

O. roubaudi, and *O. goodleyi*. In *O. oldi* the buccal capsule is circular, in the other species elliptical.

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IV.—On some new and little-known Delphacidæ from South Africa (*Fulgoroidea*, *Homoptera*). By F. MUIR, Hawaiian Sugar Planters' Experiment Station, Honolulu, T.H.

THE material dealt with in this paper consists of two small collections, one received from the British Museum through Mr. W. E. China and the other from the Imperial Bureau of Entomology through the Director, Dr. Guy A. K. Marshall. Twenty-six species have been recognized, seventeen of which have been treated as not hitherto named. When we consider what a very little work has been done in this family in Africa, this is not an exceptionally high percentage of new species.

TROPIDOCEPHALINI.

TROPIDOCEPHALA, Stål.

Tropidocephala flaviceps, Stål. (Figs. 1, 2.)

One male specimen from Weenen, Natal (*H. P. Thomasset*, December 1923), which the writer identifies as this species. The type-material of this species consists of a single female. The genitalia are very distinctive. This species has the apex of face truncate and the lateral carinæ do not continue so as to divide the frons from the clypeus. It may be advisable to retain *Nephropsia*, Costa, at least as a subgenus, for those species in which the apex of face is rounded and the lateral carinæ continue across.

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Tropidocephala incompta, sp. n. (Figs. 3, 4.)

Male.—Length 1.7 mm.; tegmen 1.8 mm.; wing 1.4 mm.

Vertex as long as pronotum, width at base 1.5 times the length. The lateral carinae of frons not continued at apex, and meeting but continuing on to clypeus. The pygofer is cut back on latero-dorsal margin with the ventral and ventro-lateral margins projecting, a small quadrate projection on

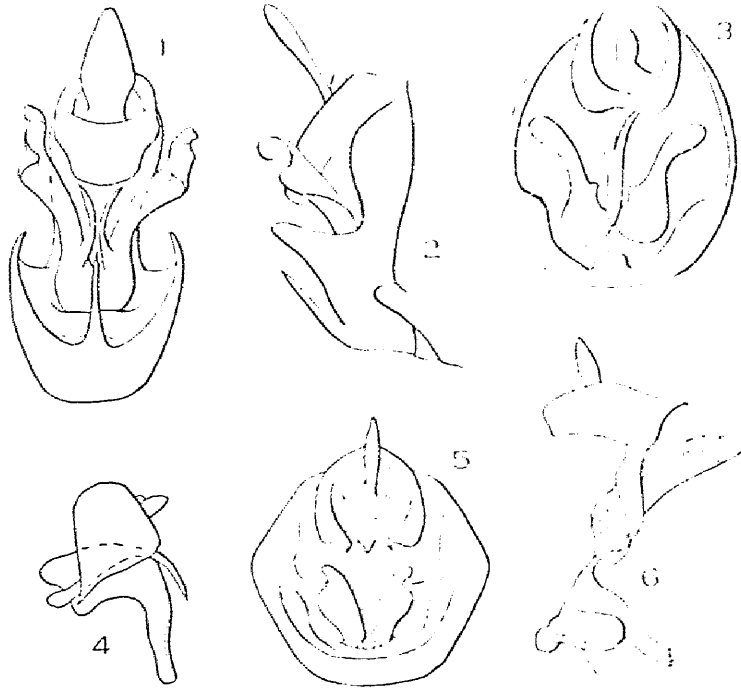


Fig. 1.—*Tropidocephala flaviceps*, Stal, full view of ♂ genitalia.
 Fig. 2.—Ditto, lateral view of ♂ genitalia.
 Fig. 3.—*Tropidocephala incompta*, Muir, full view of ♂ genitalia.
 Fig. 4.—Ditto, lateral view of anal segment and aedeagus.
 Fig. 5.—*Columbiana turneri*, Muir, full view of ♂ genitalia.
 Fig. 6.—Ditto, lateral view of aedeagus and anal segment.

medio-ventral margin. The aedeagus has the spine from its base so characteristic of many of this genus.

Brown, darker over abdomen, vertex, and nota; a dark mark on basal segment of antennae and two along the second segment; the carinae of frons, vertex, and thorax white or light. Tegmina uniformly light brown with similarly coloured veins; wings hyaline with light brown veins.

Female a little larger in size and darker in colour.

Described from nine males and one female from Hill Station, Sierra Leone (*E. Hargreaves*, 6th December, 1924).

These specimens can be considered as brachypterous, as the wings are not normal or functional.

COLUMBIANA, Muir.

The genera *Eurysa*, *Liburniella*, *Columbiana*, and *Columbisoga* run close together, and will require a careful revision before very long, as species from South Africa and South America are more studied.

Columbiana turneri, sp. n. (Figs, 5, 6.)

Male.—Macopterous; length 2.3 mm.; tegmen 3.8 mm.

Length of vertex about equal to width at base, the base straight, apex slightly curved, the inverted V-shaped carina distinct, the Y-carina with stalk missing. Length of frons twice the width, sides slightly arcuate, widest about middle, median carina simple, distinct; the transverse carina between frons and vertex obscure; clypeus tricarinate. Antennæ reaching nearly to middle of clypeus, first segment longer than wide, second about twice the length of first. Lateral pronotal carinæ but slightly curved, diverging posteriorly, not reaching hind margin.

