

## NEW SPECIES AND RECORDS OF DACINAE (TRYPETIDAE, DIPTERA) FROM QUEENSLAND AND NEW GUINEA.

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### SUMMARY.

Seven new species are described, viz., *Afrodacus flavinotus*, *A. furvus*, *Melanodacus rubidus*, *Psilodacus exiguus*, *Strumeta hispidula*, *S. mendosa*, and *S. robiginosa*.

The males of *Afrodacus tigrinus* May and *Strumeta notatagena* May, previously known only from the female, are described.

*Neodacus lanceolatus* Perk. is recorded from North Queensland.

### AFRODACUS Bez.

#### *Afrodacus flavinotus* n.sp.

A small, compact, yellow and reddish brown species with contrasting black markings on thorax and abdomen, no facial spots, short thick antennae, post-sutural median vitta, pale fulvous costal cells and a broad mesopleural stripe.

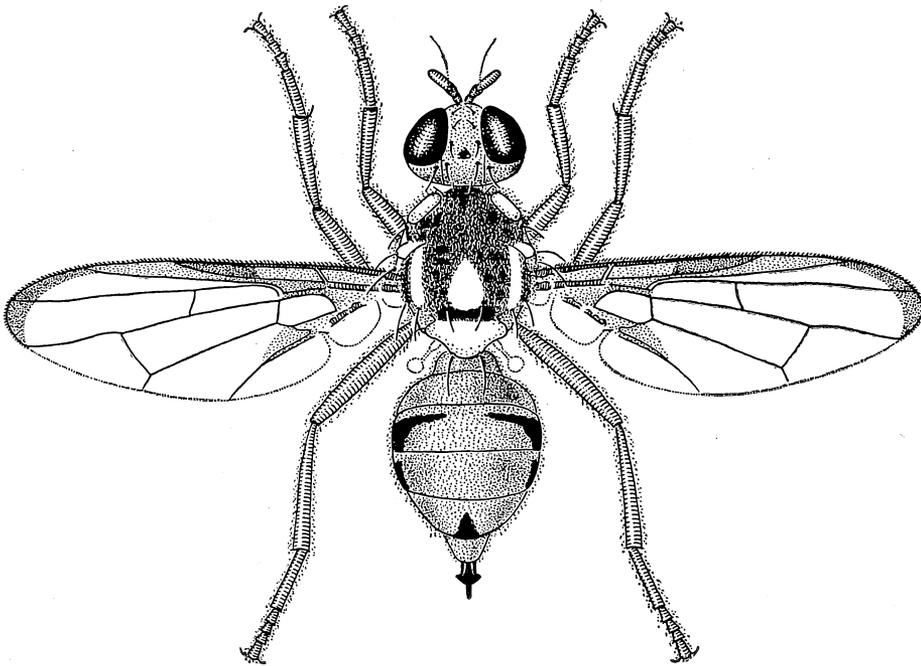


Fig. 1.

*Afrodacus flavinotus*. ( $\times 12.5$ ).

[Drawn by William Manley.]

*Female*—Length, excluding ovipositor, 4.5 mm.; wing 4.1 mm.

*Head*.—Vertical length 1.1 mm. *Frons* flattened, fulvous, paler along eye margins; length 1.3 times width; bristles: 1 *s.or.*, 2 *i.or.* *Lunule* colourless. *Antennae* fulvous, short, third segment broad and flattened; length of segments: 0.1 mm., 0.18 mm., 0.4 mm. *Face* concave, glassy, hoary along eye margins, length 0.4 mm.; antennal grooves not pronounced, no facial spot. *Genae* pale, no subocular spot; bristle brownish. *Occiput* pale fulvous; occipital row wanting. *Vertex* paler than surroundings; bristles pale brown.

*Thorax*.—*Mesonotum* as broad as long, fulvo-ferruginous blotched with fuscous, particularly behind suture; pronounced, yet narrow, black band at posterior margin. *Pleurae* pale fulvous. With the following yellow areas:—*Humeri*; notopleural calli; broad, parallel-sided, lateral post-sutural stripes reaching and including upper *p.sa.* bristles; a broad medial post-sutural vitta, pointed anteriorly and attaining *prsc.* bristles laterally; a broadly triangular mesopleural stripe with apex extending onto upper sternopleuron and base extending from wing base to humeral callus; 5/6 of upper and 2/3 of lower hypopleural calli (remainder black). *Scutellum* yellow with narrow black basal band. *Postnotum* black. *Bristles*: *scp.* 4, *npl.* 2, *mpl.* 1, *p.sa.* 2, *prsc.* 2, *sc.* 2, *pt.* 1, all brown; *a.sa.* wanting. *Legs* fulvous; three long bristles beneath fore femora. *Wings*: fuscous costal band occupying cell  $R_1$ , outer edge of cell  $R_3$  and broadening after crossing vein  $r_{4+5}$  to end at  $m_{1+2}$ . This band more intensely fuscous beyond extremity of  $r_{2+3}$ . Costal cells fulvous; microtrichia over whole of second and outer margins of first; proportion of second cell to stigma 0.7:1. Above and basal to median cell fulvous. *r-m* cross vein dividing  $m_{1+2}$  in the proportion of 1.4:1. Anal streak fulvous, very short (almost wanting); length of its extension in proportion to length of  $cu_1 + 1a$ , 0.9:1.

*Abdomen*.—Yellowish except for following black markings on tergites:—A band along fore margin of third, broken medially and widening laterally to reach hind margin; a spot on each lateral hind margin of fourth; a triangular medial spot on posterior half of fifth. *Ovipositor* pale fulvous, shiny; basal segment in length equal to fifth tergite; paired barbs situated 0.5 mm. from apex of piercer.

Holotype ♀, ex lure traps in citrus, Atherton, Queensland, May, 1957.  
(J. Rosser.)

Type in Queensland Museum, Reg. No. T. 5603.

The general colour of the thorax and the extent of black markings on the abdomen readily separate this species from the other two closely related Queensland species, *A. furvus* n.sp. and *A. tigrinus* May. Two other species, *A. javanensis* Perk. (from Java) and *A. trilineatus* Hardy (from India), possessing three post-sutural vittae, can be separated by the colour of the mesonotum, facial markings and characteristics of the wing.

