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“..... per litora spargite muscum,
Naiades, et circum vitreos considite fontes:
Pollice virgineo teneros hic carpite flores:
Floribus et pictum, divæ, replete canistrum.
At vos, o Nymphæ Craterides, ite sub undas;
Ite, recurvato variata corallia trunco
Vellite muscosis e rupibus, et mihi conchas
Ferte, Dea pelagi, et pingui conchylia succo.”
N. Parthenii Giannettasi, Ecl. 1.

No. 115. JULY 1917.

I.—*A Revision of the Wasps of the Genus Tachytes inhabiting the Ethiopian Region.* By ROWLAND E. TURNER, F.Z.S., F.E.S.

THE following notes on the Ethiopian species of *Tachytes* are based on the collection in the British Museum, which is rich in species from Nyasaland and Uganda, but poor in species from West Africa and the dry regions of South Africa. The species run very close, and are most easily distinguished by the distance between the eyes on the vertex, the sculpture of the vertex, the shape of the pygidial area in the female, and of the seventh tergite and eighth sternite in the male, by the colour and distribution of the pubescence, the colour of the legs, and by the number of spines on the basal joint of the fore tarsus. In some of the larger females the sculpture of the second and third sternites is also important. The mouth-parts might also be of considerable use, but I have not had sufficient material available to use them as extensively as I could wish; there is, however, considerable variation in the palpi, in the length of the galea, and in the form of the ligula. The details of neurotation,

though they have been much used in description, must be used with extreme caution in the distinction of species, being far from constant, variations being very common in the comparative length of the second and third abscissæ of the radius. Comparatively few Ethiopian species of the genus have been described, and in most of the descriptions important characters—such as the apical segments of the male, the sculpture of the second and third sternites of the female, and the structure of the palpi and galea—have not been noticed. I have not included species from Madagascar in this paper, the collection being very poor in species from that island. The occurrence of a species of the subgenus *Calotachytes* in Madagascar is, however, interesting.

The species I have not seen are marked *.

Key to the Ethiopian Species of Tachytes.

♂♂.

1. Mandibles not excised on the outer margin; median segment striated on the dorsal surface, subrectangular, the apical angles not rounded; abdomen wholly light ferruginous red. Subgenus *Holotachytes*.
Mandibles deeply excised on the outer margin; median segment not striated on the dorsal surface, the apical angles rounded; abdomen otherwise coloured [*T. dichroa*, Sm.
2. Maxillary palpi five-jointed; labial palpi three-jointed, very long and slender. Subgenus *Calotachytes*. 3.
Maxillary palpi six-jointed; labial palpi four-jointed Subgenus *Tachytes*. 5.
3. Four basal tergites densely covered with brilliant silver pubescence; eighth sternite subtruncate, the angles not produced *T. marshalli*, Turn.
Dorsal surface of abdomen covered with brilliant golden pubescence; eighth sternite emarginate, the angles produced 4.
4. Seventh tergite broadly rounded; wings subhyaline, with a pale fuscous apical band *T. mira*, Kohl.
Seventh tergite truncate at the apex; wings strongly infuscate. *T. admirabilis*, Turn.
5. Dorsal surface of abdomen densely clothed with bright golden pubescence; head and thorax entirely without golden pubescence 6.
Abdomen not clothed with golden pubescence, or if so clothed then with some golden pubescence on the thorax also. 11.

6. Clypeus with three well-defined teeth on each side of the apical margin; galea shorter than scape *T. rhodesiana*, Bisch.
- Clypeus without clearly defined teeth; galea much longer than scape 7.
7. Eyes separated on the vertex by a distance not exceeding half the length of the second joint of the flagellum..... 8.
- Eyes separated on the vertex by a distance slightly exceeding three-quarters of the length of the second joint of the flagellum 10.
8. Joints 3-7 of the flagellum distinctly arcuate beneath; eighth sternite shallowly emarginate, the apical angles distinctly produced..... *T. neavei*, Turn.
- Joints of the flagellum not arcuate beneath; eighth sternite truncate, the angles not produced 9.
9. Abdomen and the greater part of the antennæ and legs ferruginous brown. *T. basilica*, Guér.
- Black, the apical margins of the abdominal segments brown *T. observabilis*, Kohl.
10. Eighth sternite truncate, the angles not produced *T. velox*, Sm.
- Eighth sternite deeply emarginate, the angles strongly produced *T. perornata*, Turn.
11. Wings black, flushed with blue or violet; abdomen black, without pubescent fasciæ 12.
- Wings hyaline, subhyaline or flavo-hyaline, abdomen usually with pubescent fasciæ 13.
12. Front and clypeus clothed with long black hairs *T. nigropilosella*, Cam.
- Front and clypeus with short, sericeous, silver pubescence..... *T. natalensis*, Sauss.
13. Abdomen black, without pubescent fasciæ *T. nudiventris*, Turn.
- Abdomen with pubescent fasciæ, sometimes interrupted 14.
14. Two basal abdominal segments red *T. ambidens*, Kohl.
- Basal abdominal segments black 15.
15. Second to seventh joints of the flagellum strongly arcuate - dilatate beneath; wings flavo-hyaline, pale fusco-hyaline apically from the second cubital cell; pubescence of abdomen dense and golden, sparse golden pubescence on the sides of the mesonotum *T. dilaticornis*, Turn.
- Flagellar joints at most feebly arcuate beneath; wings, if flavo-hyaline, without a fusco-hyaline broad margin 16.
16. Galea very long, considerably more than twice as long as the scape..... 17.

- Galea less than twice as long as the scape,
often shorter than the scape 19.
17. All the tibiæ and tarsi fulvo-ferru-
ginous *T. hamiltoni*, Turn.
At least the intermediate and hind tibiæ
and tarsi black 18.
18. Fore tibiæ and tarsi ferruginous *T. præstabilis*, Turn.
Fore tibiæ and tarsi black *T. labilis*, Turn.
19. Tibiæ and tarsi wholly bright fulvo-
ferruginous 20.
Tibiæ and at least a portion of the tarsi
black; the tibiæ rarely fusco-ferru-
ginous at the base 27.
20. Galea about half as long again as the
scape 21.
Galea no longer than the scape 22.
21. Seventh tergite truncate at the apex;
basal joint of the fore tarsus with six
spines *T. separabilis*, Turn.
Seventh tergite rounded at the apex;
basal joint of the fore tarsus with four
or five spines *T. irritabilis*, Turn.
22. Eighth sternite truncate, the apical
angles not produced; eyes very close
together on the vertex, separated
by a distance about equal to the
length of the first joint of the fla-
gellum 23.
Eighth sternite more or less emarginate
or bisinuate at the apex; eyes sepa-
rated on the vertex by a distance
equal to at least twice the length of
the first joint of the flagellum 24.
23. Second sternite with the apical half
shining, with coarse scattered punc-
tures; pubescence of mesonotum ful-
vous and dense, without underlying
golden pubescence; abdominal fasciæ
silver-grey *T. testaceinerva*, Cam.
Second sternite closely and minutely
punctured; pubescence of mesonotum
golden-grey, with underlying golden
pubescence; abdominal fasciæ golden-
grey *T. tomentosa*, Kohl.
24. Eighth sternite bisinuate at the apex,
the apical angles not produced *T. associata*, Turn.
Eighth sternite emarginate, the angles
produced 25.
25. Eyes separated on the vertex by a distance
equal to the combined length of the
second and third joints of the flagel-
lum *T. ugandensis*, Turn.
Eyes separated on the vertex by a dis-
tance less than or only slightly greater
than the length of the second joint of
the flagellum 26.

26. Eyes separated on the vertex by a distance scarcely exceeding half the length of the second joint of the flagellum *T. opposita*, Turn.
 Eyes separated on the vertex by a distance fully equal to the length of the second joint of the flagellum..... *T. neglecta*, Turn.
27. Middle joints of the flagellum marked at least beneath with dull ochreous *T. pulchricornis*, Turn.
 Middle joints of the flagellum entirely black..... 28.
28. Abdomen more or less densely covered with golden pubescence, much more densely on the apical fasciæ than elsewhere 29.
 Pubescence of abdomen silver or grey, almost entirely confined to the apical fasciæ 30.
29. Eyes separated on the vertex by a distance less than the length of the second joint of the flagellum; basal joint of fore tarsus with six spines; eighth sternite shallowly emarginate *T. aurichalcea*, Kohl.
 Eyes separated on the vertex by a distance greater than the length of the second joint of the flagellum; basal joint of fore tarsus with five spines; eighth sternite rounded *T. volubilis*, Turn.
30. Basal joint of fore tarsus with six or more spines 31.
 Basal joint of fore tarsus with not more than five spines 33.
31. Basal joint of fore tarsus with eight spines; eighth sternite broadly rounded or subtruncate *T. habilis*, Turn.
 Basal joint of fore tarsus with six spines; eighth sternite emarginate 32.
32. Eyes separated on the vertex by a distance exceeding the length of the second joint of the flagellum..... *T. inexorabilis*, Turn.
 Eyes separated on the vertex by a distance scarcely exceeding half the length of the second joint of the flagellum *T. erynoides*, Turn.
33. Thorax punctured rugulose; median segment rugulose *T. notabilis*, Turn.
 Sculpture of thorax and median segment microscopic 34.
34. Second and third sternites minutely and very closely punctured, subopaque 35.
 Second and third sternites coarsely and not very closely punctured, shining .. *T. versatilis*, Turn.
35. Basal joint of fore tarsus with five spines; length 14 mm. *T. hirsuta*, Sm.

- Basal joint of fore tarsus with four spines; length 11 mm. 36.
36. Vertex with distinct and rather sparse punctures; eighth sternite broad. *T. instabilis*, Turn.
- Vertex almost smooth, the punctures microscopic; eighth sternite very narrow *T. disputabilis*, Turn.

♀ ♀.

1. Mandibles not excised on the outer margin; median segment striated on the dorsal surface, subrectangular, the apical angles not rounded; abdomen wholly light ferruginous red. Subgenus *Holotachytes*.
Mandibles deeply excised on the outer margin; median segment never striated on the dorsal surface, rounded at the apical angles; abdomen otherwise coloured [*T. dichroa*, Sm.]
2. Maxillary palpi five-jointed; labial palpi three-jointed, very long and slender 2.
Maxillary palpi six-jointed; labial palpi four-jointed. Subgenus *Calotachytes*. 3.
3. The four basal dorsal segments densely clothed with brilliant silver pubescence. Subgenus *Tachytes*. 5.
Dorsal surface of abdomen densely clothed with brilliant golden pubescence *T. marshalli*, Turn.
4. Wings dark fusco-hyaline 4. *T. admirabilis*, Turn.
Wings subhyaline, with a pale fuscous apical margin *T. mira*, Kohl.
5. Dorsal surface of abdomen densely clothed with bright golden pubescence, head and thorax entirely without golden pubescence; with six spines on basal joint of fore tarsi 6.
Abdomen not clothed with golden pubescence, or if so clothed then with some golden pubescence on the thorax also, or with only five spines on basal joint of fore tarsi 9.
6. Clypeus with three distinct teeth on each side on the apical margin; galea shorter than scape *T. rhodesiana*, Bisch.
- Clypeus without teeth; galea much longer than scape 7.
7. Second sternite shining, with large scattered punctures. *T. velox*, Sm.
- Second sternite subopaque, very minutely and closely punctured 8.
8. Abdomen and the greater part of the antennæ and legs dull ferruginous brown *T. basilica*, Guér.

