

A new species of *Dolichocephala* Macquart from Fiji (Diptera: Empididae)

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During the Fiji Arthropod Survey, the genus *Dolichocephala* Macquart was readily collected, resulting in more than 1,000 specimens from four islands. The bulk of this material consisted of two species, *D. ciwatikina* Sinclair & Evenhuis and *D. walutikina* Sinclair & Evenhuis (Sinclair & Evenhuis 2005). While sorting through some remaining undetermined specimens, a third new species was discovered and is herein described and illustrated. Specimens are deposited in the Bishop Museum, Honolulu (BPBM) and Canadian National Collection of Insects, Ottawa (CNC).

Dolichocephala evenhuisi, new species

(Figs. 1–3)

Diagnosis. The wing of this species with eight spots is patterned identical to *D. walutikina*, but can be distinguished on the basis of the very long ventral setae on the fore femur, nearly three times longer than width of femur, clasping cercus with long, slender, divergent apical processes and phallus with narrow, weakly sclerotized apical cap and broad shaft.

Description. Male. Head. Slender, tapered ventrally. Face dark brown with greyish-blue pruinescence. Frons pale brown medially with greyish blue pruinescence laterally. Vertex and occiput dark brown, concolorous with ocellar triangle. Ocellar triangle with pair of strong upturned setae.

Thorax. Scutum brown with faint dark stripe beneath acrostichal and dorsocentral rows; medial stripe ending at prescutellar depression; lateral stripes faintly extended to scutellum. Scutellum concolorous with scutum. Postpronotum, pleural ridge and pleura yellow to yellowish brown. Several very minute acrostichal setulae anterior to first dorsocentral setae; 4 dorsocentral setae; 1 postpronotal seta; 1 presutural supra-alar seta; 1 notopleural seta; 1 postalar seta; 1 pair scutellar setae. Laterotergite with several pale setulae.

Legs. Yellowish-brown, concolorous with pleura, somewhat darker on tarsi. Fore femur with preapical anterior comb; biserial row of long, slender pale setae beneath, length of setae nearly 3 times width of femur (Fig. 1). Mid femur with posteroventral row of setae, similar to fore femur; hind femur with shorter posteroventral setae.

Wing (length 2.0–2.1 mm). Narrow; infuscate; single, long basal costal seta present; R_4 and R_5 divergent apically; R_4 with auxiliary cross-vein to R_{2+3} ; 8 irroration (Fig. 1)



Figs. 1–2. *Dolichocephala evenhuisi* n. sp. **1.** habitus, lateral view; scale bar = 0.5 mm. **2.** male terminalia, lateral view; scale bar = 0.1 mm.

(white rounded spots) clearly separated and distinct: 2 spots each in cells r_{2+3} and dm ; 1 spot each in cells r_4 , m_1 , m_2 and apex of r_5 . Posterior margin of cell dm straight. Halter with dark knob.

Abdomen. Yellowish, slightly darker medially on tergites. **Terminalia** (Figs. 2, 3). Hypandrium cone-shaped, with 2–3 lateral setae in vertical row. Phallus broad, arched, broadly articulated to hypandrium; distiphallus with thinly sclerotized cap, apex bifid, slender forks extending as membranous lobes; lateral wing-like lobes below cap, perpendicular to shaft. Epandrium oval with several posterior setae. Cercal plate with macrosetae confined to upper margin. Clasping cercus with broad base and widely divergent apical processes; posterior process slender with series of strong, inner apical setae; anterior process slender, slightly arched medially, terminating with short, broad spine-like seta. Lobe of subepandrial sclerite extended beyond epandrium between clasping cerci. Surstylus arched, with broad base; apex with pair of long setae.

Female. Unknown.