#### ***Afrodacus furvus* n.sp.**

A small species with a black thorax, three post-sutural vittae, brown notopleural calli, unmarked face, short thick antennae, spines beneath fore femora, infuscation on *r-m* cross vein and a bulla on the male wing.

*Male*—Length 4 mm.; wing 3.8 mm.

*Female*—Length, excluding ovipositor, 4.5 mm.; wing 4.4 mm.

*Head*.—Vertical length 1.1 mm.; entirely fulvous. *Frons* flattened, 1.4 times width; bristles: 1 *s.or.*, 2 *i.or.* *Antennae* very short, fulvous, third segment broad, flattened; length of segments: 0.1 mm., 0.15 mm., 0.32 mm.; arista very long, black. *Face* sunken, length 0.3 mm.; no facial spots. *Genae* with no subocular spot; bristle black. *Occipital row* wanting. (Note: Occiput of female brownish with paired triangular black areas medially.)

*Thorax*.—As for *tigrinus* except notopleural calli brownish, darker on the anterior portion. *Legs* fulvous except hind tibiae brownish; three well developed bristles beneath apical half of fore femora. *Wings: Male*.—Without a continuous costal band. Costal cells dark fulvous; stigma fuscous; dark fulvous basal to and immediately above median cell, also in basal portions of cells  $R_1$  and  $R_3$  below stigma; dark fulvous in cell  $R$ .

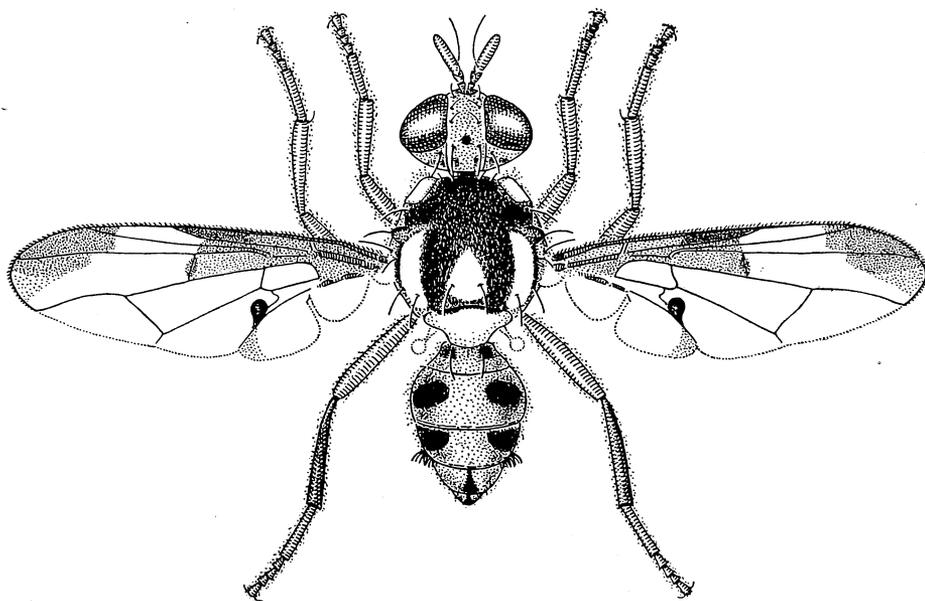


Fig. 2.

*Afrodacus furvus*. ( $\times 14$ ).

[Drawn by William Manley.]

A fuscous semicircular apical spot occupying outer edge of cell  $R_1$ , outer third of cell  $R_3$  and fore outer portion of cell  $R_5$ . Microtrichia covering all of wing, including costal cells, with exception of posterior half of median cell. Second costal cell to stigma in the proportion of 0.8:1. *r-m* infuscated, the proportion of  $m_{1+2}$  before and after it 1.2:1. Anal streak lacking; length of anal cell extension to  $cu_1 + 1a$  in proportion of 2.5:1. A well developed bulla on cubital vein. Supernumerary lobe well developed. Dense aggregation of microtrichia at end of  $cu_1 + 1a$ . *Female*.—Costal cells fulvous, second paler than first. Costal band fuscous, occupying all of cell  $R_1$ , outer margin of cell  $R_3$  and fading to end midway between veins  $r_{4+5}$  and  $m_{1+2}$ . Proportion of anal cell extension to  $cu_1 + 1a$ , 0.7:1. Other measurements as for male wing.

*Abdomen*.—As for *tigrinus* except black areas more extensive, and in addition on male, paired black spots on fore margin of first tergite around each lateral hump; apices of triangular shaped medial stripes attaining anterior margins of fourth and fifth tergites. A pecten of cilia on third tergite of male.

Holotype ♂, allotype ♀, ex lure traps in citrus, Atherton, Queensland, March and April, 1957. (J. Rosser.)

Types in Queensland Museum; holotype Reg. No. T. 5605, allotype Reg. No. T. 5606.

This species closely resembles *A. tigrinus* in general colouration and size but can be separated on the colour of the notopleural callus and infuscation of the *r-m* cross vein. *A. flavinotus*, *A. javanensis* and *A. trilineatus*, species also possessing three post-sutural vittae, can be separated on general colour and wing and facial markings.

### *Afrodacus tigrinus* May.

This species was described (May 1952) from the female. The male has now been taken and its characters insofar as they differ from those of the female are described below. Certain measurements not included with the description of the female are also given.

*Male*—Length 4.1 mm.; wing 3.8 mm.

*Head*.—Vertical length 1.1 mm. *Frons* 1.25 times width. *Antennae*: length of segments: 0.1 mm., 0.2 mm., 0.4 mm.; not reaching edge of hypostome.

