

The structure is identical with that of *Aedes bimaculatus* Coquillett.

The species belongs to the group of the subgenus *Heteronycha* typified by *serratus* Theobald.

The specimens were sent by Mr. J. Zetek, taken on the screens of Colon Hospital, Panama, July 6 and 28, August 11, 1920 (W. S. Chidester).

A COLLECTION OF MOSQUITOES FROM THE PHILIPPINE ISLANDS

(*Diptera, Culicidæ*)

By HARRISON G. DYAR

A collection of 640 mosquitoes was sent me by Prof. C. F. Baker, Dean of the College of Agriculture, Los Baños, Luzon, Philippine Islands. The collection was made by students of the college, mostly in 1915. Thirty-two species are contained in the collection, a large number for a single locality, but probably by no means exhaustive. A recognition table of these species is added for the convenience of the college.

SABETHINI

Wyeomyia (*Dodecamyia*) *mus*, new species.

Female. Head dark mouse gray, the eyes with a narrow continuous white border, widening below to cover most of the side. Proboscis long and slender, black. Palpi very short, black. Postnotum dark brown, with a distinct tuft of setæ posteriorly. Prothoracic lobes and mesonotum uniformly dark brown scaled; pleura with white scales. Abdomen blackish above, white below, the colors separated on the sides in a straight line. Legs entirely dark, the femora only whitish beneath. Wings with blackish scales, the cross-veins nearly in line; stems of the fork-cells about equal to the cells in length. Tarsal claws simple.

Male. Much damaged, but apparently with the coloration of the female.

Hypopygium. Side pieces bulbous, constricted at base, simple, hairy. Clasper slender, longer than the side piece, enlarged at base and slightly on the outer half; terminal spine very short, pointed, inserted inwardly just before the apex. Tenth sternites large and prominent with four or five long teeth at the tips. Aedoeagus conical, pointed. Ninth tergites large, with about six very long equal spines on each.

Types, female and male, No. 23715, U. S. Nat. Mus.; Los Baños, P. I., February 16, 1915, bred from *Nepenthes*.

Hodgesia ampyx, new species.

Head with flat dark gray scales behind, the anterior third of the vertex silvery white, forming a triangular spot, bordering the eyes, and widening on the sides. Prothoracic lobes with flat white scales and dark bristles. Mesonotum dark brown in the middle and behind, the anterior angles lighter in the integument; vestiture of sparse narrow hair-like scales of bronzy brown, and coarse blackish bristles. Metanotum dark brown, nude. Abdomen dark brown above, paler brown below, with a greenish reflection in some lights, without any markings. Legs dark brown, with bronzy luster below, the femora extensively whitish both above and below, nearly to the tips. Wing scales dark, the outstanding ones long and linear.

Types, two females, No. 23716, U. S. Nat. Mus.; Acc. No. 18399, Coll. of Agr., Univ. P. I.

Near *Hodgesia niveocaputis* Ludlow, but without any metallic scales on the abdomen.

Rachionotomyia monetifera, new species.

Female. Proboscis very long, black. Palpi rather long, though less than one-sixth of the proboscis, black. Clypeus and tori light testaceous. Head with a broad band of violet blue scales on the anterior two-thirds, the nape black. Integument of mesonotum pale, the vestiture of prothoracic lobes and mesonotum of dense narrow curved pale golden scales; scutellum with flat light blue scales; pleura with a large central silvery patch. Metanotum yellowish, nude. Abdomen

black scaled dorsally, venter golden; lateral segmental posterior silvery bands, reaching well up the sides. Legs blackish, the femora pale below and with two small silvery spots on the outer side following a basal streak on fore and mid legs; hind legs with one spot. Cross-veins in line; wing scales blackish.

Male. The antennal segments are somewhat shorter than in the female. Proboscis and palpi as in the female, the coloration also the same. Abdomen black with bronzy reflection, large triangular silvery spots posteriorly on the segments laterally, six in number, the first on abdominal segments 1-2, none on the eighth segment; venter yellow, without spots; last segment black.

Hypopygium. Side pieces conical, small, with an inner hairy simple lobe that reaches beyond the middle of the side piece. Clasper as long as the side piece, constricted slightly before the middle, the tip a little flattened and with slight granules; terminal spine short and pointed, inserted subapically. Tenth sternites large and prominent, wide, constricted before tip, the strong short terminal teeth radiating. Aedoeagus small, conical. Ninth tergites large, with many very long terminal spines.

