

UNDESCRIBED SPECIES OF CRANE-FLIES FROM THE HIMALAYA MOUNTAINS (TIPULIDAE, DIPTERA), II*

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The preceding part under this general title was published in the JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY, **64**: 137-147, for 1956; published 1957. As was the case in the initial paper, the materials considered herewith were taken in Nepal by Dr. Edward I. Coher and Mr. Gobinda Prasad Joshi, to whom my sincere thanks are extended for these unusually interesting crane-flies. It is evident that the vicinity of the Simbhanjang Pass, in the Mahabharat Range, provides an unusually rich habitat for crane-flies and for many other groups of insects.

***Tipula (Schummelia) notomelania* new species**

Size small (wing of male 9 mm.); mesonotum chiefly blackened, pleura transversely patterned with black and yellow; head with the vertex darkened; femora yellow, tips narrowly blackened; wings tinged with brown, restrictedly patterned with dark brown; m-cu at near midlength of M_{3+4} ; abdominal tergites bicolored, obscure brownish yellow, the incisure darkened; male hypopygium with the median area of the tergite produced into a flattened setiferous spatula; outer dististyle broad.

MALE. Length about 9 mm.; wing 9 mm.; antenna about 4.1 mm.

Frontal prolongation of head, including nasus, yellow, the sides dark brown; palpi brownish black. Antennae relatively long, as shown by the measurements; scape obscure yellow, pedicel light yellow, first flagellar segment brownish yellow, the remainder black; flagellar segments elongate, basal enlargements slightly developed; verticils shorter than the segments. Head above dark brown, sides of posterior vertex pruinose; front buffy, restrictedly patterned with brown spots; vertical tubercle compressed, darkened, the sides yellowed.

Pronotum testaceous above, blackened laterally. Mesonotal praescutum almost covered by a brownish black shield, the border broadly yellow; posterior sclerites of notum black, including the pleurotergite. Pleura blackened on anterior part, forming a transverse black line that includes the propleura, anepisternum and most of the sternopleurite, the mesepimeron abruptly whitened, especially the pteropleurite and meron, the metapleura again abruptly blackened; dorsopleural membrane light yellow. Halteres

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blackened, stem dusky, its base restrictedly yellowed. Legs with fore and middle coxae light yellow, posterior pair brownish black; trochanters yellow; femora yellow, the tips narrowly and abruptly black, the amount subequal on all legs; tibiae brown, tips very narrowly blackened; tarsi brownish to black; claws simple. Wings tinged with brown, restrictedly patterned with darker brown, including the large stigma, cell *Sc*, and seams along cord and vein *Cu*; less evident seams over the veins beyond cord; apical margin narrowly suffused, widest at end of vein *Cu*; restricted yellow areas at arculus and again at origin of *Rs*; veins brown, pale in the brightened and obliterative areas. Venation: *Sc*₂ ending just beyond origin of *Rs*, the latter very short, straight, about one-half *m-cu* or subequal to the basal section of *M*₁₊₂; cell *M*₁ deep, more than three times its petiole; *m-cu* near or before midlength of *M*₃₊₄.

Abdomen with basal tergite light brown, darker medially, second segment yellow at base, darkened outwardly; succeeding tergites obscure brownish yellow on central part, the incisures blackened; sternites light yellow; outer segments more uniformly blackened. Male hypopygium of unique type damaged but the essential parts preserved. Ninth tergite with the posterior border gently emarginate, fringed with yellow setae, the median region produced caudad into two greatly compressed blades that expand outwardly, on microscope slide appearing spatulate, the surface pale, densely covered with setae. Outer dististyle broadly flattened, the length only about twice the greatest width, outer margin convex, the inner more nearly straight. Inner dististyle broken at tip and its extent undetermined; beak short, obliquely truncated at apex; margin above the beak with a linear row of at least five pale areoles, each with a conical pale spine.

Holotype, ♂, Bhainse, Nepal, December 8, 1956 (Coher).

The present fly differs from other small regional species of the subgenus in coloration and in the structure of the male hypopygium. Such species include *Tipula* (*Schummelia*) *bicolorata* Alexander, *T. (S.) klossi* Edwards, *T. (S.) salakensis* Alexander, and *T. (S.) turea* Alexander, the first named being the most similar.