*Thorax*.—*Legs* (also for female): three pronounced bristles beneath apical half of fore femora. *Wings* covered with microtrichia except alula and outer lower corner of median cell. Proportion of second costal cell to stigma, 0.8:1. Costal band broken beyond stigma; the fulvous basal portion occupying cell R basal to and above median cell, and basal portions of

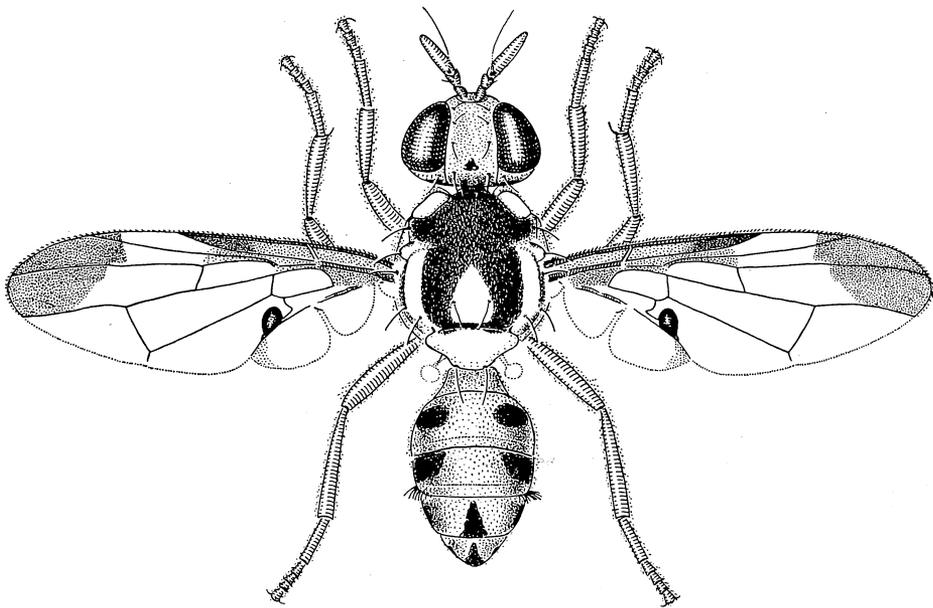


Fig. 3.

*Afrodacus tigrinus*. (× 15.)

[Drawn by William Manley.]

cells  $R_1$  and  $R_3$  below stigma; stigma fuscous; at the wing apex a broad fuscous spot occupying outer portions of cells  $R_1$ ,  $R_3$  and  $R_5$  and attaining extremity of vein  $m_{1+2}$ . *r-m* dividing  $m_{1+2}$  in the proportion of 1.2:1. Anal streak absent. Extension of anal cell narrow, partly covered by a pronounced fuscous bulla on the cubital vein; its length in proportion to  $cu_1 + 1a$ , 2:1. A strongly developed supernumerary lobe.

(Note: Proportion of anal cell extension to  $cu_1 + 1a$ , for female, is 0.6:1, not 1.7:1 (May 1952).)

*Abdomen*.—Narrower than thorax; bright fulvous tending yellow, except for black markings on tergites as follows:—Paired oval spots on second; laterally on third, fourth and fifth; a narrow triangular medial stripe on fourth and fifth, with apices not attaining anterior margins. A row of cilia on post-lateral margin of third tergite.

Allotype ♂, ex lure traps in mangoes, Kamerunga Experiment Station, Cairns, Queensland, March, 1956. (W. Pont.)

Type in Queensland Museum, Reg. No. T. 5604.

Though resembling *A. furvus* in size, shape and general colouration, it can be separated by the lack of infuscation on *r-m* and the colour of the notopleural callus. The presence of a bulla on the male wing, markings of the wings and face and size readily distinguish it from *A. javanensis* and *A. trilineatus*.

### MELANODACUS Perk.

#### *Melanodacus rubidus* n.sp.

A moderately large species, with three post-sutural vittae, clear costal cells, small facial spots, black and brown patterned thorax and reddish-brown abdomen covered with yellowish hairs.

*Male*—Length 7.1 mm.; wing 6.2 mm.

*Female*—Length, excluding ovipositor, 7.6 mm., wing 7.3 mm.

*Head*.—Vertical length 1.5 mm. *Frons* flattened, fulvous, except central blotch and area surrounding each *s.or.* bristle fusco-rufous; yellow hairs on vertical calli and along eye margins; length 1.16 times width; bristles: 1 *s.or.*, 3 *i.or.*, lower pairs close together, all strong, black. *Lunule* reddish, shiny. *Antennae* fulvous; length of segments: 0.18 mm., 0.25 mm., 0.8 mm. *Face* fulvous, length 0.5 mm.; a small circular fuscous spot in lower half of antennal groove. *Genae* fulvous with fuscous subocular spot, bristles brownish. *Occiput* fulvous except reddish-brown medially; occipital row weak, black, 3 or 4 each side. *Vertex* fulvous, except reddish around vertical bristles, which are strong, black.

*Thorax*.—*Mesonotum* black behind suture; anterior to suture brown except paired black bands commencing in black spot on fore margin and continuing back to suture, also black areas behind humeral calli. *Pleurae* black except red-brown behind humeri and around lower margins of sternopleuron. In addition, yellow as follows:—Humeral and notopleural calli; a pair of broad parallel-sided lateral post-sutural vittae commencing just before suture and ending at upper *p.sa.* bristle; a median post-sutural vitta pointed anteriorly; a broad near parallel-sided mesopleural stripe commencing in wider spot on upper sternopleuron and not attaining humeri; 7/8 upper and 3/4 lower hypopleural calli (remainder black).

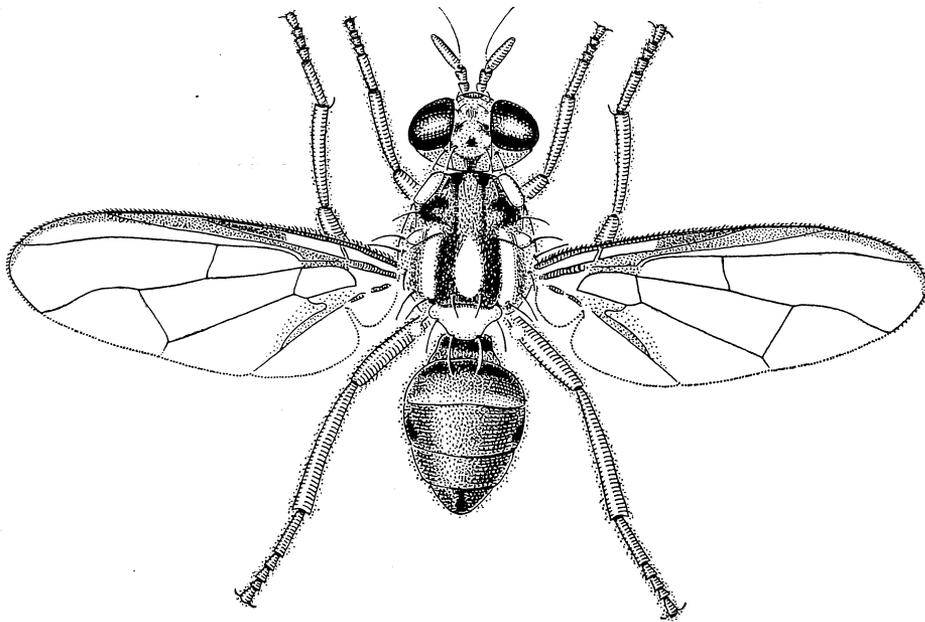


Fig. 4.

