

INSECTS OF CAMPBELL ISLAND. PSOCOPTERA¹

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Abstract: This paper reports on the Psocoptera known from Campbell I. Three species, *Spilopsocus avius* n. sp., *Troglum pulsatorium* (L.) and *Austropsocus insularis* Smithers are here recorded, the last named having been described from Macquarie Island (Smithers, 1962).

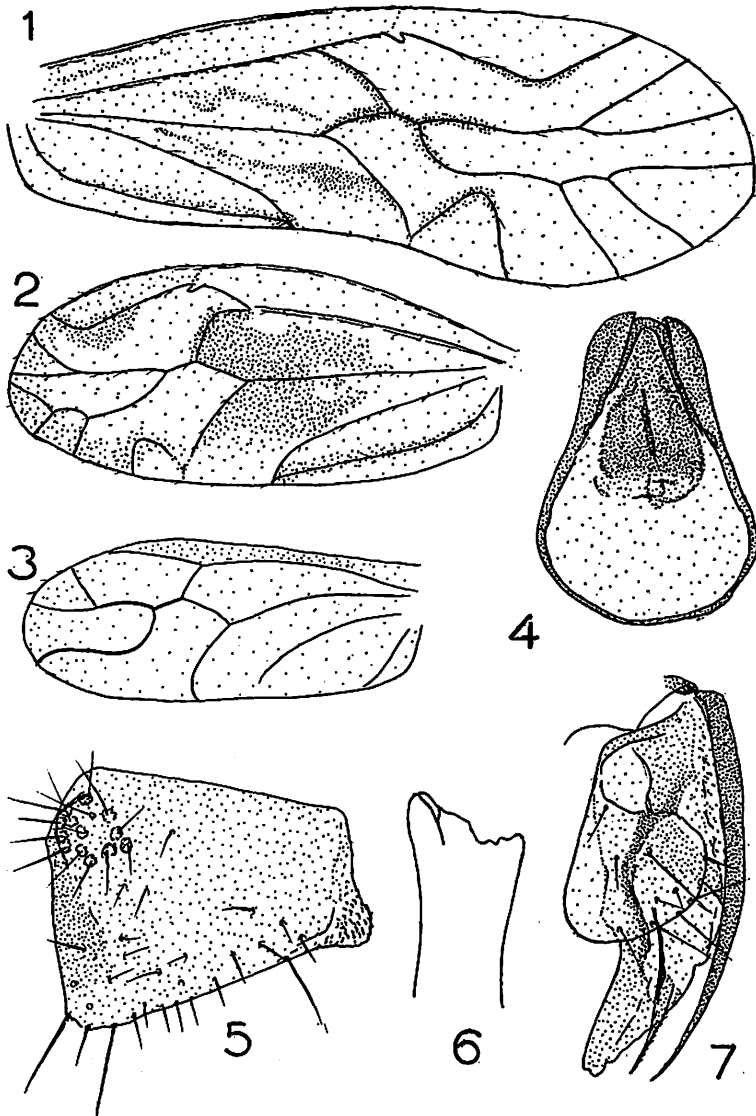
Family ELIPSOCIDAE

Spilopsocus avius Smithers, n. sp.

♀. *Coloration* (in alcohol): Head light buff with pale brown markings as follows: a crescent-shaped patch adjacent to inner margin of each compound eye, a rectangular patch on vertex on each side of median epicranial suture, a semicircular area between the median ocellus and epistomial suture, the straight edge of which lies along suture and a ring around the base of each antenna. Genae pale. Antenna darker than the light buff of head but not as dark as head markings. Eye black. Ocelli pale, bordered on their adjacent edges with pale brown. Maxillary palp pale, segment 4 colored as antenna. Dorsum of mesothorax light buff with anterior part of antedorsum and median areas of lateral lobes pale brown. Scutellum bordered in pale brown. Dorsum of metathorax similar but whole scutellum light buff. Legs pale except for the dark brown tarsal segment 3. Fore wing (fig. 2) hyaline, very faintly tinged with brown, marked with brown as in figure. Veins brown. Hind wing (fig. 3) hyaline, very faintly tinged with brown in costal region. Abdomen very pale except for pale brown transverse markings on dorsum of segment 1 and for pale brown tergite 9 which has a fine, dark brown line along anterior margin. Terminal structures pale brown.