***Tipula* (*Tipulodina*) *subscimitar* new species**

Belongs to the *pedata* group; size small (wing of male 12.5 mm.); wings whitish hyaline, the dark pattern restricted, especially the area in cell *M*; microtrichia lacking in cells at and beyond the arculus; basal section of *R*₄₊₅ distinct, cell 2nd *A* narrow; male hypopygium with the posterior margin of tergite broadly notched; outer arm of inner dististyle relatively long, straight, the blackened tip acute.

MALE. Length about 15 mm.; wing 12.5 mm.

Generally as in *Tipula* (*Tipulodina*) *scimitar* Alexander, of Burma, differing in the small size and structure of the male hypopygium.

Head broken. Fore legs with the pale femoral ring very broad and diffuse, about four times the darkened tip beyond it; white tibial ring

about one-half longer than the blackened tip; basitarsus blackened on more than the proximal third; hind femur with the tip broadly blackened, the basal white ring about one-half as extensive as the outer one, the latter more than twice the blackened tip; basitarsus with more than the proximal half blackened; claws simple. Wings whitish hyaline, the dark pattern restricted; darkened spot in cell *M* very reduced and pale, not extending half across the cell; dark seams on anterior and posterior cords conspicuous; dark area at wing tip solid, without pale centers, cell *Sc* dark. Microtrichia lacking in prearcular field and in bases of cells immediately beyond the arculus; in cell *M* the denuded area extends outward to beyond the darkened spot; in *scimitar*, microtrichia present in all cells beyond the arculus. Venation: *Rs* strongly arcuated; *R*₂ obliterated by the approximation of veins *R*₁ and *R*₂₊₃; basal section of *R*₄₊₅ distinct, transverse, nearly as long as *r-m*; vein *R*₃ relatively short, only a little more than twice *R*₁₊₂; cell *M*₁ small, about equal to its petiole; cell 2nd *A* narrow.

Abdomen brown, variegated with yellow; hypopygium essentially brownish yellow. Male hypopygium with the tergite relatively long, slightly narrowed at outer end, apex broadly emarginate, on either side beneath with an incurved lobe, the outer margin with strong black setae. Outer dististyle very pale, slightly dilated on basal half; inner style with the disk high, beak obtuse, widely separated from the smaller lower beak; vestiture short, pale and inconspicuous; outer basal lobe cultrate, with conspicuous setae; outer arm of style a relatively long nearly straight spine that juts beyond the other hypopygial elements, the extreme tip acute, blackened, gently curved; sensory pits at base of outer arm, provided with very long setae; a narrow row of pale bristles extends from the sensory pits virtually to the tip of the arm.

Holotype, ♂, Amlekhgang, Nepal, 1690 feet, August 26, 1956 (Coher).

The fly differs from the most similar species, *Tipula* (*Tipulodina*) *barraudi* Edwards and *T. (T.) scimitar* Alexander, in the wing pattern, trichiation and venation, and in the structure of the male hypopygium. The details of the microtrichia of the wing cells are unknown for *barraudi*. It may be noted that the species figured by Brunetti (Fauna Brit. India, Dipt. Nemato-cera, 1912, pl. 5, fig. 5) as representing a species near *T. (T.) venusta* Walker actually pertains to *barraudi*.

***Tipula* (*Vestiplex*) *gurkha* new species**

General coloration gray, praescutum with four stripes that are margined by brownish black; basal flagellar segments bicolored; legs black, femoral bases obscure yellow; wings pale yellow, marbled with brown; abdomen yellow basally, the outer four segments black; male hypopygium with the basistyle produced into a slender spine; beak of inner dististyle slender; ninth sternite near suture of basistyle produced into a long simple spine.

MALE. Length about 12–13 mm.; wing 14–15 mm.; antenna about 4.3–4.4 mm.

FEMALE. Length about 14 mm.; wing 15 mm.

Frontal prolongation of head yellow, slightly darker on lower half, nasus distinct; palpi light brown, the outer two segments black. Antennae of moderate length; scape and pedicel yellow, basal flagellar segments bicolored, brownish yellow, the small basal enlargement black, outer segments uniformly black; segments longer than the verticils. Head broadly light yellow on central part, the sides of the posterior vertex light brown; a conspicuous suboval dark brown central spot on anterior vertex; vertical tubercle low, simple.