*Melanodacus rubidus*. ( $\times 7.5$ ).

[Drawn by William Manley.]

*Postnotum* black. *Scutellum* yellow except thin black basal band. *Bristles*: *scp.* 4, *npl.* 2, *npl.* 1, *a.sa.* 1, *p.sa.* 2, *prsc.* 2, *sc.* 4, all black, *pt.* 1, brown. *Legs* (and *coxae*) fulvous. *Wings* hyaline except narrow fuscous costal band occupying stigma, cell  $R_1$ , outer margin of cell  $R_3$  and ending just beyond end of vein  $r_{4+5}$ ; and a pale fulvous, short, anal streak. Costal cells hyaline, with microtrichia in outer portion of second cell; proportion of second cell to stigma, 0.7:1. *r-m* dividing  $m_{1+2}$  in proportion of 1.3:1. Aggregation of microtrichia at apex of  $cu_1 + 1a$ , and supernumerary lobe present in male. (Note: Damaged wings of types prevented taking measurements of anal cell extension.)

*Abdomen*.—*Tergites*: anterior half of first black, remainder fulvous; anterior third of second black, posterior third whitish, remainder fulvous; third, fourth and fifth fulvous except outer margins of third (and sometimes fourth) fuscous; thin black medial line on fifth; the whole covered with golden hairs. No pecten of cilia on third tergite of male. *Ovipositor* fulvous.

Holotype ♂, allotype ♀, ex collection Department of Agriculture, Port Moresby (Nos. Q3 and Q4). Taken from flowers of *Euphorbia pulcherrima*, Goroka, New Guinea, April, 1955. (J. Szent-Ivany.)

Types in Queensland Museum; holotype Reg. No. T. 5601, allotype Reg. No. T. 5602.

The two other species described under this genus, namely *M. niger* (Tryon) and *M. satanellus* Hering, are small black flies and should not be confused with *M. rubidus*. *Zeugodacus atrisetosus* Perk., known only from the female, is close to *M. rubidus* in many respects but differs in the general colour of the thorax and abdomen and in wing markings.

**NEODACUS** Perk.**Neodacus lanceolatus** Perk.

This species, described by Perkins (1939) from material collected in Papua-New Guinea, has not been recorded previously from Queensland. Specimens were taken in lure traps at Atherton (January, 1956 (J. Rosser) ), Cairns (September, 1955, and March, 1956 (W. Pont) ) and South Johnstone (July, 1956 and April-May, 1957 (T. Manefield)).

Characters of this material not included in or at variance with the original description are as follows:—

*Male*—Length 5.2 mm.; wing 4.9 mm.

*Female*—Length, excluding ovipositor, 6.2 mm.; wing 5.5 mm.

*Head*.—Vertical length 1.3 mm. *Frons* 1.4 times width. *Antennae* longer than face; short black dorsal bristle on second segment; length of segments: 0.2 mm., 0.2 mm., 0.7 mm. *Face*: length 0.4 mm.; facial spot oval, pointed below.

*Thorax*.—*Wings* hyaline except for a narrow fuscous costal band ending midway between  $r_{4+5}$  and  $m_{1+2}$ , a fuscous anal stripe not attaining wing margin and a narrow infuscation on the outer median cross vein. Costal cells: First pale yellow-brown, second paler to colourless; second costal cell shorter than stigma, the proportion being 0.7:1; microtrichia in upper outer sixth of second cell. *r-m* dividing  $m_{1+2}$  in the proportion of 1.4:1. Anal cell extension in proportion to  $cu_1+1a$ , 2.7 in male and 1.1 in female.

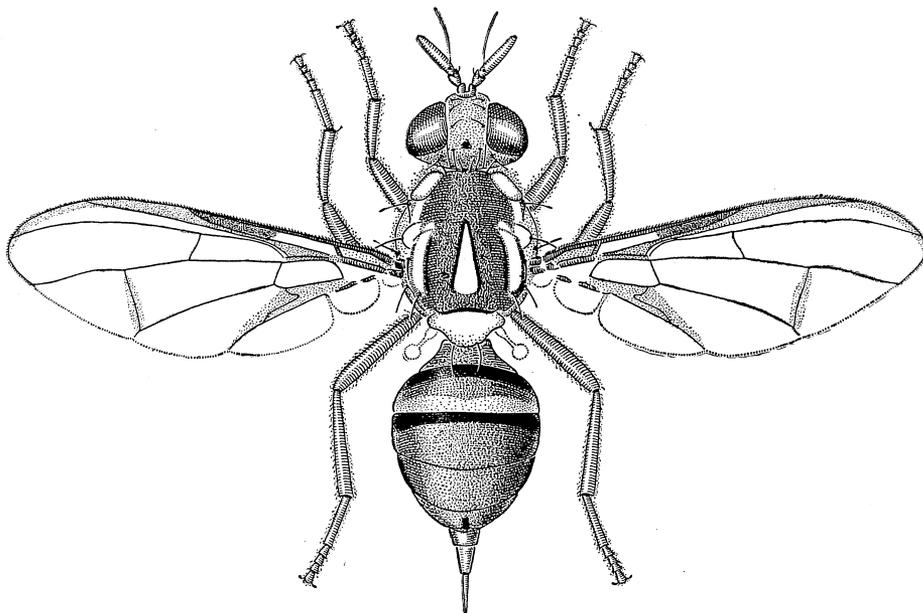


Fig. 5.

