

A revision of the genus *Matutinus* Distant (Homoptera: Fulgoroidea: Delphacidae)

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Introduction

The genus *Matutinus* was erected by Distant (1917, 278) to accommodate a new species (*opulentus*) from the Seychelles Is., and was referred to the family Cixiidae. The type is a male; a female specimen from the same locality was described by Distant as a new species (*gloriosa*) in his newly erected Delphacid genus *Opiconsiva* (1917, 301). The type of *Opiconsiva*, *O. fuscovaria* Distant, is, however, not congeneric with any of the other included species. Muir (1919, 8) synonymised *Matutinus* with *Chlorionidea* Loew, but the two differ as follows, the corresponding characters of *Chlorionidea* being shown in parentheses.

Vertex distinctly longer than broad, apical margin transverse with submedian carinae prominent (apical margin convex with submedian carinae not prominent), submedian carinae fine (submedian carinae coarse, thickened), Y-shaped carina usually with common stem very weak or absent (common stem well developed); frons more than 2.5 times as long as broad (about 2.0 times as long as broad), broadest in distal half (broadest in basal half), lateral margins weakly convex (strongly convex), postclypeus at least as long as broad at base, usually distinctly longer (a little broader than long), ocelli comparatively large (ocelli small), lateral pronotal carinae diverging laterad (lateral pronotal carinae not diverging laterad), post-tibial spur long with about 23 teeth (spur short with about 18 teeth), diaphragm of pygofer very narrow on each side of median armature (diaphragm of pygofer broad throughout), ovipositor without a median plate at base (ovipositor with a median plate at base).

Matutinus is, in fact, most nearly related to *Sardia*, *Sogatella* and *Sogatodes*. In the proportions of the vertex and the frons it is intermediate between the first of these and the others; in the presence of a broad pale dorsal stripe it more closely resembles the last two: from all three, however, it is set apart by the relatively narrower frons and the total structure of the male genitalia, and is defined as follows.

Matutinus Distant

Distant, 1917, 278. Type-species, *Matutinus opulentus* Distant.

Size moderate, about 3.5 mm including tegmina; form slender, total length, including tegmina, about four times width at level of tegulae. Vertex much longer than broad at base (1.2-2.0 : 1, in one species, 3 : 1), lateral margins carinate, parallel or weakly convergent distad, apical margin truncate with submedian carinae prominent, posterior margin transverse, submedian carinae distinct, sharp, arising from lateral margins basad of middle and converging distad, meeting at apex of vertex, Y-shaped carina present, but common stem frequently absent, basal compartment of vertex 1.0-1.7 times as broad at base as long in middle line to fork of Y-shaped carina, vertex in profile very feebly convex, almost straight, rectangulately or subacutely rounding into frons, not parallel with anterior margin of eyes; frons longer than broad (2.5-3.3 : 1, in one species, 5 : 1), apical margin truncate, lateral margins carinate,

weakly divergent for two-thirds from base, thence parallel or weakly incurved to frontoclypeal suture; frons in profile usually flat or practically so, but, exceptionally, concave, median carina sharp, percurrent, simple, postclypeal disc usually longer than its basal width, rarely equal, lateral carinae apparently continuing line of lateral carinae of frons; anteclypeus medially carinate, not as long as postclypeal disc, entire clypeus in profile convex, postclypeal disc distinctly so or almost straight, anteclypeus strongly convex; rostrum moderately long, surpassing mesotrochanters, subapical segment longer than apical, apical segment in side view three times as long as broad; genae moderately broad, the obliquely transverse carina always distinct, lateral ocelli well developed, eyes reniform, incised below, but not very deeply so; antennae not attaining frontoclypeal suture, basal segment cylindrical, longer than broad at widest part (nearly 1.3 : 1), second segment longer than first (about 2.3 : 1). Pronotum in middle line distinctly shorter than vertex, anteriorly shallowly produced between eyes, posterior margin shallowly angulately excavate, disc tricarinate, with two impressions, lateral carinae strongly diverging basad, almost straight, not attaining hind margin, disc longer than broad at anterior margin (about 1.5 : 1), mesonotum broader than long (about 1.3 : 1) tricarinate, median carina becoming obsolete before scutellum, lateral carinae of disc divergent, lateral margins sinuate; legs only moderately slender, profemora slightly longer than procoxae, post-tibiae longer than profemora; each approximately 11 times as long to insertion of tarsus as wide at middle, with two spines laterally and five apically, post-tarsi about as long as post-tibiae, basal segment as long as other two together, post-tibial spur thin, foliaceous, large, with a narrow, minutely setose, submarginal band and about 25 black minute teeth arranged in a more or less irregular row; spur not quite as long as basal segment of post-tarsus, latter with five apical spines, second segment with four. Tegmina relatively long, about 3.5 times as long as wide, rather broadly rounded apically, Sc+R forked near middle of tegmen, slightly basad of, or about level with, entry of common claval vein into commissural margin, M forked at nodal line of cross-veins, Cu₁ forked level with Sc+R fork, cell between claval veins narrow, about as long as common claval vein. Wings well developed.

Anal segment of male collar-like, with a pair of moderately long, rather slender spinose processes arising some distance apart on distal margin or laterally on ventral surface, directed ventrad in a simple curve or sinuate. Pygofer moderately long, posterior opening ovate or lozenge-shaped, usually slightly longer dorsoventrally than broad, diaphragm with median portion produced dorsad in a lobe that is ovate or trapezoidal.

Anal segment of female with lateral angles slightly produced caudad. Second valvifers of ovipositor curved mesad at base to meet in middle line, no pregenital plate developed. Ovipositor moderately long, second valvulae rather stout, shallowly curved, dorsal margin not elevated at basal end of row of teeth; teeth small, differing in form and inclination between base and apex of row.

Variation in the proportions of the head

In the definitions of species of *Matutinus* that are given below, use is made of the proportions of the vertex and the frons. The collections studied included a long series of (dried) specimens of a single species (Lualaba: Kalombo, 23.vi.1947, *M. Poll*) and this was used as a basis for assessing the variation in these characters within a homogeneous population. The median length of the vertex when viewed directly from above at right-angles to the plane of the disc, and including the length of the projecting median carina and the width across the base, from margin to margin, and the median length of the frons, and its maximum width, were measured in twenty males and twenty females and the ratios of length to width were derived for each specimen. The ratio of length to width of the vertex was found to vary by 8% on each side of the mean and that of the frons by 12%. In dried specimens of Delphacidae (unlike those preserved in spirit), if teneral or near-teneral when captured,

the head can, to a greater or less extent, collapse laterally, and the possibility must be accepted that this can be a contributory factor to the amount of variation to be found in such material. From the standpoint of interpreting the descriptions given below, which have been based on dried material, allowance must be made for this amount of variation. It was found that by qualifying the proportions of the frons by the figure ± 0.2 , and those of the vertex by ± 0.1 , the resulting range of values covered the entire range of the sample. As the head in *Matutinus* is of roughly the same size in all species (with one exception), it is justifiable to expect at least a similar amount of variation in the ratios quoted for all species, and allowance should be made accordingly.

Variation in coloration

The only colour character of rigorous taxonomic significance in *Matutinus* is the presence or absence of a narrow, moderately elongate fuscous spot on the commissural (hind) margin of the tegmina just before the point where the common claval vein unites with the margin. Virtually all species have a pale stripe, more or less broad, and varying from ivory-white to yellow, along the middle line of the vertex and thorax. Nearly all species are brown, yellowish-brown to almost black, in ground colour. A few have frontal carinae that are white and many have lateral pronotal lobes, and even procoxae, that are creamy-white, wholly or in part. In the tegmina, the intervenal areas are invariably transparent and may be colourless, or tinged with dull yellow or even dark brown. Some degree of infuscation is invariably found, and this can vary from a mere dark spot where vein M meets the transverse veins to a suffusion involving almost the entire tegmen. Females, on the whole, have the same colour pattern as the males: the straw-coloured variant so commonly seen in females of many other Delphacine genera has not been observed in the collections examined.

The diversity of form in the male genitalia

Most species can be identified with certainty only by examination of their male genitalia, and the differences are most readily to be understood from the figures. Some species are sufficiently distinctive to be recognisable by superficial characters, notably the proportions of the head, but the extent of morphological variation within species, and the range in intensity of pigmentation both of body and tegmina that occur in and between populations are too great to permit general recognition of species on superficial characters alone.

The anal segment is always short, and sometimes markedly so. The lateroapical angles, the points at which the lateral margins meet the apical margin, are widely separated and clearly defined in *M. neovittacollis* (Muir), but so indistinct in other species to be of little use as a point of reference. The apical margin, at least in its middle portion, is usually narrow and papery: in *M. melichari* (Kirkaldy), however, it is broad and convex. A pair of spinose processes, the anal spines, is always present. These may be very stout and only moderately long (as in *M. neovittacollis*), or long, terete and bent in a simple curve (*M. typhae* (Lindberg)) or laterally compressed and distinctly sinuate. The pygofer may have dorsolateral angles that are not differentiated from the even curve of the lateral margins, or that are strongly and broadly produced caudad. The diaphragm has a median lobe on its dorsal margin that can take one of a limited number of shapes, and that is almost characteristic of the genus: the lobe is described below by its outline as seen in posterior view, but in reality it is three-dimensional, varying from a structure rather like the lip of a jug to one like the end of a spoon or shallowly hollowed scoop. The aedeagus is a simple tube, broadest at its base, more or less narrowing and ascending distad, and ornamented with teeth. In a few species, the teeth may be set on a definite ridge that inclines from the dorsal surface towards the left side.

The genital styles fall into five groups. They may be short and broad, and either

rounded apically (*M. melichari*) or obliquely truncate (*M. vitticollis* (Stål)); or they may be long, and either tapering distally (*M. fuscipennis* (Muir)) or hatchet-like (*M. antares* *); or, finally, they may be broad basally and rather abruptly narrowed, peg-like, in their distal half (*M. orestes* *). It is possible that these groups represent natural divisions of the genus, and, where agreement in the form of genital styles is supported by close similarity in other elements in the male genitalia, there can hardly be any doubt about the closeness of the relationship. When such corroborative agreement is not found, however, it would be imprudent to rely on such a 'single-character' classification of the genus. However, from the standpoint of identification, the groupings afforded by the form of the genital styles are of convenience, and have been used in the key presented below.

Geographical distribution

The present study is concerned with twenty-six species, of which fifteen are described as new. One species (*M. fuscipennis*) is found in Guyana and Brazil, one (*M. melichari*) in the oriental region and Australasia, one (*M. lautipes* (Stål)) in the Mascarene Is. and in Africa, three so far only in Madagascar, and the remainder in Africa, from Ethiopia to Cape Province, with some extending into Madagascar or the Canary Is. In vertical range, species are found from sea level (Pondoland, Port St. Johns) to a height of several thousand feet (W. Darfur, Jebel Marra, 7 600 ft; Ruanda, Khundhuru ya Tsuve, 8 450 ft; Aberdare Range, Mt. Kinangop 9 000 ft). The known host-plants include grasses, bamboos and *Typha*, and representatives of several species of *Matutinus* have been taken in grassland in which such fodder grasses as *Chloris gayana* and *Hyparrhenia* spp. were common.

Location of material

Except where stated otherwise under individual species, the material on which this study is based is in the collections of the British Museum (Natural History) (BMNH), the Musée royale de l'Afrique Centrale, Tervuren (MRAC), the Muséum National d'Histoire Naturelle, Paris (MNHN, Paris), the Institut Fondamental d'Afrique Noire, Dakar (IFAN, Dakar), the Institut Scientifique, Madagascar (IS, Tananarive), the Zoological Museum of the University, at Helsinki (ZMU, Helsinki) and Lund (ZMU, Lund), the Naturhistoriska Riksmuseet, Stockholm (NR, Stockholm) and of Dr. R. Linnavuori, Raisio, Finland. Types of new species are deposited with the owners of the collections in which the specimens were found.

KEY TO MALES OF SPECIES OF *Matutinus*

- 1 Genital styles in posterior view broad in basal half, slender in distal half (fig. 2) 2
- Genital styles not as above 5
- 2 Vertex at least three times as long as broad *ion* (Fennah) (p. 459)
- Vertex relatively shorter 3
- 3 Commissural margin of tegmen with a fuscous spot near entry of common claval vein 4
- Commissural margin without a fuscous spot *hyperion* sp.n. (p. 427)
- 4 Frons 2.7 times as long as broad; anal spines long *orestes* sp.n. (p. 426)
- Frons 2.5 times as long as broad; anal spines short *omphale* sp.n. (p. 428)
- 5 Genital styles not more than 2.5 times as long as broad at widest part (fig. 30) 6
- Genital styles relatively longer 7
- 6 Genital styles with a short acuminate process on inner margin near middle; diaphragm of pygofer with dorsal margin produced at middle in a knob-like process *melichari* (Kirkaldy) (p. 430)

* Described below as new species.

- Genital styles without such a process; diaphragm of pygofer with dorsal margin produced at middle in a trapezoidal process, broadest at its base *amyclas* sp.n. (p. 431)
- 7 Genital styles with inner margin concave to apex, apical margin oblique; inner apical angle acute, produced mesad or mesodorsad (fig. 38) 8
- Genital styles with inner margin not concave to apex; inner angle not acute, or if so, not distinctly produced 13
- 8 Commissural margin of tegmen with a fuscous spot near entry of common claval vein 9
- Commissural margin of tegmen without a fuscous spot 12
- 9 Vertex twice as long as broad *tartareus* Fennah (p. 433)
- Vertex less than twice as long as broad 10
- 10 Anal spines stout, widely separated at base *neovittacollis* (Muir) (p. 435)
- Anal spines not stout, and not widely separated at base 11
- 11 Frons at least three times as long as broad; anal spines long *andraemon* sp.n. (p. 436)
- Frons less than three times as long as broad; anal spines short *lautipes* (Stål) (p. 432)
- 12 Anal spines slender; aedeagus with a denticulate ridge dorsally near apex *vitticollis* (Stål) (p. 439)
- Anal spines not slender, aedeagus without a denticulate ridge dorsally *orion* sp.n. (p. 439)
- 13 Genital styles in posterior view with inner margin in distal quarter slightly produced, giving an axe-headed appearance to style (fig. 102) 14
- Genital styles not as above 16
- 14 Commissural margin of tegmen with a fuscous spot near entry of common claval vein 15
- Commissural margin of tegmen without a fuscous spot *antares* sp.n. (p. 443)
- 15 Vertex in profile broadly rounding into frons *hylonome* sp.n. (p. 441)
- Vertex in profile acutely and narrowly rounding into frons *erinna* sp.n. (p. 441)
- 16 Frons in middle line three times as long as broad 17
- Frons in middle line less than three times as long as broad 21
- 17 Genital styles in posterior view with apical margin strongly oblique and outer apical angle acute; frons more or less pale in basal half *ligea* Fennah (p. 445)
- Genital styles in posterior view with distal margin not oblique, outer apical angle not or scarcely acute 18
- 18 Process of dorsal margin of diaphragm narrow, about three times as long as broad *iphias* sp.n. (p. 446)
- Process of dorsal margin of diaphragm not narrow, relatively broader 19
- 19 Process of dorsal margin of diaphragm in posterior view not constricted near base; aedeagus in side view not twice as wide basally as at two-thirds from base; lateral margins of vertex in side view meeting lateral margins of frons obtusely angulately *artemis* sp.n. (p. 448)
- Process of dorsal margin of diaphragm in posterior view at least shallowly constricted near base; aedeagus in side view fully twice as wide basally as at two-thirds from base; lateral margins of vertex broadly rounding into lateral margins of frons 20
- 20 Tegmina with corium almost colourless, infusate area in membrane crescentic, clearly defined; profemora creamy-white to pallid yellow *pomona* (Fennah) (p. 449)
- Tegmina with corium suffused fuscous, infusate area in membrane extensive, not clearly defined, profemora suffused fuscous *anacreon* sp.n. (p. 450)
- 21 Process of dorsal margin of diaphragm less than 1.5 times as long as broad at base 22
- Process of dorsal margin of diaphragm more than 1.5 times as long as broad at base 24

