

New or little-known species of exotic Tipulidae (Diptera).—XII

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SYNOPSIS

Two new species of *Ula* (*Metaula*) are described from males and females taken in Sikkim and in Burma, Assam and Sikkim, respectively; two new species of *Pedicia* (*Tricyphona*) are described from Sikkim, one for both sexes and one for the male only. A new species of *Dicranota* (*Dicranota*) is described from a female taken in Sikkim; two new species of *Dicranota* (*Rhaphidolabina*) are described, one from a female taken in Sikkim and the other from males and females taken in Assam; a new species of *Dicranota* (*Amalopina*) and one of *Dicranota* (*Rhaphidolabis*) are described from unique males taken in Assam.

THE preceding part in this series of papers was published in 1964 (*Proc. R. ent. Soc. Lond.* (B) 33 : 151–156). I am continuing the discussion of species of crane-flies belonging to the tribe Pediciini, based chiefly on the rich collections made in Sikkim and Assam, including Manipur, by Dr. Fernand Schmid, of Ottawa. One species is based in part on materials taken by Dr. Rene Malaise in north-eastern Burma. The type material is in my collection.

Ula (*Metaula*) *hians* sp. n.

General coloration of thoracic dorsum brownish-grey, humeral area of praescutum and the pleura yellowed, latter with a narrow brown dorsal stripe; legs brownish-black, femoral bases yellowed; wings strongly fulvous, conspicuously patterned with pale brown; supernumerary cross-vein in cell R_3 at near mid-length of cell; male hypopygium with interbases profoundly divided, the arms appearing as slender spines.

Male: length, about 6–6.5 mm.; wing, 7.5–8 mm.; antenna, about 1.9–2 mm.

Female: length, about 6.5–7 mm.; wing, 8.4–8.6 mm.; antenna, 2–2.2 mm.

Rostrum dark brown, palpi black. Antennae 17-segmented; scape and pedicel yellow, flagellum black; flagellar segments long-subcylindrical, shorter than the longest verticils. Head light grey, posterior vertex extensively light brown on either side of median line.

Pronotum infuscated in front, yellowed behind. Mesonotal praescutum with disk brownish-grey, paling to brown on sides, humeral region yellow; posterior sclerites of notum brownish-grey, centres of scutal lobes brown. Pleura, including dorsopleural region, orange-yellow; a narrow brown dorsal stripe from propleura over ventral anepisternum, paler on pteropleurite, ventral sternopleurite more weakly darkened. Halteres with stem yellow, knob weakly darkened. Legs with coxae and trochanters yellow; remainder of legs dark brown to brownish-black, femoral bases broadly yellow. Wings (fig. 1) strongly fulvous, conspicuously patterned with pale brown on Sc_2 , origin of R_s , cord, outer end of cell 1st M_2 , R_2 , and the supernumerary crossvein in cell R_3 ; stigma yellow; veins yellow, brown in the patterned areas. Venation: a supernumerary crossvein in cell R_3 at near mid-length, before or beyond R_2 ; basal deflection of R_5 lacking, R_s being in virtual longitudinal alignment with R_5 ; in holotype, $r-m$ slightly before fork of R_s ; cell 1st M_2 long, about equal to distal section of M_3 ; $m-cu$ close to fork of M , usually just beyond.

Abdominal tergites medium brown, sternites more yellowed; subterminal three segments dark brown to form a broad ring; hypopygium fulvous. Ovipositor with cerci broadly compressed-flattened, upcurved to the acute tips. Male hypopygium (fig. 5) relatively short and compact. Dististyle (d) short, only about twice as long as broad. Phallosome (p) with gonapophyses long and slender, divergent. Interbases (i) profoundly divided, united only at base, the arms appearing as slender spines, the inner branch a little longer.

Holotype ♂, SIKKIM: Yedang, 10,600 feet, in *Rhododendron* association, 9.vi.1959 (*F. Schmid*). *Paratypes*: 1 ♀ (*allotype*), Bakkim, 12.iv.1959 (*F. Schmid*); 1 ♂, Chachu, 9950 feet, in *Rhododendron* association, 17.v.1959 (*F. Schmid*); 1 ♀, Zomphuk, 6000–8000 feet, ii.iv.1959 (*F. Schmid*).