*Neodacus lanceolatus*. ( $\times 9.5$ ).

[Drawn by William Manley.]

*Abdomen*.—Pale yellow-brown except:—Dark brown on fore-margin of second, fore-margin of third and extreme lateral margins of third, fourth and fifth tergites; posterior third of second tergite, whitish; pronounced medial black spot on posterior half of fifth tergite. (Note: In some specimens, this black spot is prolonged as a thin medial line extending to anterior edge of fourth tergite.) *Ovipositor* shiny yellow-brown, strongly developed.

Plesiotype ♂ and ♀, ex lure traps in mangoes, Kamerunga Experiment Station, Cairns, Queensland, September, 1955 and March, 1956.

Plesiotypes in Queensland Museum, Reg. Nos. T. 5599 and T. 5600.

### PSILODACUS Collart.

#### *Psilodacus exiguus* n.sp.

A small species with a slender, elongate-oval abdomen, a narrow wing infuscated along *r-m*, and lacking facial spots and post-sutural lateral yellow stripes.

*Male*—Length 5.1 mm.; wing 4.4 mm.

*Head*.—Vertical length 1.2 mm. *Frons* fulvous, 1.4 times width, generally flattened, clothed with fine hairs particularly along eye margins; bristles: 1 *s.or.*, 2 *i.or.* *Antennae* fulvous; length of segments: 0.1 mm., 0.2 mm., 0.6 mm. *Face* shiny, fulvous, covered with fine reddish spots; no facial spot; length 0.45 mm. *Genae* fulvous; bristle brown. *Occiput* fulvous; occipital row weak, pale coloured. *Vertex* not ridged.

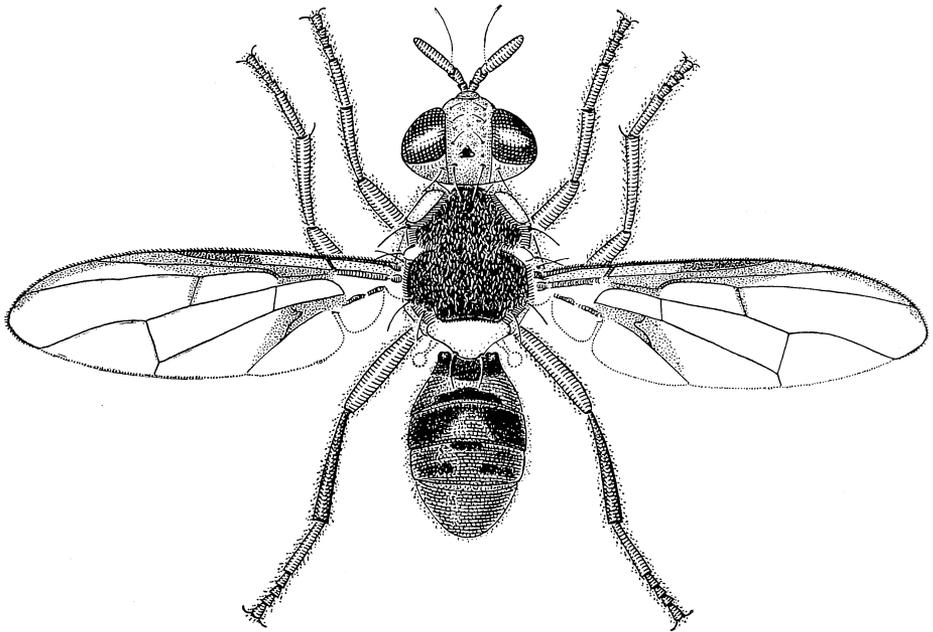


Fig. 6.

*Psilodacus exiguus*. (× 11.5).

[Drawn by William Manley.]

*Thorax*.—*Mesonotum* black except brown immediately above wing, behind upper *p.sa.* bristles, along inner margin of and immediately behind humeri and extending along fore margin of suture. *Pleurae* brown except black as follows:—A spot above hind coxa, on centre portion of sternopleuron, lower edge of upper and lower 1/6 of lower hypopleural callus. Yellow areas as follows:—Humeral and notopleural calli, and a broadly triangular mesopleural stripe commencing on upper sternopleuron and attaining humeral callus anteriorly. There are no post-sutural vittae. *Scutellum* yellow with a narrow black basal band. *Postnotum* black except central brown line. *Bristles*: *scp.* 2 (inner pair wanting on specimen), *npl.* 2, *mpl.* 1, *p.sa.* 2, *sc.* 2, all black; *prsc.* and *a.sa.* wanting. *Legs* pale fulvous except hind tibiae slightly brownish. *Wing* narrow,  $3\frac{1}{2}$  times as long as wide. Narrow costal band not reaching  $m_{1+2}$ . Costal cells fulvous; microtrichia covering outer half of second; proportion of second costal cell to stigma, 0.9:1. *r-m* infuscated, dividing  $m_{1+2}$  in the proportion of 2.1:1. Anal cell extension in proportion to  $cu_1 + 1a$ , 0.45:1. Very weak supernumerary lobe.

*Abdomen*.—Tergites not fused. Narrower than thorax, elongate oval from above. First tergite dark brown, twice as wide as long, antero-lateral humps prominent. Second tergite dark fulvous except fuscous on posterior medial portion. Third tergite fuscous except rich yellow-brown triangular patch medially with base on posterior margin and apex not attaining fore border. Remainder of abdomen shiny, rich yellow-brown with indefinite darker areas on fourth tergite. No pecten of cilia on third tergite.

Holotype ♂, ex lure traps in citrus, Atherton, Queensland, December, 1955. (J. Rosser.)

Type in Queensland Museum, Reg. No. T. 5607.

