

NOTES ON JASSOIDEA (HOMOPTERA).

By W. E. CHINA.

Genus *Gyrana* Dist.*Faun. Brit. Ind. Rhyn.*, iv, p. 262, fig. 169.

The ocelli in this genus are on the front margin of the vertex, half-way between the apex of the head and the eyes. Distant and his colleagues mistook two black spots at the base of the vertex for the ocelli. The genus is in fact allied to *Eurpelax* Germ., from which it differs by the less laminate anterior margin of the vertex not produced backwards over the middle of the eyes, and by the absence of a frontal keel.

Genus *Darna* Walk.*Ins. Saundersiana*, 1858, p. 102.

This genus is synonymous with *Scaris* Lep. & Serv., *Encyc. Method.*, x, p. 609, 1825. The type species, *D. bipunctata* Walk. (*loc. cit.*), is synonymous with *Scaris picea* Walk., *List Homopt.*, iii, p. 832, 1851.

Scaris sanguinosa Walk., *Ins. Saundersiana*, *Homopt.*, 1858, p. 101, is synonymous with *Tethigonia rubrolimbata* Sign., *Ann. Soc. Ent. France* (3), ii, p. 718, pl. 21, fig. 2 (1854).

Gypona viridiflava Walk., *List Homopt.*, iii, p. 836 (1851), is synonymous with *Gypona glauca* Fabricius, *Syst. Rhyn.*, p. 91 (1803).

Gypona fusiformis Walk., *List Homopt. Suppl.*, 1858, p. 257, is synonymous with *Gypona smaragdula* Walk., *List Homopt.*, 1851, p. 835.

Gypona postica Walk., *List Homopt. Suppl.*, 1858, p. 258, is synonymous with *Gypona marginata* Walk., *List Homopt.*, 1851, p. 838.

Tethigonia bathia Walk., *List Homopt.*, 1851, p. 756, belongs to Ball's subgenus *Panama* of the genus *Gypona*.

Deltocephalus trimaculatus Dist., *Faun. Brit. Ind. Rhyn.*, vii, p. 83, 1918, is synonymous with *Kolla mimica* Dist., *Faun. Brit. Ind. Rhyn.*, iv, p. 225 (1908).

ERRATA.—p. 153, line 5, for Dumfries-shire read Cumberland.
p. 153, line 4 (from bottom), for females read female.

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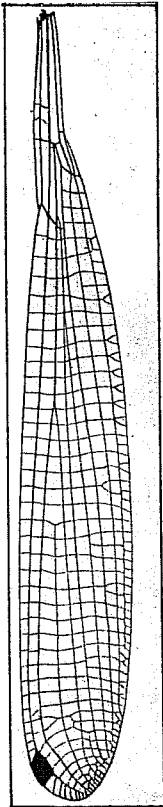
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A NEW GENUS AND NEW SPECIES OF DRAGONFLY FROM EAST AFRICA BELONGING TO THE LEGION PODAGRION (ODONATA).

By KENNETH J. MORTON, F.E.S.

By the kindness of Mr. W. Feather I have received a number of dragonflies collected by him in East Africa, at Moa, in Tanganyika Territory on the coast, about 30 miles north of Tanga, and at Kibwezi, on the Uganda Railway (193rd mile) in bush country, at an elevation of approximately 3000 ft. Although the bulk of the collection consists of well-known African species, there are

Fore wing of *Coryphagrion grandis* sp. n. x 1.72.

included three or four species which I had not seen before, notably from Moa, a fine pair of *Hadrothemis scabriformis* Ris, apparently a rare species known from very few examples; the species which Förster described as *Erythronema commoneae* (*Mitt. Bad. Zool. Ver.*, 1902)—not a true *Erythronema*—for the determination of which I am indebted to Dr. Ris; and lastly the large and very remarkable new form which is the subject of the present paper, and which for convenience may be referred to the "légion Podagrion" Selys.

Coryphagrion nov. gen.

Arculus at level of second antenodal. Quadrilateral elongate, fairly regular, widening very slightly distally, the distal angle rather acute. Rs (Ms) from subnodus. M³ proximal to subnodus (but distal to actual nodus by about the distance between the level of the nodus and the origin of Rs). Intercalated sectors between M^{1a} and M², and between M² and Rs, the former only of the length of two or three cells, and the latter of five or six cells from the wing-margin. Longitudinal veins posterior to M¹ only very slightly curved at the apex. A* from Cuq. Cuq nearer the level of the second ante-nodal, about $\frac{1}{4}$ or $\frac{1}{3}$ of the distance between the first and

second. MA forming the distal end of the quadrangles and sub-quadrangles (medio-anal link as in Williamson's fig. 4, *Ent. News*, xxiv, 1913, pp. 258-261). Pterostigma short and thick, covering two cells more or less. Frons angulate. Antennae mutilated.