The present fly is very different from the type of the subgenus of *Metaula* Alex-
Proc. R. ent. Soc. Lond. (B). 34 (7–8). Pp. 98–104, 16 figs. 1965.

ander, *Ula (Metaula) splendidissima* Alexander, from north-eastern Burma. Except for the subgeneric character of a supernumerary crossvein in cell R_3 of the wings, it more resembles species in the typical subgenus. The male hypopygium, particularly the profoundly divided interbases, is distinctive.

Ula (Ula) malaisei sp. n.

Size large (wing 8–10 mm.); general coloration of thorax fulvous, unpatterned; legs brown, femoral bases restrictedly yellow; wings brownish-yellow, patterned with brown, including the large stigma; prestigmal and poststigmal yellow areas conspicuous; male hypopygium with the apophyses very long and relatively slender; aedeagus profoundly bifid.

Male: length, about 6.5–6.8 mm.; wing, 8–8.5 mm.

Female: length, about 7–8 mm.; wing, 8.5–10 mm.

Rostrum and palpi black. Antennae with scape and pedicel light yellow, flagellum brown. Head brownish-grey.

Thorax fulvous, unpatterned. Halteres obscure yellow. Legs with coxae and trochanters yellow; remainder of legs brown, femoral bases restrictedly yellow. Wings (fig. 2) brownish-yellow, restrictedly patterned with brown, including the large stigma and narrower seams at origin of R_s , cord and outer end of cell 1st M_2 ; conspicuous yellowed areas before and beyond stigma, with more restricted borders to R_s and M ; veins brown, darker in the patterned parts, more yellowed in the brighter areas and along Cu . Venation: basal section of R_5 short but distinct.

Abdominal tergites dark brown, sternites and pleural membrane obscure yellow. Male hypopygium (fig. 6) with both the basistyle (b) and dististyle (d) slender, the latter nearly four times as long as broad, with relatively long blackened setae on apical fourth. Basistyle (b) with the interbase a sclerotised U-shaped thickening without free points. Phallosome (p) with the apophyses very long and relatively slender, gently curved to the tips; aedeagus profoundly bifid, each arm slender, pale and expanded at outer end, terminating in 4 pale acute spines.

Holotype ♀ (in alcohol), N.E. BURMA: Kambaiti, 7000 feet, 15.vi.1934 (*René Malaise*). *Paratypes*: 1 ♀ (*allotopotype*), with the type; 1 ♂, 1 ♀ (*paratopotypes*), with the type; 5 ♀, INDIA: Hkayam Boum, Manipur, Assam, 8500 feet, 2–22.vi.1960 (*F. Schmid*); 1 ♂, SIKKIM: Lachung, 8610 feet, 5.vii.1959 (*F. Schmid*).

This striking fly is named for Dr. René Malaise, leader of the 1934 expedition to Burma and British India. It is the largest regional species of the genus so far made known, readily distinguished by the hypopygial structure, particularly the interbase and phallosome.

Pedicia (Tricyphona) ailingia sp. n.

Belongs to the *aperta* group; size medium (wing of male 7 mm. or more); general coloration brownish-black; antennae and legs black; wings tinged with grey, base narrowly yellowed, stigma and a narrow seam over $r-m$ darker; veins beyond cord unusually glabrous; venation of medial field pectinate, cell M_2 being open by the atrophy of basal section of vein M_3 ; male hypopygium with the tergal arms slender, central area strongly convex; phallosome with gonapophyses relatively short, tips obtuse.

Male: length, about 6–6.2 mm.; wing, 7–7.7 mm.; antenna, about 0.9–1.0 mm.

Female: length, about 6 mm.; wing, 8–8.3 mm.