This species is placed provisionally in *Psilodacus* until further material can be examined. The combination of characters, namely 2 *sc.*, no *a.sa.*, no *prsc.* bristles and third tergite of male not ciliated, fits both this genus and *Leptoxyda* Macquart. The latter monotypic genus, however, was erected to contain *longistylus* Wied., and is separated from *Psilodacus* only by the comparative lengths of the basal segment of the ovipositors, while a truncated fifth abdominal segment in both sexes is characteristic of *longistylus*. The lack of fusion of the abdominal tergites dorsally in *exiguus* does not conform with Collart's (1935) description of *Psilodacus*, a genus confined to the Ethiopian Region. *Daculus* Speiser, represented in Queensland by *D. murrayi* Perk., a large, pale species, possesses 2 *sc.*, no *a.sa.*, no *prsc.* bristles and lacks fused tergites, but possesses cilia on the third tergite of the male.

### STRUMETA Walk.

#### *Strumeta hispidula* n.sp.

A medium-sized species, generally covered with fine, bristly hairs, with no facial spots, strongly developed antennae, a brown notopleural callus, peculiarly coloured legs, clear costal cells, an orange abdomen, a broadly triangular mesopleural stripe and infuscation of the outer median cross vein.

*Female*.—Length, excluding ovipositor, 5.2 mm.; wing 4.8 mm.

*Head*.—Vertical length 1.3 mm. *Frons* fulvous, concave, centrally covered with short black hairs; length 1.2 times width; bristles: 1 *s.or.*, 3 *i.or.*, all strong, black. *Antennae* short, fulvous, segments 1 and 2 fringed with short, strong black spines on upper margins;

arista long, strong; length of segments: 0.15 mm., 0.23 mm., 0.67 mm. *Face* pale, fulvous, shiny; no facial spots; length 0.5 mm. *Genae* fulvous, shiny, hoary along eye margin and with several strong black hairs on lower half; bristle strong, black. *Occiput* pale fulvous; occipital row with few strong black hairs on each side, remainder weak. *Vertex* pale fulvous; bristles strong, black.

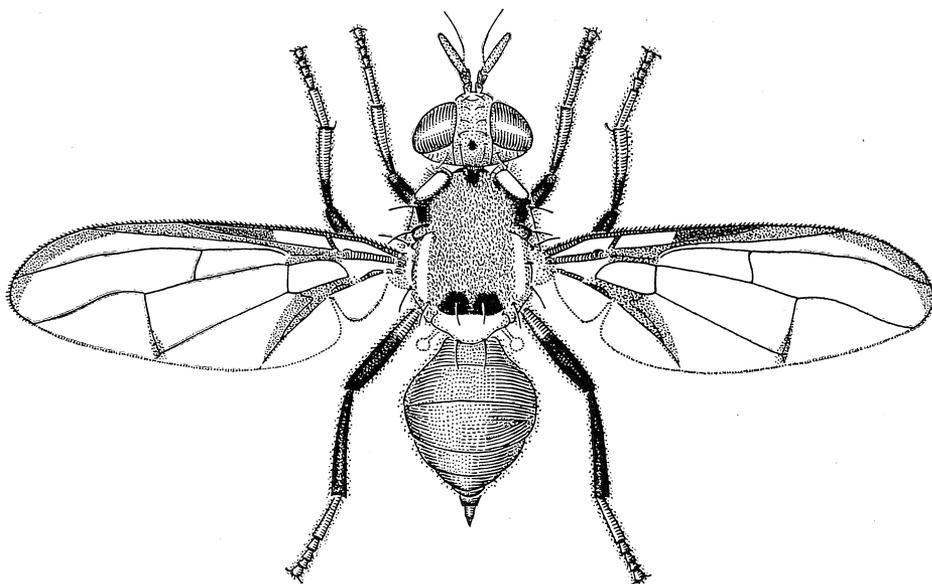


Fig. 7.

*Strumeta hispidula*. ( $\times 10$ ).

[Drawn by William Manley.]

*Thorax*.—*Mesonotum* yellow-brown except for the following fuscous markings:—Along inner margin of and immediately behind humeri; a central spot on the anterior margin; a pair of almost circular areas at the posterior margin. *Pleurae* fuscous except:—Fulvous immediately below humeri, beneath wings and above middle coxae. With the following yellow markings:—Humeral calli; pair of broad parallel-sided post-sutural lateral stripes ending at the upper *p.sa.* bristles; broad triangular mesopleural stripe with apex at upper margin of sternopleuron and base reaching humeral callus; hypopleural calli (except lower margins fuscous). Notopleural calli fuscous. *Scutellum* yellow except basal margin fuscous. *Postnotum* fuscous except mid-basal portion brown. *Bristles*: *sep.* 4 (inner pair brown), *npl.* 2, *mpl.* 1, *a.sa.* 1, *p.sa.* 2, *sc.* 2 (apical), *pt.* 1, *prsc.* 2, all black. *Legs*: coxae and tarsi fulvous; femora: black except basal quarter of middle and basal third of hind, fulvous; tibiae: fore and middle fulvous, except basal quarter of fore and basal third of middle, black; hind black. *Wings* hyaline, except:—Fuscous band occupying cell  $R_1$ , outer margin of cell  $R_3$  and ending midway between veins  $r_{4+5}$  and  $m_{1+2}$ ; a narrow infuscation on posterior half of outer median cross vein; a well defined anal streak not reaching wing margin. Costal cells hyaline; outer half of second covered with microtrichia; second cell shorter than stigma, the proportion being 0.64:1. *r-m* dividing  $m_{1+2}$  in proportion of 1.8:1. Proportion of anal cell extension to  $cu_1+1a$  is 1.1:1. (Note: A damaged specimen of a male taken in a lure trap at Atherton, March, 1955, shows a well developed supernumerary lobe in the wing.)

*Abdomen*.—Fulvous tending orange. *Ovipositor*: basal segment shiny, short and flattened, fulvous except darkened apically.

Holotype ♀, ex lure traps in citrus, Atherton, April, 1956. (J. Rosser.)

Type in Queensland Museum, Reg. No. T. 5595.

This species has been placed in *Strumeta* on the assumption that the third tergite of the male abdomen is ciliated. *S. hispidula* can be separated from *S. strigatus* (Perk.), a species also possessing a brown notopleural callus and lacking facial spots, by the colour of the legs, thorax and abdomen and wing markings.

***Strumeta mendosa* n.sp.**

An unusually marked species, lacking post-sutural lateral vittae and with a pronounced black spot on face, coloured costal cells, brown on apex of scutellum, and a parallel-sided mesopleural stripe extending along fore margin of suture.

