

# Undescribed Species of Crane Flies from the Himalaya Mountains (Diptera: Tipulidae), XVII<sup>1</sup>

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**Abstract:** Six new species of eriopterine crane flies are described, all from Assam and Sikkim. These are *Trentepohlia* (*Mongoma*) **fuscogenualis**, *Teucholabis* (*Teucholabis*) **diperone**; *T. (T.) eremnopoda*; *Baeoura* **aka**; *B. latibasis*; and *B. obtusistyla*.

Part XVI of this series of papers was published in the Journal of the New York Entomological Society, **76**: 66–71, 1968. The present report continues the study of the rich collections made by Dr. Fernand Schmid in Sikkim and Assam in 1959 and 1961 and concerns species of the tribe Eriopterini, vastly developed throughout the region. I again express my thanks and appreciation to Dr. Schmid for these materials.

## *Trentepohlia* (*Mongoma*) **fuscogenualis**, n. sp.

Size large (wing 8 mm or more); head light brown, gray pruinose, rostrum, palpi and antennae yellow; thorax almost uniformly pale yellow; legs yellow, tips of femora black, bases and tips of tibiae more narrowly darkened; wings light yellow, veins deeper yellow; cerci of ovipositor very long and slender.

MALE: Length about 7.5–8.5 mm; wing 8–9 mm; antenna 1.8 mm.

FEMALE: Length about 10 mm; wing 10 mm.

Rostrum, palpi and antennae yellow. Head light brown, heavily gray pruinose, with very long yellow setae.

Thorax almost uniformly pale yellow, praescutal stripes slightly darker. Halteres yellow. Legs with coxae and trochanters light yellow; remainder of legs darker yellow, tips of femora rather broadly black, tibiae with base more narrowly blackened, tips still more narrowly so; outer tarsal segments passing into brown; vestiture of legs short and inconspicuous, the femora with sparse longer setae over most of the length. Wings light yellow; veins deeper yellow, the outer costal border thickened, more brownish yellow.

Certain longitudinal veins beyond cord with numerous black trichia, including  $R_1$  and distal sections of  $R_5$  and  $M_{1+2}$ , more sparse on  $R_{2+3+4}$ , and on the fused vein  $R_5$  plus  $M_{1+2}$ . Venation:  $R_3$  entire but very pale;  $m-cu$  shortly before fork of  $M$ ; veins  $Cu_1$  and  $1st A$  at margin contiguous or shortly fused, closing the cell; cell  $2nd A$  very broad at near midlength.

Abdomen dull yellow. Ovipositor with cerci very long and slender, their tips gently upcurved.

HOLOTYPE: ♂, Lingdok, Sikkim, 4,000 feet, May 7, 1959 (Schmid). Allotype, ♀, Teng, Sikkim, 4,600 feet, August 1, 1959. Paratypes, ♀, pinned with allotype; 2 ♂♂, Tung, Sikkim, 4,500 feet, August 2, 1959; 1 ♂, Lathong, Sikkim, 6,560 feet, July 26, 1959 (all Schmid).

<sup>1</sup> Contribution from the Entomological Laboratory, University of Massachusetts.

The most similar regional species are *Trentepohlia* (*Mongoma*) *horiana* Alexander, having the legs uniformly yellow, and *T. (M.) flava* Brunetti, with the femoral tips narrowly and inconspicuously infuscated, both species having cell *1st A* of the wings narrowly open by the separation of veins  $Cu_1$  and *1st A* at margin.

*Teucholabis* (*Teucholabis*) **diperone**, n. sp.

General coloration of thorax yellow, the posterior praescutal disk, scutal lobes and postnotum blackened, median area of scutum, scutellum and pleura yellow; legs blackened, bases of fore femora yellowed; wings faintly tinged with brownish yellow, unpatterned except for the pale brown stigma; abdomen light brown, incisures yellowed, hypopygium dark brown; sternal pockets of male abdomen well developed; male hypopygium with outer dististyle conspicuously bispinous from a shorter base.

MALE: Length about 8 mm; wing 6.8 mm; antenna about 1.8 mm.