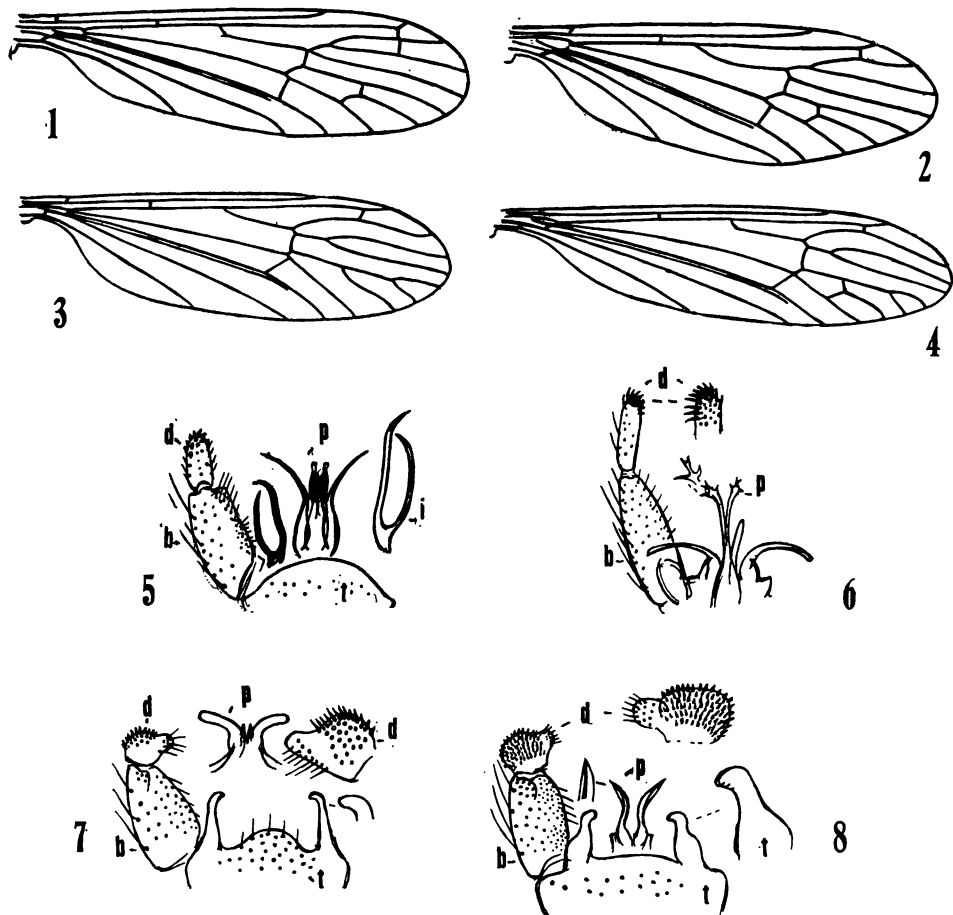
Rostrum and palpi black. Antennae short, 14- or 15-segmented, black throughout; first flagellar segment relatively large, the succeeding segments very short suboval, passing into oval, subequal to their verticils. Head dark brown, sparsely pruinose.

Thorax brownish-black, sparsely pruinose to appear dull, pleura more evidently dusted with grey. Halteres with stem obscure yellow, knob dark brown. Legs with coxae dark grey, trochanters brown; remainder of legs brownish-black to black (type), in some specimens paler brown. Wings (fig. 3) tinged with grey, base narrowly yellowed, including the veins; stigma and a narrow seam over $r-m$ darker brown; veins brown. Veins unusually glabrous, beyond the cord with small sparse macrotrichia on R_1 , R_{1+2} , R_3 , outer ends of R_4 and R_{4+5} , all of R_5 , outer medial branches, Cu and 2nd A ; no trichia on R_s , M , basal section of Cu_1 or 1st A . Venation: R_{1+2} long, nearly 3 times R_2 ; $r-m$ on R_{4+5} shortly beyond base; cell M_2 lacking by atrophy of basal section of M_3 producing a pectinate venation; $m-cu$ shortly beyond fork of M .

Abdomen brownish-black to black. Male hypopygium (fig. 7) with the tergal arms (t) slender, central area of posterior border strongly convex. Dististyle (d) relatively small, the number of spinoid setae correspondingly reduced; beak short and obtuse, with very long setae, some equal in length to the beak itself. Phallosome (p) with the gonapophyses relatively short, beyond base parallel-sided, the apices obtuse, the general outline difficult to determine because of pale membrane.

Holotype ♂, SIKKIM: Churong, 12,460 feet, in *Rhododendron* association, 8. x. 1959 (F. Schmid). *Paratypes*: 1 ♀ (*allotopotype*), pinned with type; 2 ♂ (*paratopotypes*); 2 ♀, Chamiteng, 9900 feet, 24. viii. 1959 (F. Schmid).