*Female*—Length, excluding ovipositor, 7.4 mm.; wing 6.1 mm.

*Head*.—Vertical length 1.8 mm. *Frons* dull fulvous, flattened; antero-medial raised area not prominent; orbital spots, except upper pair, small; length, 1.4 times width; vertical calli shiny, covered with short, pale hairs; bristles: 1 *s.or.*, 3 *i.or.*, middle pair very close to lower pair. *Antennae*: segments 3 missing, remainder fulvous. *Face* shiny, fulvous, length 0.4 mm.; facial spot large, oval, confluent with inner margin of antennal groove but not reaching hypostome. *Genae* fulvous, with red-brown subocular mark; bristle strong, pale. *Occiput* fulvous; occipital row strong, black, five on each side. *Vertex* fulvous, not ridged; bristles strong, black.

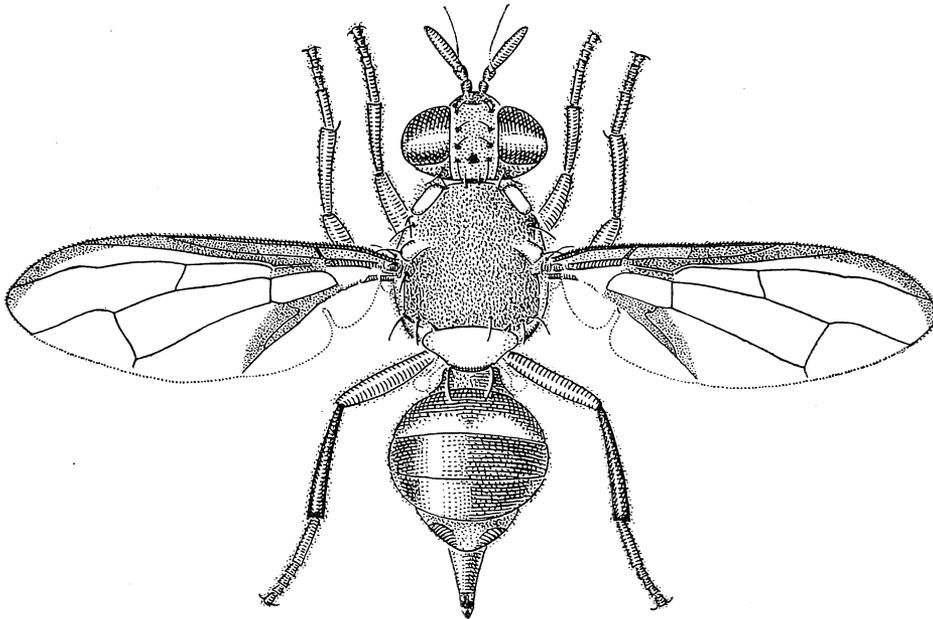


Fig. 8.

*Strumeta mendosa*. (× 8).

[Drawn by William Manley.]

*Thorax*.—Pale reddish-brown except fuscous immediately behind wing, along fore and lower margins of sternopleuron and immediately above hind coxae. With the following yellow markings:—Humeral and notopleural calli; an almost parallel-sided mesopleural stripe commencing at upper margin of sternopleuron, enclosing notopleural callus and ending in a point a short distance along suture; 5/6 of upper and 3/4 of lower hypopleural calli (remainder dark brown). *Scutellum* yellow except brown at apex between bristles. *Postnotum* dark red-brown. *Bristles*: *sep.* 4, *npl.* 2, *mpl.* 1, *a.sa.* 1 (pale, reclinate), *p.sa.* 2, *sc.* 2, *pt.* 1, *prsc.* 2 (Note: Only the right side bristle present.) *Legs* fulvous, except hind femora fuscous; coxae dark fulvous, fore pair paler. *Wings* hyaline, except:—Fulvous costal cells; a fuscous costal band occupying all cell  $R_1$ , outer portion of cell  $R_3$  and ending midway between veins  $r_{4+5}$  and  $m_{1+2}$ ; a clearly defined anal streak almost reaching wing margin. Microtrichia covering whole of second and anterior half of first costal cells. Second costal cell shorter than stigma, the proportion being 0.7:1. *r-m* dividing  $m_{1+2}$  in the proportion of 1.4:1. Proportion of the anal cell extension to  $cu_1+1a$ , 1.5:1.

*Abdomen*.—As broad as thorax, almost circular in outline. Tergites 1 and 2 brown except pale fulvous to whitish on posterior half of latter. Remainder fulvous tending brownish on anterior half of 3 and laterally on 3, 4 and 5; pale fulvous between large shining fulvous areas on 5. *Ovipositor*: basal segment twice as long as fifth tergite measured dorsally, shiny, testaceous, strongly developed, conical, slightly compressed dorso-ventrally.

Holotype ♀, ex lure traps in citrus, Atherton, June, 1956. (J. Rosser.)

Type in Queensland Museum, Reg. No. T. 5594.

This species has been placed provisionally in *Strumeta* on the assumption that the *prsc.* bristles are normally present and the third tergite of the male is ciliated. The absence of the post-sutural lateral vittae and the extension of the mesopleural stripe on to the mesonotum show affinity with some Queensland *Neodacus*, a genus lacking *prsc.* bristles but possessing a pecten of cilia on the third tergite of the male. The combination of characters given above, however, enables the separation of *S. mendosa* from all known species of *Strumeta* and *Neodacus*.

### ***Strumeta notatagena* May.**

This species was described (May 1952) from the female. The characters of the male insofar as they differ from those of the female, and measurements not included with the earlier description, are as follows:—

*Male*—Length 5.4 mm.; wing 4.6 mm.

*Head*.—Vertical length 1.3 mm. *Frons* with central dark brown blotch connected to ocellar triangle by thin brown line and widened laterally to connect with central pair of orbital spots. *Antennae* strongly elbowed and held well away from face; length of segments: 0.2 mm., 0.3 mm., 0.7 mm.; segment 2 with strong black bristle. *Face*: length 0.4 mm.