- Black; the apical margins of the abdominal segments brown *T. observabilis*, Kohl.
9. Wings black, flushed with blue; or dark fusco-hyaline 10.
Wings hyaline, subhyaline, or flavo-hyaline, sometimes pale fusco-hyaline at the apex 13.
10. Wings dark fusco-hyaline, abdomen with interrupted fasciæ of silver pubescence. *T. mærens*, Turn.
Wings black, flushed with blue or purple 11.
11. Front and clypeus clothed with long black hairs *T. nigropilosella*, Cam.
Front and clypeus with short sericeous pubescence 12.
12. Pubescence of front and clypeus silver; anterior tibiæ black *T. natalensis*, Sauss.
Pubescence of front and clypeus golden; anterior tibiæ ferruginous *T. memnon*, Turn.
13. Abdomen black, without pubescent fasciæ *T. nudiventris*, Turn.
Abdomen with pubescent fasciæ 14.
14. Abdomen densely covered with silver pubescence 15.
The pubescence, if silver, restricted to the apical fasciæ on the dorsal segments 17.
15. Basal joint of fore tarsus with five spines *T. distanti*, Turn.
Basal joint of fore tarsus with six spines. 16.
16. Clypeus subtruncate at the apex; pygidial area clothed with golden pubescence *T. argenteovestita*, Cam.
Clypeus rounded at the apex; pygidial area clothed with reddish brown setæ *T. bulucayoensis*, Bisch.
17. Two basal abdominal segments at least red. 18.
Basal abdominal segments black 19.
18. Three basal abdominal segments red; clypeus without prominent teeth; apical slope of median segment closely transversely striated *T. sjöstedti*, Cam.
Two basal abdominal segments red; clypeus with two prominent teeth; apical slope of the median segment closely and minutely punctured *T. ambidens*, Kohl.
19. Wings flavo-hyaline, fusco-hyaline apically from the second cubital cell; pubescence of abdomen dense and golden; sparse golden pubescence on the sides of the mesonotum *T. dilaticornis*, Turn.
Wings, if flavo-hyaline, without a broad fusco-hyaline margin 20.
20. Galea very long, more than twice as long as the scape. 21.

- Galea less than twice as long as the scape, often shorter than the scape . . . 23.
21. All the tibiae and tarsi fulvo-ferruginous *T. simulatrix*, Turn.
At least the intermediate and hind tibiae and tarsi black. 22.
22. Fore tibiae and tarsi ferruginous *T. praestabilis*, Turn.
Fore tibiae wholly and fore tarsi mostly black *T. labilis*, Turn.
23. Tibiae and tarsi wholly bright fulvo-ferruginous 24.
Tibiae and at least a portion of the tarsi black: the tibiae rarely fusco ferruginous at the base 29.
24. Galea about half as long again as the scape *T. separabilis*, Turn.
Galea shorter than the scape 25.
25. Second sternite shining, with large sparse punctures; pubescence of the mesonotum fulvous, without any close-lying golden pubescence. *T. testaceinerva*, Cam.
Second sternite subopaque, very minutely and closely punctured; mesonotum with gold or golden-grey hairs, with shorter close-lying golden pubescence 26.
26. Of small size, not exceeding 10 mm. in length, pygidial area elongate triangular, nearly twice as long as the greatest breadth, clothed with very pale golden pubescence *T. kristenseni*, Turn.
Of larger size, at least 12 mm. in length; pygidial area subtriangular, broad at the base, clothed with bright golden or dark reddish pubescence 27.
27. Eyes far apart on vertex, separated by a distance equal to at least the combined length of the second and third joints of the flagellum; pubescence of pygidial area rufo-fuscous. *T. ugandensis*, Turn.
Eyes separated on the vertex by a distance not exceeding the combined length of the first and second joints of the flagellum: pubescence of pygidial area bright golden 28.
28. With five spines on the basal joint of the fore tarsus. *T. tomentosa*, Kohl.
With six spines on the basal joint of the fore tarsus. *T. neglecta*, Turn.
29. Basal joint of fore tarsus with six spines 30.
Basal joint of fore tarsus with not more than five spines 35.
30. Tergites more or less densely covered with golden pubescence, the apical fasciae distinct. *T. aurichalcea*, Kohl.

- Pubescence of tergites silver or grey, and confined to the apical fasciæ 31.
31. Third sternite opaque, very closely and microscopically punctured 32.
- Third sternite shining, the punctures neither microscopic nor close 33.
32. Wings flavo-hyaline, costa fulvous; eyes separated on the vertex by a distance scarcely equal to the length of the two basal joints of the flagellum *T. erynisi*, Turn.
- Wings hyaline, costa fuscous; eyes separated on the vertex by a distance half as great again as the length of the second joint of the flagellum *T. inexorabilis*, Turn.
33. Vertex rugosely punctured; ventral segments 3-5 evenly punctured; thorax with dense fulvous pubescence *T. versatilis*, Turn.
- Vertex not rugosely punctured; ventral segments 3-5 sparsely and irregularly punctured; thorax with grey or golden-grey pubescence 34.
34. Pubescence of the thorax golden-grey; pygidial area broadly rounded at the apex *T. lachesis*, Turn.
- Pubescence of the thorax grey; pygidial area subacute at the apex *T. transvaalensis*, Cam.
35. Pubescence of the abdomen golden, of the pygidial area silver; pubescence of the abdomen not confined to the apical margin, but covering the whole dorsal surface *T. bimetallica*, Turn.
- Pubescence of the abdomen confined to the apical fasciæ; silver or grey, except in rare varieties; pubescence of the pygidial area never silver 36.
36. Thorax punctured rugulose; median segment rugulose *T. notabilis*, Turn.
- Sculpture of thorax and median segment microscopic 37.
37. Eyes separated on the vertex by a distance scarcely equal to the length of the second joint of the flagellum *T. megæra*, Turn.
- Eyes separated on the vertex by a distance equal to the combined length of the two basal joints of the flagellum 38.
38. Vertex distinctly and rather sparsely punctured *T. instabilis*, Turn.
- Vertex almost smooth, the punctures microscopic 39.
39. Pubescence of thorax and median segment white; length 9-10 mm. *T. silverlocki*, Turn.
- Pubescence of thorax and median segment golden-grey; length 11-13 mm. *T. pulchricornis*, Turn.

Subgenus *Holotachytes*, subgen. nov.

Differs from typical *Tachytes* in the absence of the incision on the outer margin of the mandibles, in the striation of the dorsal surface of the median segment, and also in the longer and more rectangular shape of that segment.

Type of the subgenus, *Tachytes dichroa*, Sm.

Unlike *Calotachytes* this subgenus has the galea short and broadly rounded at the apex, not rostrate; and the joints of the labial palpi are short and stout.

1. *Tachytes (Holotachytes) dichroa*, Sm.

Tachytes dichroa, Sm. Cat. Hym. B.M. iv. p. 299 (1856). ♂.

Larrada ferox, Sm. Ann. & Mag. Nat. Hist. (4) xii. p. 294 (1873). ♀.

Hab. Gambia (type ♂); N. Nigeria, Oye River near Lajollo (*J. W. Scott-Macfie*); Gold Coast, N. Territories, Wa (*J. J. Simpson*), May.

Subgenus *Calotachytes*, subgen. nov.

The three following species—*T. marshalli*, Turn., *T. mira*, Kohl, and *T. admirabilis*, Turn.—form a section of the genus structurally distinguished by the five-jointed maxillary and three-jointed labial palpi, other species of the genus having six-jointed maxillary and four-jointed labial palpi. The basal joint of the labial palpi is extremely long and slender, much longer than the second joint of the flagellum, and the galea is very elongate. These two characters, however, are also present in *T. observabilis*, Kohl, *velox*, Sm., and other related species. I look on the difference in the number of the joints in the palpi as of subgeneric importance. The known species are confined to the Ethiopian region and are of large size, and have at least the four basal dorsal segments densely covered with golden or silver pubescence. The second sternite of the female is shining, with large sparse punctures.

Type of the subgenus, *Tachytes marshalli*, Turn.

In addition to the three Ethiopian species noticed below, *T. argyropis*, Sauss., from Madagascar, also belongs to the subgenus.

2. *Tachytes (Calotachytes) marshalli*, Turn.

Tachytes marshalli, Turn. Ann. & Mag. Nat. Hist. (8) ix. p. 420 (1912). ♀ ♂.

Hab. Mashonaland, Salisbury (*G. A. K. Marshall*);

Central Angoniland, Lilongwe district, 4000 ft. (*S. A. Neave*), May.

♂. The eighth sternite is subtruncate at the apex, the angles not projecting.

3. *Tachytes (Calotachytes) mira*, Kohl.

Tachytes mira, Kohl, Ann. Naturh. Hofmus. Wien, ix. p. 295 (1894). ♀.

♂. Seventh tergite very broadly rounded at the apex; eighth sternite emarginate, the angles forming distinct teeth.

Hab. Delagoa Bay (*Brauns*); Mashonaland, Salisbury (*G. A. K. Marshall*), January; Nyasaland, Mlanje (*S. A. Neave*), January to May.

4. *Tachytes (Calotachytes) admirabilis*, Turn.

Tachytes admirabilis, Turn. Ann. & Mag. Nat. Hist. (8) xvii. p. 444 (1916). ♀ ♂.

Hab. Uganda.

Possibly a local race of *mira*.

Subgenus *Tachytes*.

5. *Tachytes basilica*, Guér.

Lyrops basilicus, Guér. Iconogr. règn. anim. vii., Insect. p. 440 (1844).

♀.
Tachytes basilicus, Sm. Cat. Hym. B.M. iv. p. 300 (1856).

♀. Nigra; abdomine brunneo-ferrugineo, infra nigro intaminato; segmentis dorsalibus aureo-pubescentibus, pygidio aureo pubescente; mandibulis, antennis, femoribus apice, tibiis tarsisque fusco-ferrugineis; tegulis brunneis; alis subhyalinis, venis fuscis, apice leviter infuscatis.

♂. Feminae similis.

Long., ♀ 20 mm., ♂ 18 mm.

♀. Clypeus broadly subtruncate at the apex. Eyes separated on the vertex by a distance not quite equal to the length of the second joint of the flagellum. Front clothed with silver-white pubescence. Thorax sparsely, median segment more thickly clothed with greyish pubescence; the punctures of the mesonotum minute and not distinctly separated; median segment nearly as long as the mesonotum, narrowed to the apex, with an ill-defined longitudinal

sulcus. Second sternite subopaque, minutely and closely punctured, with a shining subtriangular space on the middle of the apical margin. Pygidial area triangular, narrowly rounded at the apex. Basal joint of fore tarsi with six spines. First and third abscissæ of the radius subequal, each nearly twice as long as the second, and nearly half as long again as the space between the recurrent nervures on the cubitus. Third cubital cell on the cubitus extending a little beyond the apex of the radial cell.

♂. Eyes separated on the vertex by a distance not quite equal to half the length of the second joint of the flagellum; punctures of the second sternite distinctly larger than in the female; seventh tergite subtriangular, rounded at the apex, the apical angles not produced.

Hab. Senegal (*Guérin*); N. Nigeria, Zungeru (*J. W. Scott-Macfie*), November.

I am doubtful if Magretti (*Ann. Mus. Civ. Genova*, xxi. p. 586, 1884) has correctly identified the species he records from Kassala under this name.

6. *Tachytes observabilis*, Kohl.