NOTE.—M² and Rs, although very close to one another at the subnodus, do not coalesce.

Coryphagrion grandis n. sp.

♀ (*adult*). Black, paler parts greenish yellow. Labrum, ante- and post-clypeus bronzed black; frons, back of head, sides of eyes below the antennae pale, vertex duller black with two small pale post-ocular spots. Prothorax with pale margins; middle lobe with pale submarginal lines widest distally, these lines continuous, or nearly so, with the pale lateral margins of the posterior lobe and thence with the ante-humeral stripes of thorax.

Thorax: Dorsum and sides to 1st lateral suture bronzed black; pale ante-humeral stripes narrow but slightly broader anteriorly, not quite reaching ante-alar sinus; a rather broader pale stripe on mesepimerum near humeral suture running from near the wing base to about $\frac{2}{3}$ of the length of the sclerite; a broad black line on second lateral suture; sides otherwise pale; sterna mostly black; post-sternum pale, outlined in black with blackish cordate marking in centre. Underside tending to become pruinose. *Legs*: Coxae, trochanters and base of femora pale, legs otherwise black; tarsal claws red with black tips; tooth almost obsolete. *Abdomen*: Segment 1 pale, black on dorsum nearly divided into two subquadrate parts by a fine pale median line; dorsum of remainder bronzed black, segment 2 pale laterally (and this pale colour probably is continued along the whole length of the abdomen in a less mature condition of the insect), sides otherwise dark; sternum brownish. Segments 1 and 2 covered with fine hairs. Appendages as long as 10; valves not extending beyond end of abdomen. *Wings*: Hyaline; pterostigma almost black, margins thickened, indications of a pale line surrounding the central part. In fore wing M² arises about 14 mm. from nodus and M^{1a} 23 mm. from nodus; in hind wing M² at 11 $\frac{1}{2}$ and M^{1a} at 21 mm. from nodus. Cu¹ reaching margin of wing slightly proximal to pterostigma, Cu² about 4 cells shorter. Post-nodals: Fore wings 32-34; hind wings 30-31. Anal side of quadrilateral: Fore wing about 2.25 mm., costal side about 1.5 mm.; hind wing about 3.25 : 2.5 mm. Length of fore wing about 61 mm.; base to nodus 15 mm.; length of hind wing about 60 mm. Length of abdomen 94 mm.

Moa, 6th January, 1924; stated by the collector to have been taken in forest far from any water, several others having been seen, but not captured.

In his paper on *Ptenacolestes* (*Proc. Academy Nat. Sciences*, Philadelphia, 1913), Dr. Calvert has given a very useful list of 22 of the important characters of that genus and a key to the genera

of the Legion *Podagrion*. Later views have reduced the constituents of this group of genera by the removal of Lestid elements, which it was found to contain, but nevertheless the list remains as a serviceable standard for the analysis of any new genus which in the light of our present knowledge can find no better resting-place than in the old *Podagrion* Legion. Such an analysis of the venation of *Coryphagrion* follows:

1. Nodus at about one-fourth of the wing-length.
2. Two antenodals.
3. Postnodals 30-34.
4. Stigma short, covering two cells, more or less, its proximal edge oblique.
5. Cells of the wing generally not greatly elongated at right angles to long axis of wing, excepting between M¹ and M^{1a}.
6. Caudal curvature of veins posterior to M¹, slight.
7. Between M¹ and M^{1a} one row of cells normally throughout to wing-margin, where there may be one double cell.
8. Between M^{1a} and M² one row of cells usually up to 2-3 cells' distance from the margin, increasing there to two to three rows.
9. M² separates from M¹ at about 15 $\frac{1}{2}$ mm. from level of nodus in fore wing and about 27 mm. from proximal end of pterostigma.
10. Between M² and Rs one row of cells up to about the level of proximal end of stigma, thence two rows for 4 cells' length, followed by three rows (irregular) to wing margin.
11. Rs separates from M¹⁺² at the subnodus.
12. Between Rs and M³ one row of cells throughout.
13. Arculus at second antenodal.
14. M³ separating from M¹⁺² slightly proximal to the sub-nodus—about 6 mm. from arculus (actually slightly distal to the level of the nodus).
15. Between M³ and M⁴ (a) no cross-veins proximal to the level of the subnodus, and (b) one row of cells throughout.
16. Quadrilateral with (a) its proximal and distal sides strongly divergent caudad, and (b) its distal side about double the length of its proximal side.
17. Between M⁴ and Cu¹ (a) three antenodal cells, and (b) one row of cells throughout.
18. Cubito-anal cross-veins one, proximal to the level of second antenodal.
19. Between Cu¹ and Cu² one row of cells.
20. Area posterior to Cu² with one row of cells.
21. Anal vein separating from the hind-margin of wing (a) slightly proximal to the level of the arculus, and (b) at the level of the cubito-anal cross-vein.
22. Anal cross-veins, proximal to the level of the distal end of the quadrilateral, one.

