

A NEW SPECIES OF *Apterygon*
(MALLOPHAGA : MENOPONIDAE)

By THERESA CLAY
(British Museum (Natural History))

PLATES V and VI

The genus *Apterygon* Clay* was erected for a single species, *A. mirum* parasitic on *Apteryx australis mantelli* Bartlett, now through the kindness of Professor R. L. C. Pilgrim of Canterbury University, New Zealand, further specimens of *Apterygon* collected by Mr. E. S. Gourlay from *Apteryx haasti*, have been seen. These prove to be a new species which is described below; in addition, photographs taken by a Cambridge Stereoscan electron microscope are included to show the details of the maxillary palp, setae and fine structure of the integument. I have much pleasure in naming the species after Professor H. E. Hinton, to whom I am greatly indebted for these photographs.

Apterygon hintoni sp. n.

Type host: *Apteryx haasti* Potts.

This species closely resembles *mirum* but can be separated by differences in the dorsal chaetotaxy of the last abdominal segment and in the male genitalia.

♂ and ♀. Similar to *mirum*. Setae of femoral brush less numerous: ♂ *hintoni*, range 15-22, \bar{X} (10 legs) 17.4; *mirum*, 23-27, \bar{X} (8) 24.7. ♀ *hintoni*, 17-23, \bar{X} (10) 20.5; *mirum*, 29-30, \bar{X} (4) 29.2. There is some variation in the numbers of abdominal setae, but these are similar to those of *mirum*; also as in *mirum* the marginal tergal setae show considerable variation in length and thickness (Pl. VI, figs. 3, 4). In the male the setae on the margin of the genital opening are longer (text-fig. 1) and in the female the setae of the last tergum are longer and more numerous (text-fig. 3). The male genitalia are similar but can be distinguished at once by the form of the sclerite in the genital sac shown in Clay, 1961, fig. 4, which in *hintoni* is elongated with approximately parallel sides (text-fig. 2). Comparison of the shape of the parameres and sclerites b. and c. (fig. 5, Clay, 1961) is difficult as these are often distorted in mounted specimens. The measurements fall within the range of *mirum*.

Holotype ♂ in the Canterbury Museum, Christchurch, New Zealand, from *Apteryx haasti* Potts, Nelson, New Zealand, 6.ii.1924 (E. S. Gourlay).

Paratypes: 19 ♂, 20 ♀ (3 ♂, 10 ♀ in alcohol; 6 ♂, 2 ♀ dissected) with the same data.

*Ann. Mag. nat. Hist. (13), 3: 571 (1960), 1961.

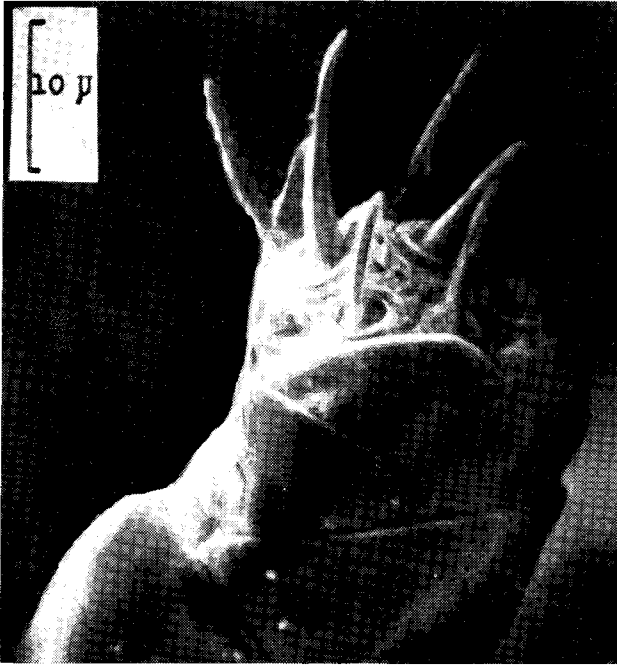


FIG. 1. *Apterygon mirum*, ♂. Terminal segment of maxillary palpus.

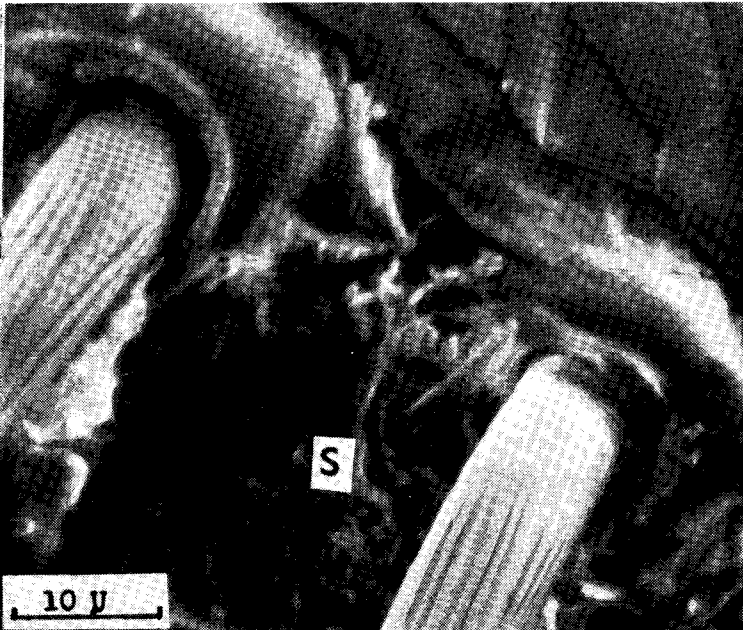


FIG. 2. *Apterygon hintoni*, ♂. Base of a post-spiracular seta; s.—minute basal seta.

