

## A new *Dacus* from Australia (Diptera: Tephritidae)<sup>1</sup>

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The following description of an apparently new species of fruit fly is being published at this time in order that the name will be available for use in the fruit fly parasite paper which Mr. Fullaway is publishing in this issue of the "Proceedings". A more complete study of Australian *Dacinae* will follow at a later date.

The drawings of *D. laticaudus* were made by Miss Marian Adachi.

### *Dacus* (*Strumeta*) *laticaudus* n. sp. (figs. 1a-f)

This species is very distinctive; it is somewhat related to *D. cacuminatus* (Hering) but is readily distinguished by the very broad cubital streak, the fumose band on the r-m cross-vein and the short, broad ovipositor of the female. It also differs in many other respects from *cacuminatus*.

The infuscation along the r-m cross-vein reminds one of the wing of *Dacus* (*Strumeta*) *psidii* Froggatt, but these two species differ strikingly in other wing characters, body coloration and structural characteristics.

*Male. Head:* Front two and one-third times longer than wide, the anterior half is slightly wider than the basal half. The front is yellowish on the margins, reddish in the central portion and with a brown to blackish discoloration on the median tumescence. The swollen portion is densely covered with short brown to black hairs. All of the head bristles are black except for the postoccipital bristles, these vary from brownish to yellow. The frontal bristles have no distinct brown spots at their bases. The occiput is chiefly yellow, some specimens have slight brownish discolorations in the median portion. The third antennal segment is rather slender and parallel-sided. It extends about half its length beyond the oral margin. The third segment is four and one-half times longer than its greatest width (the length is measured on the ventral margin from a lateral view). The first antennal segment is two-thirds as long as the second and the second is one-third as long as the third (fig. 1f). The first two segments and the base and inner, ventral margin of the third are yellow; the outer surface and dorsal margin of the third segment are black. The bases of the arista are yellow. The face is yellow except for the black facial spots, these are large and oval in shape. The spots extend near the oral margin and occupy over one-third the length of the face. The face has a small tumescence just above the middle, the lower half of the face is straight, or nearly so, as seen from a lateral view. The palpi are reddish yellow in color and do not appear to be distinctive in shape. They are gently convex on their lower margins and almost straight-sided on the dorsal margins. The palpi are rounded at their apices. *Thorax:* Chiefly dark rufous in ground color. The two yellow vittae of the mesonotum are shaped as in *D. dorsalis*, except that they end at the suture and the yellow coloring does not extend into or along the suture. The yellow vittae are parallel-sided and obtuse at both ends, the vittae extend just beyond the inner alar bristles. The mesonotum is largely gray pollinose, this pollinosity is broken by a pair of narrow subshining vittae extending the entire length of the mesonotum on a line

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running just inside the inner extensions of the suture. These subshining stripes are blackish behind the suture and reddish on the anterior half of the mesonotum. The broad median, grayish stripe is indistinctly divided by a thin, faintly shining, blackish colored line extending two-thirds the length of the mesonotum, from the anterior margin (fig. 1c). The entire median portion of the mesonotum is brownish in ground color. None of the specimens at hand has the well-defined, black, median vitta characteristic of *cacuminatus*. The humeri and the scutellum are entirely yellow-white. The scutellum has just one pair of bristles, these are situated slightly farther apart than are the prescutellars. The apex of the scutellum is indistinctly trilobed in outline. The metanotum is chiefly reddish brown in ground color, discolored with brown to black in the median and lateral areas. The yellow area of each mesopleuron is broad on the dorsal portion and narrowed below. The top margin fills almost all of the dorsal edge of the sclerite and the ventral edge is scarcely half this wide. The metapleura are more extensively yellow than in *cacuminatus* or related species. Only the median portion of the lower margin is black. The halteres are entirely pale yellow. *Legs*: Almost entirely