Types, male and two females (one headless), No. 23717, U. S. Nat. Mus.; Los Baños, P. I., February 16, 1915, September 9, 1918, January 21, 1919.

Evidently allied to *Rachionotomyia powelli* Ludlow (*Uranotaenia powelli* Ludl., Can. Ent., xli, 235, 1909), but the coloration of the abdomen as described is quite different. Mr. F. W. Edwards has called my attention to the generic correction for *powelli* while this article is in press, so that there has been no opportunity for a comparison of types.

CULICINI

Culex (Jamesia) concolor Robineau-Desvoidy.

Culex concolor Robineau-Desvoidy, Mém. Soc. Hist. Nat., Paris, iv, 405, 1825.

Culex (Culex) gelidus Theobald.

Culex gelidus Theobald, Mon. Culic., ii, 20, 1901.

Culex (Culex) whitmorei Giles.

Tacniorhynchus whitmorei Giles, Journ. Trop. Med., vii, 367, 1904.

Tacniorhynchus argenteus Ludlow, Can. Ent., xxxvii, 98, 1905.

Leucomyia plegepennis Theobald, Mon. Culic., iv, 375, 1907.

Culex albus Leicester, Cul. of Malaya, 148, 1908.

Culex (Culex) hensemæon, new species.

Proboscis moderate, brown, darker at the tip and paler below. Head with coarse and rather sparse narrow curved golden scales on the vertex and pale erect forked ones; small flat white ones on the sides, extending a little way up as a narrow border to the eyes. Mesonotum dark brown, with coarse narrow curved light golden scales, divided by two impressed bare lines. Abdomen dark above, blackish, except for the pale bristles at ends of segments and a single triangular white band at the base of the second segment; no lateral patches; venter sordid yellowish scaled. Legs dark, the femora paler below; tips of femora and tibiæ, especially the hind pair, narrowly whitish. Wing scales brown, the outstanding ones long and linear. Fork-cells long, especially the upper. Tarsal claws simple. Length about 4 mm.

Type, female, No. 23718, U. S. Nat. Mus.; Los Baños, P. I., May 28, 1915.

Culex (Culex) quinquefasciatus Say.

Culex quinquefasciatus Say, Journ. Acad. Nat. Sci. Phila., iii, 10, 1823.

Culex pungens Weidemann (not Robineau-Desvoidy), Auss. zweifl. Ins., i, 9, 1828.

Culex fatigans Weidemann, Auss. zweifl. Ins., i, 10, 1828.

Anopheles ferruginosus Wiedemann, Auss. zweifl. Ins., i, 12, 1828.

Culex cubensis Bigot, Hist. fis. Isl. Cuba, vii, 329, 1856.

Culex penafeli Williston, La Naturaleza, vii, 326, 1887.

Culex skusii Giles, Gnats or Mosq., 292, 1900.

Culex quasipipiens Theobald, Mon. Culic., ii, 136, 1901.

Culex fouchowensis Theobald, Mon. Culic., ii, 137, 1901.

Culex fatigans luteoannulatus Theobald, Mon. Culic., ii, 159, 1901.

Culex fatigans macleayi Theobald, Mon. Culic., ii, 163, 1901.

Culex fatigans trilineatus Theobald (not Theobald), Mon. Culic., ii, 159, 1901.

Culex osakaensis Theobald (♂), Mon. Culic., iv, 439, 1907.

- Culex christophersii* Theobald, Mon. Culic., iv, 453, 1907.
Culex aikenii Dyar & Knab, Proc. U. S. Nat. Mus., xxxv, 61, 1908.
Culex quinquefasciatus dipseticus Dyar & Knab, Proc. Ent. Soc. Wash., xi, 34, 1909.
Culex lachrimans Dyar & Knab, Smith. Misc. Colls., Quart. Iss., iii, 259, 1909.
Culex revocator Dyar & Knab, Smith. Misc. Colls., Quart. Iss., iii, 256, 1909.
Culex goughii Theobald (♂), Union S. Afr., Dept. Agr., 1st rept. Vet. Res., 269, 1911.
Culex aseyehae Dyar & Knab, Ins. Ins. Mens., iii, 112, 1915.

Culex (Culex) sitiens Wiedemann.