Pygofer with opening broader than long, sides entire, rounded; anal emargination shallow, anal angles obscure; diaphragm produced into a thin broad plate, bilobed at apex, the sides standing out on sides above the margins. Anal segment with two small curved spines on ventral margin, a small membrane basad of spines. Aedeagus sub-tubular with a long, nearly straight spine arising from the base or from the periandrium, four small teeth on dorsal aspect at apex.

Stramineous; dark fuscous on hind margins of abdominal tergites; tegmina hyaline, clear, veins basad of cross-veins light, distad of cross-veins brown. Wings clear hyaline, veins brown.

Described from one male from Umtata, Transkai (*R. E. Turner*, February 1923).

There are four females from Port St. John, Pondoland (*R. E. Turner*, April 1923), which belong to this genus, but the writer refrains from describing from females only.

EURYSA, Fieber.

Euryrsa furcifera, sp. n. (Figs. 7, 8.)

Male.—Length 2.1 mm.; tegmen 2.1 mm.

Head as wide as thorax. Width of vertex slightly greater than length, apex equal to base, sides slightly concave, base considerably before the middle of eye. Length of frons 1.6 times the width, sides slightly arcuate, broadest near middle; carinae at apex of vertex and base of frons obscure. Antennae reaching slightly beyond base of clypeus, first segment slightly longer than broad, second about twice the length of first. Lateral pronotal carinae slightly curved, diverging posteriorly, not reaching hind margin. Mesonotum tricarinate, carinae not very distinct. Hind basitarsus as long as the other two together, spur not as long as basitarsus, thin, tectiform, the outer half thinner than the inner, no spines on hind margin.

Frons, antennae, clypeus, legs, lateral portions of pronotum, and tegulae light brown; vertex darker brown; median portion of pronotum and all the mesonotum dark shiny brown; abdomen dark brown, lighter on basal tergites and on pleura. Tegmina hyaline, clear, slightly fuscous over apical portion of C, Sc, and first M apical cells, veins yellowish, apical veins and apical margin slightly fuscous, granules small, bearing dark macrotrichia. Wings clear hyaline with yellowish veins.

Anal emargination of pygofer not deep, anal angles rounded, not produced, lateral margins entire, rounded, ventral margin emarginate. Anal segment short, the ventral margin produced into two strong long spines, their bases contiguous but divergingly curved to the apices; basad of these spines there arises two membranous appendages. The aedeagus is nearly straight, slightly flattened laterally, the apical portion flattened more than rest and dorsally produced into a rounded flange, opening along ventral aspect at apex, a few small spines along the margins. Genital styles forked, the outer fork large, sinuate, gradually decreasing to acute apex, inner fork small, thin, straight, with the apex curved.

Female.—2.3 mm.; tegmen 2.6 mm.

Similar in build and colour to the male.

Described from two males and one female from Aliwal North, Cape Province (R. E. Turner, December 1922).

Euryrsa pullata, sp. n. (Figs. 9, 10.)

Male.—Brachypterous; length 2.3 mm.; tegmen 1 mm.

In build and colour this species is very similar to *E. atrata*,



but differs in having the vertex proportionately wider (1 to 1.4 mm.) and the carinae of frons and vertex much more obscure. The genitalia are very distinct and come nearer to *E. furcifera*. In profile the lateral margins of the pygofer are straighter and not so produced, the genital styles are furcate. The outer prong thick, curved and recurved at apex, the inner prong short and thick. The ædeagus is slightly compressed laterally, in lateral view the basal half

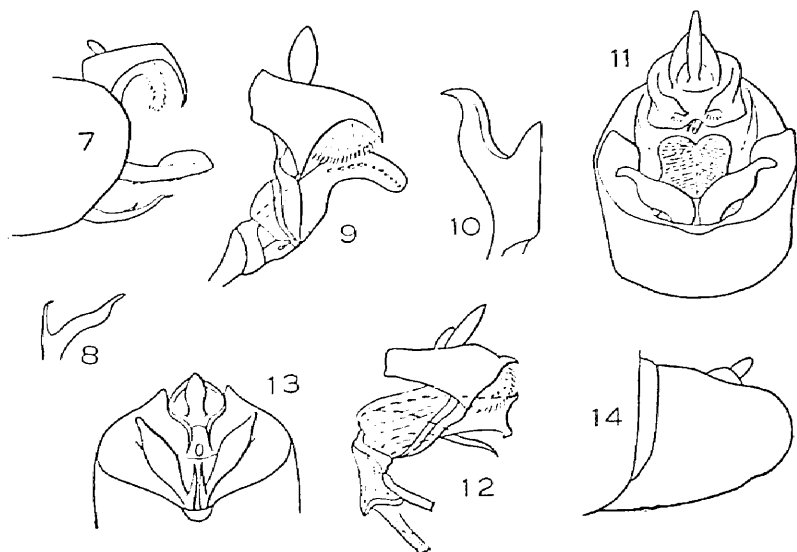


Fig. 7.—*Euryrsa furcifera*, Muir, lateral view of ♂ genitalia.
 Fig. 8.—Ditto, right genital style.
 Fig. 9.—*Euryrsa pullata*, Muir, lateral view of anal segment and ædeagus.
 Fig. 10.—Ditto, left genital style.
 Fig. 11.—*Euryrsa nigrocucumeris*, Muir, full view of ♂ genitalia.
 Fig. 12.—Ditto, lateral view of anal segment and ædeagus.
 Fig. 13.—*Euryrsa atrata*, Muir, full view of ♂ genitalia.
 Fig. 14.—Ditto, lateral view of pygofer.

deepest, the apical half more tubular, slightly curved ventrad, with a row of teeth from apex to middle on each side. The anal segment is short with two stout curved spines on ventral surface with their bases rather far apart. Behind or basad of each spine there is a membranous appendage.