Rostrum dark brown, relatively long, subequal to remainder of head, palpi dark brown. Antennae brownish black; proximal flagellar segments oval, the outer ones more elongate, terminal segment oval, verticils shorter than the segments. Head dark brown.

Pronotum yellow. Mesonotal praescutum with disk polished black, including the central stripe and broad extensions to the lateral borders, humeral region and central area before suture yellow; scutal lobes polished black, the median area and scutellum light yellow; parascutella and postnotum polished black, pleurotergite slightly paler. Pleura light orange yellow. Halteres with stem brownish black, apex of the large knob yellowed. Legs with all coxae and trochanters yellow; remainder of legs brownish black, bases of fore femora yellow, including more than basal third, posterior femora uniformly darkened. Wings faintly tinged with brownish yellow, stigma pale brown; veins dark brown. Venation:  $Sc_1$  ending far beyond origin of  $Rs$ ;  $R_{1+2}$  and  $R_{2+3+4}$  subequal, much shorter than  $R_2$ ; cell *1st M*<sub>2</sub> long, exceeding the distal section of  $M_3$ .

Abdomen light brown, incisures yellowed, hypopygium dark brown. Male with a conspicuous pocket on sternite five, including broad lateral setal groups, median area with seven longitudinal rows of microscopic tubercles, progressively smaller behind; sternite six with widely separated setal brushes, sternite seven with a narrowly transverse brown sclerotized plate. Male hypopygium with outer dististyle distinctive, bispinous from a shorter base; inner style with lateral arm a long narrow rod or ribbon, terminating in a long spine, margins before apex with microscopic spinulae.

HOLOTYPE: ♂, Teng, Sikkim, 4,600 feet, May 12, 1959 (Schmid).

Other regional members of the genus having the wings unpatterned or virtually so include *Teucholabis* (*Teucholabis*) *diversipes* Alexander, *T. (T.) eremnopoda*, n. sp., *T. (T.) shanensis* Alexander, and *T. (T.) solivaga* Alexander, all with the details of coloration, and especially the hypopygial structure, quite distinct. The bispinous outer dististyle of the present fly has suggested the specific name.

*Teucholabis* (*Teucholabis*) **eremnopoda**, n. sp.

Head polished black; mesonotum polished yellow, praescutum with a blackened saddle crossing the posterior half, pleura and pleurotergite polished yellow; halteres brownish black; posterior legs uniformly black, remaining legs with proximal half of femora yellowed; wings yellow, stigma dark brown,  $Sc_1$  ending about opposite three-fifths  $Rs$ ; abdomen

yellow, tergites ringed with dark brown, outer segments more uniformly darkened; male hypopygium with basistyle terminating in a blackened hook, dististyle complex.

MALE: Length about 7 mm; wing 6 mm.

Rostrum and palpi black, in cases the former slightly paler basally. Antennae brownish black, proximal segment paler; flagellar segments oval, outer ones smaller and more elongate. Head polished black, slightly pruinose anteriorly.

Prothorax yellow. Mesonotum polished yellow with a major black saddle across more than the posterior half of praescutum, the median region before suture extensively yellow; each scutal lobe with a large polished black area; posterior half of mediotergite brownish black. Pleura and pleurotergite polished yellow. Halteres short, brownish black. Legs with coxae and trochanters yellow; fore and middle femora with basal halves yellow, remainder of legs black, posterior legs uniformly black. Wings with a faint yellow tinge, prearcular and costal fields clearer light yellow, stigma small, dark brown; veins brown, those at wing base yellowed. Venation:  $Sc$  long,  $Sc_1$  ending about opposite three-fifths  $R_3$ ;  $R_{1+2}$  and  $R_{2+3+4}$  subequal; cell  $1st\ M_2$  elongate, subequal to distal section of  $M_{1+2}$ .

