

INSECTS OF CAMPBELL ISLAND.

DIPTERA : EMPIDIDAE

By Kenneth G. V. Smith

DEPT. OF ENTOMOLOGY, BRITISH MUSEUM (NAT. HIST.), LONDON

The following 2 new species were collected by Dr. J. L. Gressitt and I am indebted to him and to Dr. R. A. Harrison for the opportunity to study them. No Empididae were previously known from the island, the nearest record being *Hilara smithii* Hutton (1901) from the Auckland Isles (later removed to the genus *Hilarempis* by Collin, 1928).

Subfamily EMPIDINAE

Genus *Empidadelpha* Collin

Empidadelpha Coll. 1928, New Zealand Empididae. London.

Collin (1928: 105) erected this genus to receive *E. propria* Collin from New Zealand. He differentiated the genus from *Empis* mainly on the shorter r1 and the S-shaped recurrent veinlet closing cell Cu. Later, Collin (1933: 225) included a new species from Chile, *E. sobrina* in which r1 is longer and the recurrent veinlet closing Cu not S-shaped, but still more rounded than in *Empis*. The new species here described is more akin to the Chilean species in venation.

Empidadelpha stigmosa Smith, n. sp. Fig. 1 a-c.

♂: *Head* completely grey dusted. Frons short, about 4× as wide as an ocellus. Face about 3× ocellar width. A pair of strong divergent ocellar bristles with several short hairs behind. A pair of distinct vertical bristles with a 2nd weaker outer pair. Occiput with short postocular bristles and some longer bristles behind. Antennae very long and blackish (as in fig. 1b), segment 1 elongate, 2× length of segment 2; segment 3 with a short broad base, but drawn out apically to almost length of segment 1 and with a long thick apical style. Proboscis very short and fleshy. Palpi broad, flattened and rather long with some very short stout bristles at tip. *Thorax* completely brownish grey, but in some lights more greyish on a broad median stripe to point nearly in line with wing bases. Bristles well developed. Acrostichals commencing biserial, but ending uniserial. Dorsocentrals strong, uniserial, 6 bristles in each series with some weaker bristles between. A strong humeral bristle with 1 or 2 small bristles in front; a strong intrahumeral; a strong posthumeral, with a weaker bristle in front; 3 strong notopleurals; 2 supra-alars, posterior one longer; a strong postalar. Scutellum brownish grey with a pair of strong upswept, convergent apical bristles and a weak outer pair of hairs. Pleurae greyish, metapleurae with about 8

slender bristles. *Abdomen* brownish, with short black hairs and a hind marginal series of longer bristles on each tergite. Genitalia (fig. 1c) widely open with blackish appendages. *Legs* brown but coxae more yellowish brown and femora somewhat yellowish beneath. Front femora with distinct antero- and posteroventral bristles and less distinct posterodorsal bristles. Mid femora with antero- and posteroventral bristles and a slender anterior bristle at basal third. Hind femora with anteroventral bristles which become stronger towards tip. Front tibia short, fine haired below, otherwise short haired except for short posterodorsal bristles. Mid tibiae without outstanding bristles. Hind tibiae with 1 or 2 distinct anteroventral bristles distally, strong antero- and posterodorsal bristles. All tibiae with apical circlets of small bristles. Tarsi slender, hind metatarsi with tiny anteroventral bristles.

Wing (fig. 1a) grey with brown veins, a brownish stigma about tip of r1. A long costal bristle at base. Tip of r1 a little beyond end of the rather blunt ended 1st M_2 . Halteres with knob black and stem pale brownish.

♀: Similar to ♂ but proboscis (fig. 1b) longer than head is deep, with labrum shining black.

Length: 3.5 mm.

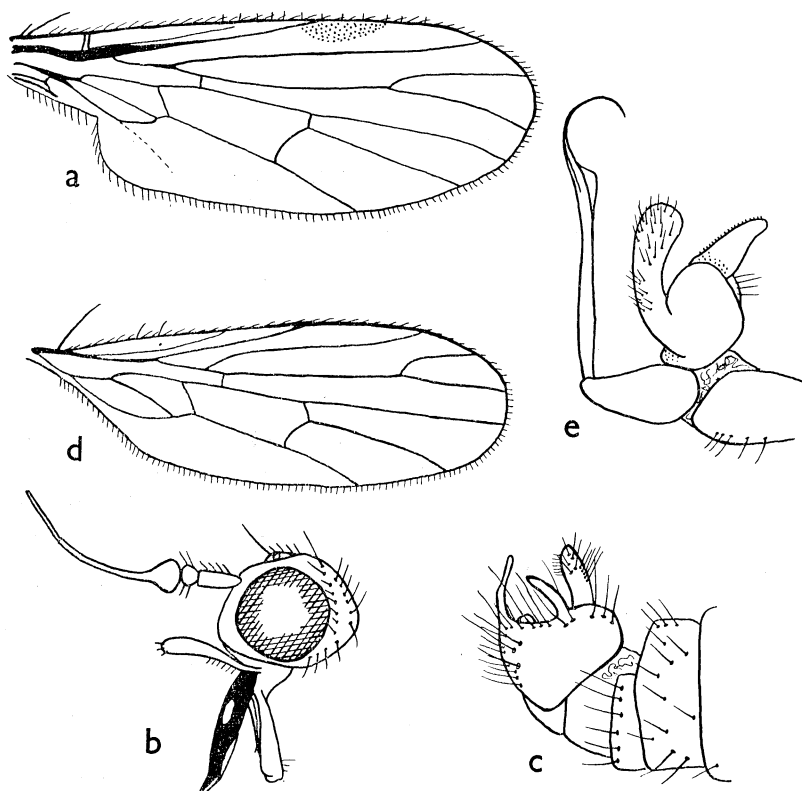


Fig. 1. a-c. *Empidadelpha stigmosa* Smith, n. sp. a, ♂ wing; b, ♀ head; c, ♂ genitalia. d-e. *Clinocera gressitti* Smith, n. sp. d, ♂ wing; e, ♂ genitalia.

