

XXXII.—*Notes on Fossorial Hymenoptera*.—XXI. *On the Australian Larrinæ of the Genus Tachytes*. By ROWLAND E. TURNER, F.Z.S., F.E.S.

Key to the Australian Species of Tachytes.

♀ ♀.

- | | | |
|--|----|---------------------------------|
| 1. Abdomen wholly bright testaceous or ferruginous red | 2. | |
| Abdomen black, at most the apical margins of the segments or the apical segment brown or ferruginous | 3. | |
| 2. Abdomen bright testaceous; pubescence of thorax and median segment golden; legs bright testaceous | | <i>T. formosissimus</i> , Turn. |
| Abdomen ferruginous red; pubescence white; legs black, the tarsi more or less ferruginous | | <i>T. rubellus</i> , Turn. |
| 3. Pubescence of the abdomen deep or pale golden | 4. | |
| Pubescence of the abdomen silver, that on the pygidial area sometimes golden | 6. | |
| 4. Outer margin of the basal joint of the fore tarsus with five spines; second joint of the flagellum scarcely longer than the third | | <i>T. approximatus</i> , Turn. |
| Outer margin of the basal joint of the fore tarsus with six spines; second joint of the flagellum distinctly longer than the third | 5. | |
| 5. Legs almost entirely black; median segment nearly half as long again as the scutellum | | <i>T. plutocraticus</i> , Turn. |
| Tibiæ, tarsi, and the apex at least of the femora bright testaceous brown; median segment very little longer than the scutellum | | <i>T. relucens</i> , Turn. |
| 6. Tibiæ, tarsi, and sixth dorsal segment ferruginous | | <i>T. mitis</i> , Turn. |
| Legs, except the apical tarsal joints, black; sixth dorsal segment black | 7. | |
| 7. Pubescence of the pygidial area golden and dense | 8. | |
| Pubescence of the pygidial area not golden, either silver and dense or fusco-ferruginous and very sparse | 9. | |
| 8. Pygidial area very broadly rounded at the apex, almost truncate; basal joint of fore tarsus with six spines on the outer margin. | | <i>T. æstuanus</i> , Turn. |
| Pygidial area narrowly rounded at the apex, almost triangular; basal joint of fore tarsus with five spines on the outer margin | | <i>T. fatalis</i> , Turn. |

9. Pygidial area almost pointed, densely clothed with silver pubescence *T. dispersus*, Turn.
 Pygidial area very coarsely punctured, the punctures confluent longitudinally, sparsely clothed with fusco-ferruginous setæ *T. sulcatus*, Turn.

1. *Tachytes formosissimus*, Turn.

Tachytes formosissimus, Turn. Proc. Zool. Soc. London, p. 482 (1908).
 ♀.

Hab. Mackay, Q. (*Turner*).

I have only seen the type.

2. *Tachytes rubellus*, Turn.

Tachytes rubellus, Turn. Proc. Zool. Soc. London, p. 482 (1908). ♂.

Hab. Port Darwin, N.T. (*Turner*); Adelaide, S.A. (*ex coll. Perkins*).

♀. The pygidial area is fairly broad, rounded at the apex, clothed with golden pubescence. Basal joint of the fore tarsus with five spines on the outer margin. Second abscissa of the radius equal to the third; the two recurrent nervures separated on the cubitus by a distance greater than that between the first recurrent nervure and the first transverse cubital nervure.

The only female I have seen is from Adelaide; the species appears to be rare, though with a considerable range.

3. *Tachytes approximatus*, Turn.

Tachytes approximatus, Turn. Proc. Zool. Soc. London, p. 483 (1908).
 ♀ ♂.

Hab. Mackay and Cairns, Q. (*Turner*).

4. *Tachytes plutocraticus*, Turn.

Tachytes plutocraticus, Turn. Proc. Zool. Soc. London, p. 348 (1910). ♀.

Hab. Townsville, Q. (*Dodd*).

This is the largest Australian species of the genus.

5. *Tachytes relucens*, sp. n.

♀. Nigra; tibiis, tarsis, femoribus apice, posticis fere totis, tegulisque læte brunneo-testaceis; segmentis dorsalibus fascia lata, ventralibus angusta brunneo-ferruginea; segmentis dorsalibus, fascia lata apicali præcipue, aureo-sericeis; capite

thoraceque pallide aureo-pilosis; alis hyalinis, venis fusco-ferrugineis.

♂. *Feminæ similis*; area pygidiali pallide pilosa.

Long., ♀ 14 mm., ♂ 12 mm.

