

MOSQUITO NOTES.

By F. W. EDWARDS.**Anopheles hyrcanus**, Pallas.*Culex hyrcanus*, Pallas, Reise durch Russischen Reichs, i, p. 475 (1771).*Anopheles sinensis*, Wiedemann, Auss. Zweifl. Ins. i, p. 547 (1828).*Anopheles pictus*, Loew, Dipt. Beitr. i, p. 4 (1845).*Anopheles pseudopictus*, Grassi, Atti R. Ac. Lincei, viii, 1, pp. 102 & 560 (1899).

The salient points in Pallas's brief description are as follows:—"Cinereus . . . Frons hirtella. Antennae triarticulatae; extremum trinode, basis vero pilis nigris subpennata. Palmi [? palpi] nulli: ensis nudus . . . basi pilosus. Pedes longissimi, grisei, posticis corporis fere tripla longitudine, praesertim tarsi, elongati. Alae lanceolatae, cinerascens, venis hirsutis ad crassiorem marginem nigro maculatae . . . Comes prioris [*C. caspius*, ? = *O. dorsalis*, Mg.], rarior red ferocior."

If we make the highly probable assumption that Pallas described the palpi as the antennae, and that the latter were either broken off or overlooked in his specimen, the above description becomes understandable, since the sentence referring to the "antennae" might very well be used to express the appearance under a low-power lens of the shaggy palpi of an *Anopheles* of the *Myzorhynchus* or *Nyssorhynchus* groups. Although no collections of mosquitos have been made since Pallas's time in the North Caspian region, it is unlikely that any species, other than *A. sinensis*, to which the description could possibly apply, occurs there. The name *hyrcanus* will therefore have to be substituted for *sinensis*.

Anopheles subpictus, Grassi.*Anopheles subpictus*, Grassi, Atti R. Acc. Lincei, viii, 1, p. 101 (Feb. 1899).*Anopheles rossii*, Giles, J. Trop. Med. ii, p. 63 (Oct. 1899).

Grassi's short description clearly indicates *A. rossii*, and the fact that he states that his description was drawn up from a specimen sent him by Ross from Calcutta removes any possible doubt which might exist. It is to be regretted that the operation of the rule of priority will prevent the commemoration in zoological nomenclature of Sir Ronald Ross's work.

Stegomyia fasciata* var. **atritarsis**, nov.

Tarsi of fore and mid legs almost entirely black, two or three white scales at the bases of the first two joints; hind tarsi black, with very narrow white rings (narrower than the diameter) at the bases of the first three and the last joints. White rings on the male palpi narrower than usual. Markings of thorax, abdomen and femora, and structure of male genitalia, normal.

GOLD COAST: Accra, vi. 1919, 1♂ 1♀ (*Dr. J. W. Scott Macfie*).

Perhaps the most remarkable colour variation yet recorded in this or any mosquito.

* Dr. Guy Marshall urges the retention of this name, rather than the adoption of the other *argenteus*, Poiret, owing to its wide use in medical literature; a course which has been sanctioned in a few cases by the International Commission on Zoological Nomenclature. With this suggestion I readily concur. The names *Stegomyia* and *Ochlerotatus* when used here as genera are to be understood in a subgeneric sense.

Ochlerotatus caspius, Pallas.

Culex caspius, Pallas, Reise d. Russ. Reichs, i, p. 475 (1771).

Culex dorsalis, Theobald, Mon. Cul. ii, p. 16 (1901) (? *nec* Meigen).

Grabhamia dorsalis, Theobald, Mon. Cul. iii, p. 251 (1903).

Grabhamia subtilis, Ed. & Et. Sergent, Bull. Mus. Paris, xi, p. 240 (1905).

Grabhamia willcocksii, Theobald, Mon. Cul. iv, p. 294 (1907).

Grabhamia longisquamosa, Theobald, Ann. Mus. Nat. Hung., iii, p. 102 (1905).

Mansonia arabica, Giles, J. Trop. Med. p. 130 (1906).

Culex arabicus, Becker, Denkschr. k. Ak. Wiss. Wien, lxxi, p. 140 (1910).

? *Culex maculiventris*, Macquart, Dipt. Exot. Supp. i, p. 7 (1846).

Culex pulchripalpis, Theobald, Mon. Cul. ii, p. 13 (1901) (*nec* Rondani).

Culex penicillaris, Rondani, Bull. Soc. Ent. Ital. iv, p. 31' (1872); Ficalbi, Bull. Soc. Ent. Ital. xxxi, p. 160 (1869).