- 22 Vertex medially about 1.7 times as long as broad at base 23
 — Vertex medially about 1.4 times as long as broad at base .. *africanus* Fennah (p. 452)
 23 Carinae of frons ivory-white to pale yellow; lateral margins of vertex in side view meeting those of frons at an obtuse angle *achates* sp.n. (p. 453)
 — Carinae of frons dark fuscous; lateral margins of vertex in side view meeting those of frons rectangulately *fuscipennis* (Muir) (p. 444)
 24 Anal spines terete, long, slender and deeply curved *typhae* (Lindberg) (p. 454)
 — Anal spines compressed, only moderately long, not deeply curved 25
 25 Genital styles in posterior view with outer margin strongly sinuate; frons with lateral carinae dark fuscous; procoxae pale *erebus* sp.n. (p. 456)
 — Genital styles in posterior view with outer margin not sinuate, very shallowly convex; frons with lateral carinae pale yellowish-brown; procoxae fuscous *apollo* sp.n. (p. 457)

Matutinus orestes sp.n. (Fig. 1-9)

Vertex longer medially than broad at base (1.5:1), subrectangulately rounding into frons, narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae slightly prominent, Y-shaped carina distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin

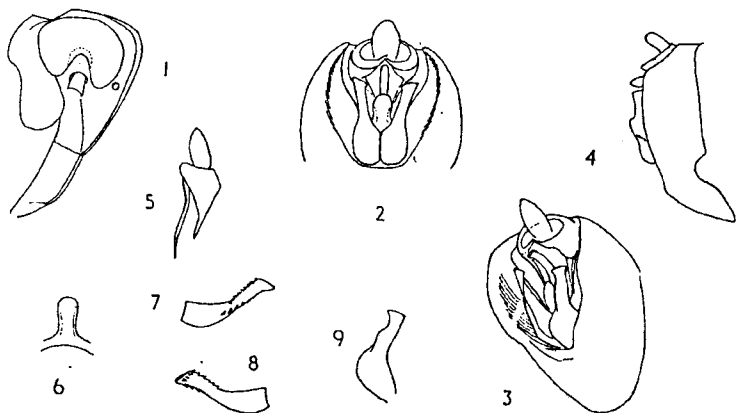


Fig. 1-9.—*Matutinus orestes* sp.n. 1, Head and pronotum, right side; 2, male genitalia, posterior view; 3, the same, posterolateral view; 4, the same, right side; 5, anal segment of male, posterior view; 6, median process of diaphragm, posterior view; 7, aedeagus, left side; 8, the same, right side; 9, genital style, lateral view.

than greatest length (1.3:1), and than median length (1.5:1), frons in middle line longer than wide at widest part (2.7:1), widest at middle, lateral margins shallowly convex, median carina simple, clypeus at base wider than frons at apex, postclypeal disc only slightly longer than broad at base.

Fuscous; a stripe from apex of vertex to mesoscutellum, sides of clypeus, genae in posterior half, antennae, lateral lobes of pronotum and a small round spot behind eyes, and legs except protarsi and mesotarsi apically, creamy-white or pale yellow; tegulae and mesopleura immediately below tegulae, light yellowish-brown. Tegmina

hyaline, veins M and Cu₁ and a suffusion in posterior half of membrane, light reddish-brown, commissural margin white, with a linear fuscous spot at junction with common claval vein.

Anal segment of male very short, apical margin convex, a pair of rather slender shallowly sinuate spinose processes arising ventrolaterally basad of apical margin, and directed ventrad. Pygofer with posterior opening longer dorsoventrally than broad, dorsolateral angles not produced, lateral margins in side view weakly convex; diaphragm with dorsal margin elevated at middle in a spoon-shaped process, not quite twice as long dorsoventrally as broad, margin without a notch medially. Aedeagus moderately long, tubular, ascending distad, broadest at base, narrowing to middle and widening again before narrowing to apex, an oblique row of four teeth dorsally, parallel to upper margin of orifice, a row of seven coarse teeth dorsally, and a row of about seven teeth extending from left side at middle to ventral margin a little before apex; orifice terminal, oblique. Genital styles moderately long, broad in basal half, narrow in distal half, where outer margin is straight and inner margin undulate, apical margin truncate, slightly oblique, inner angle slightly produced mesad.

Male: length, 2.5 mm, tegmen, 3.4 mm.

Female: length, 2.5 mm, tegmen, 4.4 mm.

Material. Holotype. ♂. MADAGASCAR: Banian, 70 m SW., vii.57 (*R. Andria*) (MNHN, Paris). Paratypes. 1 ♂ 4 ♀, Antslova, forêt Antsiagy, Andobo, 190 m, ii.57 (*P. Griv*).

Comments. The structure of the aedeagus suggests a relationship between *M. orestes* and *M. lautipes*. The genital styles broadly resemble those of *M. omphale*, but differ very appreciably in the basal half, where they are much broader and less prolonged basad.

Matutinus hyperion sp.n. (Fig. 10-16)

Vertex longer medially than broad at base (1.3:1), acutely and rather broadly rounding into frons, distinctly narrower at apex than at base, lateral margins straight, converging distad, apical margin truncate with submedian carinae prominent, uniting at apex of vertex, Y-shaped carina rather indistinct, basal compartment of vertex wider at hind margin than greatest length (1.4:1), and than median length (1.6:1), frons in middle line longer than wide at widest part (2.5:1), widest at level of ocelli, lateral margins convex, median carina simple, clypeus at base wider than frons at apex, postclypeal disc longer than broad at base.

Fuscous; basal compartment of vertex and area between submedian carinae, lateral margins before eyes, carinae of frons and clypeus, anteclypeus, sides of head above eyes, genae near anterior margin, and in posterior half, antennae, pronotum medially and on lateral lobes, mesonotum medially and greater part of mesopleura, ivory-white to creamy-yellow; legs, except protarsi and mesotarsi and abdominal segments laterally, stramineous to light yellowish-brown; anal segment dorsally yellowish-brown. Tegmina light yellowish-brown, membrane faintly infuscate towards posterior margin; commissural margin pallid yellow or creamy-white, no fuscous mark present at junction with common claval vein; veins concolorous. Wings hyaline, veins light yellowish-brown.

Anal segment of male short, collar-like, lateroapical angles not widely separated, each produced ventrad in a moderately stout, curved spinose process. Pygofer moderately long, posterior opening longer dorsoventrally than broad, dorsolateral angles slightly produced, abruptly rectangulate; diaphragm with dorsal margin elevated in middle in a quadrate lobe with its outer angles rounded, distinctly produced caudad at middle, and so resembling the lip of a jug.

Aedeagus moderately long, stout, tubular, shortly deflexed apically, in distal half with two teeth near upper margin on right, and five teeth near ventral margin, six

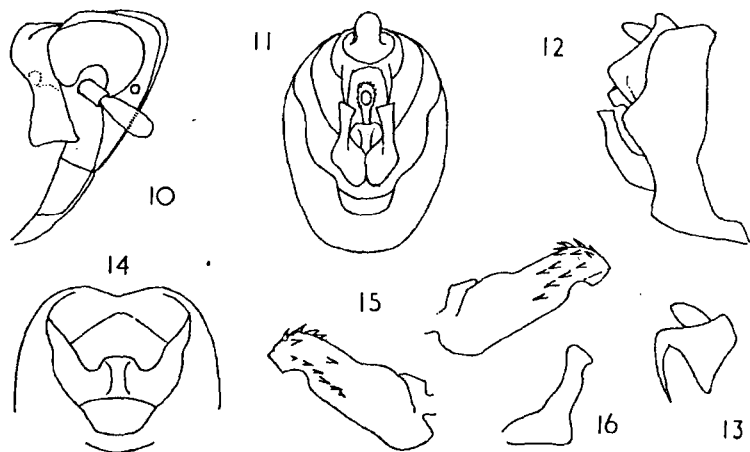


Fig. 10-16.—*Matutinus hyperion* sp.n. 10, Head and pronotum, right side; 11, male genitalia, posterior view; 12, the same, right side; 13, anal segment of male, right side; 14, posterior opening of pygofer and diaphragm, posteroventral view; 15, aedeagus, right and left sides; 16, genital style, left side.

teeth dorsally in two rows of three teeth each, and six teeth on left side, all teeth stout; orifice rather large, terminal, facing ventrad. Genital styles moderately long, weakly sinuate, broad in basal half, and a little hollowed out on inner surface, narrow and almost parallel-sided in distal half, apical margin truncate, inner apical angle shortly and narrowly produced mesad.

Male: length, 2.3 mm, tegmen, 3.0 mm.

Female: length, 2.7 mm, tegmen, 3.5 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Lualaba, Kalombo, 23.vi.1947 (*M. Poll*) (MRAC, Tervuren). A long series of both sexes, with same data as type.

Comments. This species stands well apart from the remainder in the structure and armature of the aedeagus. The females tend to be of a lighter colour than the males, and the intercarinal areas of the frons may be infuscate only near the lateral margins and at the base. In both sexes the reddish-brown or fuscous tegulae contrast markedly with the creamy-white mesopleura.

Matutinus omphale sp.n. (Fig. 17-24)

Vertex longer medially than broad at base (1.6 : 1), subrectangulately rounding into frons, slightly narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae prominent, Y-shaped carina feeble, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3 : 1) and than median length (1.5 : 1), frons in middle line longer than wide at widest part (2.5 : 1), widest at three-quarters from base, lateral margins shallowly convex, median carina simple, clypeus at base wider than frons at apex, postclypeal disc only slightly longer than broad at base.

Dark reddish-brown; a narrow stripe from apex of vertex to mesoscutellum, creamy-white; post-tibiae at apex, post-tibial spurs and hind tarsi, pallid stramineous;

second antennal segment, carinae of frons and clypeus, post-femora below at base and apex, and lateral spines of post-tibiae, tawny. Tegmina hyaline in anterior half, dark reddish-brown in posterior half, commissural margin white, with a fuscous spot near junction with common claval vein. Wings hyaline with fuscous veins.

Anal segment of male short, collar-like, apical margin convex, a pair of curved spinose processes arising on ventral surface basad of apical margin, extending caudad and ventrad. Pygofer moderately long, posterior opening longer dorsoventrally than broad, dorsolateral angles not produced, lateral margins in side view shallowly convex; diaphragm with dorsal margin elevated at middle in a quadrate lobe with its outer angles rounded, shallowly excavate medially. Aedeagus moderately long, tubular, broad at base, narrow in distal three-fifths, ascending distad, a row of six teeth on left, extending from dorsal margin near apex to ventral margin at middle of aedeagus, three widely spaced teeth on right, on a shallow horizontal ridge along dorsal margin; orifice terminal, oblique. Genital styles moderately long, strongly

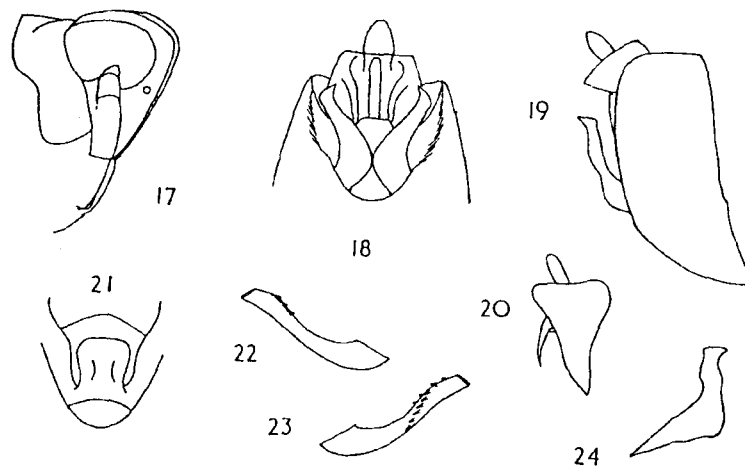


Fig. 17-24.—*Matutinus omphale* sp.n. 17, Head and pronotum, right side; 18, male genitalia, posteroventral view; 19, the same, right side; 20, anal segment of male, right side; 21, median process of diaphragm, posteroventral view; 22, aedeagus, right side; 23, the same, left side; 24, genital style, lateral view.

sinuate, diverging distad, each broad in basal two-fifths, then strongly curved, narrow and approximately parallel-sided in distal three-fifths, apical margin truncate with outer angle feebly and inner angle more strongly produced.

Male: length, 2.9 mm, tegmen, 3.7 mm.

Material. Holotype. ♂. ETHIOPIA [Abess.or.]: "Korke ad fl. Hauasch" (*Dmitriev*) (coll. Linnavuori).

Comments. This species is separable from most others by the uniformly fuscous lateral lobes of the pronotum. The corium of the tegmen is partly fuscous, thus differing from that of *M. typhae*, in which it is colourless, and that of *M. fuscipennis* in which it is more extensively infuscate. From *M. orestes*, in which the carinae of the frons are dark fuscous, it differs in these carinae being tawny.

Matutinus melichari (Kirkaldy) comb. n. (Fig. 25-30)*Liburnia fumipennis* Melichar, 1903, 97.*Delphacodes melichari* Kirkaldy, 1906, 156. [Replacement name for *fumipennis* Melichar]*Hadeodelphax persephone* Kirkaldy, 1907, 141.*Sardia pronotalis* Distant, 1916, 141.*Sardia melichari* (Kirkaldy) Fennah, 1971, 573.

Vertex longer medially than broad (1.9 : 1), in side view meeting frons rectangularly, slightly narrower at apex than at base, lateral margins shallowly sinuate, apical margin very slightly convex, with submedian carinae prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex at hind margin subequal in width to greatest length, and slightly wider than median length (1.1 : 1), frons in middle line longer than wide at widest part (3.0 : 1), widest near apex, lateral margins weakly diverging from base to level of ocelli, thence almost parallel, median carinae simple, clypeus at base not or only very slightly wider than frons at apex, postclypeal disc distinctly longer than broad at base.

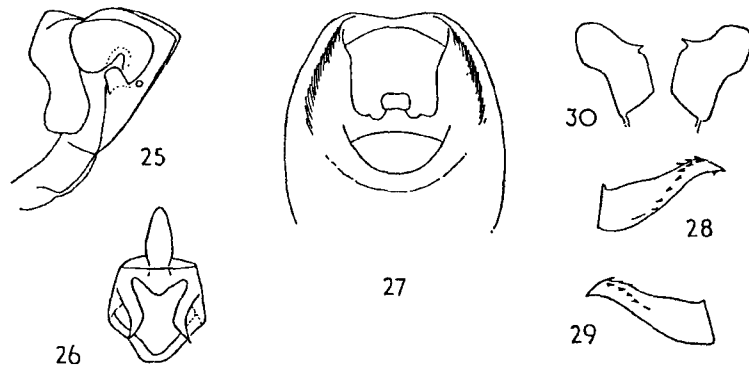


Fig. 25-30.—*Matutinus melichari* (Kirkaldy). 25, head and pronotum, right side; 26, anal segment of male, posterior view; 27, posterior view of pygofer and diaphragm, slightly posteroventral view; 28, aedeagus, left side; 29, the same, right side; 30, genital styles, separated, sublateral and lateral aspects.

Stramineous; lateral intercarinal areas of vertex, intercarinal areas and median carina of frons and clypeus, a broad oblique stripe on genae adjoining anterior side of oblique carina, a small spot on sides of head above eye, and a small suffusion on mesopleura, dark fuscous; sides of clypeus, procoxae and mesocoxae except medially and at base, and a small spot on metapleura, and abdominal segments except at posterior margin, light reddish-brown; second antennal segment, tegulae and mesonotum light orange-brown. Tegmina hyaline, largely suffused reddish-brown; membrane near anterior margin, and clavus near commissural margin at middle and apex, colourless, commissural margin, white, with a fuscous suffusion near humeral angle and a linear fuscous spot just basad of junction of common claval vein with margin. Wings hyaline, veins fuscous.