*Thorax*.—As for female, except:—*Legs* brown towards apex of hind femora. *Wings*: costal cell shorter than stigma, the proportion being 0.7:1; length of anal cell extension to  $cu_1+1a$  in proportion of 2.1:1. A distinct but poorly developed supernumerary lobe present. Long black shaggy hairs covering most of anal cell extension and dense aggregation of microtrichia at inner extremity of  $cu_1+1a$ .

*Abdomen*.—Narrow and elongate. Third tergite ciliated.

Allotype ♂, 2 ♂♂ paratypes, ex lure traps in citrus, Atherton, Queensland, March, 1956. (J. Rosser.)

Types in Queensland Museum; allotype Reg. No. T. 5596, paratypes Reg. Nos. T. 5597 and T. 5598.

***Strumeta robiginosa* n.sp.**

A medium-sized to large species, rusty brown in general colour, with fulvous costal cells, narrow costal band, broad parallel-sided lateral post-sutural stripes and abdomen wholly yellow-brown except for pronounced fuscous spots on fifth tergite.

*Female*—Length, excluding ovipositor, 7.4 mm.; wing 6.6 mm.

*Head*.—Vertical length 1.8 mm. *Frons* fulvous, flattened on posterior half; a well-defined medial hump, clothed with short black hairs on anterior half; length 1.4 times width; bristles: 1 *s.or.*, 2 *i.or.*, brown. *Antennae* fulvous; length of segments: 0.3 mm., 0.4 mm., 0.8 mm. *Face* shiny, fulvous; length 0.6 mm.; a circular fuscous spot on inner half of antennal groove just below the mid-point. *Genae* fulvous with subocular spot; bristle brown. *Occiput* fulvous; occipital row strong, brown, approximately eight each side. *Vertex* fulvous; bristles brown.

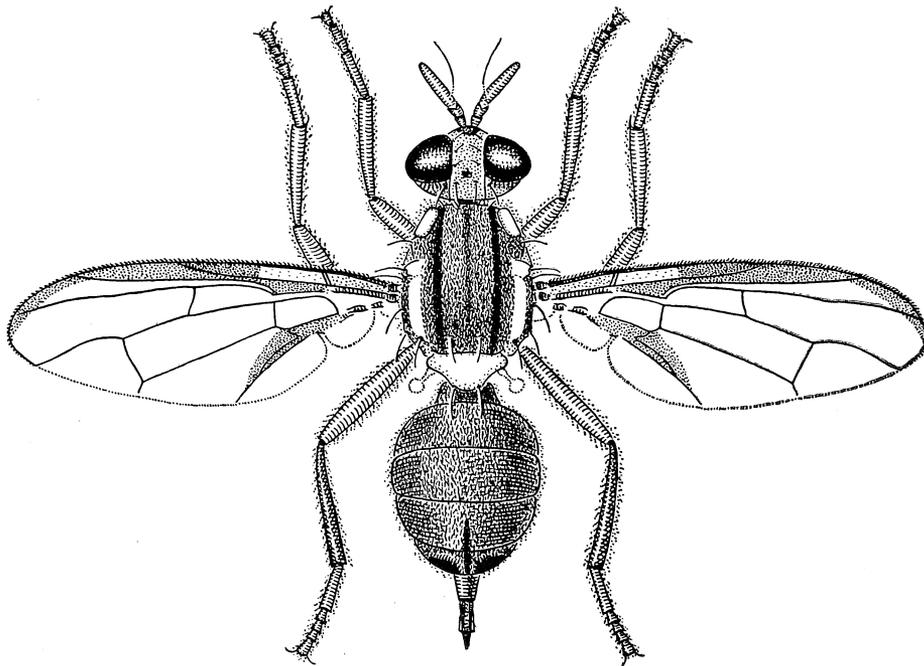


Fig. 9.

*Strumeta robiginosa*. (× 8.)

[Drawn by William Manley.]

*Thorax*.—Pale red-brown except for two darker narrow bands commencing at inner edge of humeri and extending to scutellum; covered with short golden hairs. Yellow markings as follows:—Humeral and notopleural calli; broad parallel-sided lateral post-sutural stripes, narrowing posteriorly and attaining *p.sa.* bristle; mesopleural stripe commencing as a well-defined spot on upper edge of sternopleuron and broadening to almost reach humeral callus anteriorly; most of upper and 5/6 lower hypopleural calli (remainder brown). Hoariness on anterior margin of mesopleuron and most of sternopleuron. *Scutellum* yellow. *Postnotum* dark brown. *Bristles*: *scp.* 4, *npl.* 2, *mpl.* 1, *a.sa.* 1, *p.sa.* 2, *sc.* 2, *pr.sc.* 2, *pt.* 1, all brown. *Legs* fulvous, hind tibiae slightly darker. *Wings* hyaline except fulvous costal band and anal stripe. Costal band occupying cell  $R_1$ , outer margin of cell  $R_3$  and terminating just beyond end of  $r_{4+5}$ . Costal cells pale fulvous (second cell almost colourless); microtrichia covering upper outer fifth of second cell; proportion of second cell to stigma 0.7:1. *r-m* dividing  $m_{1+2}$  in proportion of 1.4:1. Proportion of anal cell extension to  $cu_1+1a$ , 1.14:1.

*Abdomen*.—Wholly rusty yellow-brown except for large fuscous shining spots on fifth tergite and a thin fuscous medial line extending from mid-point of fourth to posterior margin of fifth tergites. The whole covered with short, appressed golden hairs. *Ovipositor* sturdy, shiny.

Holotype ♀, 1 ♀ paratype ex lure traps in citrus, Stoney Creek, Cairns district, Queensland, November, 1955. (W. Pont.)

Types in Queensland Museum; holotype Reg. No. T. 5592, paratype Reg. No. T. 5593.

Two other Queensland species, *S. fagraea* (Tryon) and *S. mutabilis* May, are somewhat similarly coloured. The former is separated by having a longer ovipositor and narrower mesopleural stripes. The latter has black areas on the fore margin of the mesonotum and no facial spots. Both *S. barringtoniae* (Tryon) and *S. breviaculeus* Hardy differ in the colouration of the abdomen. *S. latifrons* (Hendel), though having an entirely rufous abdomen, differs from *S. robiginosa* in the colouration of the thorax and having an apical spot on the wing.

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