- Culex sitiens* Wiedemann, Auss. zweifl. Ins., i, 543, 1828.
Culex impellens Walker, Proc. Linn. Soc. Lond., iv, 91, 1860.
Culex annulirostris Skuse, Proc. Linn. Soc. N. S. W. (2), iii, 1737, 1889.
Culex microannulatus Theobald, Mon. Culic., i, 353, 1901.
Culex gnophodes Theobald, Mon. Culic., iii, 163, 1903.
Culex somaliensis Neveu-Lemaire, Arch. Parasit., x, 254, 1906.
Culex rolandi de Charmoy, Ann. Trop. Med. & Par., ii, 259, 1908.
Culex salus Theobald, Third Rep. Wellc. Lab., 256, 1909.

Culex (Culex) inelegans, new species.

Male. Antennæ whitish, the nodes black. Head white scaled, the vertex with narrow white scales mixed with straw-colored forked ones, the sides broadly with flat white scales. Mesonotum brown, with narrow curved golden brown scales. Abdomen entirely brown, paler below. Legs brown, femora paler below, their tips pale. Palpi and proboscis brown, the palpi exceeding the proboscis by more than the length of the last joint, the last two joints hairy.

Hypopygium. Side pieces over three times as long as wide, with a subapical prominence bearing three rods, equal in size, a large leaf, ribbed at base, and a stout seta. Clasper thick, attenuated outwardly, the spine subterminal and appendiculate. Tenth sternites with broadly spinose tips and long dark basal arm. Parameres long, curved, dark. Mesosome with terminal horn and five long teeth in a central group.

Type, male, No. 23719, U. S. Nat. Mus.; Los Baños, P. I., June 20, 1915. A female is tentatively associated with this, September 15, 1915, but it is not in good condition.

Culex (Culex) summorosus, new species.

Male. Palpi with white rings at the bases of the last two joints; proboscis with a faint whitish ring beyond the middle. Head with pale scales, as far as can be made out, as in the preceding species. Mesonotum with narrow curved golden brown scales. Legs with traces of white markings at the tarsal joints.

Hypopygium. Side piece over three times as long as wide, the subapical prominence bearing three rods, of which the basal is stout at the base, a rounded-ended filament and a large leaf. Clasper thick, attenuated outwardly, the spine small. Tenth sternites with broadly spinose tips and long dark basal arm. Parameres long, curved, dark. Mesosome ligulate, curved, the inner angle quadrate and fimbriate, the outer angle bearing six long teeth in a close group, one of the teeth being longer than the others and horn-like. Aedoeagus of two concave pieces, denticulate on the margin.

Type, male, No. 23725, U. S. Nat. Mus.; Los Baños, P. I., January 15, 1918. Two females are tentatively associated here, September 22, 1915, and October 22, 1917.

Culex (Neoculex) fidelis, new species.

Palpi of male slender, scarcely longer than the proboscis, brown. Head with many white scales, forming a patch on the sides. Mesonotum with narrow curved dark bronzy brown scales. Abdomen entirely dark, blackish above, paler below. Legs with the femora white beneath, dark brown, unmarked.

Hypopygium. Side piece over three times as long as wide, subapical prominence bearing two stout rods, a slender rod, three short filaments and a flattened filament. Clasper stout, short, the terminal spine rather long. Tenth sternites weak, spinose at tip, without distinct basal arm. Mesosome conical, simple, coarsely granular on the inner face outwardly, the pair united by a central bridge.

Types, four males, No. 23720, U. S. Nat. Mus.; Los Baños, P. I., July 28, 1915. Two females have been tentatively associated, September 17 and November 8, 1917.

Mansonia (Mansonioides) annulifera Theobald.*Panoplites annulifera* Theobald, Mon. Culic., ii, 183, 1901.*Mansonia septempunctata* Theobald, Ann. Nat. Mus. Hung., iii, 187, 1905.*Mansonioides septemguttata* Theobald, Mon. Culic., iv, 499, 1907.**Mansonia (Mansonia) uniformis** Theobald.*Panoplites uniformis* Theobald, Mon. Culic., ii, 180, 1901.*Mansonia australiensis* Giles, Gnats or Mosq., 2 ed., 355, 1902.**Mansonia (Coquillettidia) diaeretus**, new species.

Head with narrow curved dark brown scales. Mesonotum light brown, with small dark brown scales; three lines of pale golden scales, running back to the antescutellar space. First abdominal segment brown, the rest dark blue dorsally; basal segmental lateral small dull yellow spots; venter yellow scaled, the apices of the segments dark banded. Legs dark with bluish reflection, the femora pale below. Tarsal claws simple. Wing scales dark with bronzy reflection, short and ovate, long outstanding ones only on the second vein within the cross-veins.