In Dr. Calvert's keys, *Coryphagrion* would run out nearest *Mesopodagrion*.

Dr. Ris, who has very kindly gone over my description and made one or two valuable suggestions to which I have given effect, has sent me a photograph of the wings of a species of *Nesolestes* from Madagascar (probably undescribed), which genus, he considers, appears to come nearest the new one amongst all the Old World genera belonging to the Legion *Podagrion*. There are important differences, however, particularly the greater postnodal extension of the wings in *Coryphagrion*. In *Nesolestes* also the arculus is situated distad to the second antenodal, the intercalated sectors are more numerous and longer and the pterostigma relatively much longer. In stature, colours and some other respects the appearance of the East African insect is rather strongly suggestive of the Legion *Pseudostigma*, but the difficulties of such an association are obvious from the presence of a true pterostigma and the paucity of intercalated sectors, to say nothing of the geographically remote locality. Whether there is anything in the life-history of the species analogous to that of *Mecistogaster* remains to be discovered.

LEPIDOPTERA ON THE COAST OF BRITANNY.

BY BRIGADIER-GENERAL B. H. COOKE, C.M.G., C.B.E., D.S.O.

(Concluded from p. 205.)

V. polychloros.—I only found a few hibernated specimens from 18th March, and never came across the newly emerged ones, which are due in July.

Polygona c-album.—Widely distributed in woods and gardens. First appeared on 11th July, and was found at intervals till October, when I took 2 specimens in our garden in the middle of Dinard. I am uncertain whether these later specimens belonged to a 2nd generation or not.

Melitæa cinerea.—Exceedingly common in all woods, in meadows, and on the cliffs. The males resemble those taken in Hungary, and are of a more foxy red than the Isle of Wight race. The females are mostly very large, and of a lighter yellow. I found a large number of larvae on various kinds of plantain between the 7th April, when they were half or three-quarters grown, and the 18th June, when I found the last one three-quarters grown.

The forelegs of these larvae were black, and not red as described by South. I managed to rear the majority without difficulty and obtained some varieties. Two male specimens have the hind wings above entirely clouded with black.

The first larva pupated on 28th April, and the first butterfly

emerged in my cage on 15th June, whereas the first wild butterflies were taken on 8th May. I thus had larvae feeding long after my first imagines had emerged. There are two generations, but although the 1st generation had been seen in swarms and I searched well for the 2nd, I never found a single specimen of the latter.

M. phœbe.—I had been informed that this species was not known in this coastal region. I found it, however, in three localities in grassy meadows, in one of which I took it in some numbers. One generation, which appeared on 30th May.

M. athalia.—Also supposed not to occur near this coast. I found it very abundant in one wood, and very varied, some specimens being very dark and with all 4 wings heavily clouded with black, similar to *M. dictynnia*, others approaching *V. corythalia*. One generation, which appeared on 7th May.

M. aurina.—Also not previously reported near the coast. It was exceedingly abundant on the outskirts of the wood referred to in my introductory notes; some of the tracks on which scabious grows in profusion were positively alive with it. I also collected a number of larvae about half-grown from 13th April onwards. The larvae were easy to find, as they love sitting on dead leaves and dry grass and sunning themselves after rain, and their dark colour makes them very conspicuous. The first larva pupated on 21st April, and the first butterfly emerged in captivity on 31st May, whereas the first wild imago was taken on 7th May.

I found little difficulty in rearing the larvae, and obtained a very good percentage of imagines. Very few larvae were ichneumonised.

The result was very satisfactory, as the imagines varied exceedingly, and included all the so-called English, Welsh and Irish forms, as well as others. Some of the larvae and pupae were kept in a rather dark place, but were occasionally exposed to the direct rays of the sun, which may have accounted for my obtaining some very interesting melanic specimens. The following is a description of one of them:—

Fore wings: Ground-colour pale tawny yellow; usual bands missing; cell heavily outlined in black, and a black basal patch. There are no other markings on the fore wings except two thick blurred black lines close together and close up to and parallel to the outer margin.

Hind wings: Base and a space for some distance inside the inner margin heavily clouded with black, followed by a semicircular row of small yellowish spots; outside this, in place of the usual reddish band, a black semicircular band containing 6 small red spots with black centres. There are 3 conspicuous and 3 faint yellow spots along the outer margin. The whole of the markings are very blurred.