Described from three males from Mossel Bay, Cape Province (*R. E. Turner*, February 1922).

Eurysa atrata, sp. n. (Figs. 13, 14.)

Male.—Brachypterous; length 2.7 mm.; tegmen 1 mm.

Head as broad as thorax. Vertex slightly wider than long, apex rounded, base straight, about middle of eyes; length of frons slightly greater than width (1 to 1.2), sides slightly arcuate, the carinae over apex of vertex and base of frons and the median frontal carina obscure. Antennae reaching slightly beyond base of clypeus, first segment a little longer than wide, second considerably longer than first. Lateral pronotal carinae straight, diverging posteriorly, not reaching hind margin. Tegmina reaching to fourth abdominal segment, apex broadly rounded. Hind basitarsus slightly longer than the other two together; spur not so long as basitarsus, thin, tectiform, without teeth on outer margin.

Pygofer and abdomen considerably flattened horizontally, opening wider than long; anal emargination deep and continued as a depression to the base of pygofer, anal angles distinct, angular, not produced, sides rounded, entire, medio-ventral margin emarginate in middle, in lateral view sides rounded and produced. Anal segment slightly compressed laterally, two large curved spines on ventral surface, their bases fairly close together, divergingly curved. Genital styles lanceolate, with a spine arising from near base on inner margin. Edeagus not dissected.

Black; antennae, apex of clypeus, labium, legs, and anal style yellow.

Described from two males from Mossel Bay (*R. E. Turner*, February 1922).

Eurysa nigrocacuminis, sp. n. (Figs. 11, 12.)

Male.—Brachypterous; length 2.3 mm.; tegmen 2.1 mm.

Head as broad as thorax; width of vertex 1.3 times the length; medio-frontal carina distinct except at base. Tegmina reaching beyond the apex of abdomen, wings absent. Tibial spur normal for the genus.

Brown; carinae of frons and genae lighter; tarsi black or dark fuscous-brown. Tegmina hyaline, clear, apical cells fuscous, veins same colour as membrane, granules minute, sparse, bearing small dark macrotrichia.

Genitalia figured; there is a membranous appendage basad of each of the small anal spines. The aedeagus is flattened laterally, nearly straight, apex truncate with the dorsal and ventral corner produced into a small curved spine; from the base on the left side arises a spine nearly as long

as the aedeagus, flat laterally, broad at base, and gradually tapering to an acute apex.

Described from one male from Umtata, Transkei (*R. E. Turner*, February 1923).

DELPHACINI.

AMBLYCOTIS, Stål.

In *Amblycotis* the frons is about as wide as long, whereas in *Pseudaraeopus*, Kirk. (= *Delphacodes*, Melichar, not Fieber = *Geoneossus*, Muir), it is distinctly longer than wide; most likely further discoveries will connect them.

Amblycotis laticeps, Stål. (Fig. 15.)

Four males from Port St. John, Pondoland (*R. E. Turner*, April, May 1923). So far as the writer knows, this is the only record apart from the type-material*.

The pygofer is cut back on the ventral and lateral margins, so that, instead of there being the normal anal emargination, there is an anal projection over the anal segment; from the medio-ventral area there arises two long slender spines, parallel and near together. The species of *Pseudaraeopus* have a similar type of pygofer.

PERKINSIELLA, Kirkaldy.

Perkinsiella saccharicida, Kirk.

One male specimen from Mauritius (*J. E. M. Brown*).

EMBOLOPHORA, Stål.

Embolophora monoceros (Stål). (Fig. 16.)

Three males and two females from Weeneu, Natal, 2810 feet elevation (*H. P. Thomasset*, December 1923; March, April, May 1924). This was described from two female specimens now in the Stockholm Museum, and has not been taken since, so far as the writer knows †.

RHINOTETTIX, Stål.

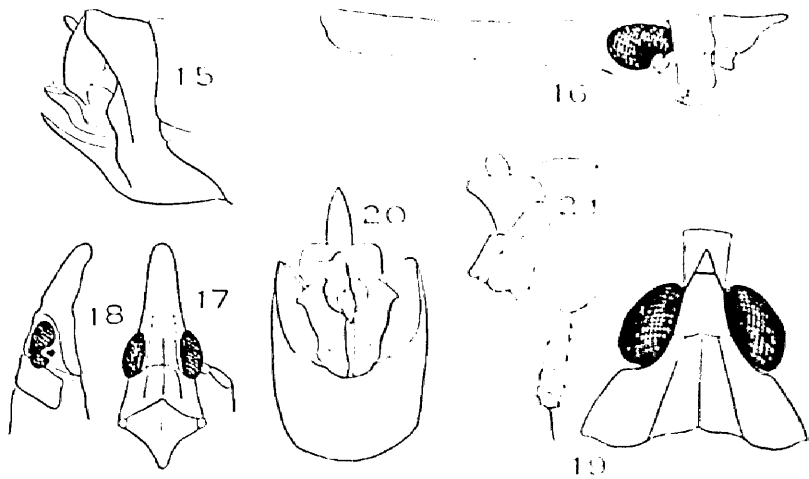
Rhinotettix fuscipennis, Stål. (Figs. 17, 18.)