Anal segment of male short, ring-like, apical margin strongly convex, anal spines

moderately long, stout, arising lateroapically, directed ventrad and bent lateroventrad in distal third. Pygofer moderately long, posterior opening longer than broad, dorsolateral angles not produced, obtusely rounding; diaphragm with dorsal margin elevated at middle in a broad knob-like process that also extends a little caudad; a small pointed elevation on dorsal margin of diaphragm on each side of base of median process. Aedeagus moderately long, stout, markedly tapering distad and slightly ascending, three teeth dorsally near apex, six teeth on left side in distal half and four teeth in an oblique row on right; orifice oblique, terminal. Genital styles not very long, broad, with outer margin markedly concave and inner margin convex, with a small acute lobe at middle, apical margin deeply convex.

Male: length, 2.2 mm, tegmen, 2.8 mm.

Female: length, 2.5 mm, tegmen, 3.3 mm.

Material. CEYLON: Peradeniya, vi.1910 (*Distant*) (BMNH). AUSTRALIA: Queensland.

Comments. The most distinctive of the superficial features of this species is the abruptness with which the vertex meets the frons when the head is viewed in profile.

Matutinus amyclus sp.n. (Fig. 31-35)

Vertex longer medially than broad at base (1.7 : 1), in side view acutely rounding into frons, not or only very slightly narrower at apex than at base, lateral margins shallowly sinuate, apical margin transverse with union of submedian carinae prominent, Y-shaped carina distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3 : 1) and than median length (1.6 : 1), frons in middle line longer than wide at widest part (nearly 3.2 : 1), lateral margins parallel distad of level of ocelli, diverging from base to level of ocelli, median carina simple, clypeus at base as wide as frons at apex, postclypeal disc longer than broad at base.

Dark fuscous; carinae of frons and vertex, a stripe from apex of vertex to apex of mesoscutellum, antennae, anterior portion of lateral lobes of pronotum and four round spots (two of them pustules) near hind margin of each lobe, rostrum and hind legs, ivory-white; femora and tibiae of first two pairs of legs dilute yellowish-brown. Tegmina dark fuscous, colourless in anterior portion of membrane from

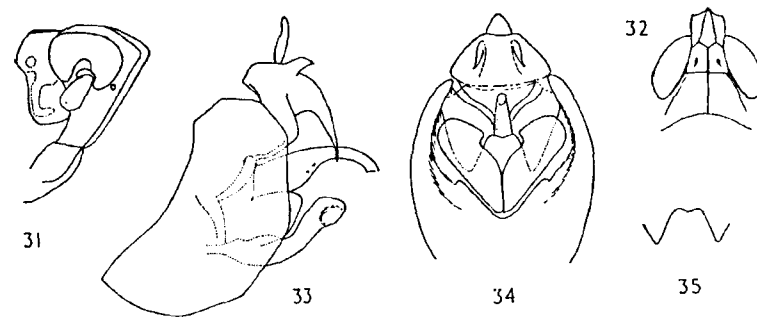


Fig. 31-35.—*Matutinus amyclus* sp.n. 31, Head and pronotum, right side; 32, vertex and median portion of pronotum; 33, male genitalia, left side, basal portions of aedeagus and genital styles shown in transparency; 34, male genitalia, slightly posteroventral view, with portions of diaphragm shown in transparency; 35, median process of diaphragm, posteroventral view.

node to cell R, commissural margin white, interrupted by a linear dark fuscous suffusion near point of entry of common claval vein. Wings dilute fuscous, with darker fuscous veins.

Anal segment of male short, broad near base, apical margin transverse, anal spines arising submarginally, fairly well separated, each in side view very broad at base, directed ventrad. Pygofer moderately long, posterior opening about as long dorsoventrally as broad, dorsolateral angles not produced, obtusely rounding; diaphragm with dorsal margin broadly elevated at middle in a trapezoidal lobe with its dorsal margin shallowly excavate medially. Aedeagus moderately long, tubular, broad in basal half, slender in distal half, two teeth on left side at middle, where aedeagus abruptly tapers; orifice terminal. Genital styles longer than broad (about 2.5 : 1), outer margin straight, inner margin sinuate, apical margin deeply convex.

Male: length, 2.6 mm, tegmen, 3.2 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Kivu, Kavimvira (Uvira), ii,iii.1955 (G. Marlier) (MRAC, Tervuren).

Comments. The genital styles of this species resemble those of *M. melichari*, but the two species differ entirely in the form of the diaphragm and the armature of the aedeagus. The profile of the head is acutely rounded in *M. amyctas* whereas it is abruptly rectangulate in *M. melichari*.

Matutinus vitticollis (Stål) (Fig. 36-45)

Delphax vitticollis Stål, 1855, 93.

Chloriona turneri Muir, 1929, 204.

Matutinus vitticollis (Stål) Fennah, 1964, 48.

Vertex longer medially than broad at base (1.5 : 1), subacutely rounding into frons, a little narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae prominent, Y-shaped carina feeble, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3 : 1), and than median length (1.4 : 1), frons in middle line longer than wide at widest part (2.5 : 1), widest at two-thirds from base, lateral margins very shallowly convex, median carina simple, clypeus at base not or scarcely wider than frons at apex, postclypeal disc longer than broad at base.

Dark fuscous; a band from apex of vertex to mesoscutellum, white; carinae of frons sometimes, antennae, an area on lateral pronotal lobes behind antennae, their lower margin narrowly, and legs, light brown or yellowish-brown. Tegmina hyaline in anterior half, fuscous in posterior half, commissural margin entirely white; veins colorous. Wings hyaline, dilutely infuscate, veins fuscous.

Anal segment of male short, apical margin convex, a pair of rather long slender spinose processes arising on ventral surface before apex, lying close to ventral surface then descending mesoventrad and distally curving outward. Pygofer with lateral margins in side view convex, dorsolateral angles only slightly produced, diaphragm with dorsal margin elevated at middle in a narrowly spatulate lobe, shallowly medially cleft. Aedeagus moderately long, in side view broad basally, narrowing to middle, a row of seven teeth on ventral margin, an oblique ridge bearing nine teeth (four of them minute) in distal half on left, ascending to dorsal margin near apex and two teeth on right behind orifice; orifice oblique, terminal. Genital styles broad, simple, each about three times as long as broad at widest part, slightly constricted near middle, apical margin almost straight, oblique, with inner angles acute.

Male: length, 2.7 mm, tegmen, 3.0 mm.

Female: length, 2.9 mm, tegmen, 3.3 mm.

Material. *Delphax vitticollis* Stål, holotype ♂. SOUTH AFRICA (NR, Stockholm) [examined]. 1 ♂, CONGO (KINSHASA): Ruanda, Kundhuru ya Tsuve, col Gabinga-Sabinyo, 2000 m, 15.ix.1934 (G. F. de Witte). A specimen in the British Museum (Nat. Hist.) labelled "Cape Province, Ceres, March 1925 (R. E. Turner) Brit. Mus. 1925-161, *Chloriona turneri* Muir" and bearing two red-bordered labels "type" and "holotype", is here designated as the lectotype of *Chloriona turneri* Muir. Muir listed seventeen specimens from this locality, two from Umtata, Transkei and one from Eshowe, Zululand. I have seen 7 ♂ and 4 ♀ from Ceres, but the specimens from Umtata refer to a new species described elsewhere in this report and that from Eshowe represents *M. africanus* Fennah.

Comments. Some specimens are darker than others, and the rather characteristic dull yellowish brown round patch on the lateral lobes of the pronotum behind the antennae may be so infuscate as to be indistinguishable from the surrounding area. The absence of a fuscous mark on the commissural margin serves to distinguish this species from its nearest ally, *M. lautipes*.

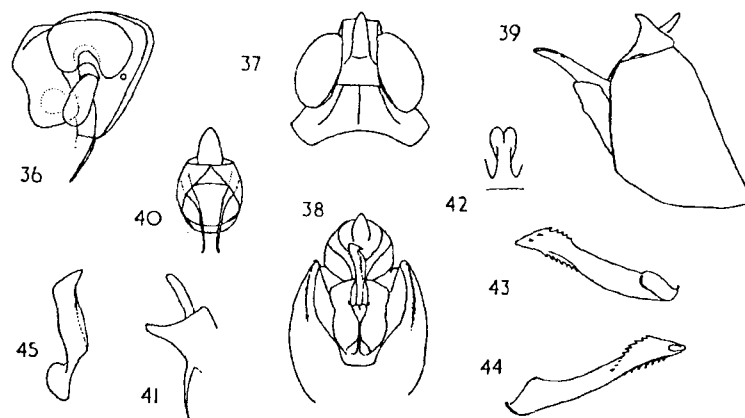


Fig. 36-45.—*Matutinus vitticollis* (Stål). 36, Head and pronotum, right side; 37, vertex and pronotum; 38, male genitalia, posterior ventral view; 39, the same, right side; 40, anal segment of male, posterior view, with bases of anal spines shown in transparency; 41, distal part of the same, right side; 42, median process of diaphragm, posterior ventral view; 43, aedeagus, dorsolateral view from right; 44, the same, left side; 45, genital style, lateral view.

Matutinus tartareus (Fennah) (Fig. 46-53)

Stenocranus tartareus Fennah, 1958a, 196.

Vertex longer medially than broad at base (2.0 : 1), acutely angulately rounding into frons, narrower at apex than at base, lateral margins a little sinuate, apical margin convex with united submedian carinae prominent, Y-shaped carina weak, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.1 : 1), and than median length (1.2 : 1), frons in middle line longer than wide at widest part (3 : 1), widest near apex, lateral margins straight, diverging, then rather abruptly incurved to apex, median carina simple, strongly elevated, clypeus at base distinctly wider than frons at apex.

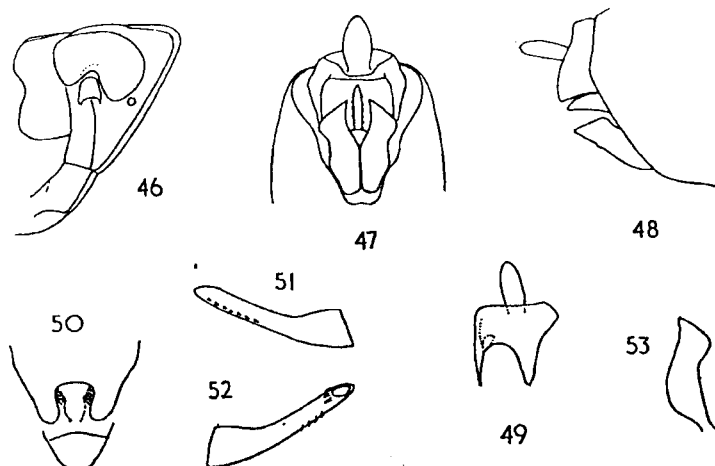


Fig. 46-53.—*Matutinus tartareus* (Fennah). 46, Head and pronotum, right side; 47, male genitalia, posteroventral view; 48, the same, right side; 49, anal segment of male, right side; 50, median process of diaphragm, posteroventral view; 51, aedeagus, right side; 52, the same, left side; 53, genital style, lateral view.

Dark fuscous; median area of vertex and lateral margins before eyes, antennae, rostrum, pronotum medially and at inner angle of lateral lobes, mesonotum medially and legs, except coxae, creamy-white or pallid stramineous. Tegmina fuscous, a hyaline area anteriorly, extending from near node to first apical cell of M, commissural margin white, with a linear fuscous spot distally near apex of common claval vein. Wings powdered grey, veins fuscous.

Anal segment of male short, apical margin narrow, transverse, lateroapical angles widely separated, each produced ventrad in a stout, only slightly curved, spinose process. Pygofer with lateral margins in side view convex, dorsolateral angles not produced, diaphragm with dorsal margin elevated at middle in a spatulate process not very narrow basally and minutely papillate towards edges, not cleft medially. Aedeagus moderately long, broadest at base, very shallowly sinuate, tapering distad in distal half, a row of six or seven teeth on right, four teeth on ventral margin, and three teeth on left behind orifice; orifice on left close to apex. Genital styles broad, simple, each about 2.9 times as long as broad at widest part, constricted just distad of middle, apical margin straight, strongly oblique, inner apical angle acute (about 47 degrees).

Male: length, 2.5-3.5 mm, tegmen, 3.2-4.0 mm.

Female: length, 3.3 mm, tegmen, 3.8 mm.

Material. Holotype. ♂. SOUTH AFRICA: Transvaal, Pretoria, 6.iv.1954 (*G. Rudebeck*) (ZMU, Lund); 1 ♂ Cape Province, Cape Peninsula, Kirstenbosch, 29.x.1950; 3 ♂ 4 ♀ Thabazimbi, Buffelfontein's Farm, 9.i.57. (*A. Capener*) (coll. Linnavuori).

Comments. This species is recognisable merely by the proportions of the vertex in combination with a median white stripe dorsally. Only *M. neovittacollis* has an anal segment with the anal spines set so far apart.

***Matutinus neovittacollis* (Muir) (Fig. 54-61)**

Sogata neovittacollis Muir, 1926, 32.

Vertex longer medially than broad at base (1.5-1.7:1), in profile acutely rounding into frons, narrower at apex than at base, lateral margins straight, apical margin slightly convex with submedian carinae distinctly prominent, Y-shaped carina distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (nearly 1.4:1), and than median length (nearly 1.5:1), frons in middle line longer than wide at widest part (about 3:1), widest at three-quarters from base, lateral margins very shallowly convex, median carina simple, clypeus at base slightly wider than frons at apex, postclypeal disc distinctly longer than broad at base.

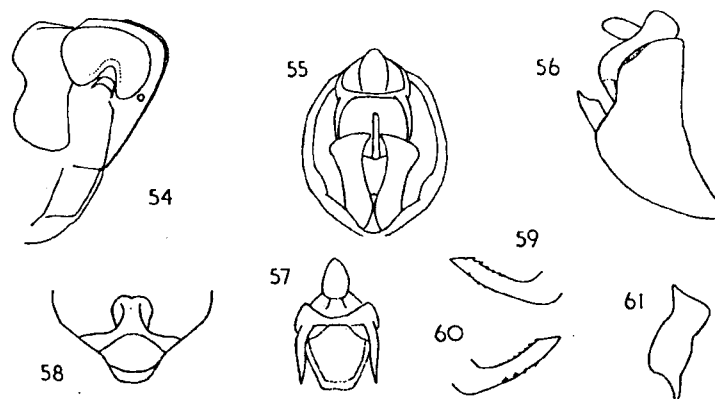


Fig. 54-61.—*Matutinus neovittacollis* (Muir). 54, Head and pronotum, right side; 55, male genitalia, posteroventral view; 56, the same, right side; 57, anal segment of male, posterior view; 58, median process of pygofer, posteroventral view; 59, aedeagus, right side; 60, the same, left side; 61, genital style, lateral view.

Fuscous; lateral margins of vertex, a stripe from apex of vertex to mesoscutellum, sometimes genae in posterior half and lateral lobes of pronotum (or at least an area in middle of each), white or creamy-yellow; antennae, sometimes a small round spot near hind margin of pronotum behind eyes, tegulae, rostrum and femora pallid stramineous or more or less brown. Tegmina hyaline, corium lightly suffused with yellowish-brown or fuscous, a fuscous suffusion over M fork, over transverse veins, over apical cells of Cu, and over cells of M and R distally, sometimes not completely filling cell, commissural margin white, with a linear fuscous spot at junction with common claval vein. Wings hyaline, sordid white or dilute fuscous, veins brown.