Recent discoveries (see below, under *O. curriei*) make it appear doubtful whether Meigen's *C. dorsalis* has been correctly determined by Theobald and others, but as it is an abundant species over a wide area of Europe and Asia it is desirable to find a name for it which is not likely to be upset, and I believe that *C. caspius*, Pallas, is such a name. Pallas' original description is of course short and vague, but as he states that the species was abundant and very vicious in the marshes near Guriev (North Caspian) it is probable that he met with one of the common European salt-marsh breeders. The salient phrases in the description, "Color subgriseus, thorax cinereo-fasciato . . . pedes subannulati" would seem to indicate the present species rather than *O. curriei*, while definitely excluding *O. salinus*. Some confirmation of this conclusion has recently been obtained by Capt. P. A. Buxton's discovery of *O. dorsalis*, Theo., at Resht, South Caspian. Pallas' statement that the antennae are "utriusque sexu filiformes" may be safely disregarded; and whatever "vaginae multae" may mean, Theobald's translation of "sheath of proboscis snowy white" has obviously no justification whatever.

Large series of this species have recently been received at the British Museum from Italy, Macedonia, Palestine, Egypt and Mesopotamia, which show every gradation in the variation in the colour of the abdominal scales. In some (as in most British specimens) the prevailing colour of the abdomen is black; in the majority the abdomen has pairs of black spots on each segment, or on the anterior segments; while in the palest the black is entirely absent, leaving only the ochreous or whitish ochreous ground-colour. The thoracic coloration varies less; the two white longitudinal lines are nearly always present, though sometimes very narrow in two specimens from Italy, and in the type of *G. longisquamosa*, they are absent, the mesonotum then being uniformly fawn-coloured. The amount of dark scaling on the wing varies very considerably, but the dark scales are always fairly evenly distributed. No variation is discernible in the male genitalia. The comb-scales of the larvae may or may not have a differentiated terminal spine, a variation which has also been noted by Dyar in *O. curriei*.

Ochlerotatus caspius var. **hargreavesi**, nov.

Among a series sent from Taranto, Italy (*E. Hargreaves*), are six females which have the whole of the central area of the mesonotum covered with whitish scales.

though in regard to abdominal markings they agree with moderately dark specimens of the species. Nothing approaching this variation has been seen from elsewhere, and it therefore seems justifiable to distinguish them under a separate name. It will be interesting to find whether any difference exists in the male.

Ochlerotatus curriei, Coq.

Culex curriei, Coquillett, Can. Ent. xxxiii, p. 259 (1901).

Culex onondagensis, Felt, N. Y. State Mus. Bull. 79, p. 278 (1904).

Aedes curriei, Dyar, Insec. Inscitiae Menst. v, p. 122 (1917).

Culex punctatus, Meigen, Klass. i, p. 6 (1804).

Culex dorsalis, Meigen, Syst. Besch. vi, p. 242 (1830).

Grabhamia broquettii, Theobald, Entomologist, xlvi, p. 179 (1913).

A small series recently received from Wareham Heath, Dorset (*H. Scott*), proves on close examination to represent a species distinct from the one we have usually known as *dorsalis*, though this latter was taken in company with it and *O. salinus*, Fic. The two forms differ as follows:—

O. caspius, Pallas (*dorsalis*, auct.). Scales of mesonotum ochreous brown or tawny-coloured, with two narrow white lines running the whole length. Scales of proboscis mostly pale except towards base and tip. Abdominal scales usually of three colours, black, white and ochreous. Wing scales mostly rather broad, dark ones being evenly spread over all the veins, though in varying proportions with the light ones. Dark scales more numerous on the femora. Apical part of basal lobe of side-piece of male genitalia not prominent.

O. curriei, Coq. Scales of mesonotum mostly greyish ochreous; a dark brown band of varying width in the middle, extending only about half way from the front; patches of the same colour on each side in front. Scales of proboscis mostly black. Abdominal scales of two colours only, black and greyish white. Wing scales mostly quite narrow; at the base of the wing they are all pale; dark ones predominate on the apical half of the costa, on the first longitudinal vein, and on the forks of the fourth, while on the third and fifth longitudinal veins the scales are almost all dark; elsewhere they are mostly pale. Femora, except towards tips, almost all pale. Apical part of basal lobe of male genitalia prominent.

Meigen's descriptions of *C. punctatus* and *C. dorsalis* do not apply very well either to *O. caspius* or to *O. curriei*, though they almost certainly must refer to one or the other, and perhaps with more probability to the latter. An examination of the types would be essential to settle the point.