This was described from a single specimen without an abdomen, which is now in the Stockholm Museum.

* Walker lists this as being in the British Museum Collection (List Hom., Suppl. p. 326), but the writer has not seen a specimen in that collection.

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The present specimen, the second in collection, so far as the writer knows*, is a female without tegmina or wings, and was collected by Charles Darwin at the Cape of Good Hope. The spur is thin, tectiform, with twelve distinct teeth on hind margin, and so it comes into the Delphacini. Basal segment of antennæ longer than wide, second segment considerably longer than first.



- Fig. 15.—*Aulipsylla latipes*, Stål, lateral view of head.
 Fig. 16.—*Eubolophomyia maculipes*, Stål, lateral view of head, prothorax, and mesonotum.
 Fig. 17.—*Rhinotettix tasmanicus*, Stål, lateral view of head and thorax.
 Fig. 18.— Ditto, lateral view of head and thorax.
 Fig. 19.—*Nataliana livida*, Muir, lateral view of head and prothorax and antenna.
 Fig. 20.— Ditto, full view of ♂ genitalia.
 Fig. 21.— Ditto, lateral view of anal segment and abdomen.

NATALIANA, gen. nov.

Length of vertex nearly double the width, lateral margins nearly straight or slightly concave, subparallel, apex considerably beyond eyes, slightly rounded, base well behind middle of eyes, slightly sinuous; an A-shape arrangement of the carinæ not reaching to apex of vertex. Frons long, narrow, length three times the width, sides slightly sinuate,

* Walker lists this as being in the British Museum Collection (List Hom., Suppl. p. 326), but the writer has not seen a specimen in that collection. There is in the B.M. Collection a ♂ from Springbok, Little Namaqualand, S.W. Africa, October 1890, and a ♀ from Barberton, Transvaal.—W. E. CHINA.

slightly wider at apex than at base, median carina distinct, simple. Clypeus distinctly tricarinate, long, narrow. The junction of vertex and frons rounded in lateral view, and the frons and clypeus nearly straight. Pronotum tricarinate, lateral carinae straight, slightly diverging posteriorly, reaching hind margin. Mesonotum distinctly tricarinate. Antennae terete, nearly as long as frons and clypeus together, first segment slightly longer than second. Hind basitarsus longer than other two together, spur not so long as basitarsus, wide, thin, concave on inner surface, convex on outer surface, about 22 to 25 small teeth on hind margin. Legs long and slender. The nature of the spur places this genus in the Delphacini. Type, *lineata*.

Nataliana lineata, sp. n. (Figs. 19, 20, 21.)

Male.—Brachypterous; length 4 mm.; tegmen 5 mm.

Tegmina long and narrow, broadest near base at angle of clavus, then gradually narrowing to apex which is narrowly rounded; wings considerably shorter than the tegmina, but of similar shape. Genitalia figured, the aedeagus is small and of peculiar shape.

Brown; apex of vertex and base of frons black, light over vertex, middle of pronotum and mesonotum, and along commissure. Tegmina brown, light along costa and between *Sc + R* and *M*.

Female.—Macropterous; length 4.6 mm.; tegmen 5.9 mm.

Similar to male in build and colour, but the tegmina are wider, being slightly widest across the nodal line; the apex rounded; the wings are broad, folded, and appear normal.

Described from two males and one female from Port Natal (*Gueinzus*, 1858).

CURTOMETOPUM, gen. nov.

Width of vertex nearly twice the length, the vertex and frons in profile forming an unbroken curve, the apex of the frons forming two rounded lobes and turned outward, base straight, well behind middle of eyes. Frons about as wide as long, sides arcuate, apex produced into two round lobes which are curved outward. In profile vertex and frons forming a curve, the frons being recurved at apex. Clypeus round, without carina. Antennae short, not reaching apex of frons; first segment wider than long, second segment considerably longer than wide. Hind margin of pronotum straight, tricarinate, lateral carinae straight, diverging posteriorly, reaching, or nearly reaching, hind

margin; mesonotum short, tricarinate, the lateral carinae very obscure. Legs short, stout; hind basitarsus as long as the other two together, spur small, shorter than basitarsus, thin, concave on inner surface, convex on outer, hind margin with numerous small teeth.

The spur places this genus in the Delphacini. Type, *turneri*.

Curtometopum turneri, sp. n. (Figs. 22, 23.)

Female.—Length 2.3 mm.; tegmen 2 mm.

Brown; head and legs slightly lighter. Tegmina dirty white, opaque, veins same colour as membrane. Wings similar to tegmen, but with darker veins.

Described from one female from Port St. John, Pondoland (R. E. Turner, May 1923).

EUIDELLA, Fieber.

Euidella (?) *semifuscipennis*, sp. n. (Fig. 24.)

Male.—Macropterous; length 2.6 mm.; tegmen 4 mm.

Length of vertex 1.3 times the width at base, base 1.4 times the width at apex, projecting slightly beyond eyes, base slightly behind middle of eyes, head slightly wider than thorax; length of frons 2.5 times the width, sides nearly straight, subparallel, slightly constricted between eyes, fork of median carina nearly reaching to level of ocelli. Antennae reaching well beyond middle of clypeus, first segment much longer than wide, apex slightly longer than base, slightly flattened, second segment 1.6 times the length of first, terete. Lateral pronotal carinae divergingly curved, not reaching hind margin. Legs fairly long, hind basitarsus as long as other two together; length of front femora 1.4 times that of front coxae.