Tachytes observabilis, Kohl, *Ann. Naturh. Hofmus. Wien*, ix. p. 295 (1894). ♂.

♀ ♂. Extremely near to *T. basilica*, Guér., differing in the black colour of the abdomen, legs, and antennæ in both sexes. The abdominal segments are very narrowly brown on the apical margin, and the gold pubescence on the abdomen is denser and deeper in colour than in *T. basilica*. The female has the clypeus very broadly rounded at the apex, not subtruncate as in *basilica*.

Hab. Zanzibar (*Kohl*); Nyasaland, Mlanje (*S. A. Neave*), December to February; British E. Africa, Kuja Valley, S. Kavirondo, 4000 ft. (*S. A. Neave*), April; Uganda Protectorate, Valley of Kafu River, Unyoro, 3400 ft. (*S. A. Neave*), December; Angola (*Monteiro*).

This is probably only a geographical race of *T. basilica*, ranging over Tropical E. Africa and the southern portion of Tropical West Africa. It occurs in Nyasaland with the very similar *T. mira*, Kohl, but may be distinguished at once by the very different sculpture of the second sternite of the female, and by the much greater approximation of the eyes on the vertex in the male; also by the number of joints in the palpi.

7. *Tachytes neavei*, sp. n.

♂. Niger; mandibulis in medio, tegulisque apice fuscis; tarsi fusco-ferrugineis; segmentis abdominalibus margine apicali brunneis, segmentis dorsalibus dense aureo-sericeis, fasciis apicalibus distinctis; alis subhyalinis, margine apicali leviter infumatis, venis ferrugineis.

Long. 18 mm.

♂. Clypeus broadly subtruncate at the apex; eyes very close together on the vertex, separated by a distance not exceeding the length of the first joint of the flagellum. Front and clypeus clothed with whitish pubescence. Second joint of the flagellum longer by about one-quarter than the third, joints 3-7 very distinctly arcuate beneath. Thorax clothed with greyish mingled with pale fulvous hairs, the punctures very minute. Median segment shorter than the mesonotum, but nearly twice as long as the scutellum. Second sternite very closely and finely punctured, more strongly in the middle than on the sides. Seventh tergite very broad, nearly as broad as the greatest length, very broadly rounded at the apex, rather thinly clothed with pale golden setae, each of which springs from a large puncture; eighth sternite broadly and shallowly emarginate at the apex, the angles not forming distinct teeth. Third cubital cell not extending as far as the radial, scarcely more than half as long on the cubitus as the second, third abscissa of the radius a little longer than the second, about equal to the first.

Hab. Lualaba River, 2500-4000 ft. (*S. A. Neave*), May.

The eyes are even closer together on the vertex than in *observabilis*, but the anal segments are nearer to *mira*, though the seventh tergite is less distinctly rounded, and the eighth sternite less deeply emarginate than in that species. In the arcuate joints of the flagellum it differs from both species.

8. *Tachytes velox*, Sm.

Tachytes velox, Sm. Cat. Hymen. B.M. iv. p. 301 (1856).

♀. Closely resembles *T. basilica*, with which it occurs; but the antennae are black; the abdominal segments are black, very narrowly brown on the apical margins, and the legs are black with the apical joints of the tarsi fusco-ferruginous. Eyes separated on the vertex by a distance equal to the length of the two basal joints of the flagellum;

median segment less than two-thirds as long as the mesonotum; second sternite shining, with large scattered punctures.

♂. Eyes separated on the vertex by a distance slightly exceeding three-quarters of the length of the second joint of the flagellum; clypeus very broadly rounded at the apex. Apical tergites and sternites as in *basilica*. Second ventral segment finely and closely punctured. The pubescence of the abdomen is paler than in *observabilis*.

Hab. Gambia (*Smith*); N. Nigeria, Zungeru (*J. W. Scott-Macfie*), November. ♀.

The median segment is shorter than in *basilica* and *observabilis*, and the eyes are further apart on the vertex. The third and fourth joints of the flagellum are slightly arcuate beneath in the male.

9. *Tachytes perornata*, sp. n.

♂. Niger; mandibulis in medio, tegulis apice, calcaribus unguiculisque fusco-ferrugineis; alis subhyalinis, venis fuscis; capite albo-piloso, thorace griseo-piloso. segmentis abdominalibus apice anguste brunneis, segmentis dorsalibus dense aureo-pubescentibus; segmento ventrali octavo apice fortiter emarginato.

Long. 16 mm.

♂. Eyes separated on the vertex by a distance slightly exceeding three-quarters of the length of the second joint of the flagellum; clypeus broadly rounded at the apex; maxillary palpi six-jointed; labial palpi four-jointed, the two basal joints long and slender, the second about equal in length to the second joint of the flagellum, the first longer; puncturation of the vertex indistinct. Median segment nearly twice as long as the scutellum. Second sternite shining and rather strongly punctured in the middle, much more finely and closely on the sides. Seventh tergite rather broad, subtruncate broadly at the apex; eighth sternite widely and rather deeply emarginate, the apical angles produced.

Hab. Uganda Protectorate, Eastern Mbale District, South of Mt. Elgon, 3700 ft. (*S. A. Neave*), August; Mbale-Kumi Road, South of Lake Salisbury, 3700 ft. (*S. A. Neave*), August.

This is near *velox*, but has the seventh tergite broader, and the eighth sternite very different. The eyes are much further apart on the vertex than in *observabilis* or *neavei*. From *mira* it may be distinguished at once by the different number of joints in the palpi, and from *rhodesiana* by the

absence of teeth on the clypeus and the much deeper emargination of the eighth sternite.

10. *Tachytes nigropilosella*, Cam.

Liris nigropilosellus, Cam. Ann. Transvaal Mus. ii. p. 132 (1910).

Tachytes gigas, Bisch. Arch. f. Naturges. A. 3, p. 66 (1913). ♀.

♂. Seventh tergite rather broadly truncate, clothed with dark brown setæ, eighth sternite twice as long as broad, the sides parallel, the apex shallowly emarginate.

Hab. Natal, Durban (*Distant*); Ma-honaland, Salisbury (*G. A. K. Marshall*), January, ♂ ♀; N.E. Rhodesia, Serenje district, 4500 ft. (*S. A. Neave*), December; Nyasaland, Mlanje (*S. A. Neave*), February.

11. *Tachytes natalensis*, Sauss.

Tachytes natalensis, Sauss. Mem. Soc. phys. & hist. nat. Genève, xiv. pt. 1, p. 21, n. 10, t. 1, fig. 4 (1854). ♂.

Tachytes natalensis, Sauss. Reise d. Novara, Zool. ii. pt. 1, Hymen. p. 68 (1867). ♂.

♀. Nigra; mandibulis in medio, tarsis anticis articulis tribus apicalibus, intermediis posticisque articulo apicali, tegulisque apice ferrugineis; fronte clypeoque argenteo-pubescentibus, area pygidiali aureo-setoso, alis fusco cæruleis, venis nigris.

♂. *Feminae similis*, tarsis anticis omnino ferrugineis.

Long., ♀ 17 mm., ♂ 14 mm.

♀. Clypeus truncate at the apex, with large sparse punctures, the space between the large punctures very minutely and closely punctured. Eyes separated on the vertex by a distance equal to twice the length of the third joint of the flagellum; second joint of the flagellum distinctly longer than the third. Head and thorax opaque, closely microscopically punctured; median segment opaque, narrowed to the apex, nearly as long as the mesonotum, a shallow sulcus on the apical quarter continued much more deeply on the apical truncation, which is coarsely transversely striated. Abdomen shining, the dorsal surface microscopically punctured; second sternite finely and closely punctured, with a shining and smooth triangular space on the middle of the apical margin. Pygidial area subtriangular, the sides a little longer than the base, the apex narrowly rounded, closely clothed with golden setæ which change in side lights to blackish. Basal joint of fore tarsi with five spines.

♂. Clypeus very broadly rounded at the apex; the

distance between the eyes a little less than in the female; seventh tergite rather broadly truncate at the apex; eighth sternite widely and very shallowly emarginate on the apical margin, the angles not produced into teeth. Third cubital cell rather short on the cubitus, not extending beyond the radial cell, third abscissa of the radius longer than the second.

Hab. Natal, Durban (*South African Museum*), April, ♀. One male from Natal in the British Museum.

12. *Tachytes memnon*, Turn.

Tachytes memnon, Turn. Ann. & Mag. Nat. Hist. (8) xvii. p. 446 (1916). ♀.

♀. Very close to *T. natalensis*, differing in the colour of the pubescence on the front and pygidial area, in the colour of the anterior tibiæ and of the base of the antennæ; in the distinctly longer second joint of flagellum, in the absence of large punctures on the clypeus, and in the distinctly narrower pygidial area.

Hab. Nyasaland, Mlanje (*S. A. Neave*), April.

Possibly a northern subspecies of *natalensis*.

13. *Tachytes præstabilis*, sp. n.

♀. Nigra; clypeo, fronte thoraceque pallide aureo-pubescentibus, pilis fulvidis intermixtis; segmentis dorsalibus 4 basalibus fascia apicali argenteo-pubescente; area pygidiali fusco-ferrugineo-setosa; tegulis testaceis; mandibulis fusco-ferrugineis; tibiis tarsisque anticis, calcaribus, unguiculisque ferrugineis; alis flavidulis, venis fusco-ferrugineis.

♂. Femiinæ similis; segmento dorsali septimo pallide et sparse ferrugineo-setoso.

Long., ♀ 15-16 mm., ♂ 13 mm.

♀. Clypeus closely and finely punctured, with large punctures intermixed, deflexed towards the apical margin, which is subtruncate with a distinct tooth on each side; vertex with a few fairly large, scattered punctures; eyes separated on the vertex by a distance slightly exceeding the length of the second joint of the flagellum. Galeæ very long and narrow at the apex, rostrate. Basal joint of fore tarsus with six spines. Median segment half as long again as the scutellum, the median sulcus almost obsolete on the dorsal surface. Second sternite minutely and closely punctured; pygidial area broadly triangular, narrowly rounded at the apex. Third cubital cell extending a little beyond the apex of the radial cell.

♂. Seventh tergite very broadly truncate at the apex; eighth sternite very widely but rather shallowly emarginate, the apical angles produced into short acute spines.

Hab. Uganda Protectorate, Unyoro, Bugoma Forest, 3700 ft. (*S. A. Neave*), December; Unyoro, Budongo Forest, 3400 ft. (*S. A. Neave*), December.

Closely allied to *T. hamiltoni*, but differs in the colour of the legs and wings, and in the greater distance between the eyes on the vertex.

14. *Tachytes labilis*, sp. n.

♀. Nigra; tarsi articulis tribus apicalibus subtus, calcaribusque fusco-ferrugineis; tegulis testaceis; fronte clypeoque griseo-argenteo-pubescentibus; thorace segmentoque mediano fulvo-pilosis; segmentis dorsalibus 4 basalibus fascia lata apicali griseo-argenteo-pubescente; area pygidiali fusco-ferrugineo-setosa; alis hyalinis, pallidissime flavo-tinctis, apice pallide infuscatis, venis testaceis; galea elongata.

♂. Feminae similis; segmento dorsali septimo subargenteo-pubescente.

Long., ♀ 18 mm., ♂ 15 mm.

♀. Extremely near to *T. praevalidis*, but differs in having the pygidial area a little more broadly rounded at the apex; and in the colour of the fore legs; the eyes are also a little further apart on the vertex.