The British examples of *O. curriei* only differ from North American specimens in having the dark scales of the wings rather more numerous, especially on the costa. The male genitalia are identical.

Ochlerotatus rusticus, Rossi.

Culex rusticus, Rossi, Fauna Etrusca, ii, p. 333 (1790).

Culex pungens, Robineau-Desvoidy, Mém. Soc. Hist. Nat. Paris, iii, p. 407 (1827).

Culex quadratimaculatus, Macquart, Suit. à Buffon, i, p. 34 (1834).

Culex diversus, Theobald, Mon. Cul. ii, p. 73 (1901).

Culex quadratimaculatus, Villeneuve, Bull. Soc. Ent. France, p. 55 (1919).

On a careful comparison of fresh specimens with Robineau-Desvoidy's description I entirely agree with Dr. Villeneuve in his identification. He has however overlooked the fact that the name *quadratimaculatus* was an unwarranted substitution by Macquart for Desvoidy's *pungens*; moreover I consider it is equally evident from Rossi's description that his *C. rusticus* refers to the more strongly marked form of *diversus* with a continuous median dorsal yellow line. This being the oldest name must replace all the others.

Ochlerotatus antipodeus, sp. nov.

♀. *Head* with narrow golden scales in the middle; on each side a patch of narrow black ones, and external to these a small patch of flat white ones; upright scales and bristles blackish, except for a pair of golden bristles directed forwards over the eyes. Proboscis and palpi black-scaled, the latter about one-seventh as long as the former. *Thorax* dark brown; mesonotum with blackish bristles and dark reddish-brown scales; narrow golden scales arranged in five rather definite lines: one median, extending from the front margin to just before the scutellum, where it forks; a subdorsal pair on the posterior half of the mesonotum; and a lateral pair on the anterior third; some scattered narrow golden scales about the middle and a patch of the same above the bases of the wings. Prothoracic lobes with a few golden scales; area behind them (proepimerum) with small flat blackish-brown ones. Mid lobe of scutellum with narrow golden scales in the middle, narrow dark brown ones laterally; lateral lobes with a few narrow dark brown scales. Pleurae with patches of flat white scales. *Abdomen* clothed mainly with blackish brown scales; small white lateral basal patches on each segment and narrow yellowish white basal bands on segments 2-5. Cerci elongate, blackish. *Legs* black-scaled; femora whitish beneath; narrow white rings on the bases of the first three tarsal joints, broadest on the hind legs, where there are also a few white scales at the base of the last two joints. Claw formula 1.1:1.1:0.0. *Wings* with blackish scales, those in the lateral series almost linear. First fork-cell fully twice as long as its stem, its base a little nearer the wing-base than that of the second. Cross-veins separated by quite twice the length of the posterior one. Halteres yellowish with brown knob.

Length (without proboscis), 5 mm.

NEW ZEALAND: Karikari Bay, 5.ii.1916, 14♀ (incl. type) (Albert E. Brooks). Te Horo, near Wellington, 3♀ (received through R. F. L. Burton).

Ochlerotatus lepidonotus, sp. nov.

♂. *Head* with a small area of yellowish narrow curved scales in the middle, mixed yellow and black upright forked scales on each side of these, and white flat scales more outwardly. *Proboscis* black. *Palpi* longer than the proboscis by the last joint. Long joint mainly pale scaled, but also with many black scales which are specially numerous towards the base and apex; its apical fourth much swollen, with long dense hairs on its outer side, which are orange basally, black apically. Penultimate joint about the size of the swollen portion of the long joint with whitish scales basally, black-scaled apically; internally and ventrally with long dense orange hairs with black tips; a few shorter stiff black hairs on the outer side.