Pronotum gray, vaguely patterned with brown. Mesonotal praescutum light gray with four stripes, the intermediate pair slightly brownish gray, the lateral ones light gray, concolorous with the ground, all stripes narrowly bordered by brownish black, the midline narrowed in front; scutal lobes light gray, extensively patterned with brownish gray and darker brown; scutellum gray with a central brown vitta; mediotergite light gray with a central darkening, the posterior and lateral parts more glabrous. Pleura light gray, variegated by darker gray on the mesepisternum; dorsopleural membrane buffy brown. Halteres with stem yellow, knob black, the apex obscure yellow. Legs with coxae light gray; trochanters yellow; remainder of legs black, the femoral bases obscure yellow, on the fore and middle legs including about the basal third, on the hind legs about the basal half; claws toothed. Wings with the ground cream-yellow; prearcular field and cell *Sc* brighter yellow; stigma oval, dark brown; more than half the remainder of wing marbled with light brown, including the broad wing tip; basal of cord the ground and patterned areas more nearly equal in extent; veins brown, yellowed in the brightened parts. Squama glabrous. Venation: *Rs* long, slightly less than twice *m-cu*; *R*₁₊₂ preserved; petiole of cell *M*₁ subequal to *m*.

Abdomen yellow, the sixth and succeeding segments black, the lateral borders of tergites six and seven obscure yellow. Male hypopygium with the tergite relatively small, completely divided medially, each lobe obtuse at tip. Basistyle completely separated from the sternite by a suture; outer apical angle produced into a flattened yellow plushlike blade that is further extended into a slender black spine. Ninth sternite on either side adjoining the basistyle with a blackened knob that is produced into a long yellow simple spine, the acute tip black, directed dorsad and mesad. Outer dististyle a long blackened club; inner style with the beak unusually slender. Aedeagus subtriangular in outline, strongly narrowed outwardly. Eighth sternite unarmed.

Holotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, October 27, 1956 (Coher). Allotopotype, ♀, pinned with type. Paratopotypes 3 ♂♀, July 24, October 1, 1956 (Coher).

The specific name is that of the ruling native group in Nepal. The fly is related to various species that are allied to *Tipula*

(*Vestiplex*) *subtinctor* Brunetti, having a long spine on the extreme border of the ninth sternite of the hypopygium. The two most similar species are *T. (V.) subtinctor* and *T. (V.) distifurca* Alexander, which have been described and figured in another paper by the writer (Rec. Indian Mus., 44: 42-46; 1942).

***Tipula (Vestiplex) lepcha* new species**

Size large (wing of male 20 mm.); general coloration of head and thorax gray, the praescutum with four more blackish gray stripes; posterior sclerites of notum and the pleura yellowed; legs black, femoral bases yellowed; wings light brown, with restricted creamy areas; basal abdominal segments fulvous yellow, the outer four black, including the hypopygium and its appendages; male hypopygium with the tergite small, divided medially by pale membrane; basistyle produced into a spine; outer dististyle bifid at apex; beak of inner dististyle very slender; phallosome with gonapophyses very slender, much longer than the aedeagus.

MALE. Length about 18 mm.; wing 20 mm.; antenna about 5 mm.

Frontal prolongation of head brown, sparsely pruinose; nasus long and slender; palpi black, the first segment and incisures paler. Antennae relatively long, as shown by the measurements; scape and pedicel obscure yellow to brownish yellow, first flagellar segment brown, succeeding segments black, with their outer stems a little paler, outer segments uniformly black; flagellar segments moderately incised, subequal to the longest verticils. Head with anterior vertex and narrow anterior orbits buffy, the posterior part of head grayish black.

Pronotal scutum grayish black, scutellum yellowed. Mesonotal praescutum with the restricted ground gray, with four blackish gray stripes that are narrowly bordered by darker, interspaces with conspicuous yellow setae; scutum gray, each lobe with two confluent blackish gray areas; scutellum brownish yellow, narrowly darkened medially; postnotum golden pollinose. Pleura blackish gray, pteropleurite, meron and metapleura yellowed; dorsopleural membrane buffy yellow. Halteres with stem brown, restrictedly yellowed at base, knob black. Legs with fore coxae blackish gray, remaining coxae brownish yellow to yellow; trochanters yellow; femora black, their bases yellowed, remainder of legs black; claws with a strong basal tooth. Wings light brown, restrictedly variegated with creamy areas, including two in cell *M*, the basal one larger, and a poststigmal brightening; other smaller but similar pale areas before stigma and in the Anal cells; stigma small, medium brown; prearcular field and cell *Sc* clearer yellow; veins brown, more fulvous in the brightened parts. Squama naked; veins beyond cord with abundant trichia. Venation: R_{1+2} preserved; *Rs* a little less than twice *m-cu*.