♂. Seventh dorsal segment broadly rounded at the apex, not truncate; eighth sternite narrow, not more than half as wide as in *praevalidis*, shallowly emarginate at the apex, the apical teeth blunter than in *praevalidis*.

Hab. Nyasaland, Mlanje (*S. A. Neave*), December to February.

Probably only a geographical race of *praevalidis*, but the difference in the apical segments of the male seems important. The male is the type.

15. *Tachytes hamiltoni*, sp. n.

♂. Niger; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano pallide fulvo-hirsutis, mesonoto lateribus pallide aureo-pubescente; segmentis dorsalibus 5 basalibus fascia apicali argenteo-pubescente, pygidio rufo-pubescente; tegulis testaceis; mandibulis basi, femoribus parte apicali, tibiis tarsisque ferrugineis; alis flavo-hyalinis, venis ferrugineis.

Long. 15 mm.

♂. Clypeus very shallowly emarginate at the extreme apex, with three small but distinct teeth on each side; vertex minutely and rather sparsely punctured; eyes separated on the vertex by a distance equal to the length of the second joint of the flagellum; median segment more than half as long again as the scutellum, with a distinct longitudinal sulcus on the dorsal surface; ventral segments of the abdomen finely and evenly, but not very closely punctured; seventh tergite very broadly truncate at the apex, clothed with dark red gold pubescence; eighth sternite very broadly and rather shallowly emarginate, the apical angles produced into teeth. Basal joint of the fore tarsus with six spines. Second and third abscissæ of the radius subequal, both rather shorter than the space between the recurrent nervures on the cubitus; third cubital cell a little shorter on the cubitus than the second. Third joint of labial palpi slender, as long as the second.

Hab. British East Africa, 30 miles from Magadi Junction (*F. G. Hamilton*), April; Simba, 3350 ft. (*S. A. Neave*), April; East shore of Victoria Nyanza near Karungu (*S. A. Neave*), April.

Very near *T. separabilis*, but differs in the much broader seventh tergite and eighth sternite, and in the slightly greater distance between the eyes on the vertex; the recurrent nervures are also further apart, and the galea is longer.

16. *Tachytes simulatrix*, sp. n.

♀. Nigra; scapo apice subtus, mandibulis basi, tegulis, femoribus dimidio apicali, tibiis tarsisque ferrugineis; fronte clypeoque pallidissime aureo-pubescentibus; thorace segmentoque mediano fulvo-hirsutis; segmentis dorsalibus 4 basalibus fascia apicali argenteo-pubescente; area pygidiali rufo-setosa; alis flavo-hyalinis, venis ferrugineis; galea maxime elongata, scapo triplo longiore.

Long. 16 mm.

♀. Clypeus very broadly rounded or subtruncate at the apex; galea very long and narrow, at least three times as long as the scape; second joint of labial palpi longer than the third. Vertex sparsely and not very finely punctured; 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. Median segment less than half as long again as the scutellum, with a distinct median sulcus; pygidial area broadly triangular, rounded

at the apex; spur of hind tibia as long as the basal joint of the hind tarsus. Third cubital cell on the cubitus reaching beyond the radial cell, about three-quarters of the length of the second cubital cell. Second and third abscissæ of the radius subequal. Second ventral segment subopaque, closely microscopically punctured.

Hab. S. Nigeria, Okigwi (*J. J. Simpson*), May.

This species is nearly allied to *T. hamiltoni*, but has the galea much longer, fully three times as long as the scape in *simulatrix*, only a little more than twice as long in *hamiltoni*. As this character does not appear to differ in the sexes of other species, I do not think that these can be sexes of one species.

17. *Tachytes rhodesiana*, Bisch.

Tachytes rhodesianus, Bisch. Arch. f. Naturges. A. 3, p. 70 (1913). ♀.

♀. Very similar to *T. observabilis*, but somewhat smaller, and may be distinguished at once by the clypeus, which is depressed on the apical margin, very shallowly subemarginate in the middle, with three well-defined teeth on each side. The distance between the eyes on the vertex is somewhat greater, slightly exceeding the length of the second joint of the flagellum. The sculpture of the second ventral segment resembles that of *observabilis* and *basilica*, but the minute punctures spread over the small triangular area in the middle of the apical margin.

♂. Clypeus as in the female. Eyes separated on the vertex by a distance not quite equal to the length of the second joint of the flagellum, much further apart than in *observabilis* and *basilica*. Seventh tergite broad, rather broadly subtruncate at the apex, eighth sternite very shallowly emarginate at the apex, the angles not forming distinct teeth. Fourth and fifth joints of the flagellum subarcuate beneath.

Length, ♀ 17 mm., ♂ 16 mm.

Hab. S. Rhodesia, Springvale (*Rhodesia Museum*), April; Zululand, Mfongosi (*W. E. Jones, S. African Museum*), April, ♂ ♀.

The labial palpi in this species are much shorter and stouter than in others of the group, the basal joint being much shorter than the second joint of the flagellum, not longer as in *observabilis* and other related species.

*18. *Tachytes pulchrivestita*, Cam.

Tachytes pulchrivestita, Cam. Sjöstedt. Kilimandjaro-Meru Exp. ii. p. 284 (1910). ♀.

Hab. Usambara.

From the description this appears to be nearest to *T. rhodesiana*.

19. *Tachytes aurichalcea*, Kohl.

Tachytes aurichalcea, Kohl, Ann. Soc. Entom. Belg. xxxv. p. 15 (1891). ♀.

♀. Nigra; tarsi apice fusco-ferrugineis; tegulis testaceis; alis hyalinis, venis testaceis; fronte clypeoque argenteo-pubescentibus; thorace, segmento mediano, segmentis abdominalibus dorsalibus, pedibusque aureo-pubescentibus; area pygidiali fusco-ferrugineo-pubescente.

♂. Feminæ similis.

Long., ♀ 15 mm., ♂ 14 mm.

♀. Vertex sparsely and rather finely punctured; eyes separated on the vertex by a distance equal to the length of the two basal joints of the flagellum. Punctures of the thorax very minute; median segment short, less than half as long again as the scutellum. The golden pubescence of the tergites very short and rather sparse at the base, much denser on the apical fasciæ. Pygidial area triangular, narrowly rounded at the apex. Second and third sternites subopaque, minutely and very closely punctured. Galea about as long as the scape. Six spines on the basal joint of the fore tarsus.

♂. Eyes separated on the vertex by a distance distinctly less than the length of the second joint of the flagellum; seventh tergite rather broadly rounded at the apex; eighth sternite shallowly emarginate in the middle, the apical angles blunt.

Hab. N. Nigeria, Bokani (*J. J. Simpson*), September; Sierra Leone, Daru (*J. J. Simpson*), August; Gold Coast, Northern Territories, Yapi (*J. J. Simpson*); S. Nigeria, Okigwi (*J. J. Simpson*), May; Katanga, Kambove, 4000–5000 ft. (*S. A. Neave*), March; Nyasaland, Mlanje (*S. A. Neave*), December to July; N. Rhodesia, Ulunga, (*F. V. Bruce Miller*), May; Mashonaland, Salisbury (*G. A. K. Marshall*), April.

20. *Tachytes bimetallica*, sp. n.

♀. Nigra; tarsi ferrugineis, articulo basali infuscato; calcaribus ferrugineis; tegulis segmentisque abdominalibus margine apicali brunneo-testaceis; alis hyalinis, venis testaceis; clypeo, fronte, pygidioque argenteo-pubescentibus; thorace cinereo-hirsuto; segmentis dorsalibus 1-5 pallide aureo-pubescentibus.

Long. 13 mm.

♀. Clypeus subtruncate at the apex, with three minute teeth on each side. Vertex very minutely and closely punctured; eyes separated on the vertex by a distance equal to the combined length of the two basal joints of the flagellum. Median segment scarcely half as long again as the scutellum, with a distinct longitudinal sulcus on the dorsal surface. Basal joint of the fore tarsus with five spines; fore tibia with a row of five very long spines; spur of hind tibia as long as the basal joint of the hind tarsus. Pygidial area triangular, narrowly rounded at the apex. Third and fourth sternites shining and sparsely punctured in the middle.

Hab. Cape, Hex River (*South African Museum*), January.

Nearly allied to *aurichalcea*, but differs in the colour of the pubescence on the thorax and pygidial area, and in the number of spines on the fore metatarsus.

21. *Tachytes mærens*, sp. n.

♀. Nigra, albo-pilosa; calcaribus spinisque tarsorum ferrugineis fronte elypeoque albedo-pilosis; segmentis dorsalibus 4 fascia apicali interrupta argenteo-pubescente, area pygidiali basi fusco, apice aureo-setosa; alis fuscis, venis nigris.

Long. 17-20 mm.

♀. Clypeus clothed with long silver hairs, which change to dull brown in some lights; the extreme apical margin narrowly depressed, submarginate at the extreme apex, with three rather ill-defined teeth on each side. Lower part of the front clothed with long silver hairs as on the clypeus; vertex very distinctly and rather sparsely punctured. Eyes separated on the vertex by a distance equal to the combined length of the two basal joints of the flagellum; antennæ short and stout. Thorax minutely and very closely punctured, the punctures distinctly separated, median segment more closely punctured, the pubescence cinereous. Abdomen shining, the dorsal surface closely and minutely punctured; the fifth segment more distinctly punctured,

the apical margin arcuately depressed, with a few long fuscous hairs at the base of the depression. Second sternite rather sparsely and not very finely punctured, shining. Pygidial area clothed with fuscous setæ, which change to reddish gold in some lights, especially at the apex; triangular, narrowly rounded at the apex. Basal joint of the fore tarsus with six spines. Third cubital cell extending distinctly beyond the apex of the radial cell; third abscissa of the radius a little longer than the second, but shorter than the first.

Hab. Nyasaland, Mlanje (*S. A. Neave*), December.

Superficially rather like *T. marshalli*, Turn., but the second sternite is much more closely and finely punctured, the silver pubescence on the abdomen is not nearly so extensive, and the third cubital cell is much longer on the cubitus. But *marshalli* belongs to the group with elongate palpi.

22. *Tachytes distanti*, sp. n.

♀. Nigra, argenteo-pilosa; tarsis ferrugineis, articulo basali supra nigro; capite, thorace, segmentoque mediano albido-pilosis, mesonoto scutelloque pallide fulvo-griseo-pilosis; segmentis dorsalibus dense argenteo-pubescentibus, fasciis apicalibus distinctis; area pygidiali argenteo-pilosa; segmentis ventralibus apice anguste brunneis; alis subhyalinis, pallidissime flavidulis; venis ferrugineis.

Long. 14 mm.

♀. Clypeus broadly rounded at the apex, the anterior margin narrowly depressed and very shallowly emarginate in the middle. Eyes separated on the vertex by a distance slightly less than the combined length of the two basal joints of the flagellum. Front and clypeus with shining silver pubescence, with long whitish hairs intermingled; pleuræ and median segment clothed with long whitish hairs, the dorsal surface of the thorax clothed with short erect greyish-fulvous hairs. Dorsal segments densely covered with silver pubescence; pygidial area triangular, almost pointed at the apex, clothed with silver pubescence slightly tinged with gold. Second sternite subopaque finely and closely punctured. Basal joint of the fore tarsus with five long pale spines. Radial cell pointed at the apex, the appendicular cell very narrow; third cubital cell extending on the cubitus beyond the apex of the radial cell, nearly three-quarters of the length of the second cell on the cubitus. First abscissa of the radius a little longer than the third, second less than two-thirds of the length of the third, the

distance between the recurrent nervures on the cubitus slightly greater than the second abscissa of the radius.