to the apex. Terminal joint slightly longer and distinctly thicker than the penultimate; with whitish scales at the base, otherwise black, black-haired. *Thorax* with black integument; mesonotum with pale yellowish scales and bristles (banded in middle). Pleurae (except sternopleura) densely clothed with flat whitish scales. Postnotum with a tuft of pale yellowish narrow curved scales apically. *Abdomen* clothed mainly with pale greyish ochreous scales, with some blackish brown ones intermixed to a varying extent; in the darkest specimen the pale scales are confined to rather narrow bands across the bases and apices of the segments, the remainder being all black; venter mainly whitish. *Genitalia*: Side-pieces less than four times as long as broad, with rather dense dark brown hairs on the apical half, but none overhanging the harpagones; external margin slightly curved; internal practically straight, except for an indentation just posterior to the basal lobes. Basal lobes very small, with a tuft of hairs, none differentiated; apical lobes barely distinguishable, with a few short hairs. Claspers with a straight and rather stout terminal spine. Harpagones just over half as long as the side-pieces, the stenis pubescent, four times as long as the appendage, which is rather narrow, slightly curved and frayed at the tip. Harpes undivided, a little shorter than the stem of the harpagones. *Legs*: femora and tibiae mainly with pale ochreous scales except towards the tips, where the scales are black. Tarsi black, except for numerous pale scales towards the base of the first joint. Claw formula 2.1:2.1:1.1. *Wings* very scantily scaled; the scales brown, except for those on the subcosta, and the base of the costa and first, second, fourth, fifth and sixth longitudinal veins, which are pale yellowish. Fork cells about as long as their stems, the upper with its base much beyond that of the lower.

♀. Palpi nearly a third as long as the proboscis, black, with scattered whitish scales. Scarcely any black scales on the abdomen. Claw formula 1.1:1.1:1.1. Wing-scales rather more numerous, and mostly pale yellowish, except those on the costa and first longitudinal vein.

Length (without proboscis), 7-8.5 mm.

MACEDONIA: 4♂ (including type), 10♀, swept in meadow near Galiko R., Salonica, 26. iv. 1918 (*Capt. J. Waterston*).

A very distinct species, with one remarkable characteristic, the possession of scales on the postnotum. In some respects, notably the form of the male palpi, it resembles *O. rusticus*, which, it is interesting to note, was taken at the same time and place.

***Ochlerotatus* (Finlaya) *echinus*, sp. nov.**

Ochlerotatus lateralis, Edwards, Bull. Ent. Res. ii, p. 250 (1911) (*nec* Meigen).

Ochlerotatus ornatus, Edwards, Bull. Ent. Res. iii, p. 21 (1912) (? *nec* Meigen).

Ochlerotatus geniculatus, Edwards, Bull. Ent. Res. iv, p. 49 (1913) (*nec* Olivier).

Differs as follows from the common *O. geniculatus*:—The four dark stripes of the mesonotum are brown instead of black, and are separated by narrow golden, instead of whitish lines; the sides of the mesonotum are almost pure white, instead of yellowish white; the scutellar scales are broad, flat and white; the abdominal segments have narrow basal yellowish bands in addition to the white lateral spots; and the hind femora have a dark dorsal line on the basal half.

MACEDONIA: Stavros, near Salonica, 1918, 1 ♀ (type) reared from larva (Capt. J. Waterston). MOROCCO: 1 ♀ caught on horse and mule outside Fez, v. 1909 (Major C. E. P. Fowler). ALGERIA: 1 ♀ (Dr. Sergent; no data).

In the absence of a male, the best distinctive character which can be adduced is the presence of flat scales on the scutellum; the larva also is very different from that of *O. geniculatus*, hence this form must undoubtedly be regarded as specifically distinct. The Moroccan and Algerian specimens have the flat scutellar scales, but in thoracic markings appear to agree with typical *O. geniculatus*; hence they are somewhat doubtfully conspecific with the type.

Culex apicalis, Adams.

Culex apicalis, Adams, Kans. Univ. Sci. Bull. ii, p. 26 (1903).

Culex territans, Howard, Dyar & Knab, Monogr. iii, p. 293 (1915) (*nec* Walker).

Culex territans, Schneider, Verh. Natf. Ver. Bonn, lxx, p. 45 (1913).

Culex hortensis, Edwards, Ent. Mo. Mag. (3) i, p. 167 (1915) (*nec* Ficalbi).

Culex saxatilis, Dyar, Insec. Inscitiae Menstr. vii, p. 36 (1919).

Culex pyrenaicus, Brölemann, Ann. Soc. Ent. France, 1918, p. 427 (1919).

Specimens of *C. pyrenaicus* sent me by Dr. Villeneuve from Rambouillet, France, agree in almost every detail with North American specimens in the British Museum, the only distinction discernible being that the harpagones of the male genitalia are more noticeably serrated on their tips. This difference is so minute that I consider the specific identity of the European and North American forms to be unquestionable, particularly in view of the fact that the male genitalia vary slightly among American specimens.