Abdomen yellow, proximal tergites ringed with dark brown, their bases and apices yellowed, outer segments more uniformly brown or brownish black. Male with pocket on sternite five including coarse setae in center and more delicate yellow vestiture on either side, the latter directed inward, posterior end of pocket with four narrow parallel black lines; sternite six with about 15 setae on either side, directed chiefly inward. Male hypopygium with basistyle terminating in a blackened hook, outer margin with two or three spinous points that bear axillary setae, beak slender. Dististyle subterminal, complex in structure, with three arms, including two flattened curved blades that lie superimposed, the shorter one with two strong setae on outer margin; third arm a long slender posterior spine, with a smaller lateral point on side. Phallosome a relatively slender rod, outer half with a very large flattened blade, its outer margin near base with four or five very long delicate setae.

HOLOTYPE: ♂, Dikchu, Sikkim, 2,300 feet, August 12, 1959 (Schmid). Paratopotypes, 10 ♂♂, with the type, mostly badly damaged by fungi.

The present fly is most similar to species such as *Teucholabis* (*Teucholabis*) *annuloabdominalis* Senior-White, differing most evidently in the extensively blackened legs, unpatterned wings, and in the quite distinct male hypopygium.

#### *Baeoura* **aka**, n. sp.

General coloration of body dark brown; legs light brown, vestiture long and conspicuous; wings strongly infuscated; male hypopygium with ninth tergite produced into a depressed glabrous median lobe, its apex truncate; sternal membrane deeply bilobed, with dense setulae and a few setae; eighth sternite terminating in an obtuse lobe; dististyle shaped like a boomerang, outer third slightly more narrowed, margined with a small flattened blade.

MALE: Length about 4 mm; wing 5-5.2 mm; antenna about 1 mm.

FEMALE: Length about 4.2 mm; wing 5.5 mm.

Rostrum and palpi brownish black. Antennae black; flagellar segments oval, the outer ones longer, all with long conspicuous verticils, those at midlength of organ longer. Head dark brown, orbits slightly paler.

Pronotum brown, pretergites paler. Mesonotum dark brown, sparsely pruinose, scutellum behind slightly paler. Pleura dark brown, dorsopleural membrane light brown. Halteres with stem brownish black, base pale, knob vaguely brightened. Legs with coxae and trochanters brown; remainder of legs light brown, outer tarsal segments darker; leg vestiture long and

conspicuous. Wings strongly infuscated, stigmal region vaguely more darkened; veins dark brown. Venation:  $R_s$  moderately long, about one-half longer than  $R$ .

Abdomen dark brown. Male hypopygium with ninth tergite produced caudally into a conspicuous median depressed glabrous lobe, its apex truncate. Sternal membrane long and conspicuous, deeply bilobed, surface with short dense setulae, each lobe with four or five long setae. Apex of eighth sternite produced into an obtuse lobe. Dististyle a conspicuous blade shaped like a boomerang, outer third slightly more narrowed, tip obtusely rounded; lower margin near the point of narrowing with a small flattened blade; base of style slightly widened and produced into a spur.

HOLOTYPE: ♂, Lifakpo, Kameng, North East Frontier Agency, Assam, 3,100 feet, May 29, 1961 (Schmid). Allotopotype: ♀. Paratopotypes: 3 ♂ ♂.

The male hypopygium, especially the ninth tergite and eighth sternite is most as in *Baeoura nilgiriana* Alexander and allies, differing in other structures. The deeply bilobed ninth sternite is much as in *B. bilobula* Alexander but the tergite is quite distinct.

#### *Baeoura latibasis*, n. sp.

Size relatively large (wing of male about 5.5 mm); general coloration of thorax blackened, sparsely pruinose to appear plumbeous; legs brownish yellow, with very long outspreading setae; wings with  $R_{1+2}$  long, about one-half  $R_s$  or more; male hypopygium with posterior border of tergite trilobed, central lobe subacute to nearly acute at tip, laterals obtuse; dististyle with basal third expanded.

MALE: Length about 4 mm; wing 5.5–5.6 mm.

FEMALE: Length about 4 mm; wing 5 mm.

Rostrum yellow, palpi brownish black. Antennae brownish black; verticils of the more proximal segments nearly three times the segment. Head dark brown, heavily light gray pruinose.

