

Yet a further complication is found in the late Dr. Ris's description of a *Stactobia* from Mendrisio, Switzerland, which he identifies with *fuscicornis*, accompanying his description with an excellent figure. From this it is evident that the insect before him was not the same as the Le Lioran and German examples. On the other hand, it is clearly recognisable as a species which I have taken at Bourg d'Oisans in Isère, France, and have considered tentatively as *eatonella*, McLach., my view being perhaps influenced by the fact that it was certainly distinct from the Le Lioran species determined by McLachlan as *fuscicornis*; moreover, this author recorded *eatonella* from near Sixt in Savoy, not so far from Bourg d'Oisans as to rule out the likelihood of the species occurring in this district. But McLachlan also recorded the species in the Pyrenees near Quillan and in Switzerland as well, so that until either the type can be re-examined or fresh material obtained from Quillan, there can be no absolute certainty that the Bourg d'Oisans and the Mendrisio insects are definitely *eatonella*.

Klapálek adds further to the confusion by describing and figuring a species which he calls *eatonella* in 1901, *Bull. Int. Acad. Sci. Francis Joseph*, 6, from Tarvis in Carinthia. I have failed to reconcile his description and figures with any of the three known species, and it may be that a fourth is here involved.

These are the facts. In the absence of an opportunity of examining either the types or examples from the actual type localities, there seems no other course open than to re-describe and figure the species on the assumption that the Le Lioran examples may be *fuscicornis* and those from Bourg d'Oisans, *eatonella*.

I am not altogether satisfied that the determinations are correct but, with these figures available, it should be possible, in the future, with fresh material from Sicily and the Pyrenees, to clear up the position beyond all reasonable doubt.

The assembly together of three species has led to a better understanding of the genitalia in the genus, and, with more material available of *furcata* from Mr. Richards' collection, I find it advisable to make a further alteration of the figures of this species; those given in *Eos*, Madrid, 8, are not quite reconcilable with the *Stactobia* formation as shown in the remaining species and the additional examples received have enabled me to sacrifice material in the endeavour better to make out the structure.

A few words may be added to indicate the general construction of the genitalia in the genus, or, at any rate, in the three European species. The terminal segments are deeply excised both dorsally and ventrally; there is a long penis sheathed in a membrane, capable of considerable extension, accompanied by two or more exceptionally strong black spines, the tips of which may sometimes be seen in dried examples. It is necessary, of course, to clear the material in KOH to obtain a correct conception of their form. These spines furnish the most easily recognisable character for the separation of the species. A pair of plates with downwardly directed hooked apices may perhaps be homologous with the superior appendages, and there is also a pair of characteristically formed inferior appendages. A strong process arises from the antipenultimate ventral segment.

Key to the Species.

1. Black spines three in number *eatonella*, McLach.
- Black spines only two in number 2.
2. Black spines of equal length, nearly symmetric *fuscicornis*, Schneider.
- Black spines unequal in length, asymmetric; the one, half the length of the other, the longer directed downwards, the shorter upwards *furcata*, Mosely.

S. fuscicornis (figs. 1-2). *S. furcata* (figs. 3-5). *S. eatoniella* (figs. 6-7).

Black spines two in number of approximately the same length and approximately symmetric.

Superior appendage from the side represented by a stout hooked process directed downward.

Inferior appendages from beneath not very broad, each with a dilated tri-pointed apex, inner angle more produced than the outer; from the side rhomboidal middle (outer) angle only slightly produced.

Black spines two in number, asymmetric, one much longer than the other, curving downwards, the shorter curving upwards and meeting or overlapping the longer about midway.

Superior appendage somewhat similar to that of *fuscicornis*, but with the hook larger and longer.

Inferior appendages from beneath, each very broad, apex excised and obliquely truncate, outer angle much produced to form an incurved hook, inner angle directed inwards; from the side rhomboidal, middle (outer) angle rather produced, lower angle considerably produced. (Examples from Le Trayas, Var, vary somewhat from the typical form as shown in fig. 5.)

Black spines three in number, an approximately symmetrical pair curving downward with a third black spine between them towards the base also curving downwards.

Superior appendage from the side represented by a fine hooked process directed downward.

Inferior appendages from beneath each rather narrow, apex not dilated, apical margin excised, outer angle strongly produced; from the side triangular, broad at the base, apex directed downward, produced and rounded, outer margin slightly excised.

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A NEW GENUS OF CORDULINE DRAGONFLY FROM SOUTH AFRICA (ODONATA)

By K. H. BARNARD, D.Sc., F.L.S.

THE credit for the first discovery of a Corduline Dragonfly in South Africa belongs to Mr. A. C. Harrison, a well-known Cape Town angler, who caught two males in December 1931. Since then a sharp look-out has been kept for further specimens, and although no more examples of the original species have been seen, several specimens of a second species have been discovered by Mr. H. G. Wood and myself while investigating the fauna of the Cape mountain ranges. This latter species, which is made the type of the new genus because both sexes are known, has been found in three localities, including Table Mountain in the vicinity of Cape Town. This is not so remarkable when it is