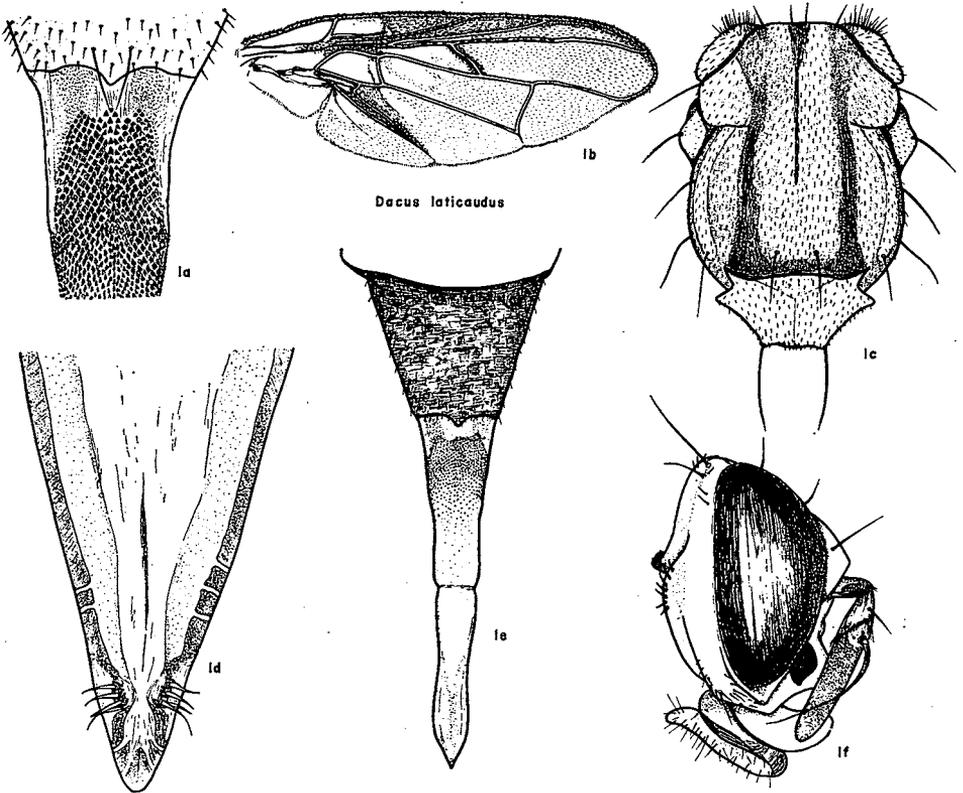


Figure 1a. Basal section of female rasper.

Figure 1b. Wing of female.

Figure 1c. Thorax, dorsal view.

Figure 1d. Apex of female ovipositor.

Figure 1e. Female ovipositor, dorsal view.

Figure 1f. Head, lateral view.

yellow, except for the lightly brownish coxae, trochanters and hind tibiae. *Wings*: The costal cells are entirely hyaline and devoid of microtrichia except for the extreme apical portion. Costal band yellow-brown to faintly grayish and rather broad, extending through all of cell  $R_3$ , although the coloring is more faint in this portion. The costal band extends just a short distance into the upper apex of cell  $R_5$ . A brown stripe extends from costal band transversely along the r-m cross-vein; this does not extend into cell 1st  $M_2$ . The m cross-vein is not fumose and there is no dark spot at the apex of  $M_3 + 4$ . The portion of cell R just above cell M is densely covered with microtrichia and is brownish yellow fumose. Cell M is hyaline and bare except for a small clump of microtrichia in the upper corner. The cubital streak is very broad, occupying all of the basal portion of cell  $M_1$  and extending along most of the m-cu cross-vein (fig. 1b). The r-m cross-vein is gently curved and oblique in position. The narrowed portion of the cubital cell is two times longer than the section from the apex of the cubital cell to the wing margin. Abdomen predominantly black, thickly covered with pale pile. The first tergum is all black except for a rufous band on the apex. The second tergum is chiefly yellowish to reddish, with a black spot in the middle at base or sometimes a narrow, transverse brown to black band. The third and fourth terga are all black. The fifth is black in the middle and rufous on the sides. The third tergum has the usual comb of cilia on each side. The genitalia do not appear to be distinctive from other *Dacinae*.

*Length*: body, 4.5-5.2 mm.; wings, 4.2-4.8 mm.

*Female*. Fits the above description except for the secondary and primary sexual characters. The cubital streak does not extend to the wing margin and the wing is not so distinctly lobate at end of cubital vein as in the male. The cubital cell is shorter, the narrowed portion is just slightly longer than the petiole of that cell (fig. 1b). The ovipositor is very distinctive, the conspicuously short and thick segments (fig. 1e) will distinguish this from all other *Dacinae* which the writer has studied. The seventh segment (oviscape), the inversion membrane (rasper) and the piercer (aculeus) are nearly equal in length. The seventh segment measures 1.15 mm. long (measured from the extreme base on a middle line) by 1.0 mm. wide (measured at the base). The spiracles are located about .16-.18 mm. from the base of the segment (measured to the base on the lateral margins). The inversion membrane is 1.09 mm. long by .35 mm. at its widest point. The rasper extends very close to the base of the membranous segment, to within .1 mm. of the apex of the seventh segment. The rasper is tripointed on its hind margin as seen from a ventral view (fig. 1a). The piercer is 1.02 mm. long by .24 mm. wide (measured at its base) and is gradually tapered. The subapical setae are small and almost equal in size. The third pair is slightly longer than the others and overlies, and often obscures, the fourth pair of setae. The setae arise comparatively near the apex of the piercer; the length of the plate bearing the setae is equal to about half the distance from the fourth pair of setae to the apex of the ovipositor (fig. 1d).

*Length*: body, 5.5 mm.; wings, 5.0 mm.

Holotype male, allotype female and two hundred paratypes: ex *Planchonella* sp. Collected near Deeral, Queensland, Australia, June, 1949 (N. L. H. Krauss).

The type, allotype and a series of paratypes are being deposited in the United States National Museum. Paratypes are being placed in the following collections: The Board of Agriculture and Forestry, Honolulu; Bishop Museum; Hawaiian Sugar Planters' Association; University of Hawaii; California Academy of Sciences; American Museum of Natural History; Museum of Comparative Zoology and the British Museum.