Anal segment of male short, collar-like, lateroapical angles widely separated, each produced ventrad in a stout curved spinose process. Pygofer moderately long, posterior opening slightly longer than broad, dorsolateral angles not or only slightly produced, diaphragm with dorsal margin elevated at middle in a broadly rounded or subquadrate process slightly notched medially. Aedeagus moderately long, tubular, broadest at base, curved upward and slightly tapering distad, a row of about six teeth on dorsal margin, and about six teeth ventrally, extending from right side at apex to left side of lower margin at middle of aedeagus, orifice terminal, oblique. Genital styles rather short,

about 1.8 times as long as broad along apical margin, slightly constricted near middle, apical margin slightly oblique, inner apical angle acute, outer apical angle broadly rounded.

Male: length, 2.5 mm, tegmen, 3.5 mm.

Female: length, 3.1 mm, tegmen, 3.9 mm.

Material. Holotype. ♂. SOUTH AFRICA: Pondoland, Port St. John, 1-5.iv.1923 (R. E. Turner); 1 ♂ 1 ♀, same data (BMNH). 2 ♂, CONGO (KINSHASA): Lubumbashi (Elisabethville), ii.1940 (H. J. Bredo); Kivu, Kavimvira (Uvira), xii.1954 (G. Marlier) (MRAC, Tervuren). 1 ♂, MADAGASCAR: Tsimbazaza, Tananarive, 31.xii.1948 (R. Paulian) (MNHN, Paris).

Comments. In the original description, the values given for the proportionate length of the frons (2.5 × the width), and the length of the tegmen of the male (2.3 mm) do not agree with those of the type or of any specimen in the type series; moreover, the aedeagus has more teeth on the ventral margin than given by Muir.

This species is usually recognisable by the proportions of the frons and the presence of a single round pale spot or pustule sublaterally on each side of the pronotum behind the eye in conjunction with tegmina that are marked rather like those of *Peregrinus maidis* (Ashmead). The most readily recognisable of the rigorously diagnostic characters is the pair of exceptionally stout and widely separated anal spines in the male.

Matutinus andraemon sp.n. (Fig. 62-70)

Vertex longer medially than broad at base (1.6:1), acutely but rather broadly rounding into frons, narrower at apex than at base, lateral margins straight, apical margin transverse with submedian carinae weakly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (about 1.1:1),

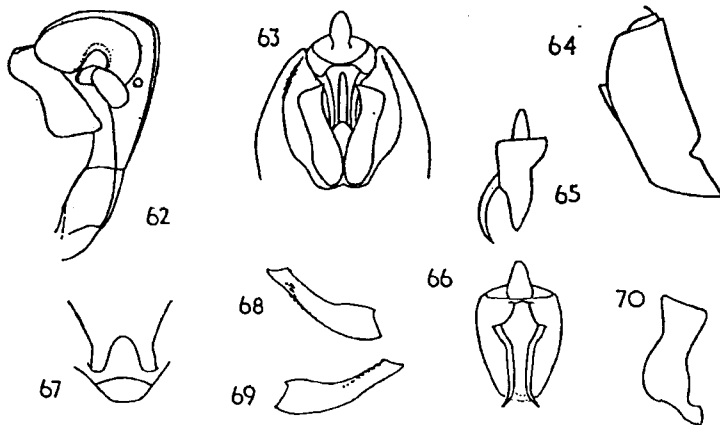


Fig. 62-70.—*Matutinus andraemon* sp.n. 62, Head and pronotum, right side; 63, male genitalia, posteroventral view; 64, the same, right side; 65, anal segment of male, right side; 66, the same, posteroventral view; 67, median process of diaphragm, posteroventral view; 68, aedeagus, right side; 69, the same, left side; 70, genital style, lateral view.

and than median length (1.3:1), frons in middle line longer than wide at widest part (nearly 3.2:1), widest at about three-quarters from base, lateral margins almost straight, median carina simple, clypeus at base only very slightly wider than frons at apex, postclypeal disc longer than broad at base (about 1.3:1).

Dark fuscous; a stripe from apex of vertex to mesoscutellum, lateral lobes of pronotum, procoxae at base and hind legs, except tarsi, creamy-white; genae in posterior half, antennae, rostrum, fore and middle legs, stramineous; lateral margins of vertex anteriorly, and of frons basally, sides of clypeus, tegulae and post-tarsi, yellowish-brown or reddish-brown. Tegmina hyaline, distinctly tinged yellowish-brown, membrane suffused fuscous in posterior half, commissural margin white, with a fuscous spot near union with common claval vein. Wings hyaline, with veins dilute fuscous.

Anal segment of male very short, ring-like, apical margin slightly produced caudad at each lateroapical angle, a pair of long, slender spinose processes arising lateroventrally before apex, directed ventrad and curving cephalad near tip. Pygofer moderately long, posterior opening about as broad as long, dorsolateral angles not at all produced, lateral margins convex in side view; diaphragm with dorsal margin elevated at middle in a trapezoidal process very slightly longer dorsoventrally than broad at base (1.1:1), with its distal margin very shallowly convex. Aedeagus moderately long, tubular, broadest in basal third, and slightly ascending distad, a row of six distinct teeth followed by two or three rudimentary teeth dorsally, slightly to left of middle line, a compact triangular cluster of four small teeth, on right side at a quarter from apex, and a staggered row of five teeth on ventral margin just distad of middle of aedeagus, followed at basal end by three teeth on left near ventral margin; orifice terminal, oblique. Genital styles short, each about 2.5 times as long as broad at apical margin and constricted at two-thirds from base; outer margin concave, inner margin sinuate, apical margin straight, slightly oblique, inner angle acute, outer angle rectangularly rounded.

Male: length, 2.5 mm, tegmen, 3.7 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Terr. Rutshuru, 7.iv.1937 (*Miss. Prophylactique*) (MRAC, Tervuren).

Comments. This species is most readily recognisable by the exceptionally long frons and the subacutely angulate profile of the head together with a coloration that is dull rather than dark. The last is largely due to the yellow-brown tint of areas that in other species are usually pallid, such as the posterior half of the genae, the sides of the clypeus and the first two pairs of legs; in addition the dark fuscous areas of the body include the procoxae and mesocoxae, the mesopleura and metapleura, and, to a lesser extent, the post-coxae. In bodily proportions, *M. andraemon* resembles *M. amyclas*, but differs in the relatively longer compartment of the vertex.

Matutinus lautipes (Stål) (Fig. 71-78)

Delphax lautipes Stål, 1858, 319.

Matutinus opulentus Distant, 1917, 273. *Syn.n.*

Opiconsiva gloriosa Distant, 1917, 302.

Vertex longer medially than broad at base (1.3-1.9:1), in profile subacutely rounding into frons, narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae prominent, Y-shaped carina indistinct, submedian carinae uniting at apex of vertex, basal compartment of vertex as wide at hind margin as greatest length, and slightly wider than median length (nearly 1:1), frons in middle line longer than wide at widest part (2.7-3.0:1), widest distad of middle, lateral margins parallel in distal half, median carina simple, postclypeus very slightly wider than frons at apex, postclypeal disc as long as broad

at base; basal segment of antenna as long as broad or only a little longer than broad. Post-tibial spur large, as long as basal metatarsal segment.

Fuscous; lateral margins of vertex before eyes, lateral margins of frons and sometimes of clypeus, sides of head above eyes, genae before ocelli, a median stripe from near apex of vertex to mesoscutellum and lateral lobes of pronotum except posteriorly, and outer edge of procoxae, creamy-white; two to four spots near hind margin of lateral lobes, tawny. Tegmina translucent, corium with dilute brown tinge, clavus slightly paler, membrane fuscous, except in region of node, where it is colourless, clavus slightly paler than corium, a linear spot on commissural margin near apex of common claval vein, fuscous. Wings hyaline with fuscous veins.

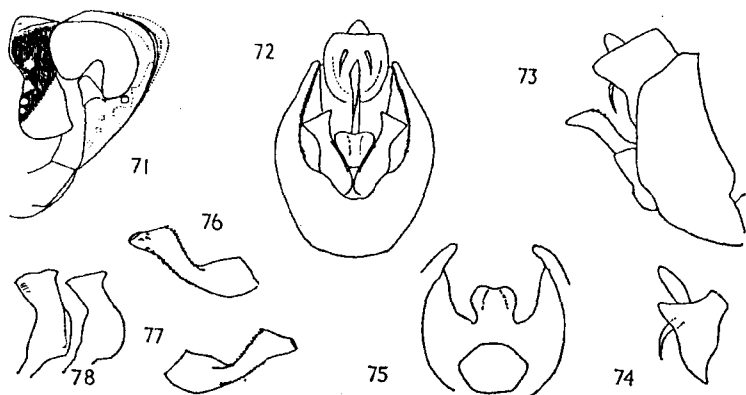


Fig. 71-78.—*Matutinus lautipes* (Stål). 71, Head and pronotum, right side from Seychelles with profile of type of *M. lautipes* superimposed in broken line; 72, male genitalia, posteroventral view; 73, the same, right side; 74, anal segment of male, right side; 75, posterior opening of pygofer and diaphragm, posteroventral view; 76, aedeagus, right side; 77, the same, left side; 78, genital style, lateral view, from Seychelles (left), from Ethiopia (right).

Anal segment of male short, apical margin shallowly rounding, a pair of rather short, slender spinose processes arising on ventral surface before apex, each shallowly curved caudad and ventrad. Pygofer with lateral margins in side view convex, dorsolateral angles not produced, diaphragm with dorsal margin elevated at middle in a subquadrate lobe, with its lateral angles broadly rounded, and with a shallow incision at middle. Aedeagus moderately long, in side view broad basally, narrowing to middle, then strongly expanding, and narrowing again to apex; an even row of about 15 teeth ventrally, nine of them on a slight ridge just above ventral margin on left side; three teeth on right dorsally near apex, and a coxcomb-like ridge of about 18 teeth along dorsal margin but descending slightly to left in its basal third. Genital styles broad, each about 2.2 times as long as broad at apical margin, simple, shallowly constricted near middle, apical margin transversely truncate with angles slightly produced laterad.

Male: length, 2.9 mm, tegmen, 3.0 mm.

Female: length, 3.2 mm, tegmen, 3.9 mm.

Material. Holotype ♀ of *Delphax lautipes*, S.W. AFRICA: T'kons font (*J. Wahlberg*) (NR, Stockholm). Holotype ♂ of *M. opulentus*, holotype ♀ of *Opiconsiva gloriosa*,

SEYCHELLES Is.: Mahé, '08-9 (*Seychelles Exp.*) (BMNH). 3 ♂ 12 ♀, RÉUNION: St. André (*J. Hamon*) (MNHN, Paris). 1 ♂, ETHIOPIA: nr. Wondo, 8.vi.63 (*R. Linnavuori*) (coll. Linnavuori).

Comments. The type specimen of *Delphax lautipes*, with a total length of 4.8 mm from vertex to apex of folded tegmina, is as large as that of *Opiconsiva gloriosa* (the female of *M. opulentus*) and definitely larger than the females of other species. The profile of the head is more acute than that found in the Seychellese population, but is closely approached by that of the series from Réunion and by that of the specimen from Ethiopia. In a genus in which colour patterns do not vary greatly, this species has one of the most distinctive, and its most conspicuous feature is the sharply defined oblique line of junction between the dark and pallid areas of the lateral pronotal lobes, sometimes coupled with the presence of two to four tawny round spots near the hind margin (fig. 71).

The specimen from Nossi Bé figured as *Megamelus lautipes* (Stål) by Jacobi (*Reise in Ostafrika*, 3, pl. 32 fig. 1, a-d) differs strongly from the type in the shape of the head and in the colour pattern of the thorax. The genital styles are unlike those of any *Matutinus* seen in the present study, and the evidence suggests that the specimen does not belong to this genus.

Matutinus orion sp.n. (Fig. 79-86)

Vertex longer medially than broad at base (1.6:1), acutely rounding into frons, narrower at apex than at base, lateral margins straight, apical margin convex with submedian carinae moderately prominent, Y-shaped carina feeble, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3:1), and than median length (1.4:1), frons in middle line longer than wide at widest part (2.5:1), widest at two-thirds from base, lateral margins shallowly convex, median carina simple, clypeus at base not wider than frons at apex.

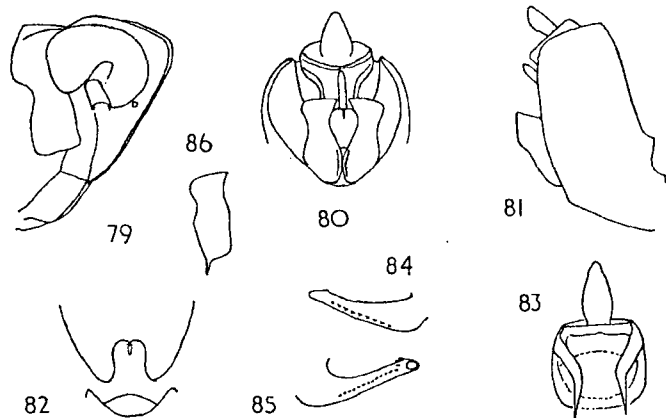


Fig. 79-86.—*Matutinus orion* sp.n. 79, Head and pronotum, right side; 80, male genitalia, posteroventral view; 81, the same, right side; 82, median process of diaphragm, posteroventral view; 83, anal segment of male, posterior view; 84, aedeagus, right side; 85, the same, left side; 86, genital style, lateral view.

Fuscous; a stripe from apex of vertex to mesoscutellum, carinae of head, post-tibiae at margins, and post-tarsi, creamy-white or sordid white, antennae, a spot on lateral lobes of pronotum behind eyes, legs except margins of post-tibiae and post-tarsi, dilute fuscous. Tegmina hyaline in anterior half, in posterior half corium faintly infuscate and membrane more distinctly so; veins concolorous, except in posterior half of corium where they are darker than ground colour, commissural margin white, without a fuscous spot. Wings hyaline, slightly tinged fuscous, veins fuscous.

Anal segment of male very short, ring-like, apical margin convex, a pair of stout laterally compressed spinose processes arising laterally at lateroapical angles, widely separated at base, directed ventromesad then ventrad. Pygofer moderately long, posterior opening about as broad as long, dorsolateral angles not or only a little produced; diaphragm with dorsal margin elevated at middle in a broad subspatulate lobe deeply and narrowly notched at middle, and only weakly constricted at its narrowest part. Aedeagus moderately long, broad at base, tapering distad, porrect, four teeth in an oblique row on left basad of orifice, a horizontal row of twelve small teeth on left near ventral margin, and a horizontal row of eleven teeth along middle of right side, orifice on left at apex. Genital styles short, about twice as long as broad at widest part, shallowly constricted at about one-third from apex, apical margin straight or shallowly sinuate, oblique, inner apical angle acute, outer angle rounded.

Male: length, 2.5 mm, tegmen, 3.1 mm.

Material. Holotype. ♂ MADAGASCAR: Tsimbazaza, i.1952 (*G. Viette*), mercury vapour lamp (MNHN, Paris).

Comments. This species differs from *M. vitticollis*, with which it agrees in having infuscate lateral pronotal lobes and no fuscous spot on the commissural margin of the tegmina, in the creamy-white carinae of the frons and clypeus, these being dark in *M. vitticollis*.

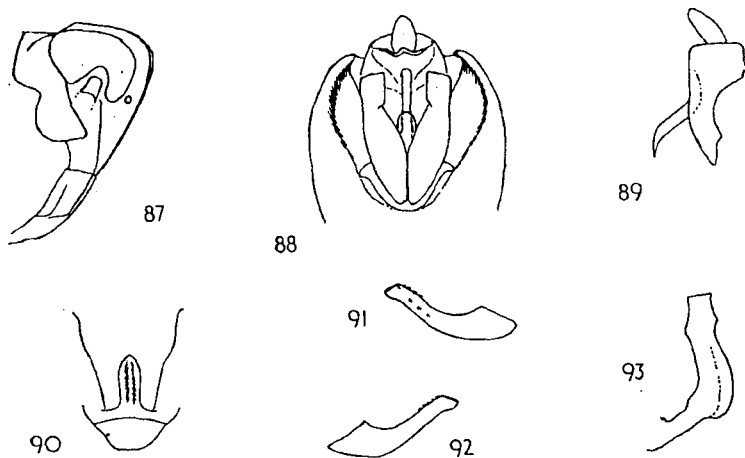


Fig. 87-93.—*Matutinus hylonome* sp.n. 87, Head and pronotum, right side; 88, male genitalia, posteroventral view; 89, anal segment of male, right side; 90, median process of diaphragm, posteroventral view; 91, aedeagus, right side; 92, the same, left side; 93, genital style, lateral view.