Abdomen with basal five segments fulvous yellow, the sides narrowly light gray, bordered internally by light brown, this becoming black on the fifth segment; sixth and succeeding segments, including all parts of the hypopygium, black. Male hypopygium with the tergite small, divided

medially by pale membrane, the lobes obtuse at tips, with yellow setae. Basistyle large, completely cut off from both tergite and sternite, the outer end further separated from the base of the style, thence produced caudad into a slender arm that is glabrous and polished at apex, extended into a slender spine that is directed mesad, the surface with very long yellow setae. Outer dististyle blackened, expanded and slightly bidentate at tip, surface with sparse very small setae; inner style with the beak very slender. Phallosome distinctive, the very slender gonapophyses longer than the aedeagus, protruding caudad from the genital chamber, at its base with a median acute compressed spine that is directed chiefly caudad. Eighth sternite relatively small, not sheathing, unarmed.

Holotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher). Paratopotypes, 2♂♂.

The species is quite distinct from other regional members of the subgenus, especially in the large size, coloration of the legs, and in the structure of the male hypopygium. The allied species have been listed in another paper (Philippine Jour. Sci., 57: 118–119; 1935) and the problem of assigning many such species to the present subgenus or to *Oreomyza* has been discussed in some detail. The reference of the present fly to *Vestiplex* appears to be correct.

***Limonia (Limonia) vajra* new species**

Size medium (wing of male 7.5 mm.); mesonotal praescutum with three obscure yellow stripes; legs with the femora brown or brownish yellow, with a darker subterminal ring, tips yellow; wings yellow, marbled with brown; *Sc* long, *m-cu* at or close to fork of *M*; male hypopygium with a group of about five spinelike setae on outer face of style.

MALE. Length about 6.5 mm.; wing 7.5 mm.

FEMALE. Length about 7.5 mm.; wing 8.5 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval, subequal to the longest verticils. Head dark grayish brown; anterior vertex narrow, about two-thirds the diameter of scape.

Pronotum yellow. Mesonotal praescutum with three obscure yellow stripes, the ground pale brown, deepening to darker brown on the posterior interspaces; centers of scutal lobes infuscated, remainder yellow; scutellum obscure yellow, narrowly bordered posteriorly by dark brown; postnotum dark brown, more intense in front. Pleura reddish yellow, vaguely patterned with slightly darker, forming a vague stripe from and including the fore coxae to the base of the abdomen. Halteres with stem weakly infuscated, apex of knob obscure yellow. Legs with fore coxae darkened, as described, remaining coxae and all trochanters yellow; femora dark brown, slightly paler basally, the tips abruptly yellow, in cases the femora more brownish yellow, with a conspicuous brownish black subterminal ring, in all cases the tips broadly yellow; tibiae and tarsi dark brown to black; claws with two elongate teeth, with smaller crowded more basal denticles. Wings with the

ground yellow, the prearcular and costal regions more saturated yellow; a conspicuous brown marbled pattern, the dark color being subequal in amount to the ground or slightly less; dark clouds occur over the veins and into the cells on the entire surface, slightly more extensive basad of the cord, beyond the latter appearing chiefly as seams over the veins; veins brown, yellow in the ground interspaces. Venation: Sc long, Sc_2 longer than Sc_1 , ending almost opposite the fork of Rs ; R_2 about one-half R_{1+2} ; $m-cu$ at or immediately before the fork of M ; vein 1st A relatively short, cells Cu and 1st A at margin subequal.

Abdomen obscure yellow, the posterior borders of the segments darkened, more extensive on the outer segments; hypopygium and preceding segment yellow. Ovipositor with cerci slender, very gently upcurved. Male hypopygium with the tergite large, narrowed posteriorly, the caudal border gently emarginate. Basistyle small, the ventromesal lobe very large. Dististyle single, oval, narrowed into a long beak, the usual rostral spines very slender, hairlike; a very compact group of about five spinelike setae on outer margin of body of style at near midlength. Gonapophysis with mesal-apical lobe relatively short, darkened, terminating in a subacute point. Aedagus broad, glabrous, the genital tubes lying close together at the midline, the tips produced slightly into short points.

Holotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, July 24, 1956 (Coher). Allotopotype, ♀, October 1, 1956 (Coher).

In its marbled wing pattern, the present fly is most like *Limonia* (*Limonia*) *kashmirica* (Edwards), differing in the small size, coloration of the body, and position of the $m-cu$ cross-vein. The male hypopygium of *kashmirica* has not been described.

***Limonia* (*Libnotes*) *nepalica* new species**

Head dark gray, the narrow anterior vertex silvery; antennae with scape black, flagellum brownish orange; thorax fulvous, the notum with a narrow black central stripe, extending from the cervical region to midlength of the praescutum, becoming narrower behind; legs with coxae and trochanters yellow, the remainder uniformly black; wings whitish subhyaline, stigma and a narrow seam at origin of Rs dark brown; abdomen yellow.

FEMALE. Length about 6–6.5 mm.; wing 6.5–7 mm.

Rostrum and palpi black. Antennae with scape black, pedicel and flagellum brownish orange; flagellar segments oval, shorter than the verticils. Anterior vertex only about one-half as wide as the diameter of scape, silvery; posterior vertex dark gray.

Cervical region and dorsum of pronotum black, the sides of the latter yellow. Mesonotum fulvous, the praescutum with a narrow black vitta on about the anterior half, gradually narrowed behind, becoming obsolete at near midlength; posterior sclerites of notum yellow. Pleura fulvous yellow, unpatterned. Halteres with stem yellow, knob brownish black. Legs with the coxae and trochanters yellow; remainder of legs black. Wings whitish subhyaline, the prearcular and costal fields light yellow; stigma very small,

dark brown, transverse-oval; a comparable area at origin of *Rs*; much narrower to scarcely evident darkenings along cord; veins black, yellow in the brightened fields. Venation: *Sc* long, *Sc*₁ ending shortly before level of *r-m*; *Rs* arcuated at origin, about one-third to one-half longer than the basal section of *R*₄₊₅; cell 1st *M*₂ rectangular, subequal in length to the distal section of *M*₃; *m-cu* beyond fork of *M*, in cases to about one-third its length.

Abdomen yellow. Ovipositor with cerci small, virtually straight; hypovalvae large and powerful, straight.

Holotype, ♀, Amlekhgang, Nepal, 1690 feet, August 26, 1956 (Coher). Paratopotypes, 2 ♀♀, pinned with the type.

The most similar species is *Limonia (Libnotes) indica* (Brunetti), which has the coloration of the thorax generally the same, differing in the patterned legs and abdomen and in the details of wing coloration and venation.

Antocha (Antocha) perstudiosa new species

Close to *studiosa*; mesonotum patterned with brown, in cases extensively so; antennal flagellum dark brown; wings whitish, stigma brown; male hypopygium with the outer dististyle unequally bidentate at apex; inner gonapophysis distinctive, elongate, slightly sinuous, the outer end very slender, bent at a right angle.

MALE. Length about 3.5 mm.; wing 4 mm.; antenna about 0.7 mm.

Rostrum light yellow; palpi brown. Antennae with scape light yellow, remainder of organ dark brown; flagellar segments oval, longest verticils delicate, subequal to the segments; terminal segment tipped with four longer and stronger setae. Head light yellow; anterior vertex broad.

Pronotum very pale yellowish white. Mesonotal praescutum with the disk obscure yellow or pale brown, the margin broadly darker brown; remainder of notum of type yellow, the mediotergite chiefly brown, the cephalic part pale; in the paratype, the notum, excepting the scutellum, more uniformly darkened. Pleura and pleurotergite whitened. Halteres white. Legs with the coxae and trochanters white; remainder of legs pale brownish white; claws black, apparently simple. Wings whitish, prearcular and costal regions light yellow; stigma oval, small, relatively dark brown; veins brown, those of the costal areas paler. Venation: *R*₁₊₂ a little longer than *R*₂ but shorter than *R*₂₊₃; cell 1st *M*₂ closed; *m-cu* more than one-half its length before the fork of *M*.