Full view of pygofer figured; lateral margin considerably cut away exposing the genital styles in lateral view, a stout pointed process on medio-ventral margin, curved upward.

Light stramineous; base of second and apex of first antennal segments dark, the darkness extending basad on the outer surface of the latter; darker between carinae of frons with some lighter spots, pronotum slightly darker behind eyes, which extends over lateral portions of mesonotum, and the tegulae, and extends to the apex of tegmen. Femora with thin longitudinal fuscous markings. Abdomen fuscous over middle of tergites; anal style fuscous. Tegmina

faintly stramineous, hyaline on anterior half, light fuscous on posterior half, covering clavus, *Cu* basal and apical cells to apex of *M*3, being darkest along *M*3, apices of all apical veins fuscous, otherwise veins same colour as membrane, granules small, inconspicuous; wings hyaline with dark brown veins.

Female.—Length 3.6 mm.; tegmen 5.4 mm.

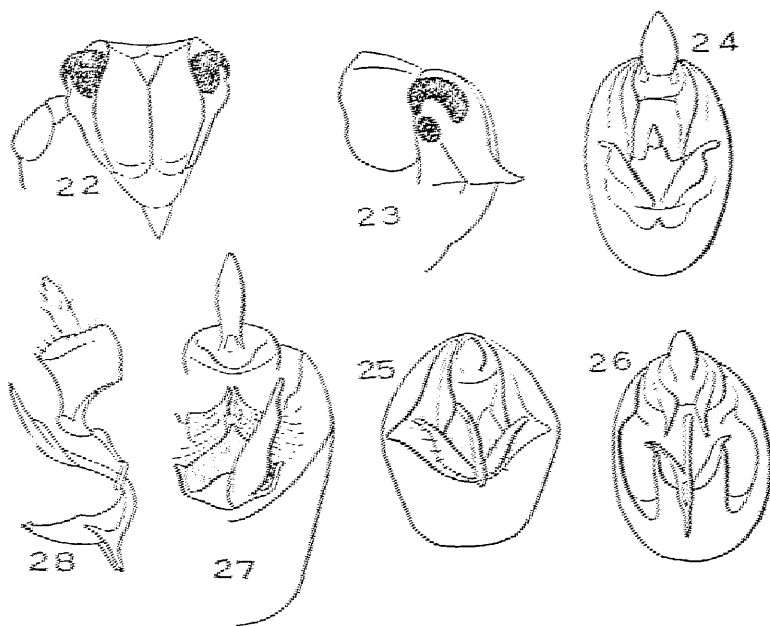


Fig. 22.—*Cartonotopum turneri*, Muir, front view of head.

Fig. 23.—*Ditto*, lateral view of head.

Fig. 24.—*Euidella semifuscipennis*, Muir, full view of ♂ genitalia.

Fig. 25.—*Dicranotropis capensis*, Muir, full view of ♂ genitalia.

Fig. 26.—*Dicranotropis pondolandensis*, Muir, full view of ♂ genitalia.

Fig. 27.—*Dicranotropis anaxarchi*, Muir, full view of right half of ♂ genitalia.

Fig. 28.—*Ditto*, lateral view of anal segment and aedeagus.

Similar to male in form and colour.

Described from two males and three females from Port St. John, Pondoland (*R. E. Turner*, March, April 1923).

The vertex being longer than wide brings this species into *Chloriona*, but the wide head, narrow and straight frons, and general build make it impossible to place it there. The genus *Euidella* appears to be the best place for it.

DICRANOTROPIS, Fieber.

Dicranotropis capensis, sp. n. (Fig. 25.)

Male.—Length 2 mm.; tegmen 3 mm.

Head wider than thorax; vertex slightly wider than long, base and apex subequal, apex hardly projecting beyond eyes, sides slightly arcuate, carinae normal; length of frons 1.7 times the width, sides slightly arcuate, median carina forked level with ocelli. Antennae reaching nearly to middle of clypeus, first segment distinctly longer than broad, second 1.6 times the length of first. Hind basitarsus as long as other two together; spur with many small teeth on hind margin. Lateral pronotal carinae diverging posteriorly, not reaching hind margin. Opening of pygote wider than long, anal emargination shallow, anal angles obscure, lateral margin angular, ventral margin entire, simple. Genital styles small, widest on basal half, inner margin slightly convex, basal half of outer margin convex, apical half concave, apex narrow, rounded.

Light brown, carinae lighter, a few light spots on frons and gena; pronotum darkest behind eyes, where there is a light spot in the darker area; mesonotum darkest over lateral areas. Coxae and abdomen darker brown. Tegmina hyaline, slightly stramineous over clavus with commissure white, a fuscous spot at apex of clavus, a suberescens-shaped mark extending from *M* fork over *Cu* then parallel to apical margin up to *M*2 apical vein, the dark marking proceeding along apical veins to apex, a small mark at node, and at apex of *R* and *M*1 apical veins a few light brown granules. Wings hyaline with brown veins.

Described from one male from Mossel Bay, Cape Province (*R. E. Turner*, February 1922).