Pedicia (Tricyphona) ailingia is well distinguished from other Asiatic members of the *aperta* group, including the regional *P. (T.) perpallens* Alexander, by the coloration of the body, wings and legs, and in the details of structure of the male hypopygium.



FIGS. 1-8.—(1-4) Venation of: (1) *Ula (Metaula) hians* sp. n.; (2) *Ula (Ula) malaisei* sp. n.; (3) *Pedicia (Tricyphona) ailingia* sp. n.; (4) *Pedicia (Tricyphona) fuscostigmata* sp. n. (5-8) Male hypopygium of: (5) *Ula (Metaula) hians* sp. n.; (6) *Ula (Ula) malaisei* sp. n.; (7) *Pedicia (Tricyphona) ailingia* sp. n.; (8) *Pedicia (Tricyphona) fuscostigmata* sp. n. (b, basistyle; d, dististyle; i, interbase; p, phallosome; t, tergite.)

Pedicia (Tricyphona) fuscostigmata sp. n.

Belongs to the *immaculata* group; size large (wing of male 9 mm.); antennae 15-segmented, basal flagellar segments short and crowded; legs black, posterior pair paler; wings whitish subhyaline, the pre-arcular and costal fields clear light yellow, including the veins; stigma and a very narrow cloud on anterior cord dark brown; *Rs* long, *r-m* on R_{4+5} at near one-fourth its length, cell 1st M_2 closed; male hypopygium with tergal arms glabrous, broad-based; dististyle a broad spinulose cushion, beak obtuse; phallosome with gonapophyses long and slender, their outer end dilated into a narrow blade that is in part hyaline.

Male: length, about 9 mm.; wing, 9 mm.; antenna, about 1.2 mm.

Rostrum short, dark grey; palpi black. Antennae 15-segmented; black, the scape more pruinose; basal flagellar segments short and crowded, especially the second and third, outer segments passing into elongate, shorter than their conspicuous verticils. Head blackened, heavily pruinose, especially on sides, setae black.

Pronotum black, sparsely pruinose to appear plumbeous. Mesonotal praescutum grey, with 4 more blackened stripes, the intermediate pair more evidently divided by a dark grey line, lateral borders clear light grey, the interspaces darker. Pleura black, grey pruinose; dorsopleural membrane blackened. Halteres with stem obscure yellow, knob weakly darkened. Legs with all coxae dark grey; trochanters blackened; fore and middle legs black, posterior legs with femora light brown, more yellowed basally, tip blackened, tibiae and basitarsi dark brown, outer tarsal segments blackened. Wings (fig. 4) whitish subhyaline, pre-arcular and costal fields clear light yellow; stigma dark brown, conspicuous; a very restricted darkened cloud on anterior cord, especially *r-m*; veins brown, light yellow in the brightened fields. Macrotrichia on longitudinal veins, on *R* and the anals as far back as the arculus, on *Sc*, *M* and *Cu* ending some distance before arculus. Venation: *Rs* relatively long; *r-m* on R_{4+5} at near one-fourth the length; cell M_1 shorter than its petiole; cell 1st M_2 closed, subequal in length to distal section of vein M_3 ; *m-cu* at fork of *M*.

Abdomen, including hypopygium, brownish-black, the posterior borders of segments slightly more darkened. Male hypopygium (fig. 8) with the tergal arms (*t*) glabrous, broad-based, the outer half flattened, tips slightly incurved, mid-region of tergite only slightly convex. Basistyle (*b*) with a very low outer lobe that is provided with long delicate setae. Dististyle (*d*) including a broad spinulose cushion that is produced into a more yellowed obtuse rostrum that is provided with longer setae. Phallosome (*p*) with the gonapophyses long and slender, the outer end of each dilated into a narrow blade, its upper margin nearly hyaline, tip acute.

Holotype ♂, SIKKIM: Chateng, 8700 feet, 22.v.1959 (*F. Schmid*).

Pedicia (Tricyphona) fuscostigmata is readily distinguished from other regional members of the *immaculata* group, including *P. (T.) boettigeri* Alexander and *P. (T.) glabripennis* (Brunetti), by the coloration of the body and wings, the venation, and the structure of the male hypopygium, particularly the dististyles and gonopophyses.

Dicranota (Dicranota) amatrrix sp. n.