Immediately distinguishable from the 2 described species *E. sobrina* and *E. propria* by the presence of a wing stigma and the short, fleshy proboscis of the ♂.

Holotype ♂ (D.S.I.R., Nelson); paratypes 6♂♂, 10♀♀, Campbell I., Tucker Cove, 4 m, Malaise trap, 18–21.XII.1961, Gressitt. Paratypes 3♂♂, 1♀, Northwest Bay, beach, rocks, 29.XI.1961, Gressitt and K. Rennell. Paratype ♀, Lookout Bay, beach, 16, 19.XII.1961, Gressitt. Paratype ♀, St. Col Ridge, 180–280 m, 7.XII.1961, Gressitt. Paratypes in Bishop Mus., and Dominion Mus., except for paratype ♂ and ♀ retained in British Museum (Nat. Hist.), London.

Subfamily CLINOCERINAE

Genus *Clinocera* Meigen

Clinocera Meig. 1803, Illig. Mag. II, 271.

This genus has not been recorded from the New Zealand region before, the only representative of the subfamily being *Dipsomyia* Bezzi (Collin, 1928: 59). *Clinocera fumosa* Hutton (1900: 31) was shown by Collin (1928: 64) to belong to *Apalocnemis* Philippi. The new species described here is somewhat intermediate between the subgenera *Clinocera* s. s. and *Hydrodromia* Macquart. It lacks the front femoral terminal 'comb' of the latter, but there is a strong humeral bristle, usually present in *Hydrodromia* and absent in *Clinocera*.

Clinocera gressitti Smith, n. sp. Fig. 1 d–e.

♂. *Head* brown with face and lower part of occiput grey. Frons a little wider, face about as wide as antennal segment 3 is deep. Face bare. Ocellar bristles slender and divergent. Two pairs of vertical bristles. A postocular series of small bristles with weaker bristles behind and some fine pale hairs below. Antennae short, black, segment 3 triangular with a thickened apical arista which is nearly as long as 3 antennal segments combined. Mouthparts extremely short and palpi brown. *Thorax* brown with 2 narrow blackish median stripes when viewed in certain lights. No acrostichals, 5 long uniserial dorsocentrals; a humeral; a posthumeral; a notopleural, with a tiny bristle below; a weak supralar and a strong postalar present. Scutellum brown with a pair of strong apical bristles. Pleurae brown on upper 1/2, light grey below. Hind margin of mesopleuron with a few tiny hairs, metapleura with 8 or 9 bristly hairs. *Abdomen* brown above, light grey below, with very short hairs. Genitalia (fig. 1e) brown. *Legs* slender, with coxae light grey, remainder dark brown. Front femora without a terminal 'comb.' No outstanding bristles except for some slender antero- and posteroventral bristles basally on front femora, otherwise short haired. *Wings* (fig. 1d) brownish tinged, more especially so on dark brown veins and about crossveins. Long costal spine at base and 2 long bristles between it and tip of sc.

♀: Similar to ♂, but with thoracic bristles a little longer, abdomen terminating in 2 anal papillae (about as long as antennal segment 3).

Length: 3 mm.

Holotype ♂ (D.S.I.R., Nelson); paratypes 8♂♂, 6♀♀, Campbell I., Tucker Cove, 4 m, Malaise trap, 26.XI–21.XII.1961, J. L. Gressitt. Paratypes in Bishop Mus. and Dominion

Mus., except for paratype ♂ and ♀ retained in British Museum (Nat. Hist.), London.

The genitalia of this species bear a remarkable resemblance to the Palaearctic *Clinocera* (*Hydrodromia*) *stagnalis* Haliday, which also resembles this species in other features, notably the less clouded wings compared with other members of the subgenus *Hydrodromia*. However *C. (H.) stagnalis* has the pleurae entirely light grey and has no bristles beneath the base of the front femora and of course has the tiny anterior 'comb' of bristles characteristic of the subgenus. The nearest to New Zealand that the genus *Clinocera* has previously been recorded is Java (Engel, 1931).

REFERENCES

- Collin, J. E. 1928. New Zealand Empididae. London.
——— 1933. Diptera of Patagonia and South Chile, IV. Empididae, London.
Engel, E. O. 1931. Empididae (Dipt.) aus Java. Tropische Binnengewässer 1 (Suppl. 8) : 486-89.
Harrison, R. A., 1955. The Diptera of Auckland and Campbell Islands. Rec. Dom. Mus. Wellington 2 : 205-31.
Hutton, F. W. 1901 [1900]. Synopsis of the Diptera Brachycera of New Zealand. Trans. N. Z. Inst. 33 : 1-95.