Types, two females, No. 23721, U. S. Nat. Mus.; Los Baños, P. I., March 5, 1918, January 1, 1919.

Apparently similar to *M. aureosquamata* Ludlow (Can. Ent., xli, 234, 1909), but without white abdominal spots and different wing-scaling. In the absence of a male, I am not certain of the generic reference.

Armigeres obturbans Walker.*Culex obturbans* Walker, Proc. Linn. Soc. Lond., iv, 91, 1860.*Culex ventralis* Walker, Proc. Linn. Soc. Lond., v, 144, 1865.*Culex subalbatus* Coquillett, Proc. U. S. Nat. Mus., xxi, 302, 1898.*Armigeres panalectros* Giles, Gnats or Mosq., 2 ed., 386, 1904.**Leicesteria digitata** Edwards.*Leicesteria digitata* Edwards, Bull. Ent. Res., iv, 262, 1914.**Aedes (Stegomyia) aegypti** Linnaeus.*Culex aegypti* Linnaeus, Hasselquist, Palestina Reise, 470, 1762.*Culex argenteus* Poiret, Journ. de Phys., xxx, 245, 1787.*Culex fasciatus* Fabricius (not Müller, not Meigen), Syst. Antliat., 36, 1805.

- Culex calopus* Meigen, Syst. beschr. Eur. zweifl. Ins., i, 3, 1818.
Culex mosquito Robineau-Desvoidy, Mém. Soc. Hist. Nat., Paris, iii, 407, 1827.
Culex frater Robineau-Desvoidy, Mém. Soc. Hist. Nat., Paris, iii, 408, 1827.
Culex taeniatus Wiedemann, Ausser. zweifl. Ins., i, 10, 1828.
Culex kounoupi Brullé, Exped. Scient. do Morée, Zool., iii, 289, 1836.
Culex annulitarsis Macquart, Webb & Berth., Hist. Nat. Iles Can., ii, Ins. 99, 1839.
Culex viridifrons Walker, List Dip. Brit. Mus., i, 3, 1848.
Culex excitans Walker, List Dipt. Brit. Mus., i, 4, 1848.
Culex formosus Walker, List Dipt. Brit. Mus., i, 4, 1848.
Culex inexorabilis Walker, List Dipt. Brit. Mus., i, 4, 1848.
Culex exagitans Walker, Ins. Saund., Dipt., 430, 1856.
Culex impatientis Walker, Proc. Linn. Soc., Zool., iv, 91, 1860.
Culex zonatipes Walker, Proc. Linn. Soc., Zool., v, 229, 1861.
Culex bancrofti Skuse, Proc. Linn. Soc. N. S. W. (2), iii, 1740, 1889.
Culex elegans Ficalbi, Bull. Soc. Ent. Ital., xxi, 95, 1889.
Culex rossii Giles, Journ. Trop. Med., ii, 64, 1899.
Stegomyia fasciata luciensis Theobald, Mon. Culic., i, 297, 1901.
Stegomyia fasciata queenslandensis Theobald, Mon. Culic., i, 297, 1901.
Stegomyia nigeria Theobald, Mon. Culic., i, 303, 1901.
Stegomyia fasciata persistans Banks, Phil. Jn. Sci., i, 996, 1906.
Culex anguste-alatus Becker, Mitt. zool. Mus. Berlin, iv, 79, 1908.
Culex albopalposus Becker, Mitt. zool. Mus. Berlin, iv, 80, 1908.
Stegomyia fasciata atritarsis Edwards, Bull. Ent. Res., x, 129, 1920.

Aëdes (*Stegomyia*) *albopictus* Skuse.

- Culex albopictus* Skuse, Indian Mus. Notes, iii, No. 5, 20, 1895.
Stegomyia scutellaris samarensis Ludlow, Journ. N. Y. Ent. Soc., xi, 138, 1903.

Aëdes (*Stegomyia*) *gardnerii* Ludlow.

- Pseudostegomyia gardnerii* Ludlow, Can. Ent., xxxvii, 99, 1905.

The genitalia of this species have not been described: Hypopygium. Side piece elongate, the chitinized part narrow on the outer half; inner area membranous, a stout hair arising from its angle; a lobe at the middle, semidetached from the side piece, bearing many long hairs. Clasper as long as the side piece, slightly expanded at tip, with a long spine inserted

slightly before the tip, the tip of the spine widened. Tenth sternites thin and broadly bulbous at tip. Aedoeagus ending in a cluster of long teeth.