Size medium (wing of female 9 mm.); general coloration of mesonotum grey, praescutum with 4 very clearly defined dark brown stripes, pleura obscure yellow with brownish-grey areas; halteres yellow; femora black, their bases narrowly yellow; wings light yellow, patterned with brown; *Rs* relatively short, arcuated; abdomen yellow, outer segments dark grey.

Female: length, about 6.5 mm.; wing, 9 mm.; antenna, about 1.3 mm.

Rostrum light grey; palpi brownish-black. Antennae 15-segmented, black throughout; first flagellar segment long, succeeding segments suboval, passing into oval and becoming gradually smaller, subequal in length to their longest verticils. Head light grey, the low vertical tubercle dark brown, the posterior vertex behind it suffused with light brown.

Pronotum light grey. Mesonotal praescutum light grey with 4 very clearly defined dark brown stripes, the intermediate pair barely separated by a vague capillary darker grey line; sides of praescutum before suture more yellowed; posterior sclerites of notum light grey, each scutal lobe with 2 paler brown areas, the posterior one much larger; scutellum with sparse elongate setae. Pleura chiefly obscure yellow, with brownish-grey areas on the dorsal anepisternum, ventral sternopleurite and meron. Halteres yellow. Legs with coxae and trochanters yellow; femora black, bases narrowly yellow; tibiae and tarsi brownish-black, outer tarsal segments darker. Wings (fig. 9) light yellow, the pre-arcular and costal fields more saturated yellow; a conspicuous medium brown pattern including areas at Sc_2 , origin of *Rs*, cord, R_2 , outer medial forks, and as continuous seams over veins *Cu* and 2nd *A* except narrowly at their bases; vein R_5 darkened, other veins yellow, brighter at the base and in the costal region, darker in the patterned areas. Veins with macrotrichia virtually back to the arculus, becoming more scattered basally on all main veins. Venation: *Rs* relatively short, arcuated; R_{2+3+4} about one-half longer than basal section of R_6 ; R_{1+2} and R_2 subequal; fork of M_{1+2} narrowed at base; *m-cu* less than its own length beyond fork of *M*.

Abdomen yellow, the outer segments dark grey; genital shield dull orange; cerci horn coloured, slender, gently upcurved to the acute tips.

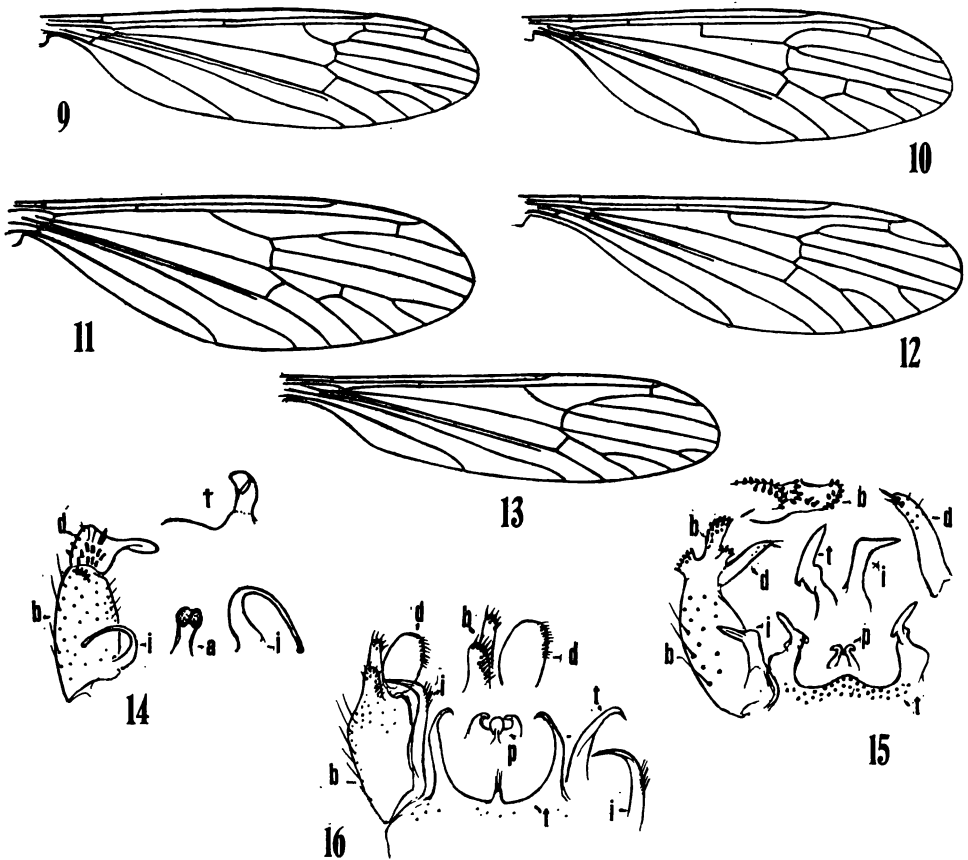
Holotype ♀, SIKKIM: Bop, 5950 feet, 15.vii.1959 (*F. Schmid*).