This appears to be near to *Peregrinus lunulifer*, Melichar, which belongs to this genus or *Phyllodinus*, and not to *Peregrinus* (the coloration of the tegmina is similar to *Peregrinus maidis*); *Peregrinus vegetatus*, Melichar, is a *Delphacodes*. The genus *Asiracina*, Melichar, appears to be the same as *Phyllodinus*, Van Duzee.

Dicranotropis pondolandensis, sp. n. (Fig. 26.)

Male.—Length 2.1 mm.; tegmen 3.3 mm.

Vertex about as long as wide, carinae typical; median frontal carina forking nearly level with ocelli. Antennae reaching slightly beyond base of clypeus, first segment longer than wide, second considerably longer than first.

Lateral pronotal carina diverging posteriorly, not reaching hind margin. Hind basitarsus about as long as other two together, spur thin, fairly large, concave on inner surface, many fine teeth on hind margin. Front femora comparatively short, a little longer than the coxæ.

Opening of pygofer about as long as wide, anal emargination shallow, anal angles rounded, lateral margins entire, ventral margin produced into a thin flat plate, with the sides straight and the apex deeply and roundly emarginate, making the lateral angles stand up as two spines. Genital styles broadest on basal half, gradually narrowing to the small rounded apex; inner margin slightly sinuate, outer margin more distinctly so. *Ædeagus* long, thin, slightly flattened laterally, slightly curved ventrally, from the left side near apex a large strong spine projects basad and outward. Anal segment with two small strong spines on ventral surface, their bases fairly wide apart.

Stramineous; slightly darker between carinæ of head with a few lighter spots on frons between the carinæ. Tegmina clear hyaline or slightly opaquely white, apical veins dark brown, basad of nodal line veins same colour as membrane or very slightly stramineous. Wings hyaline with brown veins.

Female.—Length 3 mm.; tegmen 3.4 mm.

In build and colour similar to male, the abdominal tergites being slightly darker.

Described from one male and one female from Port St. John, Pondoland (*R. E. Turner*, April 1923).

Dicranotropis anaxarchi, sp. n. (Figs. 27, 28.)

Male.—Length 2 mm.; tegmen 2.8 mm.

Vertex slightly broader than long: length of frons about twice the width; median frontal carina forked about level with the ocelli, the arms of the fork being very close together. Antennæ reaching to base of clypeus, first segment longer than broad, second distinctly longer than first. Lateral pronotal carinæ nearly straight, slightly diverging posteriorly, reaching hind margin. Hind basitarsus longer than other two together; spur thin, tectiform, with about 18 small teeth on hind margin.

Head and thorax fuscous-brown, carinæ, sides of clypeus, and the lateral portions of pronotum yellow, the middle portion of pronotum and mesonotum lighter brown; coxæ and femora brown, tibiæ and tarsi yellowish; abdomen dark brown, yellow on metanotum and on pleura. Anal style

white or light yellow. Tegmina hyaline, fuscous over *Cu* and *R* cells, with a clear spot at apex of each and a larger one in middle of *M2* cell, veins of *R* fuscous, spreading slightly into membrane; granules brown, distinct, especially on basal portion. Wings hyaline with light veins.

The genitalia are very distinctive and are best understood by the figures. The anal segment is without armature. The diaphragm is long, the orifice at each corner is extended into a sinus curved upward; across the middle there is an inverted V-shape ridge of chitin. The dorsal margin is produced into an acute angle in middle with a deep cleft or sinus in the middle, the edges of this sinus thin and produced. The aedeagus is thin, curved and recurved, and slightly twisted. The anal segment is membranous, chitinized along the apical and basal margin.

Described from one male from Ceres, Cape Province (*R. E. Turner*, March 1921). The straight lateral pronotal carinae reaching the hind margin places this species outside the strict characterization of the genus, but it otherwise fits so well into the genus that it is best placed therein.

CHLORIONA, Fieber.

Chloriona fuscipennis, Muir.

Two males from Weenen, Natal (*H. P. Thomasset*, May 1924). This was previously known from Demarara River, British Guiana, South America. The writer has compared the two specimens with the type, and although they are slightly darker in colour they cannot be separated specifically.

PEREGRINUS, Kirkaldy.

Peregrinus maidis (Ashm.).

One male and two females of this widely-distributed species from Weenan, Natal (*H. P. Thomasset*, November, December 1923). These three specimens have the base of the median frontal carina projecting quite conspicuously.

NILAPARVATA, Distant.

Nilaparvata nigritarsis, sp. n. (Fig. 29.)

Male.—Macropterous; length 2.5 mm.; tegmen 3.5 mm.

Vertex slightly longer than wide, base about middle of eyes, projecting beyond eyes. Length of frons about three times the width, sides very slightly arcuate, median carina forked at extreme base. Antennae reaching to near middle

of clypeus, first segment longer than wide, second segment distinctly longer than first. Lateral pronotal carinae straight, diverging posteriorly, reaching or nearly reaching the hind margin. Two or three distinct spines on one side of hind basitarsus; spur with about 25 small teeth.

Opening of pygofer nearly round, margins entire, anal emargination fairly large, anal angles distinct but not produced. Diaphragm long, dorsal margin widely U-shape.