Hab. Pretoria (*Distant*).

Very nearly related to *T. argenteovestita*, Cam., and *T. buluwayoensis*, Bisch., but differs from both in only having five spines on the basal joint of the fore tarsus, instead of six as in those species; it also differs from *buluwayoensis* in the colour of the pubescence on the pygidial area; and from *argenteovestita* in the colour of the tarsi and in details of neuration.

*23. *Tachytes buluwayoensis*, Bisch.

Tachytes buluwayoensis, Bisch. Arch. f. Naturges. A. 3, p. 68 (1913).

♀.

♀. Differs from *distanti* in having six spines on the basal joint of the fore tarsus, and in having the pygidial area clothed with reddish-brown setæ.

Hab. S. Rhodesia, Bembesi; January.

*24. *Tachytes argenteovestita*, Cam.

Tachytes argenteovestita, Cam. Ann. Transvaal Mus. ii. p. 130 (1910).

♀.

Differs from *distanti* in having six spines on the basal joint of the fore tarsus, and in the much shorter second abscissa of the radius, also apparently in the colour of the tarsi.

I am doubtful if *buluwayoensis* is really distinct from *argenteovestita*, the details of neuration as to the comparative length of the abscissæ of the radius being very unreliable in this genus, and the other differences given by Bischoff may be due to very slight inaccuracies in Cameron's description.

Hab. Transvaal, Pietersburg; December.

25. *Tachytes dilaticornis*, Turn.

Tachytes dilaticornis, Turn. Ann. & Mag. Nat. Hist. (8) xvii. p. 446 (1916). ♂.

♀. Nigra; capite argenteo-pubescente; thorace segmentoque mediano pallide et sparse aureo-pilosis; abdomine læte aureo-pubescente, segmentis dorsalibus fascia apicali densius aureo-pubescente, segmentis dorsalibus et ventralibus apice late brunneis; tegulis fuscis; alis flavis, apice latissime infumatis, venis testaceis.

♂. Feminae similis; capite pallide aureo-pubescente; flagello-articulis 2-7 infra fortiter arcuato-dilatatis.

Long., ♂ ♀, 14 mm.

♀. Clypeus subtruncate at the apex. Eyes separated on the vertex by a distance not quite equal to the length of the two basal joints of the flagellum. Pubescence of the thorax very sparse and pale, longer on the sides of the median segment. Abdomen rather slender, the basal segment not quite as broad as the second; second sternite opaque, minutely and closely punctured, with sparse larger punctures; pygidial area elongate-triangular, narrowly rounded at the apex, clothed densely with reddish gold pubescence. Basal joint of fore tarsus with five spines.

♂. Eyes separated on the vertex by a distance equal to the length of the third joint of the flagellum; seventh tergite truncate at the apex, the sides convergent from the base; eighth sternite broadly subtruncate at the apex, the apical angles not produced.

Hab. British East Africa, Kuja Valley, S. Kavirondo, 4000 ft. (*S. A. Neave*), April 30-May 1, ♂; Uganda Protectorate, between Kumi and N.E. shore of Lake Kioga, 3400-3600 ft. (*S. A. Neave*), August.

This is near *T. aurichalcea*, Kohl, but is a more slender species, with differently coloured wings, and also differs in the clypeus, the slightly narrower space between the eyes, and in the male antennæ and apical segments. This belongs to the section of the genus in which the galea is short and broadly rounded, not rostrate.

26. *Tachytes volubilis*, sp. n.

♂. Niger; segmentis abdominalibus margine apicali brunneis; calcaribus unguiculisque ferrugineis; fronte clypeoque subargenteo-pubescentibus; thorace segmentoque mediano sparse et pallide aureo-griseo-pubescentibus; segmentis dorsalibus aureo-pubescentibus, fasciis apicalibus distinctissimis; alis flavo-hyalinis, venis ferrugineis.

Long. 12 mm.

♂. Clypeus very broadly rounded at the apex; galea much shorter than the scape; vertex rather indistinctly punctured; eyes separated on the vertex by a distance slightly exceeding the length of the second joint of the flagellum. Thorax very closely and minutely punctured; median segment finely rugulose, twice as long as the scutellum. Abdomen rather slender; second sternite

subopaque, finely and closely punctured; seventh dorsal segment rather long, rounded at the apex, and clothed with pale golden pubescence; eighth ventral segment rounded at the apex.

Hab. British East Africa, Kuja Valley, S. Kavirondo, 4000 ft. (*S. A. Neave*), April; Masai Reserve (*T. J. Anderson*), April.

Near *T. dilaticornis*, Turn., but differs in the structure of the antennæ, the greater distance between the eyes, the narrower apical segments, and the colour of the wings.

27. *Tachytes nudiventris*, sp. n.

♀. Nigra; fronte clypeoque pallide fulvo-pilosis; thorace segmento mediano sparse griseo-pilosis; abdomine nude, nitido; alis hyalinis, flavo suffusis, venis fuscis; area pygidiali nigrosetosa; palpis testaceis.

♂. Femine simillimus.

Long., ♀ 15 mm., ♂ 14 mm.

♀. Clypeus finely and closely punctured, broadly rounded at the apex. Eyes separated on the vertex by a distance equal to the combined length of the first and second joints of the flagellum. Thorax and median segment opaque, very finely and closely punctured, rather more sparsely on the scutellum than elsewhere; the median segment as long as the scutellum and postscutellum combined, rounded at the posterior angles, very steeply sloped posteriorly, with a narrow and shallow median sulcus broadening on the apical third and continued more deeply on the apical truncation. Abdomen shining, minutely punctured, the segments without apical bands of pubescence; second sternite closely and minutely punctured, with an arched row of large punctures before the apex. Pygidial area broad at the base, narrowly rounded at the apex, subtriangular, clothed with black setæ. Basal joint of the fore tarsi with six short and stout spines. Second and third abscissæ of the radius almost equal, the distance between the recurrent nervures on the cubitus equal to the second abscissa of the radius. Third cubital cell long and narrow, the apex on the cubitus reaching nearer to the margin of the wing than the apex of the radial cell.

♂. Seventh tergite small, rather narrowly rounded at the apex; eighth sternite about half as long again as broad, narrowly and not very deeply incised at the apex. Galea rather short and broad, not rostrate.

Hab. Uganda, Entebbe (*C. G. Gowdey*), June to November; Uganda Protectorate, Mpanga Forest, Toro, 4800 ft. (*S. A. Neave*), November; N. Ruwenzori, 6000–8500 ft. (*S. A. Neave*), November; Tero Forest, S.E. Buddu, 3800 ft. (*S. A. Neave*), September.

28. *Tachytes ambidens*, Kohl.

Tachytes ambidens, Kohl, Verh. zool.-bot. Ges. Wien, xxxiv. p. 343 (1884). ♀.

♀. Nigra; mandibulis, tarsis calcaribusque ferrugineis; abdomine segmentis duobus basalibus rufis, nigro intaminatis; segmentis tribus dorsalibus apice utrinque fascia transversa argenteo-pilosa; pygidio fusco-ferrugineo piloso; alis hyalinis, venis tegulisque testaceis.

♂. Feminæ similis; pygidio argenteo-piloso.

Long., ♀ 11 mm., ♂ 9 mm.

♀. Head seen from the front much broader than long; front clothed with white pubescence. Clypeus with a short longitudinal carina on each side near the middle of the apical margin, the carinæ projecting and forming short teeth. Eyes separated on the vertex by a distance fully equal to the length of the two basal joints of the flagellum. Thorax finely and closely punctured, the sides of the thorax and the median segment sparsely clothed with white hairs. Second sternite closely and minutely punctured, the apical margin smooth and shining. Pygidial area subtriangular, rather broadly rounded at the apex. Basal joint of the fore tarsi with five spines. Radial cell rather broadly truncate at the apex, not reaching nearly as far as the cubitus; second and third abscissæ of the radius and the space between the recurrent nervures all subequal.

♂. Clypeus without carinæ or teeth, the anterior margin broadly truncate. Seventh tergite broad, rather broadly subtruncate at the apex; eighth sternite widely and not very shallowly emarginate at the apex, produced into a tooth on each side at the apical angles.

Hab. The South-west borders of Abyssinia, or the adjacent districts of British East Africa (*R. J. Stordy*). Described by Kohl from Sarepta in S.E. Russia.

A pair in the British Museum from the Stordy collection. The female answers well to Kohl's description in most details, but the eyes seem to be slightly further apart on the vertex, and the antennæ are as stout as in *T. europæa*.

*29. *Tachytes sjöstedti*, Cam.

Tachytes sjöstedti, Cameron, Sjöstedt, Kilimandjaro-Meru Exped. ii. p. 284 (1910). ♀.

Hab. Meru.

Unknown to me.

30. *Tachytes separabilis*, sp. n.

♀. Nigra; mandibulis basi, scapo subtus, tegulis, femoribus dimidio apicali, posticis fere totis, tibiis tarsisque fulvo-ferrugineis; fronte clypeoque pallide aureo-pubescentibus; mesonoto lateribus pallide aureo-pubescente, segmento mediano pallide fulvo-hirto; segmentis dorsalibus 4 basalibus fascia lata apicali argenteo-pubescente, area pygidiali aureo-pubescente; alis flavo-hyalinis, venis ferrugineis.

♂. Feminae similis, segmento dorsali septimo argenteo-pubescente. Long., ♀ ♂, 15-16 mm.

♀. Clypeus broadly truncate at the apex; galea half as long again as the scape; second and third joints of the labial palpi subequal. Vertex with a few scattered punctures; eyes separated on the vertex by a distance not quite equal to the length of the second joint of the flagellum. Basal joint of the fore tarsi with six spines; spur of the hind tibia as long as the basal joint of the hind tarsus. Median segment not quite half as long again as the scutellum, the median sulcus obsolete on the dorsal surface. Second sternite subopaque, minutely and closely punctured; pygidial area triangular, rather broadly rounded at the apex. Third cubital cell a little more than half as long on the cubitus as the second, extending a little further than the apex of the radial cell.

♂. Eyes separated on the vertex by a distance very distinctly less than the length of the second joint of the flagellum. Seventh tergite rather broadly truncate at the apex; eighth sternite emarginate, the apical angles bluntly produced.

Hab. Transvaal, Pretoria (*Distant*), ♀; Zululand, Mfongosi (*W. E. Jones*), ♂, in South African Museum; British East Africa, Kuja Valley, S. Kavirondo, 4000 ft. (*S. A. Neave*), ♂, May; Gold Coast, N. Territories, Yapi (*J. J. Simpson*), ♀, December.

This closely resembles *T. etrusca*, Rossi, but in that species the galea is no longer than the scape. Radoszkowski's record of *T. etrusca* from Angola probably refers to this species.

31. *Tachytes irritabilis*, sp. n.

♂. Niger; segmentis abdominalibus margine apicali anguste brunneis; tegulis testaceis; femoribus apice extremo, tibiis tarsisque fulvo-ferrugineis; alis flavo-hyalinis, venis ferrugineis; fronte clypeoque pallide aureo-pubescentibus; thorace segmentoque mediano griseo-aureo pubescentibus; segmentis dorsalibus 4 basalibus fascia interrupta apicali argenteo-pubescente; area pygidiali pallide aureo-pubescente; galea modice elongata, scapo dimidio longiore.

Long. 11 mm.