♀. Clypeus very broadly rounded at the apex. Second joint of the flagellum longer than the third by about one-quarter; eyes separated on the vertex by a distance slightly exceeding the length of the second joint of the flagellum. Basal joint of the fore tarsus with six spines on the outer margin. Front, clypeus, sides, and apex of the mesonotum and sides of the median segment clothed with pale pubescence tinged with gold, a spot of rather deeper golden pubescence on each side near the middle of the anterior margin of the mesonotum. Median segment short, scarcely longer than the scutellum, opaque, with a very obscure median sulcus, which becomes well defined on the posterior slope. Abdomen broadly conical; pygidial area rather narrowly rounded at the apex and clothed with deep golden pubescence. Second abscissa of the radius as long as the third; first recurrent nervure received distinctly nearer to the second recurrent than to the first transverse cubital nervure.

Except in the usual sexual characters the male is very similar to the female; there are four small spines on the outer margin of the basal joint of the fore tarsus; the sulcus on the dorsal surface of the median segment is more distinct; the abdomen is more slender, and the third abscissa of the radius is distinctly longer than the second.

Hab. Mackay, Q. (*Turner*).

In the number of spines on the basal joint of the fore tarsus this resembles *plutocraticus*; but this is a smaller insect, with a shorter median segment, the shape of the clypeus is different, also the colour of the legs. It is more stoutly built than *approximatus*, from which it also differs in the shape of the clypeus, in the number of spines on the basal joint of the fore tarsus, and in the broader pygidial area.

6. *Tachytes mitis*, sp. n.

♀. Nigra; mandibulis basi, area pygidiali, tibiis tarsisque ferrugineis; segmentis dorsalibus et ventralibus fascia angusta apicali brunneo-ferruginea; tegulis pallide testaceis; alis hyalinis, venis fusco-ferrugineis; abdomine argenteo-sericeo, segmentis dorsalibus 1-4 fascia lata apicali densius argenteo-sericea; area pygidiali aureo-setosa.

♂. *Feminæ similis*.

Long., ♀ 10 mm., ♂ 8 mm.

♀. Clypeus with a broadly arched depression on the apical quarter, the margin transverse, the deflexed portion bare and shining, the basal portion densely clothed with silver pubescence, which extends on to the front. Second joint of the flagellum equal to the third, less than twice as long as the first; eyes separated on the vertex by a distance greater by one-third than the length of the second joint of the flagellum; a sulcus reaching from the posterior ocelli to the occiput. Pronotum thick; mesonotum, scutellum, and mesopleuræ closely and minutely punctured, the mesopleuræ and sides of the mesonotum clothed with whitish pubescence. Thorax subopaque; median segment opaque, more strongly punctured than the thorax, with a distinct median sulcus which is more deeply continued on the posterior slope, clothed with short pubescence, silvery on the sides, greyish and sparser in the middle of the dorsal surface, fully half as long again as the scutellum. Abdomen subopaque, pygidial area elongate-triangular, very narrowly rounded at the apex. Basal joint of the fore tarsi with five slender spines on the outer margin. Second abscissa of the radius distinctly longer than the third; first recurrent nervure almost halfway between the second recurrent and first transverse cubital nervures, a little nearer to the former than to the latter.

The male has the joints of the antennæ shorter than in the female, so that the eyes are separated on the vertex by a distance fully equal to the combined length of the two basal joints of the flagellum; there are only four small spines on the outer margin of the basal joint of the fore tarsus, and the seventh dorsal segment is black at the base and clothed with silver pubescence.

Hab. Kalamunda, S.W. Australia (*Turner*); February and March. 3 ♂♂, 1 ♀. A single male apparently of the same species taken at Townsville, Q., by F. P. Dodd.

7. *Tachytes æstuans*, sp. n.

♀. Nigra, albo-pilosa; tarsorum articulo apicali, tibiærum tarsorumque spinis ferrugineis, tegulis pallide brunneis; segmentis dorsalibus 1-4 fascia apicali argenteo-sericea; area pygidiali dense aureo-setosa; alis hyalinis, venis fusco-ferrugineis.

Long. 14 mm.