Abdomen, including hypopygium, pale yellow. Male hypopygium with the dististyles slightly subterminal; outer style glabrous, unequally bifid at apex, both points obtuse at tips, the lower one longer; inner style a little longer, narrowed to the obtuse tip, with strong setae. Phallosome conspicuous; outer gonapophysis appearing as a long-oval pale blade; inner apophysis long, slightly sinuous, the outer end very slender, bent at a right angle. Aedeagus slender.

Holotype, ♂, Taubai, Nepal, December 8, 1956 (Coher). Paratopotype, ♂, pinned with the type. Occurred at seepage along foot of cliff.

The most similar regional species is *Antocha* (*Antocha*) *studiosa* Alexander, of the Nilgiri Hills, South India, which has the entire body and appendages pale yellow, and the inner gonapophysis of the male hypopygium of different conformation.

***Orimarga* (*Orimarga*) *sherpa* new species**

General coloration of mesonotum light brown, the lateral borders and the pleura more yellowed; antennae black; legs brown; wings very weakly tinged with darker; *r-m* lying some distance beyond the level of R_2 ; vein R_2 about two-thirds as long as R_{1+2} ; M_{3+4} longer than M_4 .

FEMALE. Length about 5 mm.; wing 4.6 mm.

Rostrum brown; palpi black. Antennae black; flagellar segments oval, with short verticils. Front and the narrow anterior vertex light gray, the posterior vertex darker brownish gray.

Pronotum light brown. Mesonotal praescutum light brown, the humeral and lateral parts more yellowed; posterior sclerites of notum light brown, sparsely gray pruinose. Pleura and pleurotergite obscure yellow. Halteres broken. Legs with the coxae and trochanters obscure yellow; remainder of legs medium brown. Wings very weakly tinged with darker, unpatterned; veins pale brown, costa more yellowed. Macrotrichia of veins beyond cord relatively numerous, with long series on vein R_3 , distal section of R_{4+5} , outer sections of M_{1+2} and M_3 , with fewer on basal section of R_{4+5} and one or two on vein M_4 . Venation: *Sc* relatively short, Sc_1 ending about opposite three-fifths Rs , Sc_2 a short distance from its tip; free tip of Sc_2 immediately before R_2 ; R_2 and R_{2+3} subequal, about two-thirds R_{1+2} ; *r-m* lying some distance beyond level of R_2 , only about one-half as long as the basal section of M_{1+2} ; M_{3+4} longer than M_4 ; *m-cu* about opposite one-third the length of Rs .

Abdomen yellowish brown, genital segment yellow. Ovipositor with the cerci small, slender, upcurved to the acute tips.

Holotype, ♀, Amlekhgang, Nepal, 1690 feet, September 19, 1956 (Coher).

From Brunetti's description of *Orimarga* (*Orimarga*) *peregrina* Brunetti, of the eastern Himalayas, the venation differs from that of the present fly in having R_{1+2} considerably longer and with *r-m* and R_2 in transverse alignment, together with other minor differences in venation. Bagchi's figure of the wing of *peregrina* (Fauna Brit. India, Dipt. Nematocera, 1912, pl. 8, fig. 11) is obviously incorrect in the length of *Sc* and in the shape of cell 1st *A*.

Paradelphomyia (Oxyrhiza) newar new species

Size large (wing 6 mm. or more); mesonotal praescutum light brown, posterior sclerites of notum and the pleura yellow; wings pale yellowish gray, unpatterned except for the pale brown stigma; outer cells of wing with numerous macrotrichia; cell M_1 present; abdominal tergites light brown, eighth segment darker brown to form a subterminal ring; male hypopygium with the basistyle produced at apex into a small spine; outer dististyle terminating in two acute spines that are separated by a narrow notch; spines of the ventral fork very slender.

MALE. Length about 5.5–6 mm.; wing 6–7 mm.

FEMALE. Length about 6–6.5 mm.; wing 6.5–7 mm.

Rostrum and palpi black. Antennae black; basal flagellar segments oval, passing into elongate, with conspicuous verticils. Head dark gray.

Pronotum testaceous, scutellum yellow. Mesonotal praescutum light brown or yellowish brown, without pattern; posterior sclerites more yellowed. Pleura yellow, unpatterned. Halteres with stem pale yellow, knob dark brown. Legs with the coxae and trochanters yellow; remainder of legs brownish yellow to yellowish brown, the outer tarsal segments a trifle darker. Wings pale yellowish gray, prearcular field light yellow; stigma pale brown, lying beyond vein R_2 ; veins brown, yellow in the prearcular field. Outer cells of wing with macrotrichia. Venation: Cell M_1 present; $m-cu$ at or shortly before midlength of cell 1st M_2 .