The structure is much as in *Aedes variegata* Doleschall (*pseudoscutellaris* Theobald), although the coloration of the adults is so different.

Aedes (Finlaya) poicilia Theobald.

Finlaya poicilia Theobald, Mon. Culic., iii, 283, 1903.

Aedes (Finlaya) nivea Ludlow.

Stegomyia nivea Ludlow, Journ. N. Y. Ent. Soc., xi, 139, 1903.

Stegomyia pseudonivea Theobald, Ann. Nat. Mus. Hung., iii, 75, 1905.

Aedes (Ecculex) vexans Meigen.

Culex vexans Meigen, Syst. Besch. Eur. zweifl. Ins., vi, 241, 1830.

Culex articulatus Rondani, Bull. Soc. Ent. Ital., iv, 30, 1872.

Culex sylvestris Theobald, Mon. Culic., i, 406, 1901.

Culex vagans Theobald, Mon. Culic., i, 411, 1901.

Culex nocturnus Theobald (♀), Mon. Culic., iii, 159, 1903.

Culex montcalmi Blanchard, Les Moust., 407, 1905.

Culicada nipponii Theobald, Mon. Culic., iv, 337, 1907.

Culicada minuta Theobald, Mon. Culic., iv, 388, 1907.

Culex stenoetrus Theobald, Mon. Culic., iv, 395, 1907.

Culex eruthrosops Theobald, Mon. Culic., v, 229, 1910.

Culex pseudostenotrus Theobald, Mon. Culic., v, 343, 1910.

Aedes euochrus Howard, Dyar & Knab, Mosq. No. & Cent. Am. & W. I., iv, 716, 1917.

Toxorhynchites regius Tenant.

Culex regius Tenant, Ceylon, 268, 1859.

Megarhinus gilesii Theobald, Mon. Culic., i, 227, 1901.

Megarhinus lewaldii Ludlow (♂), Can. Ent., xxxvi, 233, 1904.

Worcesteria grata Banks, Phil. Jn. Sci., i, 780, 1906.

Toxorhynchites argenteotarsis Ludlow, Can. Ent., xxxviii, 367, 1906.

Toxorhynchites metallicus Leicester.

Toxorhynchites metallicus Leicester, The Entom., xxxvii, 37, 1904.

A single female specimen, bred from *Nepenthes*.

Uranotaenia pygmaea Theobald.*Uranotaenia pygmaea* Theobald, Mon. Culic., ii, 254, 1901.**Aëdeomyia catasticta** Knab.*Aëdeomyia catasticta* Knab, Ent. News, xx, 387, 1909.**Anopheles (Myzomyia) tessellatum** Theobald.*Anopheles tessellatum* Theobald, Mon. Culic., i, 175, 1901.*Anopheles deceptor* Dönitz, Zeit. f. Hyg. & Inf., xli, 60, 1902.*Myzomyia thorntonii* Ludlow, Can. Ent., xxxvi, 69, 1904.*Dactylomyia ceylonica* Newstead & Carter, Ann. Trop. Med., iv, 377, 1910.

According to Swellengrebel and Swellengrebel-de Graaf, writing on the *Anopheles* of the Dutch East Indies (Tijd. voor Ent., lxiii, 100, 1920), *tessellatum* Theo. is a variety of *A. (Neomyzomyia) punctulata* Dönitz. They do not mention the present species, which would presumably be known as *deceptor* Dön., if this conclusion is correct.

Anopheles (Myzomyia) ludlowii Theobald.*Myzomyia ludlowii* Theobald, Mon. Culic., iii, 42, 1903.**Anopheles (Myzomyia) indefinita** Ludlow.*Myzomyia rossii indefinita* Ludlow, Can. Ent., xxxvi, 229, 1904.

Swellengrebel and Swellengrebel-de Graaf place *indefinita* Ludlow as a synonym of *rossii* Giles, and *indefinita* Edwards, not Ludlow, as a synonym of *vaga* Dönitz, the latter reference presumably not applicable to the Philippines. I do not feel satisfied to pronounce on these matters with the present material.