♀. Clypeus transverse at the apex, deflexed in the middle just before the apex, and clothed with rather long white pubescence which extends on to the front. Second joint of the flagellum equal to the third, more than twice as long as the first; eyes separated on the vertex by a distance equal to

the combined length of the two basal joints of the flagellum; the sulcus from the posterior ocelli shallow and not quite reaching the occiput. Thorax minutely and very closely punctured, thinly clothed with greyish pubescence; median segment more opaque than the thorax, the pubescence denser than on the thorax, without a median sulcus on the dorsal surface, the segment about half as long again as the scutellum. Abdomen fairly stout; pygidial area very broadly rounded at the apex, almost truncate, the sides not very strongly convergent. Basal joint of the fore tarsus with six fairly stout spines on the outer margin. Second abscissa of the radius shorter than the third; first recurrent nervure almost or quite as near to the first transverse cubital as to the second recurrent nervure.

Hab. Hermannsburg, Central Australia (*H. J. Hillier*); Killalpanima, S.A. (*H. J. Hillier*).

This is very near *T. fatalis*, but has the pygidial area much broader at the apex, the sides less convergent; six spines on the basal joint of the fore tarsus as compared with five in *fatalis*; there is also a difference in the form of the clypeus.

8. *Tachytes fatalis*, sp. n.

♀. Nigra, argenteo-pilosa; mandibulis apice, tegulis, unguiculisque tarsalibus brunneis; segmentis dorsalibus 1-4 fascia apicali argenteo-pilosa; area pygidiali aureo-pilosa; alis hyalinis, venis fusco-ferrugineis.

Long. 13 mm.

♀. Clypeus very broadly rounded at the apex, the apical margin transversely depressed and bare, the base of the clypeus and the front clothed with silver pubescence; second joint of the flagellum slightly longer than the third; eyes separated on the vertex by a distance equal to the length of the two basal joints of the flagellum. Mesonotum minutely and closely punctured; median segment scarcely as long as the scutellum and postscutellum combined, without a median sulcus on the dorsal surface. Abdomen subopaque; the apical bands of silver pubescence broader at the sides than in the middle; pygidial area clothed with golden pubescence, elongate-triangular, narrowly rounded at the apex. Basal joint of the fore tarsus with five spines on the outer margin. Second abscissa of the radius scarcely as long as the third; first recurrent nervure nearer to the second recurrent than to the first transverse cubital nervure.

Hab. Toowoomba, Q.

This is nearest to *dispersus*, from which it may be distinguished by the golden pubescence of the pygidial area, which

is also more distinctly rounded at the apex than in *dispersus*; also by the shorter median segment and the form of the clypeus. From *æstuans* it is easily distinguished by the much narrower pygidial area and the number of spines on the basal joint of the fore tarsus.

9. *Tachytes dispersus*, sp. n.

♀. Nigra; unguiculis tarsalibus tegulisque brunneis; segmentis dorsalibus 1-4 fascia lata apicali argenteo-pilosa; area pygidiali argenteo-pilosa; alis hyalinis, venis nigris.

♂. *Feminæ similis*.

Long., ♀ 13 mm., ♂ 11 mm.

♀. Clypeus clothed with silver pubescence at the base, a bare, somewhat deflexed triangular area at the apex, the apical margin truncate. Second joint of the flagellum slightly longer than the third, more than twice as long as the first; eyes separated on the vertex by a distance equal to the length of the third joint of the flagellum. Front, pronotum, mesopleuræ, and the sides of the mesonotum and of the median segment clothed with silver pubescence; mesonotum distinctly depressed in the middle of the anterior margin, minutely and closely punctured; median segment more opaque than the mesonotum, more than half as long again as the scutellum, with an obscure median sulcus from base to apex, the sulcus becoming broad and deep on the posterior slope. Abdomen subopaque; the apical fasciæ of pubescence broad, especially on the sides; pygidial area elongate-triangular, almost pointed at the apex. Basal joint of the fore tarsus with five spines on the outer margin. Second abscissa of the radius a little longer than the third; first recurrent nervure a little nearer to the second recurrent than to the first transverse cubital nervure.

Hab. Baudin Island, N.W. Australia (*J. J. Walker*); Townsville, Q. (*Dodd*); Mackay, Q. (*Turner*); Perth, W.A. (*Turner*); Port Essington, N.T. (*Gould*).

This seems to be the commonest Australian species of the genus, and ranges over almost the whole continent. The silver pubescence of the pygidial area and the narrower and more pointed shape of the same area distinguish it from other Australian species.

10. *Tachytes sulcatus*, sp. n.

♀. Nigra; tarsorum articulis duobus apicalibus fusco-ferrugineis;

tibiarum tarsorumque spinis albidis; tegulis fuscis macula albida; alis hyalinis, venis fuscis.

♂. *Feminæ similis*.

Long., ♀ 10 mm., ♂ 8 mm.