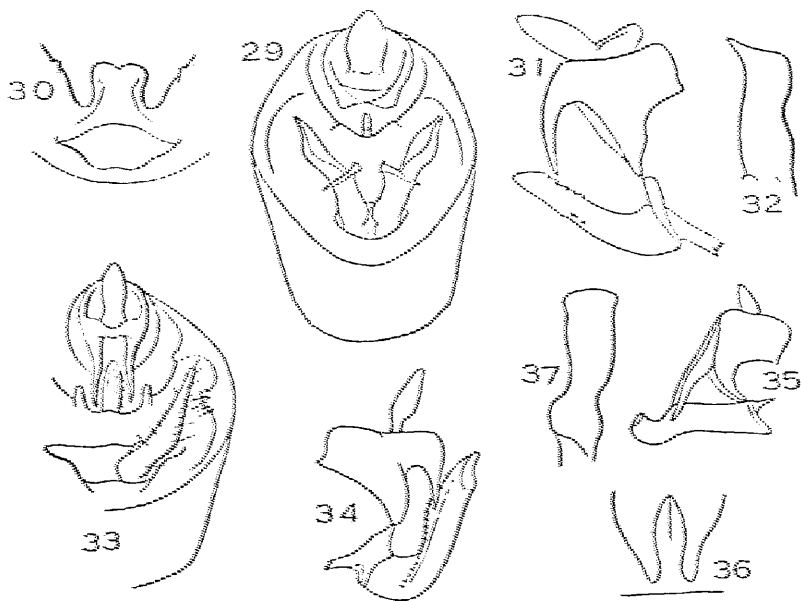


Fig. 29.—*Nilaparvata nigratarsis*, Muir, full view of ♂ genitalia.
 Fig. 30.—*Sogata neocittacollis*, Muir, armature of diaphragm.
 Fig. 31.—Ditto, anal segment and aedeagus.
 Fig. 32.—Ditto, right genital style.
 Fig. 33.—*Sogata albofimbriata*, Muir, full view of right side of genitalia.
 Fig. 34.—Ditto, anal segment and aedeagus.
 Fig. 35.—*Sogata nigricaudata*, Muir, anal segment and aedeagus.
 Fig. 36.—Ditto, armature of diaphragm.
 Fig. 37.—Ditto, right genital style.

The middle slightly raised. Genital styles complex and best understood from figure. Aedeagus not dissected.

Dark brown, the carinae of head and pronotum, the hind margin of pronotum and mesonotum, and the tegulae lighter. Legs lighter, tarsi darker, the spur light. Abdomen dark brown, yellow at base, on pleura, and on hind margin of apical segments. Tegmina hyaline, clear, commissure dark

brown expanding slightly into apical portion of clavus; cross-veins and all apical veins and apical margin dark brown, all other veins light; granules same colour as veins, small, obscure. Wings hyaline with veins light on basal portion and brown on apical.

Described from two males from Weenen, Natal (*H. P. Thomasset*, December 1923).

SOGATA, Distant.

Sogata neovittacollis, sp. n. (Figs. 30, 31, 32.)

Male.—Macropterous; length 2.7 mm.; tegmen 2.3 mm.

Length of vertex 1.5 times the width at base, base slightly wider than apex and considerably behind the middle of eyes. Length of frons 2.5 times the width, slightly widest on apical half, width of apex subequal to base; median carina simple. Hind basitarsus slightly longer than other two together; spur large, broad, thin, with about 20 small teeth on hind margin. Opening of pygofer about as long as broad, round, margins entire; anal emargination moderately shallow, anal angles distinct but not produced. Anal segment short, large, two large slightly curved spines on ventral surface with their bases far apart. Edeagus in profile slightly curved, subtubular, slightly larger at base, a few small teeth on dorsal aspect at apex, and two or three on ventral surface near the middle. Genital styles flat, fairly broad, inner and outer margins slightly sinuous, apex truncate, inner corner produced.

Frons, middle of clypeus, anterior portion of gena, anterior portion of vertex exterior to carina, medio-lateral portions of pronotum, lateral portions of mesonotum, coxae of front and middle legs, and most of abdomen black or dark brown; sides of clypeus, posterior portion of gena, antennae, vertex except latero-apical areas, middle and lateral margins of pronotum, middle of mesonotum, legs, basal tergites, and pleura of abdomen yellow. Tegmina hyaline, slightly stramineous, commissure white with a dark mark near apex, fuscous over *M* fork, over cross-veins, over *Cu* apical cells, and over apical portion of *M* and *R* apical cells, a small hyaline spot at the apex of each of these fuscous cells; veins same colour as membrane, granules very small, bearing dark macrotrichia. Wings hyaline, slightly opaque, veins brown.

Female similar to male, but slightly larger.

Described from three males and four females from Port St. John, Pondoland (*R. E. Turner*, April 1923). This

species is near to *S. vittacollis* (Stål), but until that species is described more fully and the genitalia dissected it is better to place this under a different name.

Sogata albofimbriata, sp. n. (Figs. 33, 34.)

Male.—Length 1·7 mm. ; tegmen 2·3 mm.

Length of vertex 1·3 times the width at base, base slightly wider than apex, and placed about middle of eyes, apex protruding slightly in front of eyes. Length of frons 2·6 times the width, apex slightly wider than base, sides straight, subparallel. Antennæ reaching slightly beyond base of clypeus, first segment slightly longer than wide, second twice the length of first. Lateral pronotal carinæ nearly straight, diverging posteriorly, not quite reaching hind margin. Head distinctly narrower than thorax. Hind basitarsus a little longer than other two together ; spur thin, not as long as basitarsus, with about 20 small teeth on hind margin. The genitalia figured.