Anopheles (Nyssorhynchus) fuliginosus Giles.*Anopheles fuliginosus* Giles, Gnats or Mosq., 160, 1900.*Anopheles leucopus* Dönitz, Ins. Borse, v, 37, 1901.**Anopheles (Myzorhynchus) barbirostris** van der Wulp.*Anopheles barbirostris* van der Wulp, Leyden Mus. Notes, vi, 46, 1884.

KEY TO THE SPECIES HERE LISTED

1. Palpi of the female short, thorax rounded; legs moderate;
body scaled 2

- Palpi of female as long as proboscis; thorax elongate; legs long; body generally hairy..... 26
2. Postnotum with a little tuft of setæ.....*Wyeomyia mus* Dyar
Postnotum bare 3
3. Proboscis very long, as long as thorax and abdomen,
Rachionotomyia monetifera Dyar
Proboscis moderate 4
4. Wing cells with moderate or short stems..... 5
Wing cells with very long stems..... 23
5. Abdomen of female blunt at the tip..... 6
Abdomen of female more or less distinctly pointed..... 18
6. A small dark species with metallic silver head spot and dark mesonotum*Hodgesia ampyx* Dyar
Larger; head not silvery except as concolorous with mesonotum 7
7. Wing-scales narrow 8
Wing-scales broad 17
8. Large; dark brown; posterior abdominal segments stained with luteous.....*Culex concolor* Robineau-Desvoidy
Not so colored..... 9
9. Mesonotum white-marked 10
Mesonotum not white-marked..... 11
10. Mesonotum white on anterior two-thirds..*Culex gelidus* Theobald
Mesonotum white, enclosing four brown marks,
Culex whitmorei Giles
11. Abdomen with basal segmental white bands..... 12
Abdomen without regular bands..... 13
12. Proboscis and legs white-marked.....*Culex sitiens* Wiedemann
Proboscis and legs unmarked.....*Culex quinquefasciatus* Say
13. Large, with partial dorsal banding or lateral spots..... 14
Small, without any dorsal banding..... 15
14. Mesonotum brown, abdomen with one dorsal white band on second segment.....*Culex hensemaeon* Dyar
Mesonotum yellow; abdomen with small yellowish lateral spots.....*Mansonia diaeretus* Dyar
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Proboscis without whitish ring..... 16
16. Male hypopygium with large toothed mesosome,
Culex inelegans Dyar
Male hypopygium with conical mesosome connected by a bridge,
Culex fidelis Dyar
17. Mesonotum with six bluish silvery spots,
Mansonia annulifera Theobald
Mesonotum with two silvery lines...*Mansonia uniformis* Theobald
18. Wings spotted with white..... 19
Wings not spotted with white..... 20

19. Wing scales normal, narrow.....*Aedes poicilia* Theobald
 Wing scales very broad.....*Aedeomyia catasticta* Knab
20. Mesonotum uniformly brown..... 21
 Mesonotum with silvery marks..... 23
21. Tarsi brown 22
 Tarsi white-marked.....*Aedes vexans* Meigen
22. Palpi of female very short.....*Armigeres obturbans* Walker
 Palpi one-third as long as proboscis.. *Leicesteria digitata* Edwards
23. Mesonotum silvery on anterior two-thirds....*Aedes nivea* Ludlow
 Mesonotum with broad straight silvery band on each side,
Aedes gardnerii Ludlow
 Mesonotum with narrow curved silvery band on each side,
Aedes aegypti Linnaeus
 Mesonotum with straight narrow median silvery line,
Aedes albopicta Skuse
24. Proboscis straight, normal; small species,
Uranotaenia pygmaea Theobald
 Proboscis hooked; very large species..... 25
25. Caudal tuft black, white and orange; legs with white marks,
Toxorhynchites regius Tenant
 No caudal tuft; legs without white,
Toxorhynchites metallicus Leicester
26. Tip of hind tarsi white.....*Anopheles fuliginosus* Giles
 Tip of hind tarsi not white..... 27
27. Palpi black, or tip whitish shaded,
Anopheles barbirostris van der Wulp
 Palpi with last two joints white, with narrow basal black rings. 28
28. Proboscis yellowish with a dark band,
Anopheles tessellatum Theobald
 Proboscis brown 29
29. Yellow marks on costa smaller; third dark spot with two spots
 below on long vein.....*Anopheles ludlowii* Theobald
 Yellow marks on costa larger; third dark spot with one spot
 below, more or less joined to it....*Anopheles indefinita* Ludlow¹

¹ Probably only a variety of *ludlowii* Theo.