorsal-ventral views of terminal abdominal segments of female; fig. 3. Male genitalia.

Figs. 4-5. *Podargoecus strigoides* n. sp. Fig. 4. Male genitalia; fig. 5. Dorsal-ventral views of male.