Morphology: Brachypterous. Length of body 2.4 mm. Epicranial suture distinct; vertex and frons bearing strong, dark brown setae; those on postclypeus pale, finer and shorter. Eye fairly large, but not reaching level of vertex when viewed from side. IO/D: 2.8; PO: 0.71. Three ocelli present, not prominent. Lacinia (fig. 6). Measurements of hind leg: F, 0.5 mm; T, 0.9 mm; t₁, 0.25 mm; t₂, 0.075 mm; t₃, 0.10 mm; rt, 3.3: 1.0: 1.3; ct, 11, 0, 0. Claws with small preapical tooth; pulvillus broad. Fore wing: length, 1.5 mm; width, 0.65 mm. Hind wing: length, 1.2 mm; width, 0.5 mm. Fore wing reduced, somewhat curved, the reduction involving especially distal 1/2 of wing; the pterostigma lies entirely well within distal 1/2 of wing. Cu₂ setose, setae of veins and wing margin small and fine. Hind wing reduced. Cu₁ strongly recurved near wing margin. Setae of mar-

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Figs. 1-7. *Spilopsocus avius* n. sp. 1, ♂ fore wing; 2, ♀ fore wing; 3, ♀ hind wing; 4, ♂ phallosome; 5, ♀ paraproct; 6, ♀ lacinia; 7, ♀ gonapophyses.

gin, between R_{2+3} & R_{4+5} only, very small and fine. Epiproct in form of an equilateral triangle with hind angle rounded. Paraproct (fig. 5) with small, rugose protruberance on posteroventral angle. Subgenital plate simple, posterior lobes reduced but with single seta remaining to represent the group usually present in this family at apex of each lobe. Transverse band of preapical setae present. Gonapophyses (fig. 7) with ventral valve strong and pointed; dorsal valve with divided apex; external valve rounded.

♂. *Coloration* (in alcohol): Similar to that of ♀; antenna brown beyond middle of 1st flagellar segment. Fore wing (fig. 1).

Morphology: Length of body 2.0 mm. Head similar to that of ♀ but relatively smaller. Eyes fairly large, but not reaching level of vertex when viewed from side. IO/D : 2.0; PO : 0.71. Three ocelli present, larger than in ♀. Lacinia as in ♀. Measurement of hind leg : F, 0.55 mm; T, 0.92 mm; t_1 , 0.27 mm; t_2 , 0.085 mm; t_3 , 0.11 mm; rt, 3.2 : 1.0 : 1.2; ct, 13, 0, 0. Fore wing : length, 2.5 mm; width, 1 mm. Fore wing with setae fine and short. Cu_2 setose. Hind wing : length, 2 mm; width, 0.8 mm. Cu_2 strongly recurved near hind margin. Marginal setae between R_{2+3} & R_{4+5} fine and short. Epiproct simple, rounded behind, setose. Paraproct simple without duplex setae, with a field of about 22 trichothria. Hypandrium with hind margin curved and with small lateral lobes. Phallosome (fig. 4).

