

INSECTS OF MACQUARIE ISLAND. DIPTERA: SCIARIDAE

By Donald H. Colless¹

Recent collections from Macquarie Island, in Antarctica, include a long series of a species of sciarid which appears to be new.² Recent advances in the taxonomy of this family make many previous descriptions obsolete, and the possibility cannot be entirely excluded, that the Macquarie I. species is an immigrant, already described in another country. However, in the literature available to me, I can find no definite evidence that this is so.

Description of the larvae and pupae, which are also available, will not be possible until more is known of the taxonomy of those immature stages. However, specimens will be lodged in the Australian National Insect Collection, Canberra, and the Bishop Museum, Hawaii, for the use of future workers.

The biology and ecology of the species will be described by Mr. K. Watson in a future publication.

1. *Bradysia watsoni* Colless, n. sp.

Types: Holotype ♂ and allotype ♀ (both Langdon Point, Macquarie I., 3.X.1961, K. Watson; M/61/In/357), together with 12 paratypes of each sex and a series of morphotype larvae and pupae, in the Australian National Insect Collection. Paratype series also to be placed in the Bishop Museum, Hawaii, the United States National Museum, and the British Museum (Natural History).

Type locality: Macquarie I., Antarctica.

A small, dark species, belonging to the genus *Bradysia* Winn., in the enlarged sense of Frey (1948) and Tuomikoski (1960), by virtue of the following characters: eyes hairy; maxillary palp 3-segmented, segment 1 with a sense organ; posterior pronotum without setae; fore tibia with distinct apical comb, consisting of row of small spines placed near base of single spur; mid and hind tibiae each with pair of sub-equal spurs; tarsal claws simple; wing veins M and Cu without macrotrichiae.

Male: Wing length 2.2-2.5, average 2.4 mm. (10 specimens)

Head. Vertex dull, black. Eyes well haired, eye-bridge with 2 rows of facets and, in many specimens, a 3rd row at center. Antennae (fig. 1e) dark brown, thickly clothed with short golden setae, segments with short necks, segment 6 about 2× as long as wide. Face with scanty short setae and several longer ones. Palps and mouthparts brown. Palp segment 1 rather globular, with a fairly well demarcated, shallowly concave, sensory area,

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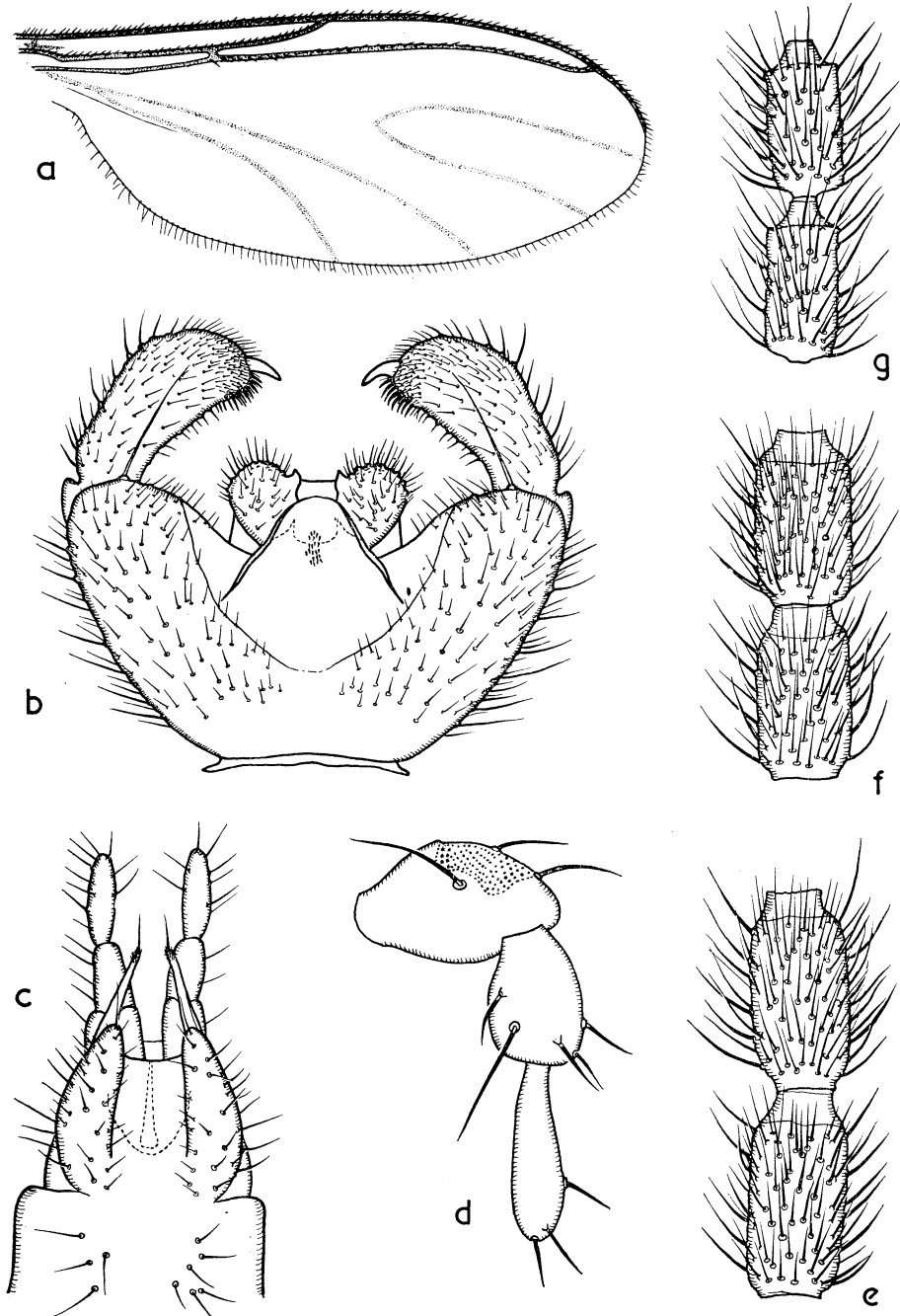