Matutinus hylonome sp.n. (Fig. 87-93)

Vertex longer medially than broad at base (1.6:1), subrectangulately rounding into frons, distinctly narrower at apex than at base, lateral margins straight, apical margin truncate, with submedian carinae prominent, Y-shaped carina with common stem indistinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.4:1), and than median length (slightly more than 1.3:1), frons in middle line longer than wide at widest part (2.9:1), widest at two-thirds from base, lateral margins shallowly convex, median carina simple, clypeus at base very slightly wider than frons at apex, postclypeal disc only as long as broad at base.

Dark reddish-brown; lateral margins and submedian carinae of vertex, median carina of frons at base, oblique carina on genae, a broad stripe from middle of vertex to apex of mesoscutellum, ivory-white, or yellowish; rostrum and legs pale, dilute yellowish-brown. Tegmina hyaline, a faint suffusion in corium between Sc+R and Cu₂, a more distinct suffusion overlying membrane, except in apical cells of Sc and R, fuscous; commissural margin white, with a fuscous spot near junction with common claval vein; veins slightly darker than ground colour. Wings hyaline.

Anal segment of male short, collar-like, apical margin transverse, a pair of laterally compressed spinose processes arising on ventrolateral surface a little basad of apical margin, extending caudoventrad. Pygofer moderately long, posterior opening longer dorsoventrally than broad, dorsolateral angles not produced, diaphragm with dorsal margin elevated at middle in a lobe, twice as long dorsoventrally as broad at middle, almost parallel-sided, and with a distinct median ridge. Aedeagus moderately long, tubular, sinuate, ascending distad, slightly widening at apex, a row of five or six small teeth dorsally in apical third, a subapical tooth near dorsal margin and three widely spaced teeth along middle of right side in distal half; orifice terminal, oblique. Genital styles rather long, slightly tapering in basal third, then abruptly widening, and tapering again to apex, apical margin truncate, apical angles not produced.

Male: length, 2.8 mm, tegmen, 3.3 mm.

Material. Holotype. ♂ MADAGASCAR: Tsimbazaza-Tananarive, i.1952 (*R. Benoist*) (MNHN, Paris).

Comments. This species closely resembles *M. omphale*, but differs in the proportions of the vertex and frons, and in the relatively longer rostrum, which almost attains the post-trochanters (whereas in *M. omphale* it scarcely surpasses the meso-trochanters), and in the structural details of the male genitalia. The pattern of infuscation of the tegmina differs in the specimens of the two species, but nothing is known of the range of variation within either.

Matutinus erinna sp.n. (Fig. 94-100)

Vertex longer medially than broad at base (2:1), distinctly narrower at apex than at base, lateral margins slightly sinuate, converging distad of eyes, anterior margin transverse with submedian carinae prominent, Y-shaped carina more or less feeble, basal compartment scarcely wider at hind margin than greatest length (1:1.0-0.9) and wider than median length (1:0.9), frons in middle line longer than wide at widest part (3.5-3.6:1), widest at three-quarters from base, lateral margins shallowly sinuate, median carina simple; clypeus at base not wider than frons at apex, post-clypeus longer in middle line than broad at base (about 1.2:1), in profile almost straight, rostrum about as long as clypeus, its apex attaining mesotrochanters; antennae relatively short, not nearly attaining frontoclypeal suture, basal segment slightly longer than broad, second segment twice as long as first; ocelli distinct.

Dark fuscous; carinae of anterior half of vertex, and basal margin, carinae of frons except median carina distally, sometimes lateral carinae of clypeus, genae before eyes and in posterior half, antennae, rostrum, hind margin, and sometimes carinae.

of pronotum, posterolateral margins of mesonotum, mesoscutellum and legs, except femora basally, ivory-white to stramineous. Tegmina fuscous, a triangular area at node extending inward to M_{1+2} , and a more or less triangular spot submarginally in each apical cell, and apical portion of clavus, colourless; commissural margin white except basally and near point of entry of common claval vein, where it is infuscate. Wings greyish-hyaline to dilute fuscous with fuscous or yellowish-brown veins.

Anal segment of male very short, apical margin transverse, anal spines moderately far apart, each moderately long and laterally compressed, directed ventrad. Pygofer moderately long, posterior opening longer dorsoventrally than broad, dorsolateral angles produced; diaphragm with dorsal margin strongly produced dorsad in a triangular lobe that is longer than broad at base (about 1.3:1) and rounded distally, lateroventral angles, as seen from below, abruptly and slightly obtusely angulate, a small medioventral process present. Aedeagus tubular, shallowly sinuate, only moderately narrowing distad, three parallel rows of teeth present on left side in distal third, the uppermost row with two teeth, the second with five and the third with seven, two teeth dorsally near apex on right side and a row of six teeth in upper half of

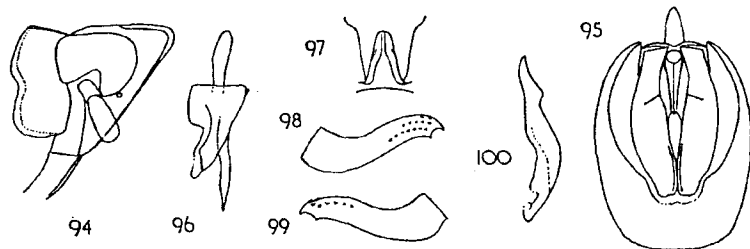


Fig. 94-100.—*Matutinus erinna* sp.n. 94, Head and pronotum, right side; 95, male genitalia, posteroventral view; 96, anal segment of male, left side; 97, median process of diaphragm, posteroventral view; 98, aedeagus, left side; 99, the same, right side; 100, genital style, lateral view.

right side in distal third, orifice at apex. Genital styles long, in posterior view broad, slightly narrowing distally, outer margin shallowly convex, inner margin sinuate, shallowly concave in distal half and slightly produced in a shallow angular lob-twisted mesocaudad, at three-fifths from base.

Male: length, 2.6 mm, tegmen, 3.5 mm

Female: length, 4.0 mm, tegmen, 4.0 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Lubumbashi (Elisabethville), ii.1955 (Ch. Seydel) (MRAC, Tervuren). Paratype. 1 ♀, UGANDA: Kampala, Kawanda Agricultural Research Station, 6.x.1957 (P. E. Whalley) (BMNH).

Comments. This species is very distinct, and combines several unusual characters that occur singly in other species. They include a long vertex like that of *M. tartareus*, a pygofer with the diaphragm rather like that of *M. fuscipennis* or *M. artemis*, an aedeagus slightly resembling that of *M. hyperion*, and genital styles that combine the exceptional length of those of *M. pomona* or *M. artemis* with a distal structure rather like that found in *M. hylonome*. Perhaps the most conspicuous superficial feature is the absence of the mid-dorsal white stripe found in the other species, in combination with the presence of frontal carinae that are white.

Matutinus antares sp.n. (Fig. 101-107)

Vertex longer medially than broad at base (1.4:1), subacutely rounding into frons, slightly narrower at apex than at base, lateral margins shallowly sinuate, apical margin truncate, with submedian carinae moderately prominent, Y-shaped carina weak, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3:1), and than median length (1.5:1), frons in middle line longer than wide at widest part (2.4:1), widest at middle, lateral margins evenly convex, median carina simple, clypeus at base only slightly wider than frons at apex, postclypeal disc longer than broad at base.

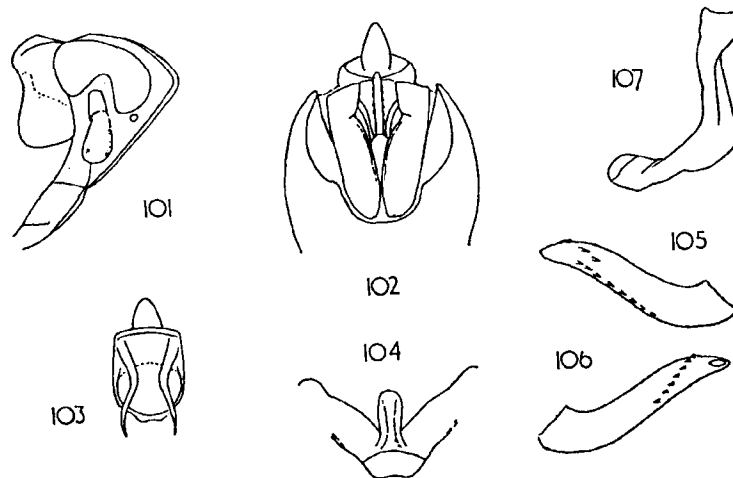


Fig. 101-107.—*Matutinus antares* sp.n. 101, Head and pronotum, right side; 102, male genitalia, posteroventral view; 103, anal segment of male, posterior view; 104, median process of diaphragm, posteroventral view; 105, aedeagus, right side; 106, the same, left side; 107, genital style, lateral view.

Fuscous; a stripe from apex of vertex to mesoscutellum, carinae of frons and clypeus, genae in posterior half, and lateral lobes of pronotum, creamy-white; fore and middle legs and post-tarsi stramineous to dilute fuscous, hind legs sordid white to stramineous; basal segment of antennae, and sometimes second segment, sometimes sides of head, and mesopleura in part, stramineous. Tegmina with corium in anterior half, or at least anterior to $Sc+R$, and membrane anterior to M , hyaline, remainder of corium yellowish-brown to dark fuscous, posterior half of membrane fuscous, veins concolorous, commissural margin white. Wings hyaline with fuscous veins.

Anal segment of male short, collar-like, apical margin shallowly convex, anal spines arising laterally slightly basad of apical margin, laterally compressed, sinuate directed ventrad. Pygofer moderately long, posterior opening longer than broad, dorsolateral angles a little produced caudad, diaphragm with dorsal margin elevated at middle in a spoon-shaped process, more than twice as long dorsoventrally as broad, margin without a notch medially. Aedeagus moderately long, tubular, broadest at base, slightly narrowing distad, shallowly sinuate, ten teeth on right, a row of eight near ventral margin and two nearer dorsal margin at one quarter from apex, an oblique row of

six teeth on left, extending from dorsal margin near apex to near ventral margin at middle, orifice small, oval, on left near apex. Genital styles long, broad throughout; in posterior view, outer margin straight, inner margin shallowly convex, shallowly indented at one-quarter from apex, apical margin straight, very slightly oblique, inner apical angle slightly acute.

Male: length, 2.6 mm, tegmen, 3.4 mm.

Material. Holotype. ♂. TANZANIA (TANGANYIKA) (BMNH). Paratypes. 2 ♂, same data as type. 1 ♂, KENYA: Aberdare Range, Mt. Kinangop, 9000 ft, 1.xi.1934 (F. W. Edwards).

Comments. This species differs from *M. vitticollis* and *M. orion* in having creamy-white lateral pronotal lobes, and from *M. hyperion* in having tegmina that are broadly infuscate from base to apex.

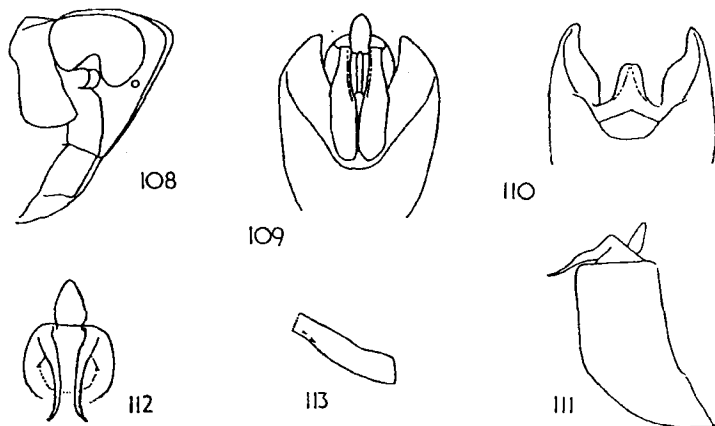


Fig. 108-113.—*Matutinus fuscipennis* (Muir). 108, Head and pronotum, right side; 109, male genitalia, posterior view (genital styles after Muir); 110, posterior opening of pygofer and diaphragm, posteroventral view; 111, pygofer and anal segment, right side; 112, anal segment of male, posterior view; 113, aedeagus, right side (apical portion missing).

***Matutinus fuscipennis* (Muir) (Fig. 108-113)**

Chloriona fuscipennis Muir, 1919, 38.

Vertex longer medially than broad at base (1.7-2.0:1), acutely rounding into frons, slightly narrower at apex than at base, lateral margins straight or shallowly sinuate, apical margin slightly convex, with submedian carinae prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.1:1), and than median length (1.2:1), frons in middle line longer than wide at widest part (2.5-2.7:1), widest at two-thirds from base, lateral margins shallowly convex, median carina simple, clypeus at base only very slightly wider than frons at apex, postclypeal disc only a little longer than broad at base. Basal metatarsal segment with seven slender spines apically.

Fuscous; lateral margins of vertex, a stripe from apex of vertex to mesoscutellum, basal segment of antennae, genae in posterior half, lateral lobes of pronotum and hind legs, creamy-white; second segment of antennae, a small spot behind eyes near hind margin of pronotum, rostrum, fore and middle legs, pallid yellowish-brown. Tegmina with corium mostly or entirely infuscate, sometimes hyaline in a diffuse band from costal margin near base to fork of Cu_1 , membrane hyaline in anterior half, fuscous in posterior half, but with small hyaline areas in posterior apical cells and just distad of apex of clavus, veins concolorous, except apical branches of R and M in hyaline portion of membrane, where they are brown; commissural margin white, with a slight infuscation at humeral angle and a sublinear fuscous spot just basad of junction with common claval vein. Wings greyish-hyaline, veins light brown.

Anal segment of male short, collar-like, apical margin transverse, a pair of long spinose processes arising at lateroapical angles, each rather narrow and curving mesoventrad, then ventrad, and finally ventrolaterad. Pygofer moderately long, posterior opening slightly longer than broad, dorsolateral angles distinctly and broadly produced caudad, diaphragm with dorsal margin elevated at middle in a trapezoidal process, broadest at base and with its margin slightly sinuate in its middle portion. Aedeagus rather stout, tubular, with two teeth on right near ventral margin, a ridge along ventral margin, and a ridge dorsally. Genital styles long, straight, tapering a little in distal half, apical margin truncate, inner and outer apical angles not produced.

Male: length, 2.2-2.5 mm, tegmen, 3.4 mm.

Female: length, 3.0 mm, tegmen, 3.7 mm.

Material. Holotype. ♂. GUYANA: Demerara River (not traced). 1 ♀, New River, 750 ft, 26.iii-2.iv.1938 (C. A. Hudson). 1 ♂ 1 ♀, BRAZIL: Estado de Rio, Rezende, ii.1924 (F. X. Williams) (BMNH).

Comments. This species superficially resembles *M. pomona* and *M. africanus*, but is readily separable from both by the form of the junction of the lateral margins of the head with those of the frons, when the head is viewed in profile. In *M. fuscipennis*, the lateral margins round into those of the frons acutely and rather abruptly, whereas in *M. pomona* and *M. africanus* they round more broadly and only through 90 degrees. In the male genitalia the three species differ markedly in the shape of the median lobe of the diaphragm.

***Matutinus ligea* Fennah (Fig. 114-120)**

Matutinus ligea Fennah, 1969, 58.