♂. Clypeus very broadly rounded at the apex, with three minute teeth on each side; vertex rather closely punctured; eyes separated on the vertex by a distance not quite equal to the length of the second joint of the flagellum; second and third joints of the labial palpi subequal. Thorax closely microscopically punctured; median segment about half as long again as the scutellum. Second sternite finely but not very closely punctured, thinly clothed with long fulvous hairs; seventh tergite broadly rounded at the apex; eighth ventral segment strongly emarginate, the apical angles bluntly produced. Basal joint of fore tarsi with four spines; spur of hind tibiæ as long as the basal joint of the hind tarsus. Radial cell narrowly rounded at the apex; third abscissa of the radius a little longer than the second, but slightly shorter than the space between the recurrent nervures on the cubitus.

Hab. Nyasaland, Mlanje (*S. A. Neave*), December.

In the length of the galea this species is nearly allied to *T. separabilis*, from which it is separated by the smaller size, the rounded apex of the seventh tergite, and the lesser number of spines on the basal joint of the fore tarsus. In the latter case it is possible that the normal number of spines in this species may be five, as they are liable to be broken, but certainly not six as in *separabilis*.

32. *Tachytes testaceinerva*, Cam.

Tachytes testaceinerva, Cameron, Sjöstedt, Kilimandjaro-Meru Exp. ii. p. 283 (1910). ♀.

♀. Nigra, mandibulis basi, scapo subtus, tegulis, femoribus apice, tibiis tarsisque ferrugineis; fronte clypeoque fulvo-aureo-pubescentibus; thorace segmentoque mediano dense fulvo-pubescentibus; segmentis dorsalibus 4 basalibus apice late argenteo-pubescentibus; area pygidiali rufescente-pilosa; alis pallide fulvo-hyalinis, venis testaceis.

♂. *Feminae similis.*

Long., ♀ 17-20 mm., ♂ 18 mm.

♀. Eyes separated on the vertex by a distance equal to the length of the third joint of the flagellum. Clypeus broadly subtruncate at the apex; vertex with sparse distinct punctures; second joint of the flagellum distinctly longer than the third. Pygidial area subtriangular, rather broadly rounded at the apex, clothed with dark reddish pubescence, which changes to fuscous in some lights. Second sternite shining deeply and sparsely punctured, with a smooth triangular area in the middle of the apical margin. Third abscissa of the radius longer than the second by about one-quarter, equal to the distance between the recurrent nervures on the cubitus. Basal joint of fore tarsus with six spines.

♂. Eyes separated on the vertex by a distance equal to the length of the first joint of the flagellum; antennæ rather stout, the third to sixth joints of the flagellum feebly arcuate beneath. Scutellum rather more distinctly punctured than the mesonotum; seventh tergite subtriangular, rather narrowly truncate at the apex, clothed with red gold pubescence. Eighth sternite truncate at the apex, the angles not produced.

Hab. Meru lowlands, Ngare na Nyuki (*Sjöstedt*), November, ♀; Nyasaland, Mlanje (*S. A. Neave*), February, ♀; S.E. shore of Lake Nyasa between Ft. Maguire and Ft. Johnston (*S. A. Neave*), March, ♂.

My description is taken from a pair from Nyasaland, which I think belong to Cameron's species, but I have not examined the type.

33. *Tachytes associata*, sp. n.

♂. Niger; tegulis, femoribus apice, tibiis tarsisque ferrugineis; fronte clypeoque aureo-pilosis; thorace segmentoque mediano dense et pallide fulvo-pilosis, mesonoto lateribus aureo-pubescente, segmentis dorsalibus 1-5 apice fascia argenteo-pubescente; area pygidiali pallide aureo-pubescente; alis pallidissime fulvo-hyalinis, nervis testaceis.

Long. 15 mm.

♂. Near *testaceinerva*, Cam., but the clypeus is very narrowly depressed on the apical margin, the depressed portion slightly porrect and with a distinct angle in the middle; vertex not distinctly punctured; eyes separated on the vertex by a distance equal to the length of the second joint of the flagellum; basal joint of fore tarsi with five spines; second ventral segment finely and evenly punctured, subopaque, not shining with sparse large punctures on the apical half as in *testaceinerva*; seventh tergite broad, truncate

broadly at the apex; eighth sternite broad, shallowly bisinuate at the apex, the apical angles not produced. Third abscissa of the radius nearly twice as long as the second, the latter nearly as long as the space between the recurrent nervures on the cubitus. Third cubital cell extending on the cubitus a little beyond the apex of the radial cell.

Hab. Portuguese E. Africa, Beira (*P. A. Sheppard*).

The broad, bisinuate, eighth sternite distinguishes this species from all others of similar colouring.

34. *Tachytes kristenseni*, sp. n.

♀. Nigra; capite subargenteo-pubescente; thorace segmentoque mediano sparse griseo-aureo-pubescentibus, abdomine griseo-aureo-pubescente, segmentis dorsalibus 4 basalibus fasciis apicalibus distinctis; area pygidiali angusta, pallidissime aureo-pubescente; tegulis testaceis, segmentis abdominalibus margine apicali anguste brunneis; tibiis, tarsis, femoribusque posticis ferrugineis; alis hyalinis, venis fusco-ferrugineis.

Long. 9 mm.

♀. Eyes separated on the vertex by a distance equal to the length of the two basal joints of the flagellum; clypeus subtruncate at the apex, the apical margin rather broadly depressed; antennæ short, the basal joint of the flagellum fully half as long as the second, which is a little shorter than the third; vertex not distinctly punctured. Median segment about half as long again as the scutellum, without a longitudinal sulcus on the dorsal surface. Abdomen rather slender, thinly clothed with short, dull, pale golden pubescence, which is denser and brighter on the marginal fasciæ. Pygidial area narrow, nearly twice as long as the greatest breadth, narrowly rounded at the apex. Second sternite minutely and closely punctured. Only three slender spines visible on the basal joint of the fore tarsus. Second abscissa of the radius very little shorter than the third, longer than the distance between the recurrent nervures on the cubitus. Third cubital cell much more than half as long as the second on the cubitus, extending further than the apex of the radial cell.

Hab. Abyssinia, Harar (*G. Kristensen*), May.

Described from a single specimen. It is possible that the spines on the fore tarsus may have been broken off on the basal part, but the specimen is in good condition and shows no signs of damage. The species may be distinguished by the narrow pygidial area, the short joints of the flagellum, and the small and slender form.

35. *Tachytes ugandensis*, sp. n.

♀. Nigra, capite, thorace, segmentoque mediano pallide aureo-pubescentibus; segmentis dorsalibus 4 basalibus apice fascia subargenteo-pubescente; area pygidiali rufo-fusco-setosa; mandibulis fusco-ferrugineis; tegulis, femoribus apice, tibiis tarsisque fulvo-ferrugineis; alis hyalinis, venis testaceis.

♂. Feminae simillimus.

Long., ♂ ♀, 13 mm.

♀. Eyes separated on the vertex by a distance slightly exceeding the combined length of the second and third joints of the flagellum; the vertex very distinctly and rather sparsely punctured. Front and clypeus clothed with very pale golden pubescence, the clypeus very broadly triangularly depressed at the apex, the margin subtruncate. Second joint of the flagellum distinctly longer than the third. Thorax rather sparsely clothed with pale golden pubescence and with longer pale fulvous hairs; median segment not more than half as long again as the scutellum, with a shallow longitudinal impressed line, which is more deeply continued on the posterior slope. Abdomen, including the second sternite, minutely and closely punctured; pygidial area subtriangular, rather narrowly rounded at the apex. Basal joint of the fore tarsus with seven rather slender spines. Third abscissa of the radius half as long again as the second, but scarcely equal to the distance between the recurrent nervures on the cubitus. Third cubital cell on the cubitus less than half as long as the second.

♂. Seventh tergite not very broad, rounded at the apex; eighth sternite deeply and rather narrowly emarginate at the apex. The galea is short in both sexes, not very much longer than the greatest breadth, broadly rounded at the apex; the ligula is broadly extended and bilobed; second joint of labial palpi no longer than the third.

Hab. Uganda, Entebbe (*C. G. Gowdey*), June to January; Mariba Forest, Chagwe, 3500–3800 ft. (*S. A. Neave*), July.

This species is easily distinguished from others of similar colouring by the great distance between the eyes on the vertex.

36. *Tachytes opposita*, sp. n.

♂. Niger; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano griseo-aureo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali argenteo-pubescente; tegulis testaceis;

tibiis tarsisque ferrugineis; alis hyalinis, pallidissime flavo-tinctis, venis ferrugineis.

Long. 13 mm.

♂. Clypeus very broadly rounded at the apex; vertex sparsely punctured. Eyes separated on the vertex by a distance only slightly exceeding half the length of the second joint of the flagellum; median segment about half as long again as the scutellum. Second sternite shining, evenly, but not very closely punctured; seventh tergite broadly subtriangular, rather broadly truncate at the apex, and clothed with silver pubescence faintly tinged with gold; eighth sternite widely and rather shallowly emarginate, the angles produced into distinct teeth. Third abscissa of the radius longer than the second, but shorter than the distance between the recurrent nervures on the cubitus. Third cubital cell very little shorter on the cubitus than the second. Basal joint of fore tarsus with five spines.

Hab. N. Rhodesia, Pakasa (*O. Silverlock*), January.

37. *Tachytes neglecta*, sp. n.

♀. Nigra; fronte clypeoque subargenteo-pubescentibus; thorace fulvo-pubescente; segmento mediano griseo-fulvo-hirsuto; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente; area pygidiali apice subacuta, aureo-pubescente; tegulis testaceis; segmentis abdominalibus margine apicali brunneis; tibiis tarsisque ferrugineis; alis hyalinis, pallide flavo-tinctis, venis testaceis.

♂. *Feminae similis.*

Long., ♀ 12-14 mm., ♂ 13-14 mm.

♀. Clypeus very broadly rounded at the apex; vertex sparsely and shallowly punctured; eyes separated on the vertex by a distance equal to the combined length of the first and second joints of the flagellum. Median segment less than half as long again as the scutellum, the median sulcus indistinct. Second ventral segment subopaque, very minutely and closely punctured; pygidial area subacute at the apex. Third abscissa of the radius longer than the second, about equal to the distance between the recurrent nervures on the cubitus; third cubital on the cubitus at least two-thirds of the length of the second. Basal joint of fore tarsus with six spines.

♂. Eyes separated on the vertex by a distance slightly exceeding the length of the second joint of the flagellum; seventh tergite very broadly rounded at the apex, clothed

with golden pubescence; eighth sternite deeply and rather narrowly emarginate, the angles produced. Second and third joints of the labial palpi subequal, rather short.

Hab. Nyasaland, Mlanje (*S. A. Neave*), January to April; N.E. Rhodesia between Fort Jameson and Lundazi, 4000 ft. (*S. A. Neave*), June; Mashonaland, Salisbury (*G. A. K. Marshall*), January; British East Africa, Kibwezi, 3000 ft. (*S. A. Neave*), April.

This is a smaller species than *separabilis* or *hamiltoni*, and may also be distinguished in the male sex by the seventh tergite which is rounded, not truncate, and by the more narrowly emarginate eighth sternite. The female may be distinguished from *separabilis* by the much more pointed pygidial area. The galea is also much shorter and broader than in either of the above-mentioned species, being no longer than the scape.

38. *Tachytes tomentosa*, Kohl.

Tachytes tomentosus, Kohl, Ann. Soc. Ent. Belg. xxv. p. 16 (1891).

♀.