Dicranota (Dicranota) amatrrix is readily distinguished from other regional members of the subgenus by the handsomely patterned wings; those which it most closely resembles include *D. (D.) garhwalensis* Alexander and *D. (D.) strepens* Alexander.

Dicranota (Rhaphidolabina) metaspectralis sp. n.

Female: length, about 6.2–6.5 mm.; wing, 6.8–7 mm.

Characters generally as in *spectralis* (Brunetti) and some allied species. Mesonotal mediotergite with a faint darkened line on either side. Darkened tips of femora and tibiae very restricted, subequal in amount or the tibial darkening slightly more intense. Wings (fig. 10) with the darkened



FIGS. 9-16.—(9-13) Venation of: (9) *Dicranota (Dicranota) amatrix* sp. n.; (10) *Dicranota (Rhaphidolabina) metaspectralis* sp. n.; (11) *Dicranota (Rhaphidolabina) perpallida* sp. n.; (12) *Dicranota (Amalopina) melanoleuca* sp. n.; (13) *Dicranota (Rhaphidolabis) perproducta* sp. n. (14-16) Male hypopygium of: (14) *Dicranota (Rhaphidolabina) perpallida* sp. n.; (15) *Dicranota (Amalopina) melanoleuca* sp. n.; (16) *Dicranota (Rhaphidolabis) perproducta* sp. n. (a, aedeagus; b, basistyle; d, dististyle; i, interbase; p, phallosome; t, tergite.)

pattern of anterior cord more restricted, not more extensive than the other darkenings; small darkened seams over *h* and the arculus. Venation: *r-m* connecting with R_{4+5} at or beyond mid-length, occasionally close to the fork.

Holotype ♀, SIKKIM: Zomphuk, 6500 feet, 1.x.1959 (*F. Schmid*). *Paratypes*: 6 ♀ (*paratopotypes*).

In the marked reduction of black colour at the tips of the femora, this species is closest to *Dicranota (Rhaphidolabina) paraspectralis* Alexander or *D. (R.) subspectralis* Alexander, but the black pattern is even more reduced than in these species. The venation of the radial field differs from that of the other species, in which a short element R_{2+3+4} is present; in *D. (R.) metaspectralis* it is vein R_{4+5} that is present, with *r-m* connecting with it. This condition is present in all specimens of the type series and may be presumed to be normal. These evidently closely allied species of *Dicranota* well illustrate the modifications in venation of the radial field in the *Pediciine* crane-flies, which have been discussed by the writer in several papers in recent years (Alexander, 1918, 1927a, 1927b, 1929, 1934, 1942, 1950).

Dicranota (Rhaphidolabina) perpallida sp. n.

General coloration of body, halteres and legs pale yellow; wings with R_{2+3+4} about two-thirds R_5 , cell $1st M_2$ closed; male hypopygium with the interbase a long slender strongly recurved hook; disti-

style terminal, provided with blackened pegs, beak produced into a long blade; aedeagus terminating in 2 approximated oval lobes.

Male: length, about 4.5–5 mm.; wing, 6–6.5 mm.; antenna, about 0.7–0.8 mm.

Female: length, about 5.5–6 mm.; wing, 6.2–6.5 mm.

Rostrum pale yellow, palpi brownish-yellow. Antennae 16-segmented; scape yellow, the remainder brownish-black; proximal 4 or 5 flagellar segments short and crowded, transverse, outer one becoming elongate, exceeding their verticils. Head pale yellow.