Vertex longer medially than broad at base (1.4:1), broadly subrectangulately rounding into frons, slightly narrower at apex than at base, lateral margins straight, apical margin transverse, with submedian carinae distinctly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex or at extreme base of frons, basal compartment of vertex wider at hind margin than greatest length (nearly 1.5:1), and than median length (1.6:1), frons in middle line longer than wide at widest part (3:1), widest at about four-fifths from base, lateral margins very shallowly convex, median carina simple or forked at extreme base, clypeus at base not wider than frons at apex, postclypeal disc longer than broad at base. Basal metatarsal segment with six coarse spines apically.

Light ochraceous; intercarinal areas of frons distally, clypeus, genae near oblique carina, pronotum in posterior half of disc and immediately behind eyes, procoxae, mesocoxae and mesopleura, mesonotum, except medially, on disc just inside lateral carinae and on scutellum, and abdomen, dark fuscous. Tegmina brownish-hyaline; clavus and a semicircular area in anterior half of membrane, almost milky-hyaline, remainder of membrane a little darker than corium, commissural margin white, a dark fuscous spot just basad of junction with common claval vein, and a faint fuscous suffusion at humeral angle.

Anal segment of male short, collar-like, apical margin transverse, a pair of moderately long spinose processes, strongly laterally compressed and sinuate, arising near edges of ventral margin and directed ventrad. Pygofer moderately long, posterior opening about as broad as long, dorsolateral angles distinctly produced caudad, rounded distally, diaphragm with dorsal margin elevated at middle in a broadly spatulate or submitrate process, not notched medially. Aedeagus tubular, shallowly sinuate, broadest in basal two-fifths, ascending and narrowed in distal three-fifths, in distal half with about six small teeth on lower margin and about six on upper margin, orifice terminal, oblique.

Genital styles moderately long, sinuate, narrowing in distal quarter, a small lobe on inner margin one-quarter from apex, apical margin short, straight, strongly oblique.

Male: length, 2.2 mm, tegmen, 2.8 mm.

Material. Holotype. ♂. SUDAN: W. Darfur, Jebel Marra, Dimbliti, 7 600 ft, 27.v.1932 (*M. S. Steele*) (BMNH). 1 ♂, SOUTH AFRICA: Natal, Durban, Umbila, 27.xii.26 (*A. L. Bevis*) (BMNH). 1 mutilated specimen, CONGO (KINSHASA): Kasenyi, 19.viii.1937 (*H. J. Brédo*) (MRAC, Terwuren).

Comments. From all the other species of *Matutinus* that have a frons that is at least three times as long as broad, *M. ligea* stands apart in having the basal half of the frons creamy-white, or pinkish-white, and the dorsal pallid stripe either incomplete or narrow on the mesonotum.

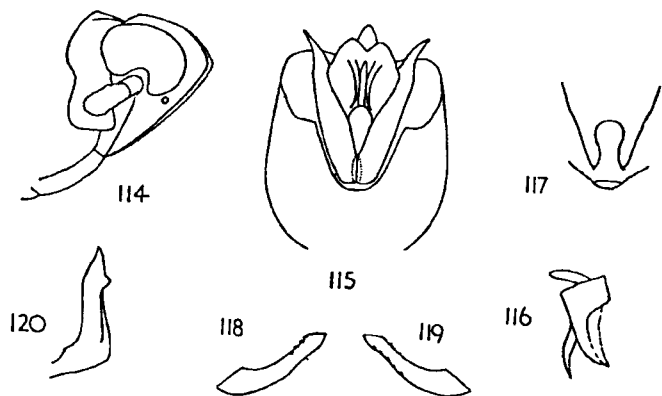


Fig. 114-120.—*Matutinus ligea* Fennah. 114, Head and pronotum, right side; 115, male genitalia, posteroventral view; 116, anal segment of male, right side; 117, median process of diaphragm, posteroventral view; 118, aedeagus, left side; 119, the same, right side; 120, genital style, lateral view.

Matutinus iphias sp.n. (Fig. 121-128)

Vertex longer medially than broad at base (1.5:1), in side view acutely rounding into frons, slightly narrower at apex than at base, lateral margins straight, apical margin slightly angulate with union of submedian carinae prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3:1) and than median length (1.6:1), frons in middle line longer than wide at widest part

(3.0:1), lateral margins diverging from base to level of ocelli, then parallel, median carina simple, clypeus at base as wide as frons at apex, postclypeal disc longer than broad at base.

Dark fuscous; antennae, a band from apex of vertex to mesoscutellum, not broad enough on mesonotum to reach lateral carinae, rostrum and legs, sordid white to stramineous; sides of head above eyes, oblique carina of genae, lateral carinae of clypeus, procoxae basally, hind margins of pronotum and mesonotum narrowly, and tegulae, and sometimes a round spot on lateral pronotal lobes behind antennae, testaceous to reddish-brown. Tegmina hyaline, costal cell and cells Sc+R and Sc colourless, remaining cells of corium, and clavus, suffused with dull fuscous, veins M and Cu₁ fuscous, transverse veins and membrane strongly suffused fuscous, with darker veins, commissural margin of clavus ivory-white, interrupted with a piceous linear mark near its junction with common claval vein. Wings hyaline, faintly infused, with dark fuscous veins.

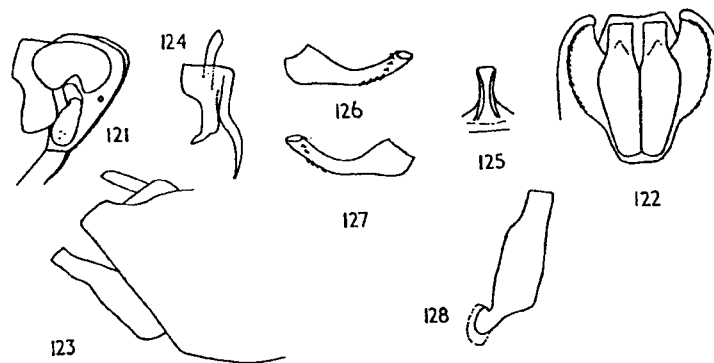


Fig. 121-128.—*Matutinus iphias* sp.n. 121, Head and pronotum, right side; 122, male genitalia, posteroventral view; 123, the same, right side; 124, anal segment of male, left side; 125, median process of diaphragm, posteroventral view; 126, aedeagus, left side; 127, the same, right side; 128, genital style, lateral view.

Anal segment of male short, apical margin transverse, anal spines fairly well separated and directed ventrad, each laterally compressed, sinuate, slightly twisted in distal third and subangulately obliquely bent ventrolaterally close to apex. Pygofer moderately long, posterior opening about as long as broad, dorsolateral angles produced caudad; diaphragm with dorsal margin produced dorsad at middle in a narrow process that in ventral view is three times as long as broad at apex, and truncate distally; ventral margin of pygofer with a short obtusely angulate medioventral process. Aedeagus tubular, broad, almost bulbous, in basal quarter, narrow and slightly curved upward in distal three-quarters; a row of about six or seven teeth on left, descending from dorsal margin just behind orifice to ventral margin at middle, an oblique row of about seven teeth descending to ventral margin on right; orifice terminal, oblique. Genital styles relatively long, each with both margins convex in basal two-thirds, parallel-sided in distal third, apical margin truncate, apical angles not produced.

Male: length, 2.6 mm, tegmen, 3.8 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Lubumbashi (Elisabethville), xi.1960 (Ch. Seydel) (MRAC, Tervuren). Paratypes. 2 ♂, same data as holotype; Kivu, Kavimvira (Uvira), xii.1954 (G. Marlier) (MRAC, Tervuren).

Comments. This species resembles *M. antares*, but differs in the structure of the male genitalia. The most readily observable difference is in the shape of the genital styles as seen in posterior view, but there are also differences in the shape of the diaphragm of the pygofer, the aedeagus and the anal spines. The process of the first is distinctly more slender than its counterpart in *M. antares*. The aedeagus of the latter species is of relatively uniform width (in side view) throughout its length, whereas that of *M. iphius* is much wider basally than distally. The anal spines of *M. antares* are almost straight in their distal third, but in *M. iphius* they are twisted and become obliquely inclined ventrolaterally. In superficial characters *M. iphius* is not unlike *M. neovittacollis* but differs in having the lateral lobes of the pronotum infusate, with a narrow border of lighter hue posteriorly (the lateral lobes in *M. neovittacollis* being entirely, or largely, creamy-white).

Matutinus artemis sp.n. (Fig. 129-136)

Vertex longer medially than broad at base (1.6:1), in profile rather broadly rounding into frons, a little narrower at apex than at base, lateral margins almost straight, apical margin transverse with submedian carinae narrowly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.2:1), and than median length (1.3:1), frons in middle line longer than wide at widest part (3.3:1), widest at four-fifths from base, lateral margins very shallowly convex, median carina simple, clypeus at base slightly wider than frons at apex, postclypeal disc markedly longer than broad at base.

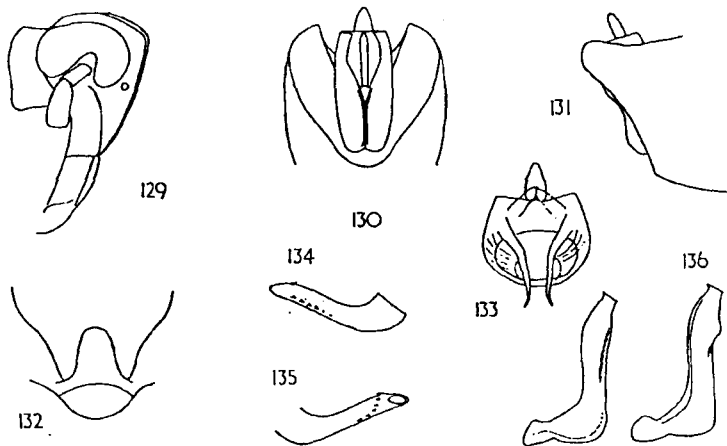


Fig. 129-136.—*Matutinus artemis* sp.n. 129. Head and pronotum, right side; 130, male genitalia, posterior view; 131, the same, right side; 132, median process of diaphragm; 133, anal segment of male, posterior view; 134, aedeagus, right side; 135, the same, left side; 136, sublateral and lateral aspects of genital style.

Piceous; a stripe, sometimes narrow, from apex of vertex to mesoscutellum, and hind legs, white; antennae, rostrum, fore and middle tibiae and tarsi, and usually genae posteriorly, lateral lobes of pronotum and procoxae, stramineous. Tegmina with corium more or less fuscous, membrane fuscous in posterior half, hyaline anteriorly, commissural margin white, with a fuscous spot near junction with common claval vein. Wings hyaline, veins fuscous.

Anal segment of male very short, ring-like, apical margin transverse, a pair of moderately long, slightly laterally compressed sinuate spinose processes arising ventrally near lateral margins, directed ventrad and slightly curving laterad near apex. Pygofer rather long, posterior opening longer than broad, dorsolateral angles strongly produced caudad; diaphragm with dorsal margin elevated at middle in a trapezoidal process that is longer dorsoventrally than broad at base, and about two-thirds as wide at apex as at base, distal margin of process shallowly convex, without a median notch. Aedeagus moderately long, tubular, shallowly sinuate, broadest at base, slightly tapering and ascending distad, a row of five teeth on right in distal half, an oblique row of four teeth dorsally behind margin of orifice, descending to left side, and a further two or three teeth, more widely spaced apart, on left close to ventral margin; orifice on left at apex. Genital styles exceptionally long, flattened, narrow and subparallel-sided throughout, slightly widening at about three-quarters from base, then tapering to apex; apical margin rather short, truncate, slightly oblique, with outer angle shortly and narrowly produced.

Male: length, 2.5 mm, tegmen, 3.0 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Kivu, Kavimvira (Uvira), ii-iii.1955 (G. Marlier) (MRAC, Tervuren). Paratype. 1 ♂, same data as holotype (MRAC, Tervuren).

Comments. *M. artemis* differs from *M. amyctas* in its relatively shorter basal compartment of the vertex, and from *M. andraemon* in the profile of the head, which is subrectangulately rounding at the apex, as contrasted with subacutely rounding.

Matutinus pomona (Fennah) (Fig. 137-145)

Chloriona (Sogatella) pomona Fennah, 1958b, 492.

Vertex longer medially than broad at base (1.5-1.7:1), acutely rounding into frons, slightly narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae prominent, Y-shaped carina with only anterior arms present, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.5:1), and than median length (1.7:1), frons in middle line longer than wide at widest part (3:1), widest near apex, lateral margins weakly diverging almost to apex, median carina simple, clypeus at base only slightly wider than frons at apex, postclypeal disc longer than broad at base.

Dark fuscous; a stripe from apex of vertex to mesoscutellum, antennae, lateral lobes of pronotum, rostrum and legs, ivory-white or creamy-yellow; pronotum immediately behind eyes ferruginous; tegulae dilute fuscous. Tegmina hyaline, a broad suffusion in membrane from M fork at nodal line to hind margin then round apical margin to M_{1+2} , fuscous; commissural margin white, with an elongate fuscous spot just basad of junction with common claval vein; veins concolorous. Wings hyaline, veins brown.

Anal segment of male short, ring-like, apical margin convex, a pair of stout moderately long spinose processes arising on ventral surface at sides, each strongly laterally compressed, slightly twisted and tapering to a spine directed ventrad. Pygofer moderately long, posterior opening about as long as broad, dorsolateral angles distinctly produced caudad, diaphragm with dorsal margin elevated at middle in a broadly spatulate or submitrate process, devoid of a median notch. Aedeagus comparatively long, broad in basal half, shallowly curved upwards and narrower in distal

half, three teeth dorsally at apex, along margin of orifice, a row of four small teeth dorsally in distal half, and a row of three or four teeth in lower half of right side; orifice terminal, slightly oblique. Genital styles long, flattened, not much narrowing distally, outer margin very shallowly convex, inner (mesal) margin almost straight, produced in a small shallow lobe before apex; apical margin truncate, inner and outer angles only very slightly produced.

Male: length, 2.5–2.8 mm, tegmen, 3.5–3.8 mm.

Female: length, 3.5 mm, tegmen, 4.2 mm.

Material. Holotype. ♂. CONGO: Kindia, iv.1954 (A. Villiers) (IFAN, Dakar). 2 ♂, 1 ♀, TANZANIA: Ukiriguru, 27.iv.61. UGANDA: Kampala, Kawanda Agricultural Research Station, 30–31.iii.1958 (P. E. Whalley) (BMNH).

Comments. This species is most readily recognisable by the exceptionally long and only slightly tapering genital styles. It differs from *M. neovittacollis*, *M. iphias*, *M. andraemon*, *M. amyctas* and *M. artemis* in the colourless corium of the tegmina.

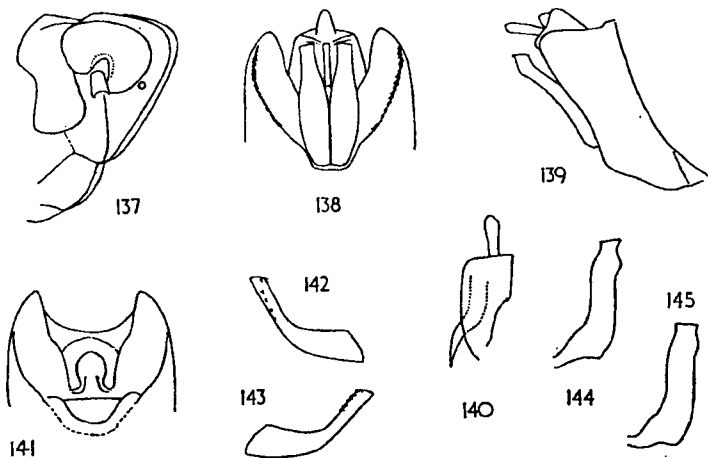


Fig. 137–145.—*Matutinus pomona* (Fennah). 137, Head and pronotum, right side; 138, male genitalia, posteroventral view; 139, the same, right side; 140, anal segment of male, right side; 141, posterior opening of pygofer, posteroventral view; 142, aedeagus, right side; 143, the same, left side; 144, genital style, lateral view; 145, the same, sublateral view.