Abdominal tergites light brown, sternites more yellowed; eighth segment dark brown, forming a narrow ring; ninth segment more yellowed, the styli dark brown. Male hypopygium with the basistyle produced at apex into a small spine, the dististyles thus slightly subterminal in position. Outer dististyle terminating in two acute spines, separated by a narrow notch, axial spine longer; inner style stout, tip obtuse. Spines of the ventral fork very slender, almost setaceous.

Holotype, ♂, Simbhanjang Pass, Nepal, 8190 feet, October 1, 1956 (Coher). Allotopotype, ♀, pinned with the type. Paratopotypes, 8 ♂♀, mostly in very poor condition, October 1–27, 1956 (Coher, Joshi & Pratap).

The most similar regional species is *Paradelphomyia (Oxyrhiza) flavescens* (Brunetti) (syn. *furcata* Brunetti), which is readily told by the smaller size and by the genital characters, including the unspined basistyle, shape of the dististyles, and, especially, the very distinct phallosome. I have a paratype of Brunetti's species (*furcata*) in my collection.

Limnophila (Elæophila) bicolorata new species

Size medium (wing of female about 7 mm.); mesonotum gray, the praescutum lined with darker; a central darkened vitta on the posterior sclerites; antennal flagellum bicolored; femora yellow with a narrow brown

subterminal ring, the actual tip paler; wings whitened, with a heavy spotted and dotted brown pattern; abdomen brownish black.

FEMALE. Length about 8-9 mm.; wing 6.5-7 mm.

Rostrum and palpi black. Antennae with the scape and pedicel dark brown; flagellar segments bicolored, with nearly the basal half of each black, the remainder light yellow; basal segments long, becoming progressively shorter and smaller outwardly. Head dark gray.

Pronotum gray, with a delicate black central line. Mesonotal praescutum gray with poorly defined darker stripes, the intermediate pair more intense at posterior ends; interspaces with a row of small blackened dots, humeral and lateral borders extensively blackened, the former including the pseudosutural foveae; scutum brown, the outer half of each lobe with a blackened area, medially with a blackened dash; scutellum pruinose; mediotergite yellowish gray pollinose, with a delicate central black vitta. Pleura dark gray, patterned with black, including a broader dorsal stripe extending from the cervical region to beneath the wingroot; ventral pleurites with the darkened areas more interrupted. Halteres with stem dusky, pale basally, knob blackened, paler at base. Legs with the coxae black, more or less pruinose; trochanters brownish yellow; femora yellow, with a narrow brown subterminal ring, the actual tip paler brown; tibiae and tarsi yellow, outer tarsal segments dark brown. Wings with the ground whitened, with a very heavy dark brown pattern of larger spots and numerous dots in all cells; the major areas occur at arculus and just beyond, origin of *Rs* and as a larger triangular area in the general region of the stigma, its posterior end at the fork of *M*; further darkenings near wing tip, at the supernumerary crossvein in cell *M*, and near the tip of vein *2nd A*; the smaller dots appear as transverse dashes in the costal and again in the cubital and anal fields, on the disk being more nearly circular; veins yellow, dark in the patterned areas. Venation: Supernumerary crossvein in cell *M* about opposite one-fourth the length of *Rs*; cell *M*₁ approximately twice its petiole.

Abdomen brownish black, the segments, especially the sternites, vaguely paler on the discal part. Ovipositor with the cerci very long and slender, the outer half horn-yellow.

Holotype, ♀, Amlekhgang, Nepal, 1690 feet, December 2, 1956 (Coher). Paratype, ♀, Bhainse, Nepal, December 8, 1956 (Coher)

The most similar described regional species is *Limnophila* (*Elaophila*) *fascipennis* (Brunetti), of the eastern Himalayas and Assam. This has the darkened dotted pattern of the wings much sparser than in the present fly. Brunetti describes the dark femoral ring of his species as being apical in position but in specimens in my collection that appear to be correctly named this darkened ring is slightly subterminal.



Alexander, Charles P. 1957. "Undescribed Species of Crane-Flies from the Himalaya Mountains (Tipulidae, Diptera), II." *Journal of the New York Entomological Society* 65, 147–157.

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