♀. Nigra; clypeo, fronte, pronoto, pleuris, mesonoto lateribus, scutello apice, segmento mediano lateribus, segmentis dorsalibus 4 basalibus pygidioque aureo-pubescentibus; segmentis abdominalibus margine apicali brunneo-ferrugineis; tegulis testaceis; femoribus parte apicali, tibiis tarsisque ferrugineis; alis pallide flavo-hyalinis, venis ferrugineis.

♂. *Feminae similis.*

Long., ♀ 13-14 mm., ♂ 13 mm.

♀. Clypeus broadly rounded at the apex; vertex not distinctly punctured. Eyes separated on the vertex by a distance not quite equal to the length of the second joint of the flagellum. Basal joint of the fore tarsus with five spines. Second sternite subopaque, very minutely and closely punctured, with a smooth area on the middle of the apical margin. In addition to the apical fasciæ the dorsal segments are thinly clothed with very short dull golden pubescence; the pygidial area is rounded at the apex. Third cubital cell shorter than the second on the cubitus by about one-quarter.

♂. Seventh tergite rather narrowly truncate at the apex; eighth ventral segment truncate at the apex, the angles not produced. The pubescence on the abdomen is paler than in the female; and the eyes are very close together on the vertex, separated by about the length of the first joint of the flagellum.

Hab. Cape (Kohl); Gold Coast, Northern Territories, Yapi (J. J. Simpson), December; Nyasaland, S.W. of Lake Chilwa (S. A. Neave), January; Uganda Protectorate, between S.E. shore of Lake Kioga and Kakindu, 3500 ft. (S. A. Neave), August.

Kohl's description is very brief, but I think I have rightly identified the species. The male from Uganda differs in having the eighth sternite very feebly emarginate, not truncate as in the specimen of the male from Yapi; the female from Yapi does not differ appreciably from that from Nyasaland.

39. *Tachytes versatilis*, sp. n.

♀. Nigra; fronte clypeoque griseo-argenteo-pubescentibus; thorace segmentoque mediano dense fulvo-pubescentibus; segmentis dorsalibus 4 basalibus fascia interrupta argenteo-pubescente; area pygidiali rufo-fusco-setosa; tegulis testaceis; calcaribus fuscis; unguiculis pallide ferrugineis; tarsorum spinis albidis; alis subhyalinis, apice leviter et angustissime infumatis, venis ferrugineis; vertice crasse et dense punctato.

♂. Feminae similis, segmento dorsali septimo aureo-pubescente. Long., ♀ 16-18 mm., ♂ 14 mm.

♀. Clypeus very broadly rounded, the extreme apex narrowly depressed and submarginate in the middle. Second joint of the labial palpi stout, distinctly longer than the third; galea not elongate, very broadly rounded at the apex. Eyes separated on the vertex by a distance equal to the length of the two basal joints of the flagellum; the vertex coarsely and closely punctured. Basal joint of fore tarsus with six spines. Median segment scarcely longer than the scutellum and postscutellum combined. Abdomen closely and distinctly punctured, more sparsely at the base of the tergites than at the apex; second sternite shining, evenly, but not very closely or minutely, punctured. Pygidial area subtriangular, rather broadly rounded at the apex. Third cubital cell extending on the cubitus further than the apex of the radial cell; second abscissa of the radius sometimes longer than the third, but in some specimens shorter.

♂. Eyes separated on the vertex by a distance slightly exceeding the length of the second joint of the flagellum; seventh tergite broad, rather broadly subtruncate at the apex; eighth sternite rather widely, but not very deeply emarginate, the angles rather strongly produced. Second ventral segment with larger and closer punctures than in the female. Basal joint of fore tarsus with five spines.

Hab. Nyasaland, Mlanje (*S. A. Neave*), December to February; Lingadzi, near Domira Bay, 1700 ft. (*W. A. Lamborn*), August; Uganda Protectorate, between Kumi and N.E. shore of Lake Kioga, 3400-3600 ft. (*S. A. Neave*), August.

This species is most easily distinguished by the coarse close puncturation of the vertex. Otherwise it is very near *hirsutus*, Sm., but in that species the sternites are finely and very closely punctured, in *versatilis* coarsely and more sparsely punctured.

40. *Tachytes hirsuta*, Sm.

Tachytes hirsutus, Sm. Cat. Hym. B.M. iv. p. 300 (1856). ♂.

♂. Niger; tarsi articulis 4 apicalibus brunneo-ferrugineis; tegulis testaceis; alis hyalinis, basi pallidissime flavidulis, venis ferrugineis; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano fulvo-hirsutis; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo pubescente; segmento septimo dorsali sparse aureo-pubescente.

Long. 14 mm.

♂. Clypeus broadly subtruncate at the apex; vertex rather sparsely and shallowly punctured; eyes separated on the vertex by a distance scarcely exceeding the length of the second joint of the flagellum; galea shorter than the scape. Basal joint of the fore tarsus with five spines; spur of hind tibia a little shorter than the basal joint of the hind tarsus. Second sternite finely and closely punctured; seventh tergite broadly rounded at the apex; eighth sternite narrow, deeply and narrowly emarginate at the apex, the apical angles bluntly produced.

Hab. Natal (*Smith*); Mashonaland, Salisbury (*G. A. K. Marshall*), January; Nyasaland, Mlanje (*S. A. Neave*), December.

41. *Tachytes habilis*, sp. n.

♂. Niger; tarsi subtus, calcaribusque fusco-ferrugineis; tegulis testaceis; alis hyalinis, pallidissime flavidulis, venis fulvis; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano griseo-aureo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente.

Long. 15 mm.

♂. Clypeus broadly rounded at the apex; galea shorter than the scape; vertex minutely and closely punctured; eyes separated on the vertex by a distance about equal to

the combined length of the two basal joints of the flagellum. Basal joint of fore tarsus with eight spines. Median segment at least half as long again as the scutellum, without a longitudinal sulcus on the dorsal surface. Sternites subopaque, very closely and finely punctured, with long sparse pubescence. Seventh tergite very broadly rounded at the apex, clothed with silver pubescence, slightly tinged with gold. Eighth sternite broadly rounded or subtruncate at the apex, the angles not produced.

Hab. Nyasaland, S.E. shore of Lake Nyasa, between Fort Maguire and Fort Johnston (*S. A. Neave*), March.

42. *Tachytes inexorabilis*, sp. n.

♀. Niger; fronte clypeoque argenteo-pilosis; thorace segmentoque mediano cinereo-pilosis; segmentis dorsalibus 4 basalibus fascia apicali argenteo-pubescentibus; tarsis fusco-ferrugineis; calcariibus pallide ferrugineis; tegulis testaceis; alis hyalinis, basi pallidissime flavo-tinctis, venis ferrugineis; area pygidiali rufosusco-setosa.

♂. Feminae similis; segmento septimo dorsali subargenteo-pubescente.

Long., ♀ 14 mm., ♂ 12-14 mm.

♀. Clypeus broadly rounded at the apex; vertex finely and closely punctured, with a few larger punctures; eyes separated on the vertex by a distance equal to the length of the second joint of the flagellum plus half of the third joint. Galea rather short, broadly rounded at the apex. Scutellum distinctly punctured; the median segment more than half as long again as the scutellum. Second sternite subopaque, very minutely and closely punctured; pygidial area broadly triangular, subacute at the apex. Third cubital cell extending very little further than the radial cell; the distance between the recurrent nervures on the cubitus greater than usual, fully equal to the third abscissa of the radius. Basal joint of the fore tarsus with six spines.

♂. Seventh tergite broadly rounded at the apex; eighth sternite rather shallowly emarginate, the teeth of the apical angles blunt. Eyes separated on the vertex by a distance about equal to the length of the two basal joints of the flagellum.

Hab. Transvaal, Johannesburg (*A. J. Cholmley*); Natal, Howick (*J. P. Cregoe*).

Very near *transvaalensis*, Cam., but the pygidial area is much more broadly triangular and the pubescence on it coarser. The condition of Cameron's type, however, is so

bad that the species is hardly to be recognized. The puncturation on the vertex is also finer and closer in *transvaalensis*.

This species also ranges northwards in East Africa, occurring in Uganda, Entebbe (*C. G. Gowley*), August to February; British East Africa, Upper Kuja Valley, S. Kavirondo (*S. A. Neave*), May; Ilala, Maramas district, 4500 ft. (*S. A. Neave*), June.

43. *Tachytes transvaalensis*, Cam.

Tachytes transvaalensis, Cam. Entomologist, p. 153 (1905). ♀.

Differs from *inexorabilis* as noticed above, and also in the more shining and very sparsely punctured third and fourth ventral segments.

Hab. Transvaal.

44. *Tachytes erynnis*, sp. n.

♀. Nigra; tegulis testaceis, tarsis calcaribusque ferrugineis; alis basi flavo-hyalinis, apice subhyalinis, venis ferrugineis; fronte clypeoque argenteo-pubescentibus; thorace segmentoque mediano griseo-aureo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente; area pygidiali aureo-pubescente.

♀. *Feminæ similis.*

Long., ♀ 15 mm., ♂ 14 mm.

♀. Clypeus very broadly rounded at the apex, closely punctured, the anterior margin somewhat deflexed; vertex sparsely, but distinctly, punctured; eyes separated on the vertex by a distance about equal to the combined length of the two basal joints of the flagellum. Basal joint of the fore tarsus with six spines; spur of hind tibia not quite as long as the basal joint of the hind tarsus. Scutellum closely, but distinctly punctured; median segment about half as long again as the scutellum, the median sulcus indistinct on the dorsal surface. Second and third sternites minutely and closely punctured, the fourth smooth at the base, minutely and closely punctured on the apical half, the fifth with the fine punctures confined to the apex. Pygidial area triangular, very narrowly rounded at the apex. Wings short, not reaching to the apex of the abdomen.

♂. Eyes separated on the vertex by a distance scarcely exceeding half the length of the second joint of the flagellum; sternites closely and evenly, but not very minutely punctured; seventh tergite rather narrowly rounded at the apex; eighth sternite narrow, deeply emarginate.

Hab. Transvaal, Pretoria (*W. L. Distant*); Sterkfontein (*H. P. Thomasset*); Mashonaland, Salisbury (*G. A. K. Marshall*), January; Natal, Estcourt; Zululand, Mfongosi.

This may be distinguished from *inexorabilis* and *transvaalensis* by the greater approximation of the eyes on the vertex, especially in the male; and by the yellower colour of the wings.

45. *Tachytes pulchricornis*, sp. n.

♂. Niger; fronte clypeoque pallide aureo-pubescentibus; pronoto, mesonoto lateribus, postscutelloque subargenteo-pubescentibus, pleuris segmentoque mediano sparse albido-pilosis; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente; segmento dorsali septimo argenteo-pubescente; flagello articulis 4-9 subtus brunneo-ochraceis; tarsis brunneo-ferrugineis; alis hyalinis, pallidissime flavidulis, nervis testaceis; tegulis testaceis.
 ♀. Mari simillima; flagello omnino nigro; fronte clypeoque argenteo-pubescentibus; area pygidiali rufo-aureo pubescente.
 Long., ♂ ♀, 12-13 mm.

♂. Clypeus very broadly subtruncate at the apex; vertex not distinctly punctured; eyes separated on the vertex by a distance equal to the combined length of the two basal joints of the flagellum. Galea short, very broadly rounded at the apex; second and third joints of the labial palpi short, subequal. Median segment about half as long again as the scutellum, the longitudinal sulcus almost obsolete. Seventh tergite rather broadly subtruncate at the apex; the eighth sternite rather broadly emarginate, the apical angles strongly produced. Third cubital cell long, extending much beyond the apex of the radial cell, at least three-quarters of the length of the second on the cubitus. A variety has the abdominal fasciæ dull golden.