***Matutinus anacreon* sp.n. (Fig. 146–154)**

Vertex longer medially than broad at base (nearly 1.6:1), rectangulately rounding into frons, narrower at apex than at base, lateral margins almost straight, apical margin transverse with union of submedian carinae prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3:1) and than median length (1.4:1), frons in middle line longer than wide at widest part (2.9:1) widest at three-quarters from base, lateral margins shallowly convex, clypeus at base as wide as frons at apex, postclypeal disc longer than broad at base (nearly 1.4:1).

Fuscous; a small spot above ocelli, basal segment of antennae, a stripe from apex of vertex to mesoscutellum and lateral lobes of pronotum except for a diffuse vertical band near posterior margin, ivory-white; fore and middle legs testaceous, hind legs stramineous; second segment of antennae, mesopleura just below tegulae, and hind margin of tegulae narrowly, yellowish-brown. Tegmina translucent, suffused dilute fuscous, an approximately ovate area in membrane extending from node to M_{3+2} , colourless; commissural margin ivory-white, with a dark fuscous spot near its junction with common claval vein. Wings faintly tinged fuscous, with fuscous veins.

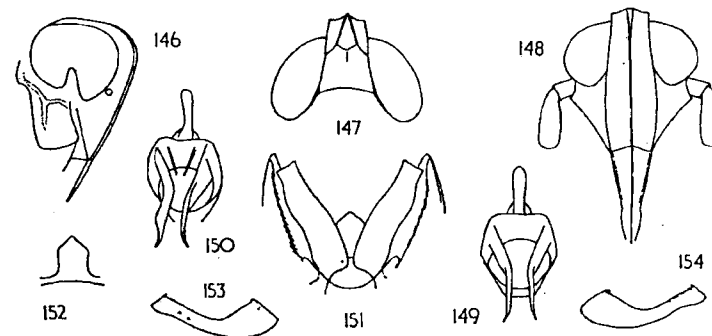


Fig. 146–154.—*Matutinus anacreon* sp.n. 146, Head and lateral lobe of pronotum, right side; 147, vertex; 148, frons and clypeus; 149, anal segment of male, posterior view; 150, the same, posteroventrolateral view; 151, posterior opening of pygofer, median process of diaphragm and genital styles, posteroventral view; 152, median process of diaphragm; 153, aedeagus, right side; 154, the same, left side.

Anal segment of male very short, ring-like, apical margin transverse, anal spines arising laterally on inner surface before apex and extending ventrad, broad, laterally compressed, shallowly sinuate, abruptly tapering near apex. Pygofer moderately long, posterior opening about as long as broad, dorsolateral angles produced; diaphragm with dorsal margin broadly elevated at middle in an approximately mitrate lobe which is longer dorsoventrally than broad at widest part (1.5:1); ventral margin of pygofer without a medioventral process. Aedeagus tubular, broad in basal two-fifths, narrow and ascending in distal three-fifths, broadening a little near orifice; a row of five teeth on left side extending along dorsal margin from orifice to near middle of aedeagus, two small teeth near middle of right side. Genital styles long, more or less flattened and in posterior view feebly sinuately tapering distad, a slight eminence on inner margin at about three-quarters from base, apical margin truncate with inner and outer angles very slightly produced.

Male: length, 2.1 mm, tegmen, 3.4 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Lubumbashi (Elisabethville), ii.1940 (H. J. Brédo) (MRAC, Tervuren).

Comments. In *M. anacreon* the vertex is relatively shorter than in *M. typhae* and relatively longer than in *M. africanus*, and the postclypeal disc is relatively longer than in *M. omphale* and *M. hylonome*.

Matutinus africanus* Fennah (Fig. 155-163)Chloriona fuscipennis* Muir, 1926, 30 (*pars*).*Matutinus africanus* Fennah, 1969, 58.

Vertex longer medially than broad at base (1.4:1), subacutely rounding into frons, narrower at apex than at base, lateral margins straight or feebly sinuate, apical margin slightly convex with submedian carinae prominent, Y-shaped carina moderately distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.5:1), and than median length (1.7:1), frons in middle line longer than wide at widest part (2.5:1), widest at two-thirds from base, lateral margins shallowly convex, median carina simple, clypeus at base a little wider than frons at apex, postclypeal disc longer than broad at base (1.4:1).

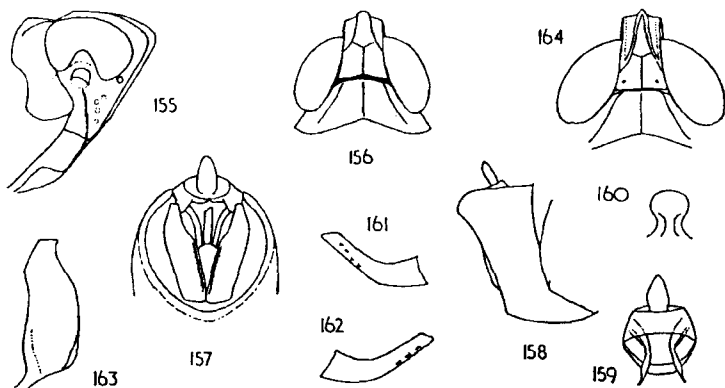


Fig. 155-163.—*Matutinus africanus* Fennah. 155, Head and pronotum, right side; 156, vertex and pronotum, dorsal view; 157, male genitalia, posterior view; 158, the same, right side; 159, anal segment of male, posterior view; 160, median process of diaphragm, posteroventral view; 161, aedeagus, right side; 162, the same, left side; 163, genital style, lateral view. Fig. 164.—*Matutinus achates* sp.n. Vertex and median portion of pronotum.

Fuscous; carinae of head, a stripe from apex of vertex to mesoscutellum, and lateral lobes of pronotum except near posterior margin, ivory-white or yellow; antennae, genae in posterior half, rostrum, legs and abdominal segments at posterior margin, creamy-white to light yellowish-brown, posterior portion of lateral pronotal lobes yellowish to brown. Tegmina hyaline, corium faintly tinged yellowish-brown; vein M and a suffusion between Cu₁ and claval suture, and membrane in posterior half, fuscous, commissural margin white, a fuscous spot present near its junction with common claval vein.

Anal segment of male short, ring-like, apical margin membranous, transverse, a pair of laterally compressed sinuate spinose processes arising laterally on ventral surface, each produced cephaloventrad then ventrad. Pygofer moderately long, posterior opening about as broad as long, dorsolateral angles strongly produced caudad and a little inflected mesad, in profile deeply rounded, diaphragm with dorsal margin elevated at middle in a broadly spatulate process, with a faint broad ridge down middle line, dorsal margin entire, convex. Aedeagus moderately long, tubular, broadest in basal

third, a row of four or five teeth on right, in an oblique line from dorsal margin at apex to near ventral margin at middle of aedeagus, a row of three teeth on left, in distal half, close to ventral margin. Genital styles long, broad, each almost parallel-sided and shallowly hollowed out on posterior surface in basal three-quarters, narrowing in apical quarter, with inner margin produced caudad in a slight eminence at point where tapering begins, apical margin truncate.

Male: length, 2.2 mm, tegmen, 2.8 mm.

Female: length, 3.0 mm, tegmen, 3.6 mm.

Material. Holotype. ♂. SOUTH AFRICA: Ceres, Cape Province, ii, iii.1925 (R. E. Turner). 2 ♂, 2 ♀, same data as holotype (BMNH).

Comments. This species is distinguishable from most others by the carinae of the frons being both pallid and convex, the vertex relatively short and the postclypeus long.

Matutinus achates* sp.n. (Fig. 164, 165-171)Chloriona fuscipennis* Muir, 1926, 30 (*pars*).

Vertex longer medially than broad at base (about 1.7:1), subacutely rounding into frons, a little narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae prominent, Y-shaped carina moderately distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.2:1), and than median length (1.3:1), frons in middle line longer than wide at widest part (2.7:1), widest at two-thirds from base, lateral margins weakly convex distad of eyes, almost parallel, median carina simple, clypeus at base not wider than frons at apex, postclypeal disc longer than broad at base (about 1.7:1).

Dark fuscous; carinae of head, antennae and legs (except coxae) creamy-white to pale reddish-brown; intercarinal median area of vertex anteriorly, and basal compartment, pronotum medially and on lateral lobes (except for a dilute submarginal fuscous band near posterior and ventral margins) and mesonotum medially, creamy-

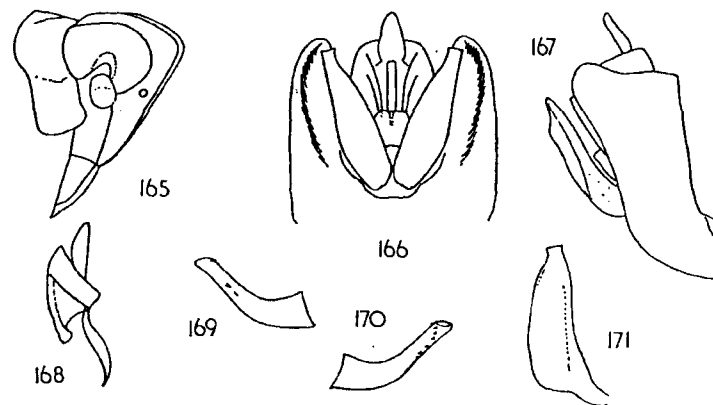


Fig. 165-171.—*Matutinus achates* sp.n. (cont'd). 165, Head and pronotum, right side; 166, male genitalia, posteroventral view; 167, the same, right side; 168, anal segment of male, left side; 169, aedeagus, right side; 170, the same, left side; 171, genital style, lateral view.

white. Tegmina hyaline to dilute fuscous, darker in posterior two-thirds of membrane and lighter, hyaline, in anterior third, veins and margins concolorous, except commissural margin, which is white, interrupted by a fuscous linear mark at level of union of claval veins. Wings hyaline to dilute fuscous with fuscous veins.

Anal segment of male very short, a pair of large flattened spinose processes arising near each side, a little basad of apical margin, each produced ventrad and twisting laterad. Pygofer with dorsolateral angles moderately produced caudad, rounded; diaphragm with dorsal margin produced dorsad at middle in a rather narrowly spatulate lobe, with its dorsal margin slightly indented medially. Aedeagus tubular, tapering and ascending distad, orifice terminal, oblique; a row of five or six teeth on left side extending basad from dorsal margin just basad of lip of orifice to about middle of left side at two-thirds from its base; two small teeth on right side slightly distad of middle. Genital styles, long, about 11 times as long as broad at apical margin, broad in basal two-thirds, sinuately narrowing in distal third, apical margin short, truncate.

Male: length, 2.6 mm, tegmen, 3.3 mm.

Female: length, 2.7 mm, tegmen, 3.3 mm.

Material. Holotype. ♂. SOUTH AFRICA: Ceres, Cape Province, ii, iii.1925 (R. E. Turner) (BMNH). Paratypes. 2 ♂, Natal, Weenen, xii.1923, v.1924 (H. P. Thomasset) (BMNH).

Comments. This species is recognisable by the characters, in combination, of pallid carinae on the frons and clypeus, the sides of the clypeus fuscous, a dilute fuscous submarginal line on the pallid lateral lobes of the pronotum, fuscous coxae, pallid only at base, and tegmina with the corium hyaline to slightly infuscate and with a dark spot on the commissural margin, the last-mentioned character serving to distinguish members of this species from the sympatric *M. vitticollis*. From the closely similar *M. africanus* it is distinguishable by the relatively longer vertex, and from *M. anacreo* by the pale carinae of the frons.

Matutinus typhae (Lindberg) (Fig. 172-180)

Calligypona typhae Lindberg, 1960, 18, 19.

Vertex longer medially than broad at base (1.8:1), subrectangulately rounding into frons, slightly narrower at apex than at base, lateral margins straight or feebly sinuate, apical margin shallowly convex with median carina narrowly and only slightly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.2:1), and than median length (1.3:1), frons in middle line longer than wide at widest part (about 2.5:1), lateral margins rather strongly diverging distad in basal third, almost parallel in distal two-thirds, median carina simple, clypeus at base not wider than frons at apex, postclypeal disc longer than broad at base (nearly 1.5:1).

Fuscous; carinae of vertex, a stripe from apex of vertex to mesoscutellum, genae in posterior half, lateral carinae and sides of clypeus, rostrum, lateral lobes of pronotum except for a narrow fuscous suffusion on lower and hind margins, tegulae, procoxae basally and externally, pleurites, legs and abdominal sternites laterally, pallid stramineous; carinae of pronotum and two distinct pustules behind each eye and lateral carinae of mesonotum, tawny yellow. Tegmina milky-hyaline, a faint suffusion in corium at base, and a more distinct suffusion extending along transverse veinlets from M to hind margin of membrane just distad of claval apex, then continuing broadly around apical margin to R, and a suffusion in clavus between common claval vein and commissural margin, fuscous; veins concolorous, except Sc+R and Cu₁ at middle, where they are slightly infuscate.

Anal segment of male short, ring-like, apical margin membranous, transverse, a pair of stout, long, sinuate spinose processes arising laterally on ventral surface, each

scarcely compressed and produced ventrocephalad then recurving ventrocaudad. Pygofer long, posterior opening as broad as long, dorsolateral angles strongly produced caudad, in profile deeply rounded, diaphragm with dorsal margin elevated at middle in a rather narrowly trough-like process strongly incised at middle of its upper margin.

Aedeagus rather short, tubular, porrect, ventral margin almost carinate in basal half; two teeth dorsally near tip of orifice, and an oblique row of five teeth on left side, a row of three teeth along lip of orifice on right side, and five teeth in a sub-horizontal row at about middle; orifice oblique at apex. Genital styles long, in posterior view broad in basal two-thirds, strongly narrowing and twisted in apical third, with inner margin produced in a small angulate lobe at point where tapering begins; apical margin truncate.

Male: length, 2.7 mm, tegmen, 3.5 mm.

Female: length, 3.3 mm, tegmen, 4.2 mm.

Material. 1 ♂ (holotype no. 11223) 1 ♀ (allotype no. 11224), CANARY IS.: Valle de Fataga, i.iv.59 (H. Lindberg) (ZMU, Helsinki). MADAGASCAR: Sud-ouest, Banian, 70 m. Ankaabo, vii.57 (*Andria R.*) (MNHN, Paris).

Comments. This species is distinguished by the proportions of the head and the shape of the male genitalia. The long, terete, curved anal spines, the exceptionally large process of the diaphragm (which is fully as large in profile as in posterior view) and the armature of the aedeagus are all characteristic of this species.

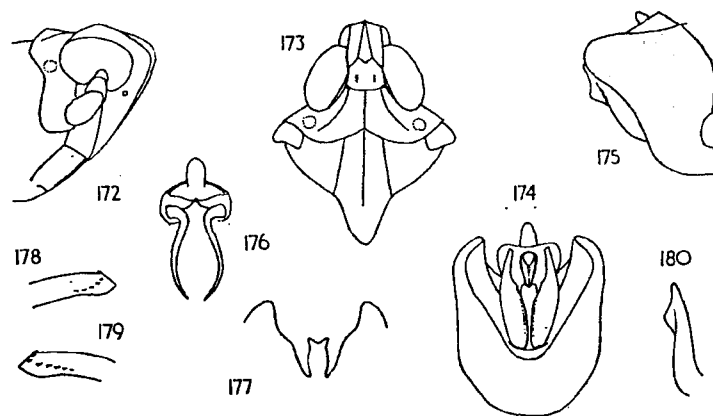


Fig. 172-180.—*Matutinus typhae* (Lindberg). 172, Head and pronotum, right side; 173, head and thorax, dorsal view; 174, male genitalia, posteroventral view; 175, the same, right side; 176, apical margin and anal spines of male anal segment, posterior view; 177, upper margin of diaphragm of pygofer, posteroventral view; 178, apical half of aedeagus, left side; 179, the same, right side; 180, distal two-thirds of genital style, lateral view.