The species can be readily separated in both sexes from *C. hortensis*, Fic., by the white spots at the tips of the hind femora and tibiae being very small or absent; the wing scales also are perceptibly broader. Capt. J. Waterston has recently discovered the larvae of both *C. apicalis* and *C. hortensis* in the neighbourhood of Salonica, and from an examination of his material it can be positively stated that the larva figured by Schneider is that of *C. apicalis* and not of *C. hortensis* as I suggested in 1915.

Dyar, in the paper quoted, discusses the synonymy of the species, and from the evidence he adduces I should certainly conclude that *C. apicalis* is the correct name for the species, *C. testaceus*, v. d. Wulp, being too doubtful to be made use of.

Culex aurantapex, Edw.

Culex aurantapex, Edwards, Bull. Ent. Res. v, p. 74 (1914).

Taeniorhynchus domesticus, Leicester, Cul. of Malaya, p. 169 (1908) (*nec* *Culex domesticus*, Germar).

I described this species from a single female from Nairobi. Recently a female and three males reared from larvae have been received from Dar-es-Salaam (A. W. J. Pomeroy). Although these specimens differ from the type in having slightly broader wing-scales and more numerous pale scales on the wings and legs, there seems little reason to doubt their specific identity with the Nairobi example. They appear to agree in every respect with specimens of Leicester's *T. domesticus*. As Leicester

points out, the wing scales are decidedly narrower than in *C. bitaeniorhynchus*, a difference which, together with a slight distinction in the male genitalia, will probably suffice to distinguish the two forms specifically.

The genitalia are rather peculiar (fig. 1). The apical lobe of the side-pieces has the distal plate much reduced, little more than a flattened bristle; in addition there are four or five undifferentiated bristles and two stout spines. The harpes have only a minute basal appendage. The "harpagones" are divided into two pairs of strong

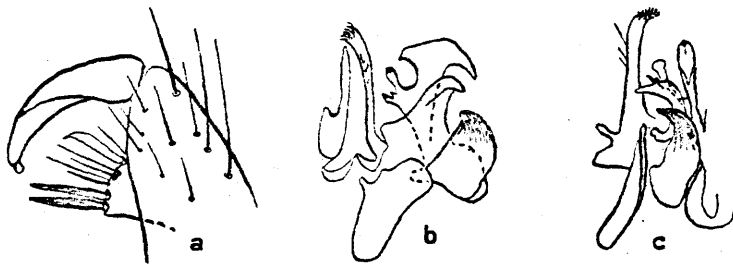


Fig. 1. Male genitalia of *Culex aurantipes*, Edw.; a, apex of side pieces; b, harpes and harpagones, side view; c, the aedeagus, dorsal view (one side only).

sickle-shaped plates directed dorsally, the ventral pair is the longer, and gives off ventrally from its base an appendage which divides into a rounded knob and two strong teeth. In the typical *C. bitaeniorhynchus* of the Oriental region, as well as in the var. *ethiopicus*, Edw., this ventral appendage of the second harpagonal plate is much reduced and differently formed.

The var. *ethiopicus* differs from the typical *bitaeniorhynchus* chiefly in having the upper (or basal) sickle-shaped plate of the harpagones much broader than the lower (or apical). The other points of distinction given (Bull. Ent. Res. iii, p. 30, 1912) do not hold good. Specimens of this form were also reared by Mr. Pomeroy at Dar-es-Salaam. The larvae seem to be indistinguishable.

Culex watti, sp. nov.

♂. *Head* scales mostly whitish. *Palpi* longer than the proboscis by nearly the length of the last two joints, which are densely hairy. Long joint with a narrow whitish ring before the middle, and another broader one in the middle of the apical half. Last two joints with narrow pale basal rings, creamy above, white below; spines at tip of last joint also pale; penultimate joint with a short white streak on underside just beyond middle. *Proboscis* brown, with a narrow, distinct though not sharply margined pale ring beyond the middle. *Thorax* brown-scaled, without special ornamentation, except that the scales on and in front of the scutellum and in front of the wing-bases are paler. *Abdomen* dark brown, the segments with dull whitish basal bands of about even width, those on segments 6 and 7 considerably rounded laterally. *Genitalia* (four specimens mounted): side-pieces normal, rather closely resembling those of *C. trifilatus*, Edw. (Bull. Ent. Res. v, p. 64), but the clasper is a little more narrowed apically, and on the lobe the modified bristles in each set of three (anterior to the plate) are of about equal length; the bristle adjoining the plate has a more flattened tip. *Unci* distinct, pointed. *Harpagones*

with only two incompletely separated divisions, the first sickle-shaped, the point directed ventrally and touching the second, which is broad and flattened horizontally. Harpes with the usual crown of spines, but without any trace of a basal thumb-like projection; their sides straight and parallel. *Legs* brown; femora whitish beneath almost to the tips; a distinct pale spot at apex of hind tibiae, which are also obscurely pale along the inner side; the faintest suggestion of pale rings at the tarsal articulations, most distinct at the junction of the first and second hind tarsal joints. *Wings* with linear-lanceolate brown scales; bases of fork cells practically level.