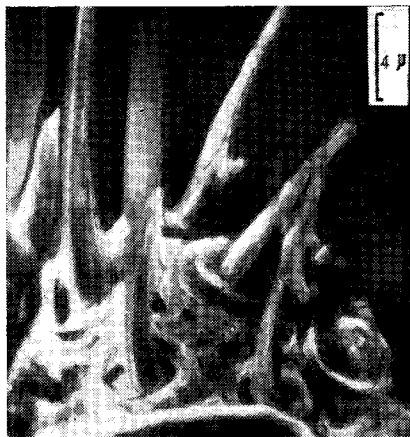


FIG. 1. *Apterygon mirum*, ♀. Terminal setae of maxillary palp.

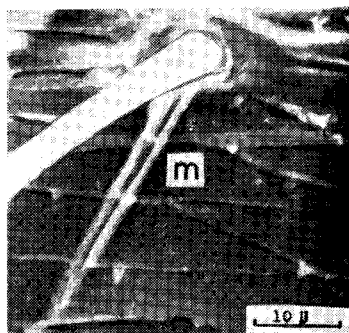


FIG. 2. *Apterygon hintoni*, ♂. seta on sternum VIII; m.—surface modification posterior to seta.

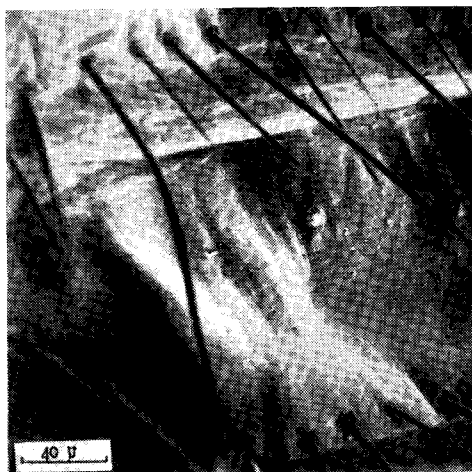
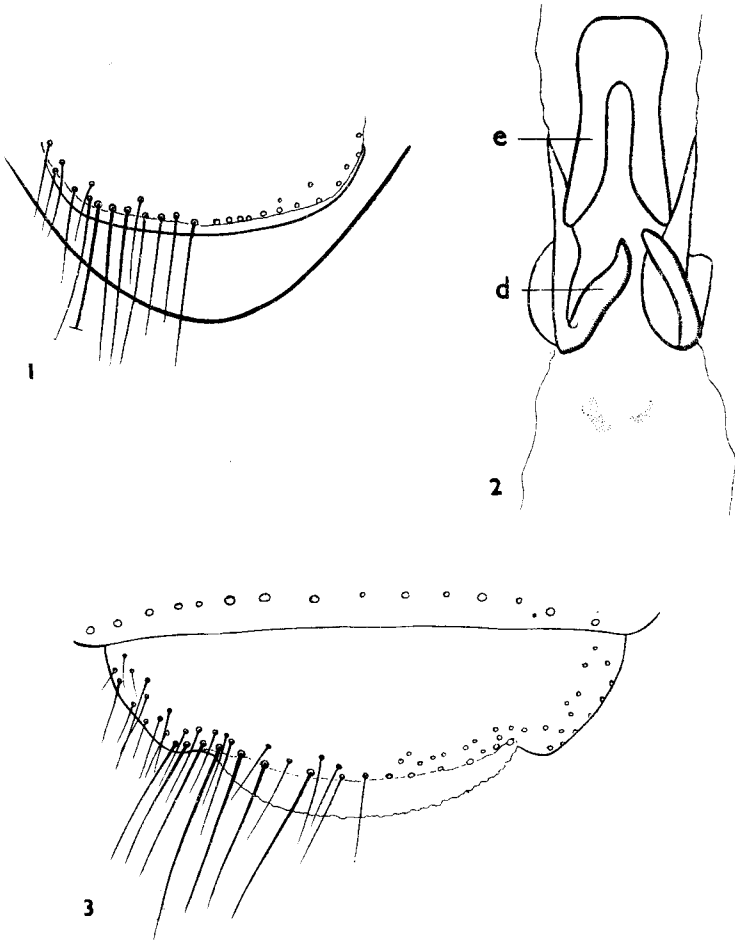


FIG. 3. *Apterygon mirum*, ♀. Marginal setae of terga VII and VIII



FIG. 4. *Apterygon hintoni*, ♂. Posterior margin of tergite showing postspiracular seta and associated minute setae. s.



FIGS. 1-3. *Apterygon hintoni* sp. n. 1. Terminal segment of ♂ abdomen to show chaetotaxy of dorsal genital opening. 2. Sclerites of ♂ genital sac (everted). e.—ventral, d.—dorsal. (Thorn-like armature of genital sac not shown.) 3. Terminal tergum of ♀ abdomen.

Interesting features shown in the Stereoscan photographs are the ribbed structure of the setae, the modification of the surface of the integument posterior to some of the setae (P. VI, fig. 2.m), the minute setae posterior to the post-spiracular seta (Pl. V, fig. 2.s) and details of the surface structure of the sternites and tergites (Pl. VI, figs. 2-4).

NOTE.—This is one of the first papers ever to be published where electron-microscopy is used for work on systematics.—EDITOR.