***Matutinus typhae pallidior* subsp.n.**

Form and size as in typical subspecies.

Lateral margins of clypeus and of frons in basal half, vertex medially, genae in posterior half, clypeus at sides, rostrum, pronotum entirely, mesonotum between:

lateral carinae, pleura, all coxae and hind legs, pallid stramineous; tegulae and mesopleura just below tegulae, sordid reddish-white, mesopleura otherwise light yellow darkening ventrad to dilute reddish-brown, lateral fields of mesonotum, yellowish-brown, femora and tibiae of fore and middle legs, sordid pale yellow. Pygofer mostly stramineous posteriorly but suffused fuscous ventrally. Anal segment and genital styles stramineous. Tegmina with corium hyaline, slightly tinged with yellow, a linear spot on transverse veins between R and posterior branch of Cu_1 , a narrow band between branches of Cu_1 in membrane, tapering distad until it merely overlies posterior branch of Cu_1 at apex, fuscous; a slight suffusion over anterior branch of Cu_1 and M_{3+4} at margin, dilute fuscous. Wings hyaline, with veins concolorous except near apex, where they are yellowish-brown.

Material. Holotype of subspecies. ♂. CONGO (KINSHASA): Lubumbashi (Elisabethville), x.1954 (*Ch. Seydel*) (MRAC, Tervuren). Paratypes. 3 ♂, CONGO (KINSHASA): Kivu, Kavimvira (Uvira) xii.1954, at light (*G. Marlier*) (MRAC, Tervuren).

Comments. This subspecies differs strongly from the typical species in coloration. With the exception of the frons and clypeus, the hues of the body are light. The pronotum behind the eyes is of creamy-white like the lateral lobes, and the lateral fields of the mesonotum are light yellowish-brown, and the pygofer posteriorly and the genital styles are yellowish: all these areas in the typical subspecies are dark fuscous.

Matutinus erebus sp.n. (Fig. 181-188)

Vertex longer medially than broad at base (nearly 1.5:1), in profile broadly subrectangulately rounding into frons, a little narrower at apex than at base, lateral margins straight, apical margin transverse with submedian carinae slightly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.3:1), and than median length (1.4:1), frons in middle line longer than wide at widest part (nearly 2.5:1), widest at about four-fifths from base, lateral margins

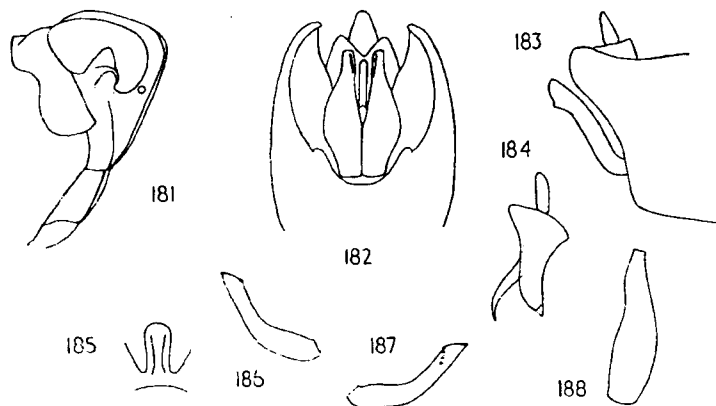


Fig. 181-188.—*Matutinus erebus* sp.n. 181, Head and pronotum, right side; 182, male genitalia, posteroventral view; 183, the same, right side; 184, anal segment of male, right side; 185, median process of diaphragm, posterioventral view; 186, aedeagus, right side; 187, the same, left side; 188, genital style, lateral view.

diverging in basal four-fifths, then converging to frontoclypeal suture, median carina simple, clypeus at base only very slightly wider than frons at apex, postclypeal disc only as long as broad at base.

Dark fuscous; a stripe from apex of vertex to mesoscutellum, genae in posterior half, sides of clypeus, rostrum, lateral lobes of pronotum, procoxae, mesocoxae and hind legs, creamy-white; sides of vertex, carinae of frons basally, lateral margins of clypeus, antennae, mesopleura just below tegulae, fore and middle legs, pale stramineous to sordid white, tegulae dilute fuscous. Tegmina with costal cell and basal part of membrane anterior to M_{3+4} , hyaline, corium otherwise fuscous, and a broad suffusion extending from M fork at nodal line to posterior margin, then round to apical angle, darker fuscous, clavus hyaline but infusate at base and near union of claval veins, commissural margin white, with a fuscous spot near junction with common claval vein. Wings hyaline, veins fuscous.

Anal segment of male very short, ring-like, apical margin transverse, a pair of long, laterally compressed sinuate spinose processes arising lateroventrally, directed ventrad and slightly curving laterad near apex, anterior margin markedly convex near middle. Pygofer rather long, posterior opening longer than broad, dorsolateral angles strongly produced caudad; diaphragm with dorsal margin elevated at middle in a narrowly spatulate process, about twice as long as broad at its base, deeply rounded distally and without a median notch. Aedeagus moderately long, tubular, broadest at base, shallowly ascending distad; a tooth dorsally at apex and a short row of three teeth dorsally on left near apex; orifice terminal, oblique. Genital styles long, tapering distad, inner and outer margins shallowly convex in basal two-thirds, apical margin short, transversely truncate, inner and outer angles not at all produced.

Male: length, 2.5 mm, tegmen, 3.3 mm.

Female: length, 3.2 mm, tegmen, 4.0 mm.

Material. Holotype. ♂. CONGO (KINSHASA): Kivu, Kavimvira (Uvira), ix-x.1954 (*G. Marlier*) (MRAC, Tervuren). Paratypes. 3 ♂, 7 ♀ same data, also xii.54, 2 ♂, 1 ♀, Lubumbashi (Elisabethville), ii. 1940 (*H. J. Bredo*), x.1954 (*Ch. Seydel*) (MRAC, Tervuren).

Comments. Apart from genitalic characters, this species is separable from most others by the short postclypeus, and from *M. omphale*, which shares this character, by the greater degree of divergence of the lateral carinae of the frons, as well as by coloration.

Matutinus apollo sp.n. (Fig. 189-197)

Chloriona turneri Muir, 1929, 204 (*pars*).

Vertex longer medially than broad at base (1.6:1), rectangulately rounding into frons, narrower at apex than at base, lateral margins straight, apical margin truncate with submedian carinae markedly prominent, Y-shaped carina with only anterior arms distinct, submedian carinae uniting at apex of vertex, basal compartment of vertex wider at hind margin than greatest length (1.2:1), and than median length (1.5:1), frons in middle line longer than wide at widest part (2.7:1), widest near middle, lateral margins very shallowly convex, median carina simple, clypeus at base only slightly wider than frons at apex, postclypeal disc distinctly longer than broad at base.

Fuscous; a stripe from apex of vertex to mesoscutellum, lateral carinae of frons and median carina in basal half, sometimes sides of head above eyes and anterior half of genae, except below eyes, lateral pronotal lobes, creamy-white to pale yellowish-brown; rostrum, antennae, genae in posterior half, sometimes lateral pronotal carinae basally and a round spot behind each eye, legs, except profemora and mesofemora, and abdominal segment at posterior margin ventrally, pale yellow.

Tegmina hyaline, faintly suffused yellowish-brown except in anterior half distad

of Sc+R fork, which is colourless, a dilute suffusion overlying M and Cu, in corium, a dense suffusion occupying posterior half of membrane and extending a little basad of transverse veins, and a linear spot on commissural margin at its junction with common claval vein, fuscous; commissural margin otherwise white. Wings with dilute fuscous tinge, veins fuscous.

Anal segment of male very short, a pair of laterally compressed sinuate spinose processes arising slightly basad of lateral angles, directed mesoventrad then ventrad. Pygofer long, posterior opening as broad as long, dorsolateral angles strongly broadly produced caudad, diaphragm with dorsal margin elevated at middle in a spoon-shaped process; not quite twice as long dorsoventrally as broad, margin without a notch medially. Aedeagus moderately long, tubular, ascending distad, broadest at base, an oblique row of seven small teeth on right from dorsal margin at apex to middle at three-fifths of length of aedeagus from base; a corresponding row of eight teeth on left side; orifice terminal, oblique. Genital styles rather long, straight, broad at base, tapering distad, with outer margin almost straight, inner margin sinuate, apical margin very short, shallowly convex.

Male: length, 2.6 mm, tegmen, 3.3 mm.

Female: length, 3.1 mm, tegmen, 3.5 mm.

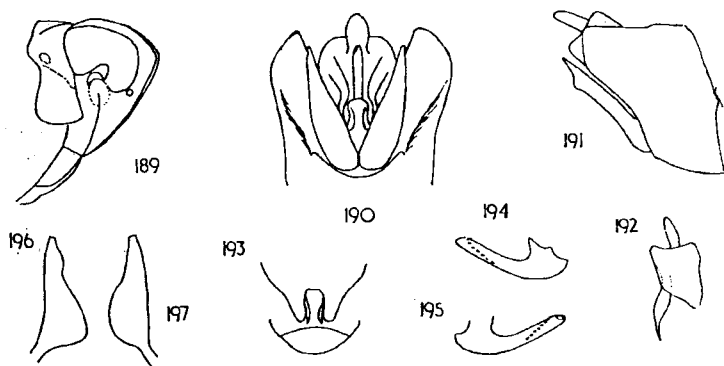


Fig. 189-197.—*Matutinus apollo* sp.n. 189, Head and pronotum, right side; 190, male genitalia, posteroventral view; 191, the same, right side; 192, anal segment of male, right side; 193, median process of diaphragm, posteroventral view; 194, aedeagus, right side; 195, the same, left side; 196, genital style, lateral view; 197, the same, sublateral view.

Material. Holotype. ♂. SOUTH AFRICA: Transkei, Umtata, 18.ii.-18.iii.1923 (R. E. Turner) (BMNH). Paratypes. 1 ♀, same data as holotype; 1 ♂, East Cape Province, Katberg, 1-10.ii.1923 (R. E. Turner) (BMNH).

Comments. Each of these specimens bears a paratype label, and formed part of the series on which *Chloriona turneri* was based. Apart from other differences, this species is separable from *M. vitticollis* (= *C. turneri*) by the presence of a fuscous spot on the commissural margin. From *M. erebus*, in addition to the differences indicated in the key, it stands apart in its relatively longer frons and postclypeus, and from *M. orestes* in the pale carinae of the frons.

***Matutinus ion* (Fennah) comb. n.** (Fig. 198-205)

Rhinodelphax ion Fennah, 1964, 136.

Vertex longer medially than broad at base (3:1), narrowing to apex, which is acute, lateral margins straight, Y-shaped carina with only median stem distinct, basal compartment narrower at hind margin than long in middle line (about 1:1.2), frons in middle line longer than wide at widest part (about 5:1), widest between eyes, but lateral margins almost parallel, median carina simple; clypeus at base not or scarcely wider than frons at apex, postclypeus longer in middle than broad at base (nearly 1.5:1) in profile straight, anteclypeus in profile rather strongly curved caudad, rostrum about as long as clypeus, its apex surpassing mesochanthers; antennae short, not nearly attaining frontoclypeal suture, basal segment not as long as broad, second segment longer than first (2.6:1), ocelli prominent.

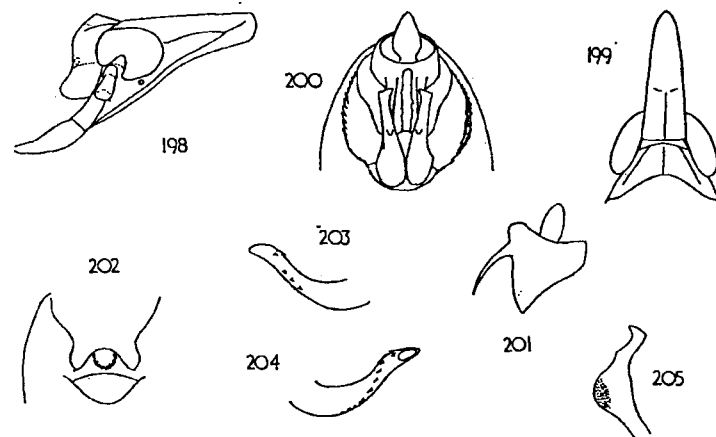


Fig. 198-205.—*Matutinus ion* (Fennah). 198, Head and pronotum, right side; 199, vertex and pronotum, dorsal view; 200, male genitalia, slightly posteroventral view; 201, anal segment of male, right side; 202, diaphragm of pygofer, posteroventral view; 203, aedeagus, right side; 204, the same, left side; 205, genital style, lateral view.

Fuscous; rostrum, antennae, posterior part of vertex, pronotum medially and on lateral lobes, procoxae, mesonotum medially, and hind legs, ivory-white or pale stramineous; carinae of frons and clypeus, fore and middle legs, yellowish-brown. Tegmina yellowish-hyaline, sometimes with only a fuscous suffusion in posterior two-thirds of membrane, sometimes also dark reddish-brown or fuscous posterior to veins Sc and R, commissural margin ivory-white to pale tawny. Wings hyaline, faintly infumed, veins fuscous.

Anal segment of male moderately long, apical margin transverse, apical spines fairly well separated and directed ventrad, each slightly curved, not compressed or twisted. Pygofer moderately long, posterior opening about as long as broad, dorsolateral angles not produced. Diaphragm with dorsal margin produced dorsocaudad at middle in a shallowly convex lobe; no medioventral process present. Aedeagus tubular, shallowly sinuate, moderately tapering from base to apex, a row of ten to twelve teeth on left extending from dorsal margin just behind orifice to ventral

margin at middle; a tooth dorsally behind orifice and about five teeth in an oblique row laterally on right. Genital styles in posterior view moderately broad in basal half, narrow in distal half, apical margin truncate with inner angle slightly acutely produced, a small eminence on inner margin at about three-fifths from base.

Male: length 3.2 mm, tegmen, 3.1 mm.

Female: length, 4.0 mm, tegmen, 4.0 mm.

Material. Holotype ♂, 2 ♂, MADAGASCAR: L. Alaotra, x.1954 (*J. R. Williams*) (BMNH); Tzimbazaza—Tananarive, 1—1952 (*R. Benoist*) (MRAC, Tervuren).

Comments. The specimens from Lake Alaotra have markedly paler tegmina than that from Tzimbazaza.

Although the form of the head is similar in all respects to that of a *Rhinodelphax*, the form of the genitalia is close to that found in *Matutinus*. This resemblance appears to be significant, as *M. ion*, unlike *Rhinodelphax hargreavesi* Muir, has a dorsal white stripe from the posterior compartment of the vertex to the mesoscutellum, and it is these facts that have led to the transference of *ion* into *Matutinus*.

It is worth noting that in *M. ion* the lateral margins of the vertex distad of the basal compartment are the equivalent of the submedian carinae of other species, and the true lateral margins have been displaced downwards on to the sides of the head before the eyes, where they form a horizontal carina.

There are three discontinuities, on present knowledge not bridgeable, that separate *M. ion* from all other species of the genus, and it is considered that the most appropriate taxonomic representation of the relationship is to erect a subgenus for this species.

Matutinella subg. n.

Type-species, *Rhinodelphax ion* Fennah

Bodily characters and size as in the typical subgenus, apart from the following: vertex elongate, with lateral margins not nearly on same level as submedian carinae, basal segment of antennae not longer than broad. Pronotum with lateral margin of median disc straight, not curving laterad, and almost attaining posterior margin.

Summary

The genus *Matutinus* Distant is characterised and differentiated from *Chlorionidea* Loew, with which it was at one time synonymised. Descriptions are given of 26 species, 15 of which are described as new; three are transferred from other genera and a new subgenus is erected to accommodate one of them. Notes are given on their geographical distribution and host-plants.

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