♀. Resembles the male, but the pale band of the proboscis is much more evident on the underside than above, and is much broader and very ill-defined basally. Middle tibiae in one specimen with a very indistinct pale longitudinal stripe in front.

Length (without proboscis), 5 mm.

GOLD COAST: 4♂ (including type) 2♀, Kumasi, 1919 (*Dr. W. G. Watt*).

EAST AFRICA: 4♂ 2♀, Dar-es-Salaam, 30.i.1918 (*A. W. J. Pomeroy*).

The most obvious characters of this species are the banded proboscis and palpi of the male, together with the practically unbanded legs. The specimens agree in most respects with Theobald's description of *C. ataeniata*; I have however examined the type in the Liverpool School of Tropical Medicine, and consider it to be only *C. univittatus*, with which indeed the present species might easily be confused.

The genitalia are most distinct, and clearly show that *C. watti* is more nearly related to *C. duttoni* than to any other African species; *C. duttoni* differs chiefly in having the harpagones undivided, elongate, and bent at right angles in the middle. In adult coloration *C. duttoni* differs obviously in the ringed tarsi and striped tibiae.

Theobaldia arctica, sp. nov.

♂. Differs from *T. annulata*, Schrank, as follows:—Palpi rather more slender and darker, both hairs and scales on the last two joints being almost all black. Femora without any trace of pre-apical pale rings; hind tibiae without pre-apical pale patch on the outer side, but with a narrow longitudinal pale streak along the inner side; first tarsal joint of all the legs almost entirely black, only a very few white scales at the base.

Genitalia: seventh sternite pointed, with an irregular row of ten stout close-set spines at the tip. Basal lobes of side-pieces small, with two stout bent setae and a number of hairs. Side-pieces also with a distinct pre-apical prominence on the inner side which is densely hairy. Harpes rather slender, more swollen at the tip where they have four or five small serrations. Harpagones* rather slender, a little shorter than the harpes, their tips sharply pointed and hooked dorsally. Unci small, pointed, half as long as the harpagones.

N. RUSSIA: 1♂, Archangel, 25.ix.1918 (*Capt. A. G. Carment*).

In coloration and genital structure this insect agrees almost entirely with *T. alaskaensis*, Ludlow, and may in fact be the same. Judging from Dyar and Knab

* These are the structures called "unci" by Howard, Dyar & Knab, but as they are undoubtedly homologous with the "harpagones" of *Culex* I use this term for them. The same names are used in quite different senses in different genera of CULICIDAE. The terminology of the parts of the male genitalia of these and other Diptera is here in need of revision and unification.

figure, however, the harpes are differently toothed and the subapical prominences and hair-tufts of the side-pieces are more strongly developed than in *alaskaensis*. The genitalia of *T. annulata* differ in the entire absence of stout spines on the seventh sternite and of any preapical prominence or hair-tuft on the side-pieces, and in the differently toothed harpes and less distinctly hooked harpagones.

***Theobaldia indica*, sp. nov.**

Coloration entirely as in *T. arctica*.

Genitalia: seventh sternite with a group of about seven short stout spines on its pointed tip. Side-pieces over three times as long as broad; basal lobes and apical prominences practically as in *T. arctica*. Harpes very slender, very little expanded apically, the tip being slightly cleft into two, but otherwise untoothed. Harpagones slightly longer than the harpes and very broad, nearly half as broad (vertically) as they are long; a small sharp, backwardly directed hook on the dorsal margin at some distance before the tip, which is rounded.

PUNJAB, INDIA: 1♂ (type), Bakloh, 28.ii.1900 (*Capt. Lindesay*); 1♀, Umballa, 9.iii.1905, and 1♀, Dalhousie, 4.v.1906 (*Col. H. J. W. Barrow*).

The specimen recorded by Giles (*Gnats*, ed. i, p. 206) from Bakloh is probably this species; the male recorded by Theobald (*Mon. Cul.* i, p. 335) is the type described above. No specimens of the true *T. annulata* from India are in the British Museum collection.