MATERIAL EXAMINED. CAMPBELL I.: 2♀♀ (including holotype), 2♂♂ (including allotype), 0–30 m, Tucker Cove, ex *Dracophyllum*, 7.VIII.1962, K. Rennell; 5♀♀, Shoal Pt., swept ex *Hebe elliptica*, 7.II.1963, K. A. J. Wise; 1 nymph, Beeman Camp, 2–50 m; ex *Coprosma*?, 26–30.XI.1961, J. L. Gressitt; 2♂♂, nr. Shoal Pt., ex *Hebe elliptica*, 7.II.1963, Rennell; 3 nymphs, Beeman Beach, ex *Hebe elliptica*, 16.XII.1961, Gressitt; 2♀♀, 1 nymph, Beeman Camp, ex *Dracophyllum*, 21–25.XI.1961, Gressitt; 1♀, St. Col Ridge, 180–280 m, 24, 26, 30.XI.1961, Gressitt; 2♂♂, Tucker Cove, 1–50 m, ex *Dracophyllum*, 1–5.XII.1961, Gressitt; 3 nymphs, Beeman, 20 m, ex *Poa laterosa*, 16.XII.1961, Gressitt; 2♀♀, 2 nymphs, Beeman, 100–150 m, ex *Coprosma*, 3.VIII.1963, Rennell; 4 nymphs, Beeman Camp, 2–50 m, 12–17.XII.1961, Gressitt; 3♀♀, 1♂, Beeman Camp, ex *Dracophyllum scoparium*, 13.XII.1961, Gressitt; 1♂, by shore, Lookout Bay Beach, ex *Hebe*, 16, 19.XII.1961; 1♂, Moubay Hill, 100 m, ex *Dracophyllum*, 12.XII.1961, Gressitt; 1♂, Tucker Cove, ex *Coprosma*, 1.XII.1961, Gressitt; 1♀, Moubay Hill, 100 m, ex *Coprosma*, 12.XII.1961, Gressitt; 1♀, Beeman Hill, 40 m, ex *Dracophyllum*, 21.XI.1961, Gressitt; 4♀♀, 12♂♂, Beeman Pt., ex *Dracophyllum scoparium*, 25.II.1963, Wise; 1♂, Beeman Hill, sweeping, 2.II.1963, Wise; 3♀♀, 4♂♂, Shoal Pt., swept ex *Dracophyllum longifolium*, 7.II.1963, Wise; 1♂, 2 nymphs, surface of water barrel, 8.XI.1947, J. H. Sorensen.

Holotype ♀, allotype ♂ and ♂ paratype in Dominion Museum, Wellington; ♂ and ♀ paratypes in Bishop Museum and Australian Museum.

This species is placed in the genus *Spilopsocus* with some reservation as the form of the subgenital plate in the ♀ has hardly any indication of lobing other than the setal arrangement and the pulvillus is broad instead of being narrow. On other characters, however, including genitalia, it seems preferable to place the present species in *Spilopsocus*. It can be distinguished from other species genus by the form of the wing pattern, which is very much more extensive and darker in *S. ruidis* Smithers. In *S. stigmaticus* (Tillyard) R_1 is more strongly curved before the apex of the pterostigma than in *S. avius* and the distal part of the pterostigma is more darkly colored. The ♀ genitalia also show differences in

proportions, especially of the dorsal and external valves.

Family PHILOTARSIDAE

Austropsocus insularis Smithers

MATERIAL EXAMINED. CAMPBELL I.: 1 ♀, 1 ♂, Tucker Cove, ex *Coprosma*, 6. VIII. 1962, H. M.; 1 ♀, 1 ♂, 2 nymphs, NW bay, ex tussock, 30. XII. 1962, Rennell; 1 nymph, nr. beach, Monument Harbor, ex tussock, 9. II. 1963, Rennell; 1 ♂, Shoal Pt., ex tussock, 7. II. 1963, Wise.

Family TROGIIDAE

Trogium pulsatorium (L.)

MATERIAL EXAMINED. CAMPBELL I.: 6 ♀ ♀, 1 nymph, IX. 1961, V. O'Neill.

REFERENCE

Smithers, C. N. 1962. Insects of Macquarie Island. Psocoptera: Philotarsidae. Pacific Ins. 4 (4): 929-32, 6 figs.