Genæ in front of transverse carinæ black or dark brown, extending on to the lateral portion of frons, rest of head and the antennæ yellow. Pronotum behind eyes and the lateral portions of mesonotum dark brown or black, the middle of pronotum and mesonotum and the lateral portion of pronotum and the tegulae light yellow. Front and middle coxæ brown, rest of legs yellow, tarsi slightly fuscous ; abdomen dark brown. Tegmina hyaline, dark brown, the costal and subcostal cells slightly lighter ; commissure to apex of clavus white. Wings slightly fuscous with brown veins. Described from one male from Port St. John, Pondoland (*R. E. Turner*, March 1923).

Sogata nigricaudata, sp. n. (Figs. 35, 36, 37.)

Male.—Length 3·4 mm. ; tegmen 2·4 mm.

Head nearly as wide as thorax. Length of vertex 1·3 times the width, apex and base subequal, sides slightly arcuate, base slightly behind middle of eyes, apex projecting very slightly in front of eyes. Length of frons double the width, apex and base same width, sides slightly arcuate. Antennæ reaching beyond base of clypeus, first segment longer than wide, second about twice the length of first. Lateral pronotal carinæ nearly straight, diverging posteriorly, nearly reaching hind margin. Hind basitarsus as long as other two together, spur thin with eleven teeth on hind margin.

Opening of pygofer wider than long ; anal emargination

large, anal segment sunk well within it, anal angles rounded large, produced but not curved inward; margins entire, rounded, diaphragm very short in middle, a long narrow process arises from the middle of dorsal margin, narrowly sublanceolate, in transverse section V-shape. Anal segment small with two large, laterally flattened spines, wide at base, gradually narrowed to acute apex. Aedeagus small, sub-tubular, slightly flattened laterally, with a curve at apex. Genital styles flat, fairly broad, apex truncate, margins sub-parallel on apical half, constricted on basal half.

Orange-yellow; fuscous across middle of abdominal tergites; pygofer and genital styles black, anal style yellow. Tegmina hyaline, clear; veins light yellow, apical veins slightly fuscous toward apices; wings hyaline with light brown veins.

Described from two male specimens from Port St. John, Pondoland (*R. E. Turner*, April 1923). This species appears to be close to the *Delphacodes nigripennis* group, to which *Sogata approximatus* approaches. The length of vertex and lateral pronotal carinae keeps it out of *Delphacodes*.

Sogata furcifera (Horvath).

Six males and eight females from Port St. John, Pondoland (*R. E. Turner*, March, April 1923), and four females from Weenen, Natal (*H. P. Thomasset*, December 1923; April, October 1924). There is one female from Mossel Bay, Cape Province, which appears to be this species.

DELPHACODES, Fieber.

Delphacodes propinqua (Fieber).

Seven males and eleven females from Mossel Bay, Cape Province, one male from Aliwal North, and two males and one female from Queenstown, Cape Province (*R. E. Turner*). All these are macropterous. There are two brachypterous males and one brachypterous female from St. Helena, collected by Charles Darwin. These are the first brachypterous forms the writer has seen. This is one of the most widely distributed of the Delphacidae.

One female from Port St. John, Pondoland (*R. E. Turner*, May 1923), and three females from Umtata, Transkei (*R. E. Turner*, February, March 1923), appear to be this species, but without males one cannot be sure.

Toya attenuata, Distant, of Ceylon, appears to be this species.

Delphacodes turneri, sp. n.

Female.—Macropterous; length 3.4 mm.; tegmen 2.1 mm.

Head slightly narrower than thorax; width of vertex equal to length, base equal to apex, sides slightly emarginate, base about middle of eyes, apex projecting very slightly beyond eyes. Length of frons twice the width, base very slightly narrower than apex, sides straight, subparallel, or very slightly arcuate. Lateral pronotal carinae divergingly curved, not reaching hind margin. Antennae reaching a little beyond base of clypeus, first segment longer than wide, second slightly longer than first. Spur not as long as hind basitarsus, thin, tectiform, many (about 25) minute teeth on hind margin.

Black or very dark brown; the middle carina of clypeus, lateral carinae of frons, fork at apex of vertex, the posterior half of pronotum, and basal angle of mesonotum white. Front and middle coxae and femora dark brown, tibiae and tarsi lighter, the femora having a lighter longitudinal mark and the tibiae a darker one, hind legs dark brown, apical portions of tibiae and tarsi lighter. Abdomen dark brown or black, lighter on pleura. Tegmina clear hyaline with three fuscous-brown marks, one at base of clavus, a broad band from middle of costa to hind margin of apex of clavus, another curved band from costa at stigma over nodal line to near hind margin, then curved to apex of *M* 1 and 2 apical veins, a small hyaline mark in apex of three *M* apical cells; veins same colour as membrane, granules small, obscure. Wings hyaline with light veins.

Described from five females from Port St. John, Pondo-land (*R. E. Turner*, March, April 1923). The writer describes this species from females only, as it appears to be very distinctly coloured.

V.—Notes on the American Theclinae (*Lepidoptera*).

By PERCY I. LATHY, F.E.S.

WHEN Dr. Draudt finished his revision of this group in Seitz's work, I began to arrange Madame Fournier's collection according to it.

In the course of this work I discovered a certain number of errors committed by Dr. Draudt and also a number of new species and races; the object of this paper is to correct the former and describe the latter.