

INSECTS OF CAMPBELL ISLAND.

DIPTERA : CERATOPOGONIDAE^{1,2}

By Masaaki Tokunaga

LABORATORY OF ENTOMOLOGY, KYOTO PREFECTURAL UNIVERSITY,
KYOTO, JAPAN

Abstract: *Monohelea campbellensis*, n. sp. is here described for the first time.

Monohelea campbellensis Tokunaga, n. sp. Figs. 1-3.

Medium-sized, brownish ochreous, rather strongly shining species. Wings without special markings. ♂ not known.

♀: Body 2.12 mm long. Wing 1.63×0.6 mm. Head dark brown; eyes bare, separated as wide as 2.5 facets; proboscis short, about $1/2$ of head length. Antenna generally dark brown, basal parts of all flagellar segments more or less pale ochreous; segments III-IX short-oval, X-XIV cylindrical, XIV rather sharply pointed; antennal ratio of length of X-XIV to II-IX combined 1.07, relative lengths of distal 8 segments 12 : 12.5 : 12.5 : 16.5 : 20 : 21 : 24 : 34. Mandible with 7-8 cutting teeth; clypeus with 6 lateral setae; palp 5 segmented (10 : 18 : 23 : 12 : 16), dark brown, segment III slightly thickened, with very small sensory pore on apical $1/3$, V clavated.

Scutum shiny, ochreous; setigerous with dark strong setae, 3 distinct fuscous vittae; scutellum yellowish ochreous, with 4 strong bristles and 4 small setae; postscutellum brown; pleura brownish ochreous; sternum brown. Legs strongly setigerous, ochreous and dark brown, but not distinctly banded; fore leg largely ochreous, brownish only on basal corner of coxa, apical parts of femur and tibia and entire length of last tarsal segments, dark on basal end of tibia; middle similar in color to fore, but lateral side of coxa more widely brown, tibial end not brownish, tarsal segments II-V brownish; hind more widely brownish, coxa and tarsal segments entirely brown, distal $1/2$ of femur and $2/3$ of tibia dark brown. Spurs and spine-like bristles: in fore, tibia with 1 apical, tarsal segment I with 3-4 ventral besides 1 apical, II-III each with 1 apical; in mid, tarsal I with 3-4 ventral besides 2 apical, II with 2 apical, III with 1 apical; in hind, tibia with 4-6 bristles of apical comb, tarsal I with 1 basal and 3 apical. Claws of fore and mid legs small, simple, equal, shorter than $1/2$ of last tarsal segments (12 : 31), claw of hind single, unequally bifid, slightly shorter than last segment (34 : 37). Tarsal ratios of length of segment I to II and relative lengths

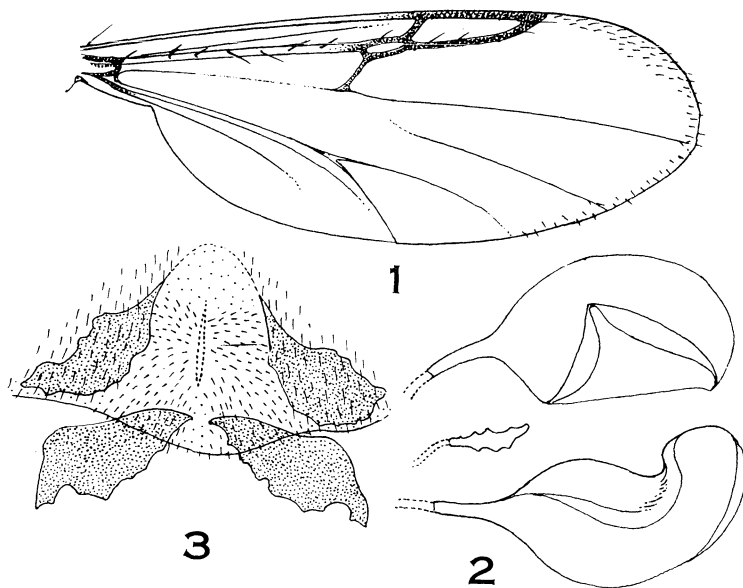
1. Contribution from the Laboratory of Entomology, Kyoto Prefectural University, No. 91.
2. Field work supported by the National Science Foundation grant G-23720 from the U. S. Antarctic Research Program.

of segments, excluding coxae and trochanters, 1.67 and 34 : 34.5 : 14 : 8.5 : 6 : 4.5 : 7.5 in fore, 1.85 and 42 : 40.5 : 18.5 : 10 : 6.5 : 4 : 7.5 in mid, 2.08 and 49 : 49 : 19.8 : 9.5 : 7 : 6.5 : 9.4 in hind.

Wing (fig. 1) very pale brown, but veins around 2 radial cells brown; macrotrichia present only along apical margin between ends of costa and M_{3+4} . Venation: costa extending about $3/4$ (97 : 125) of wing length, ending slightly beyond end of M_{3+4} , relative lengths of veins, R, M, stem of fMCu, R_1 and Rs 48 : 47 : 49 : 17 : 36, radial cell II about 2.6 of I in length (22 : 8.6), M_{1+2} as long as r-m (7.5 : 7.5), fMCu under r-m. Halter white.

Abdomen brown, but caudal 3 segments very pale, tergal setae arising from pale spots; cerci brown; spermathecae (fig. 2) dark brown, oval, rather large, subequal, 66–69 × 51–54 μ , each with slender chitinized part of duct; subgenital plates (fig. 3) paired, irregularly triangular.

Holotype: ♀ (D. S. I. R., Nelson), Middle Cove, Northwest Bay, Campbell I., 5. II. 1963, K. A. J. Wise, by sweeping.



Figs. 1-3. *Monohalea campbellensis*, ♀. 1, wing; 2, spermathecae; 3, subgenital plates.

General appearance of this species is similar to that of New Zealand *ferruginea* Macfie and *clavipes* Macfie, except for the lack of distinct bandings of legs. The first allied species may be distinctive in larger antennal ratio (about 1.12), more setigerous scutellum bearing 6 bristles and longer radial cell II (about 3× as long as I) from the new species. The 2nd differs from the present species in possession of subcylindrical antennal segments III–IX, highly setigerous scutellum bearing 9 bristles and mid spine-like bristle of hind basitarsus besides basal and apical. *Tasmaniensis* Lee may be another allied species, but all basitarsi are provided with only a single stout spine at both base and apex, hind tarsal

claw is far longer than the last segment and wings are more widely hairy differing from *campbellensis*.

Relative lengths of antennal and palpal segments were measured under magnification of 600 (1 unit=0.003 mm) and those of leg segments and wing veins under magnification of 150 (1 unit=0.013 mm).