♀. Distance between the eyes on the vertex as in the male; pygidial area triangular, acute at the apex; second sternite subopaque, closely microscopically punctured; basal joint of fore tarsus with five spines. A variety has the abdominal fasciæ dull golden.

Hab. Nyasaland, Mlanje (*S. A. Neave*), March.

Subspecies *kolaensis*, subsp. n.

♂. Differs from the typical form in having the third to ninth joints of the flagellum ochraceous brown above as well as below, leaving only a black ring at the joints.

♀. The pygidial area very distinctly broader than in the typical form, broadly rounded at the apex.

Hab. Portuguese E. Africa, Valley of Kola River, near E. Mt. Chiperone, 1500–2000 ft. (*S. A. Neave*), April.

46. *Tachytes disputabilis*, sp. n.

♂. Niger; tarsi articulis 4 apicalibus ferrugineis, posticis supra infuscatis; tegulis testaceis; alis hyalinis; venis ferrugineis, apice fuscis; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano sparse aureo-griseo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente; segmento dorsali septimo argenteo pubescente; galea lata, scapo brevior.

Long., ♂, 11 mm.

♂. Clypeus broadly truncate at the apex; vertex not distinctly punctured, opaque; eyes separated on the vertex by a distance about equal to the combined length of the first and second joints of the flagellum. Thorax microscopically punctured; median segment nearly twice as long as the scutellum. Second sternite closely and minutely punctured; seventh tergite broadly rounded at the apex; eighth sternite emarginate, the apical angles produced. Basal joint of fore tarsus with four spines; spur of hind tibiae shorter than the basal joint of the hind tarsus. Third cubital cell nearly as long on the cubitus as the second, extending on the cubitus beyond the apex of the radial cell.

Hab. Nyasaland, S.W. of Lake Chilwa (*S. A. Neave*), January.

This is near *pulchricornis*, from which it differs in the colour of the antennæ and in the much narrower seventh tergite and eighth sternite.

47. *Tachytes instabilis*, sp. n.

Very similar to *T. inexorabilis* in both sexes, but the pubescence on the thorax and median segment is golden grey, very short and close lying under sparse, long, erect hairs; the male has the seventh tergite broadly subtruncate at the apex, not rounded, and the eighth sternite much broader, though also emarginate; the punctures of the sternites are distinctly larger. The female differs in the sparse and large punctures of the third, fourth, and fifth sternites, which are shining, whereas in *inexorabilis*, except at the extreme base, they are opaque and very minutely and closely punctured; the eyes are a little nearer together on the vertex, being separated by a distance equal to the length of the two basal joints of the flagellum; the wings in both

sexes are slightly more yellowish at the base, and the galea is distinctly shorter and broader, being scarcely more than half as long as the scape, whereas in *inexorabilis* it is nearly as long as the scape.

Length, ♂ 11 mm., ♀ 12-14 mm.

Hab. Nyasaland, Mlanje (*S. A. Neave*), January and February.

There are only five spines on the basal joint of the fore tarsus, in which character it agrees with *T. disputabilis*, but the apical segments of the male are much broader than in that species. The male has only four spines on the basal joint of the fore tarsus.

48. *Tachytes lachesis*, sp. n.

♀. Nigra; tibiis anticis basi extremo, calcaribus, tarsisque articulis apicalibus fusco-ferrugineis; alis hyalinis, pallidissime flavidulis, venis ferrugineis; fronte clypeoque aureo-pubescentibus; thorace segmentoque mediano griseo-aureo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali subargenteo-pubescente; area pygidiali fusco-ferrugineo-pubescente.

Long. 13 mm.

♀. Clypeus very broadly rounded at the apex; galea much shorter than the scape; vertex microscopically punctured in the middle, with a few larger punctures near the eyes, which are separated on the vertex by a distance equal to the combined length of the two basal joints of the flagellum. Basal joint of the fore tarsi with six spines; spur of the hind tibia longer than the basal joint of the hind tarsus. Median segment scarcely longer in the middle than the scutellum, with a shallow, but distinct longitudinal sulcus. Sternites 3-5 shining, with large sparse punctures, smooth at the base. Pygidial area broadly rounded at the apex.

Hab. Nyasaland, Mlanje (*S. A. Neave*), February.

49. *Tachytes megera*, sp. n.

♀. Nigra; tarsis subtus, articuloque apicali supra, calcaribusque ferrugineis; tegulis testaceis; alis basi flavidulis, apice hyalinis, venis ferrugineis; fronte clypeoque argenteo-pubescentibus; thorace segmentoque mediano albido-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescente; area pygidiali fusco-ferrugineo-setosa.

Long. 13 mm.

♀. Clypeus broadly subtruncate at the apex, the apical

margin deflexed; vertex very closely microscopically punctured; eyes separated on the vertex by a distance about equal to the length of the second joint of the flagellum. Galea shorter than the scape. Basal joint of the fore tarsus with five spines; spur of the hind tibia as long as the basal joint of the hind tarsus. Thorax closely and minutely punctured; second sternite and the third, fourth, and fifth sternites on the apical margin closely and minutely punctured; the three latter shining at the base, with large scattered punctures. Pygidial area triangular, rather narrowly rounded at the apex.

Hab. Gold Coast, Northern Territories, Yapi (*J. J. Simpson*), December.

50. *Tachytes notabilis*, sp. n.

♀. Nigra, gracilis, rugosula, sparse cinereo-pilosa; fronte clypeoque aureo-pubescentibus; segmentis dorsalibus 4 basalibus fascia apicali griseo-argentea; tegulis testaceis; calcaribus, unguiculis, tarsisque articulis apicalibus subtus ferrugineis; alis subhyalinis, venis testaceis; area pygidiali aureo-pubescente.

♂. Feminæ similis.

Long., ♀ 11-13 mm., ♂ 11 mm.

♀. Clypeus very broadly truncate at the apex; vertex closely and very finely punctured, with large sparse punctures intermingled; eyes separated on the vertex by a distance about equal to the length of the two basal joints of the flagellum. Thorax very finely rugulose; median segment more strongly rugulose, nearly twice as long as the scutellum. Basal joint of the fore tarsus with five spines; spur of the hind tibia as long as the basal joint of the hind tarsus. Second sternite minutely and closely punctured; pygidial area triangular, somewhat elongate, rather narrowly rounded at the apex. Galea shorter than the scape. Third abscissa of the radius shorter than the second; third cubital cell narrow, extending on the cubitus further than the apex of the radial cell.

♂. Eyes as far apart on the vertex as in the female; seventh tergite broadly rounded at the apex, rather sparsely clothed with very pale golden pubescence; eighth sternite semicircularly emarginate at the apex.

Hab. Nyasaland, Mlanje (*S. A. Neave*), January to June; Uganda, Entebbe (*C. G. Gowdey*), September; British East Africa, Tiwa River, Ukamba (*S. W. J. Scholefield*), January.

The Uganda and East African specimens have the pygidial

area more broadly rounded at the apex, but do not seem to differ otherwise. I have seen no males from these localities. The species is easily distinguished by the slender form and the sculpture of the thorax and median segment.

51. *Tachytes silverlocki*, sp. n.

♀. Nigra; fronte, clypeo pronotoque argenteo-pubescentibus; mesonoto lateribus, segmentisque dorsalibus 4 basalibus fascia apicali griseo-argenteo-pubescentibus; segmento mediano lateribus pleuris que albo-pilosis; tarsi articulis duobus apicalibus, articulis secundo tertioque basi, calcaribusque ferrugineis; pygidio aureo-pubescente; alis hyalinis, venis fuscis.
Long. 9-10 mm.

♀. Clypeus very broadly rounded at the apex, the margin narrowly depressed; vertex without distinct punctures. Eyes separated on the vertex by a distance fully equal to the combined length of the two basal joints of the flagellum. Median segment more than half as long again as the scutellum, without a median sulcus on the dorsal surface, except at the extreme apex. Pygidial area subtriangular, very narrowly rounded at the apex; second sternite subopaque, closely microscopically punctured. Basal joint of the fore tarsus with five whitish spines. Third abscissa of the radius a little longer than the second, the latter a little longer than the space between the recurrent nervures on the cubitus. Third cubital cell long and narrow, reaching on the cubitus much further than the apex of the radial cell.

Hab. N. Rhodesia, Pakasa (*O. Silverlock*), January; British E. Africa, Kisumu (*S. A. Neave*), April.

This little species is very near the Egyptian *T. camerouniana*, Morice, of which only the male is known; but as the colour of the tarsi and nervures as well as the details of neururation differ, I do not think that it is the female of that species.

*52. *Tachytes nigroannulata*. Bisch.

Tachytes nigroannulatus, Bisch. Arch. f. Naturges. A. 3, p. 69 (1913).
♂.

Hab. S. Rhodesia, Springvale; December.

This seems to be allied to *T. silverlocki*, but I do not think it can be the male of that species.

Liris diabolica, Sm.

Larrada diabolica, Sm. Ann. & Mag. Nat. Hist. (4) xii. p. 294 (1873).
♀.

Larra (Liris) opipara, Kohl, Ann. naturh. Hofmus. Wien, ix. p. 297 (1894). ♀.

Tachytes capitalis, Rad. Journ. acad. sc. & math. Lisboa, viii. p. 210 (1881). ♀.

Radoszkowski's description undoubtedly refers to this wide-ranging Ethiopian species.

Tachysphex agilis, Sm.

Tachytes agilis, Sm. Cat. Hym. B.M. iv. p. 301 (1856). ♂.

This is undoubtedly a *Tachysphex*.

These two species are included in *Tachytes* in Dalla Torre's Catalogue, but do not belong to the genus, Radoszkowski's name falling as a synonym and Smith's species *agilis* being a *Tachysphex*. *Tachytes etrusca*, Rossi, recorded by Radoszkowski from Angola, is doubtless an error in identification.

Notogonia trivittata, Kirby.

Tachytes trivittatus, W. F. Kirby, Bull. Liverp. Mus. iii. p. 16 (1900).

♂ ♀.

Notogonia expedita, Kohl, Hymenopteren Südarabiens, p. 51 (1906).

♂ ♀.

Kirby placed this species in the wrong genus. It inhabits Sokotra, and I have not seen specimens from continental Africa.

Tachysphex quadricolor, Gerst.

Lyrops quadricolor, Gerst. Monatsber. Akad. Wiss. Berlin, p. 510 (1857). ♀.

Lyrops quadricolor, Gerst. Peters. Reise n. Mossambique Zool. v. p. 477 (1862). ♀. T. 30. F. 13.

Tachytes quadricolor, D. T. Cat. Hymen. viii. p. 693 (1897).

I consider that this E. African species is undoubtedly a *Tachysphex*.

II.—*The Groups of the small and medium-sized South-American Felidæ.* By R. I. Pocock, F.R.S.

WRITING in 1903 upon the spotted tiger-cats, excluding ocelots, of South America, Oldfield Thomas* pointed out that the species fall, or appear to fall, into the following groups:—

1. Size larger. Fur soft and thick. Nape-hairs generally reversed forwards—at least, in part. Skull broadly rounded, with a large

* Ann. & Mag. Nat. Hist. (7) xii. pp. 234-239.