Pronotum and pretergites brownish yellow. Mesonotum blackened, sparsely pruinose to appear plumbeous, posterior border of scutellum obscure yellow. Pleura chiefly blackened, metapleural region restrictedly paler, dorsopleural membrane brownish yellow. Halteres brown. Legs with coxae and trochanters brownish yellow; remainder of legs obscure yellow, segments with very long outspreading setae. Wings very faintly infuscated, prearcular and costal fields light yellow, stigma not indicated; veins brown, trichia long and conspicuous, darker brown. Venation:  $R_{1+2}$  very long, about one-half  $R_s$  or longer;  $R_{2+3+4}$  from about two to two and one-half times the basal section of  $R_s$ ,  $R_{2+3}$  oblique in position; branches of  $R_s$  generally parallel to one another, cells  $R_2$  and  $R_3$  at margin subequal in extent or the latter slightly greater;  $m-cu$  shortly before midlength of  $M_{3+4}$ .

Adomen dark brown, hypopygium still darker. Male hypopygium with posterior border of tergite conspicuously trilobed, lateral lobes longer with obtuse tips, median projection about two-thirds as long, tip subacute to nearly acute. Dististyle long, basal third expanded, about three times as wide as the outer portion which is slightly dilated, truncate to feebly emarginate, with two strong spinoid setae in the notch, setae in holotype slightly longer.

HOLOTYPE: ♂, Bhairabkunda, Kameng, North East Frontier Agency, Assam, 700–1,000 feet, March 5, 1961 (Schmid). Allotopotype, ♀, pinned with type. Paratopotypes, 1 ♂, 1 ♀.

The most similar species is *Baeoura tricalcarata* Alexander, which likewise has the tergite of the male hypopygium trilobed, differing evidently in other details of venation, nature of the leg setae, and male hypopygium.

*Baeoura obtusistyla*, n. sp.

Allied to *acustyla*; general coloration of thoracic dorsum blackened, including major oval areas on sides of praescutum; antennae and legs blackened throughout; wings very faintly darkened, stigma pale brown, veins  $R_3$  and  $R_4$  strongly divergent, the latter terminating just before the wing tip, cell  $R_3$  at margin about four times cell  $R_2$ ; male hypopygium with a group of three or four major setae at outer end of basistyle; dististyle almost parallel-sided, apex broadly obtuse.

MALE: Length about 3.5–4 mm; wing 3.3–3.9 mm; antenna about 0.9–1.0 mm.

FEMALE: Length about 4–4.2 mm; wing 4.2–4.3 mm.

Rostrum and palpi black. Antennae black throughout, the pedicel more intensely so; flagellar segments elongate, somewhat shorter than the longest verticils. Head light gray.

Pronotum blackened. Mesonotal praescutum with central area plumbeous gray, narrowly blackened at anterior end, sides with a major opaque intensely blackened oval area; posterior sclerites blackened, gray pruinose. Pleura blackened, sparsely pruinose to appear plumbeous. Halteres dark brown. Legs blackened throughout, coxae slightly more plumbeous; vestiture of legs short and inconspicuous. Wings very faintly darkened, prearcular and costal fields more whitened, stigma pale brown; veins dark brown, conspicuous. Venation: Veins  $R_3$  and  $R_4$  strongly divergent, the latter outwardly deflected strongly caudad, terminating just before wing tip, cell  $R_3$  at margin about four times cell  $R_2$ ; *m-cu* about one-fourth its length beyond fork of *M*.

Abdomen brownish black. Male hypopygium with tergite broadly transverse, posterior border truncate, lateral angles produced into small triangular points. Basistyle at inner apical angle with three or four unusually long setae, approximately half as long as the dististyle. Dististyle strongly curved, beyond the slightly expanded base almost parallel-sided, apex broadly obtuse. Phallosome with the slender aedeagus long and straight, subtending apophyses narrow, their tips obtuse.

HOLOTYPE: ♂, Bhairabkunda, Kameng, North East Frontier Agency, Assam, 700 feet, March 7, 1961 (Schmid). Allotopotype, ♀ and paratopotypes, ♂, ♀, on a single pin, March 8, 1961.

The most similar species include *Baeoura acustyla* Alexander and *B. sternata* Alexander, both with the venation and general coloration much the same, differing most evidently in details of hypopygial structure.