Thorax uniformly yellow, the pleura somewhat clearer. Halteres pale yellow. Legs uniformly yellow. Wings (fig. 11) nearly hyaline, unpatterned; veins very pale yellow, macrotrichia long, brown, on all longitudinal veins except near wing base. Venation: Sc_1 ending shortly beyond origin of R_{2+3} ; R_{2+3+4} from two-thirds to three-fourths R_5 ; cell 1st M_2 closed; cell M_1 subequal to its petiole; $m-cu$ at from two-fifths to mid-length of M_{3+4} .

Abdomen yellow, basal tergites weakly darkened medially. Male hypopygium (fig. 14) with posterior border of tergite (*t*) subtruncate, the lateral ends produced caudad into conspicuous flattened blades, their tips twisted. Basistyle (*b*) with interbase (*i*) a long slender strongly recurved hook, apex weakly expanded, obtuse; outer end of basistyle with 3 or 4 blackened pegs. Dististyle (*d*) terminal, the body provided with several blackened pegs, the outer ones larger; beak produced into an elongate compressed-flattened blade. Aedeagus terminating in 2 approximated oval lobes.

Holotype ♂, INDIA: Sirhoi Kashong, Manipur, Assam, 7500 feet, 13. vii. 1960 (*F. Schmid*). *Paratypes*: 1 ♀ (*allotopotype*), pinned with type; numerous ♂♀ (*paratopotypes*), 11–13. vii. 1960 (*F. Schmid*).

Dicranota (Rhaphidolabina) perpallida is entirely distinct from other regional species in the virtually uniform pale yellow colour of the body, halteres and legs. In this regard it much resembles the type of the subgenus *D. (R.) flaveola* (Osten Sacken), of eastern North America, in which, however, the hypopygial structure is quite different.

Dicranota (Amalopina) melanoleuca sp. n.

General coloration of thorax brown, head blackened; antennal flagellum yellow; legs with fore and middle femora black, remainder of legs yellow; wings whitened, unpatterned; no supernumerary crossveins in wing cells; male hypopygium with lateral tergal arms and the interbases large, their tips pointed.

Male: length, about 4.5 mm.; wing, 5.2 mm.; antenna, about 0.5 mm.

Rostrum and palpi black. Antennae short; scape and pedicel black, flagellum yellow; proximal 4 flagellar segments shorter and more or less united to form an ill-defined fusion segment. Head black, sparsely pruinose; anterior vertex broad, at least 6 times the diameter of scape, eyes beneath broadly contiguous.

Pronotum brownish-black. Mesonotal praescutum yellowish-brown with a darker brown central stripe that is more intense anteriorly; scutum brownish-yellow, lobes extensively darker brown; scutellum brown; postnotum dark brown, sparsely pruinose on anterior third. Pleura dark brown, dorsopleural region more yellowed. Halteres pale yellow. Legs with coxae and trochanters medium brown; fore and middle femora uniformly black, posterior femora and all tibiae and tarsi whitened. Wings (fig. 12) whitened, unpatterned; veins brownish-yellow. Relatively sparse macrotrichia on most veins beyond cord, lacking on R_{2+3+4} , M_{3+4} and the bases of other veins; trichia present on outer ends of both anals, lacking on M and basal section of Cu_1 . Venation: R_5 long, angulated at origin; cell M_2 open; no supernumerary crossveins.

Abdomen brown, subterminal segments darker to form an inconspicuous ring. Male hypopygium (fig. 15) with the tergite (*t*) very extensive, transverse, posterior border produced into a low obtuse median lobe and very large and powerful lateral arms that narrow into terminal yellow blades. Basistyle (*b*) elongate, at apex with 3 separate lobes that bear relatively few spicules; interbase (*i*) a large flattened blade, its apex produced into a narrower beak-like point. Dististyle (*d*) a simple elongate blade. Phallosome including 2 small darkened apophyses, their tips bent strongly laterad; aedeagus very reduced.

Holotype ♂, INDIA: Serrarim, Khasi-Jaintia, Assam, 5500 feet, 6. x. 1960 (*F. Schmid*).

Dicranota (Amalopina) melanoleuca is distinguished from the allied *D. (A.) elegantula* (Brunetti) by the darkened colour of the head and thorax and the entirely unpatterned wings. The lack of any supernumerary crossveins in *D. (A.) melanoleuca* may not prove to be a constant character. Such veins are generally found in *D. (A.) elegantula*, but occasional specimens are found in which these are lacking in both

wings. The male hypopygium is generally similar in both species, differing in details of the tergal arms and the interbase. Japanese species of the subgenus, including *D. (A.) gibbera* (Alexander), have this same distinctive type of leg-pattern.