Fig. 1. *Bradysia watsoni*, n. sp. a, wing; b, ♂ terminalia; c, ♀ terminalia; d, palp; e, ♂ antennal segments 5 and 6; f, ♀ antennal segments 5 and 6; g, ♀ antennal segments 14-15.

and 2-5 setae; segment 2 smaller than 1, with 6-9 setae; segment 3 elongate, 1.2-1.4× as long as 2, with 5-8 setae (fig. 1d).

Thorax dark brown to black, slightly paler on anterior and posterior pronotum. Mesonotum and scutellum with fine golden-brown setae; dorso-central and acrostichal setae present, but very small and inconspicuous, except in front of scutellum; lateral setae longer. Halteres pale brown, basal 1/2-2/3 of knob usually somewhat darkened, and with several small marginal setae. Legs dark brown, little paler than pleura; tibial spurs golden brown, fore tibia with apical comb of 4-7 spines. Wing as in fig. 1a; membrane grayish; subcosta and humeral cross vein very weak, occasionally absent; r-m bare or with 1-2 setulae near apex; more posterior veins all without setulae; stem of M_1 , basal to fork, absent or very faintly indicated; costa produced about 2/3 distance from R_5 to M_1 .

Abdomen dark brown to black, with short, fine, golden brown setae. Terminalia (fig. 1b): style not excavated on inner surface, with strong, incurved, apical spine and near it, on inner surface, a group of smaller spines which merge into setae of the external surfaces; remainder of inner surface with scanty fine setae; coxite with pair of long apical setae, one dorsal and the other ventral; no basal lobe or hair-tuft; ventral surface of mesosome with longitudinal area of tiny, recurved spines.

Female: Wing length 2.2-3.0, average 2.7 mm. (10 specimens)

As for ♂, except antennal segments relatively shorter and wider, segment 6 only about 1.5× as long as wide (figs. 1f, 1g). Terminalia as in fig. 1c.

MATERIAL EXAMINED: Numerous adults of both sexes, and immature stages, Langdon Pt., Douglas Bay, Douglas Pt., Gadget Gully, First Gully, Lambing Gully, Nuggets Pt., Camp Hill, Handspike Pt., Garden Cove, Hasselborough Bay, I-XII. 1961, Watson; 1 ♂, 1 ♀, Gadget Gully, 5. XII. 1960, J. Calaby; 1 ♀, NE Coast, 1-3 m, 4-10. XII. 1960, Gressitt.

NOTES

Generic concepts have recently undergone considerable revision, and in the earlier key of Frey (1942), as adapted by Shaw (1953), the above species belongs in the genus, or subgenus, *Lycoriella*. I am following the more recent concepts of Frey (1945) and Tuomikoski (1960), and, somewhat reluctantly, treating *Bradysia* as a full genus. I am not attempting to place the species in any of Frey's subgenera, since Tuomikoski (op. cit., p.112) has suggested that alternative arrangements may be more desirable. *B. watsoni* would appear to fall in his Group F (*B. bicolor* or *brunnipes* group).

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