♀. Clypeus shining, the apical margin transverse and deflexed; the base of the clypeus and the front clothed with short silvery pubescence. Second joint of the flagellum equal to the third, twice as long as the first; eyes separated on the vertex by a distance almost equal to the combined length of the two basal joints of the flagellum; vertex behind the posterior ocelli somewhat concave, and divided by an obscure longitudinal sulcus. Thorax very minutely and closely punctured, subopaque; median segment nearly twice as long as the scutellum, broad, opaque, microscopically punctured, the dorsal surface without a sulcus except at the extreme apex. Abdominal segments subopaque, microscopically punctured; dorsal segments 1-4 with a narrow apical band of silver pubescence, the margins of the segments under the pubescence fuscous. Pygidial area broad, subtriangular, rounded at the apex, the basal line a little shorter than the sides, the surface covered with very coarse elongate punctures, from which spring very short fusco-ferruginous setæ. Basal joint of fore tarsus with five spines on the outer margin. Second abscissa of the radius longer than the third; first recurrent nervure nearer to the second recurrent than to the first transverse cubital nervure.

The male is very similar to the female, but the antennal joints are shorter, so that the distance between the eyes on the vertex is nearly as great as the combined length of the second and third joints of the flagellum; the seventh dorsal segment is covered with silver pubescence.

Hab. Busselton, W.A. (*Turner*), ♂ ♀, January; Cottesloe, W.A. (*Giles*), ♂ ♀, December.

The female is easily distinguished from other Australian species by the coarse sculpture and very sparse setæ of the pygidial area.

11. *Tachytes tachyrrhostus*, Sauss.

Tachytes tachyrrhostus, Sauss. Mém. soc. phys. & hist. nat. Genève, xiv. p. 18 (1854). ♂; Sauss. Reise d. 'Novara,' Zool. ii., Hymen. p. 73 (1867). ♂; Schulz, Zool. Ann. iv. p. 189 (1911). ♂.

I have been quite unable to identify this species, of which the male only is described; it is, however, certainly a *Tachytes*, and may prove to be the male of *T. fatalis*, but

the species from S.E. Australia are very poorly represented in the British Museum, and will probably prove to be more numerous than is indicated in this paper.

Tachytes (?) *nigripes*, Sauss.

Larrada nigripes, Sauss. Reise d. 'Novara,' Zool. ii., Hymen. p. 74 (1867). ♀.

Schulz (Zool. Ann. p. 191, 1911) described the specimen now bearing the type-label in Saussure's collection. It is, however, a male, and has a head, whereas Saussure describes his species as female and implies that the type is headless. Schulz considers the generic position as intermediate between *Tachytes* and *Notogonia*, but nearest to the former. The locality given by Saussure is Tasmania, but the localities of the 'Novara' are most unreliable, and the species may not be Australian.

Tachytes australis, Sauss. (Reise d. 'Novara,' Zool. ii., Hymen. p. 69, 1867, ♂), is doubtless a *Tachysphex*; and *T. femoratus*, Sauss., and *T. australis*, Sauss. (1854, nec 1867), belong respectively to *Larra* and *Notogonia*.

Tachytes tarsatus, Sm., an Indian species, was recorded by me as Australian (Proc. Zool. Soc. London, p. 348, 1910) owing to an error in identification; in the same paper I also included *T. australis*, Sauss. (1867), as a *Tachytes*.

XXXIII.—On a new Species of *Solpuga* from the Belgian Congo. By STANLEY HIRST.

(Published by permission of the Trustees of the British Museum.)

Solpuga hewitti, sp. n.

♂.—*Chelicera*. Basal enlargement of flagellum rather high and shaped like an ear. Free portion of flagellum short, being much less than half the length of the chelicera; it arises above the second tooth, and at first is fairly wide and flattened dorso-ventrally; towards the middle of its length, however, it is rotated sideways, becoming higher than wide, and is furnished with a short little keel crowned with denticles; distal end of flagellum slender and bifurcated, consisting of a sharp little spine and a minute soft twisted



Turner, Rowland E. 1916. "Notes on fossorial Hymenoptera. XXI. On the Australian Larrinae of the genus Tachytes." *The Annals and magazine of natural history; zoology, botany, and geology* 17, 299–306.

View This Item Online: <https://www.biodiversitylibrary.org/item/61721>

Permalink: <https://www.biodiversitylibrary.org/partpdf/58137>

Holding Institution

University of Toronto - Gerstein Science Information Centre

Sponsored by

University of Toronto

Copyright & Reuse

Copyright Status: NOT_IN_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.