Dicranota (Rhaphidolabis) perproducta sp. n.

Mesonotal praescutum obscure yellow laterally, the disk with 3 dark brown stripes, pleura dark brown, pteropleurite yellow; antennae short, 13-segmented; wings with *Sc* short; male hypopygium with the tergal arms elongate, median lobe simple; apical lobes of basistyle short.

Male: length, about 4.5 mm.; wing, 4.8 mm.; antenna, about 0.7 mm.

Rostrum dark brown, palpi black. Antennae 13-segmented, short, brownish-black throughout; proximal flagellar segments subcylindrical, the outer ones more oval, exceeding the short verticils. Head black, pruinose.

Pronotal scutum brown, scutellum more testaceous yellow. Mesonotal praescutum with humeral and lateral borders obscure yellow, disk with 3 dark brown stripes, the interspaces only a little paler; posterior sclerites of notum chiefly dark brown, posterior ends of scutal lobes and the parascutella more yellowed; postnotum somewhat paler brown. Pleura dark brown, especially the propleura; pteropleurite yellowed. Halteres with stem yellowed, knob dark brown. Legs with fore and middle coxae brown, tips yellowed, posterior coxae yellow; trochanters brownish-yellow; remainder of legs brownish-yellow, terminal tarsal segments darker. Wings (fig. 13) very faintly tinged with brown, stigma barely indicated; veins brown. Venation: *Sc* relatively short, *Sc*₁ ending about opposite mid-length of *Rs*, the latter in alignment with *R*₅; cell *M*₁ very small; *m-cu* about two-thirds its length beyond the fork of *M*.

Abdomen, including hypopygium, dark brown. Male hypopygium (fig. 16) with the tergite (*t*) large, lateral arms very long, their outer ends narrowed, decurved into an acute spine; median tergal area produced into a slender lobe that is tipped with very long setae. Basistyle (*b*) with the interbase (*i*) about equal in length and size to the tergal arms, outer end gently curved to a long point, margin with a concentration of about a dozen long pale setae; basistyle with 2 apical lobes, one more elongate, tipped with long slender spinoid setae. Dististyle (*d*) broadly flattened, apex obtuse, inner margin with long setae. Phallosome (*p*) including pale incurved gonapophyses and the shorter aedeagus, the latter terminating in a short-oval head; base of phallosome on either side produced laterad into a narrow blackened strip.

Holotype ♂, INDIA: Tairenpokpi, Manipur, Assam, 4000 feet, 31.v.1960 (*F. Schmid*).

Other regional species of the subgenus with vein *Sc* short and with the hypopygial structure generally similar to that in *Dicranota (Rhaphidolabis) perproducta* include *D. (R.) brachyneura* Alexander, *D. (R.) khumyarae* Alexander and *D. (R.) unilobata* Alexander, especially the last. This differs most evidently in the long conspicuous apical lobe of the basistyle.

REFERENCES

- ALEXANDER, C. P., 1918, A new interpretation of the wing-venation of the Pediciine crane-flies (Tipulidae, Diptera). *Ent. News* 29 : 201-5, pl.
- 1927a, The interpretation of the radial field of the wing in the nematoceros Diptera, with special reference to the Tipulidae. *Proc. Linn. Soc. N.S.W.* 52 : 42-72, 92 figs.
- 1927b, The Oriental Tipulidae in the collection of the Indian Museum. Part I. *Rec. Ind. Mus.* 29 : 169-72, pl. 13.
- 1929, A comparison of the systems of nomenclature that have been applied to the radial field of the wing in the Diptera. *Proc. IV. Cong. Ent.* 2 : 700-7, 3 pls.
- 1934, In Curran, C. H., *The families and genera of North American Diptera*, pp. 38-39, figs. New York.
- 1942, *The Diptera or true flies of Connecticut* 1 : 200-201. Hartford.
- 1950, Notes on the tropical American species of Tipulidae (Diptera). VI. The tribe Limoniini, genus *Limonia*; subgenera *Limonia*, *Neolimnobia*, *Discobola* and *Rhipidia*. *Rev. Ent.* 21 : 171.

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