Type material. **Holotype** ♂, labelled: “FIJI: Taveuni, Cakaudrove Prov., / Takukui Village, Mt. Devo, 892m / 31.VII–14.VIII.2004, Malaise 4, / coll. E. Schlinger, M. Tokota’a / 16.837°S, 179.973°W, FBA 113328” (BPBM). **Paratypes:** **FIJI. Taveuni:** 5.5 km SE Tavuki, MT, rainforest, 30 Jun–14 Jul 2004, -16.843, 179.966, 1188 m, E. Schlinger, M. Tokota’a (FBA 070304, 070297–298, 070303, 070309) (5♂); same data as holotype except, 14–31 Jul 2004 (FBA 151614, 151615) (2♂). **Vanua Levu:** 6 km NW Kilaka, 15–28 Jun 2004, 146 m, Batiqere Range, MT, 16.8153°S, 178.9864°E, E. Schlinger, M. Tokota’a (FBA 072315, 072316) (2♂); same data except, 3–15 Jun 2004, 113 m, 16.7317°S, 178.9997°E (FBA 069223) (1♂); Kilaka, FJ-58E, 24 Jun–21 Jul 2004, 98 m, MT, 16°48’412”S, 178°59’290”E, M.E. Irwin, E. Schlinger, M. Tokota’a (FBA 028296) (1♂).

Etymology. This species is named after Neal L. Evenhuis who invited me to join this survey and encouraged my studies of the Fiji empidoidea.

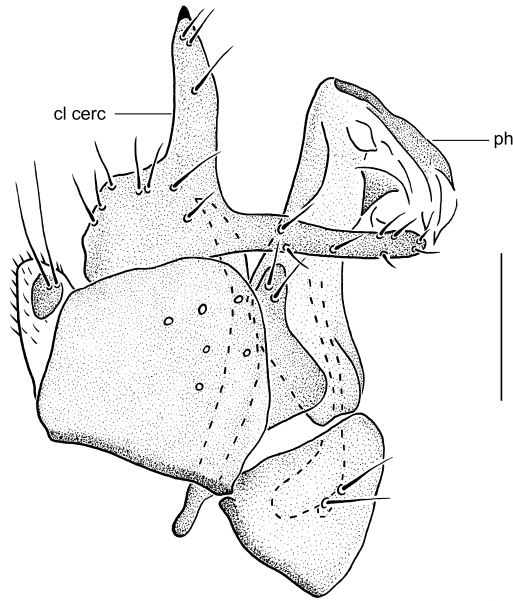


Fig. 3. Male terminalia of *Dolichocephala evenhuisi* n. sp., lateral view; scale bar = 0.1 mm. Abbreviations: cl cerc – clasper; ph – phallus.

KEY TO THE FIJIAN SPECIES OF *DOLICHOCEPHALA*

1. Face light brown lacking greyish pruinescence. Frons with large light brown area between antennae and posterior ocelli, area extends to eye margins. Wing with nine spots, proximal spot in cell dm lengthened into broad streak; spot posterior to cell dm *ciwatikina* Sinclair & Evenhuis
- Face dark brown with greyish pruinescence. Frons with small light brown spot between antennae and anterior ocellus. Wing (Fig. 1) with eight round spots, proximal spot in cell dm not lengthened, lacking spot posterior to cell dm ... 2
2. Fore femur with long ventral setae, slightly longer than width of femur. Clasper with stout apical processes; anterior process stout, strongly curved medially; posterior process narrower than anterior process, curved medially. Phallus with narrow shaft and strongly sclerotized, broad apical cap
 *walutikina* Sinclair & Evenhuis
- Fore femur with very long ventral setae, nearly three times longer than width of femur (Fig. 1). Clasper with long, slender apical processes; anterior process straight, only slightly curved medially; posterior process curved medially with series of strong inner apical setae. Phallus with broad shaft and weakly sclerotized, narrow apical cap (Figs. 2, 3) *evenhuisi*, n. sp.

ACKNOWLEDGMENTS

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LITERATURE CITED

- Sinclair, B.J. & N.L. Evenhuis.** 2005. Two new species of *Dolichocephala* Macquart from Fiji (Diptera: Empididae: Clinocerinae). *Fiji Arthropods II. Bishop Museum Occasional Papers* **84**: 3–11.