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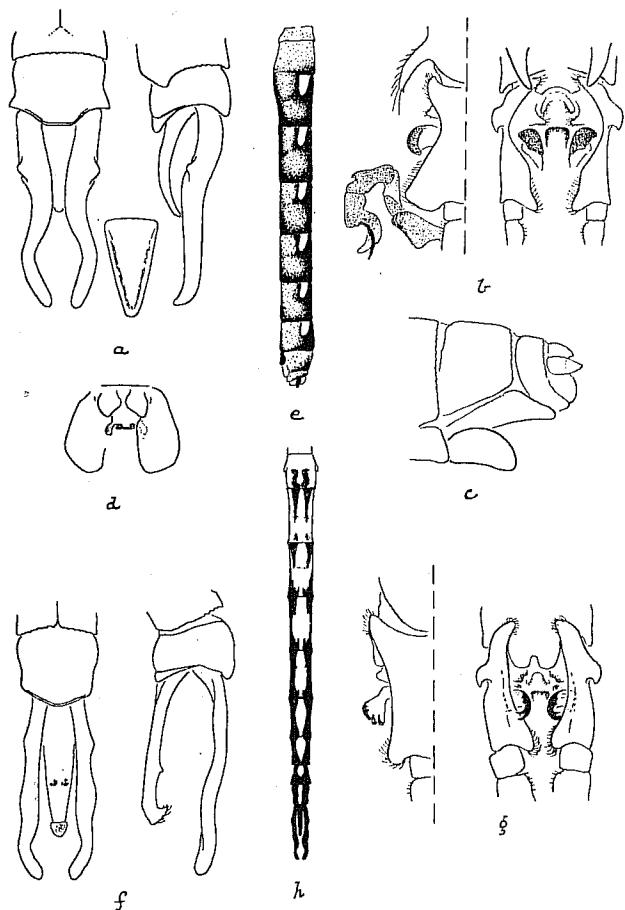


FIG. 1.—*Presba venator*, gen. et sp. n. (a) dorsal and lateral views of ♂ appendages, and dorsal view of lower appendage; (b) lateral and ventral views of ♂ genitalia, segments 1 and 2, the penis removed in the ventral view; (c) lateral view of end of abdomen ♀; (d) ventral view of valves and median processes, ♀; (e) lateral view of abdomen ♀, the dotted portions red.

Presba piscator, sp. n. (f) dorsal and lateral views of ♂ appendages; (g) lateral and ventral views of ♂ genitalia, segments 1 and 2, penis removed; (h) dorsal view of abdomen ♂.

realised that very little systematic collecting of dragonflies has been done, owing probably to the feeling that such strong-flying insects would be widespread and well known (see the poverty of Cape localities in Ris' Monograph of South African Odonata, 1921, *Ann. S. Afr. Mus.*, 18).

The genotype, with which I have personal acquaintance, is an extraordinarily handsome insect, and is at once recognisable from all other Cape dragonflies by its bright colours and its sustained flight. It has, however, the habit common to several other allied forms of flying in a definite "beat," and by quietly taking up a strategic position at some spot on this "beat" the collector has little difficulty in effecting a capture.

Oviposition has not been observed, and no nymph which could belong to these dragonflies has yet been found.

The specific names allude to my friends: Mr. H. G. Wood, a great hunter of insects, and Mr. A. C. Harrison, a disciple of Isaak Walton.

Presba, gen. n.

Close to *Synecordulia*. Tibial keel on all legs, occupying slightly more than the distal half in fore and mid legs, and in hind leg the distal $\frac{1}{2}$. Abdomen narrow, compressed, dorsally keeled. Auricles not serrulate. Median space and triangles not crossed. Triangle of hind-wing slightly distal to areulus. Sectors of areulus separate from their origin in both wings. Anal loop of 2 cells' width, without widened "toe." In fore-wing M_1 and Cu_1 parallel or very slightly divergent distal to level of nodus. Post-trigonal cells in one row in fore-wing, in one or two rows in hind-wing. Thorax very furry.

Genotype: *P. venator*, sp. n.

Presba venator, sp. n. (Fig. 1 a-e.)

♂♀. Labrum, clypeus and frons fulvous-castaneous; vertex dark metallic blue at sides, centre castaneous; occipital triangle castaneous. Thorax castaneous with a narrow medio-dorsal pale ochreous stripe, flanked on either side by a metallic peacock-blue stripe, the two oblique lateral stripes similarly metallic peacock-blue. Legs black, coxae and trochanters fulvous-castaneous. Abdomen segments 1 and 2 castaneous, segment 2 with black band on hind margin dorsally; segments 3-9 Venetian-red with more or less complete black bands, and a submedian euneiform pale cream-coloured mark anteriorly; segment 10 ochreous with black hind margin. In ♂ upper appendages black, lower appendage ochreous, with the tip, and sometimes also the margins, black. In ♀ valves and anal appendages black. Wings hyaline, faintly suffused towards apices in ♂, in ♀ strongly suffused with yellow from base to pterostigma. Pterostigma and costa black. Membranule greyish-white.

Abdominal segments 6-9 strongly hairy in both sexes. Dorsal keel ceasing about middle of segment 9. Post-trigonal cells in hind-wing in 2 rows, except for the proximal 2 cells in ♂. In fore-wing M_1 and Cu_1 parallel throughout.

Genitalia, ♂, segment 1 with a pair of strong spiniform processes on the sternite, projecting backwards; anterior lamina (segment 2) broad, shallowly excised; hamuli minutely serrulate on the margin curved outwards; genital lobes strong; penis apically with a single spiniform, strongly chitinised, rod. ♀, valves prominent, lobate, median processes very small, knob-like, hidden under the valves.

Fore- and hind-wing: ♂, 31-33 mm.; ♀, 33-34 mm. Abdomen: ♂, 37-39 mm. (including appendages); ♀, 35-36 mm.

Localities. CAPE PROVINCE: French Hoek Mts. (K.H.B. and H.G.W., Dec. 1932, ♂♂♀♀); Hottentots Holland Mts. (K.H.B. and H.G.W., Jan. 1933, ♂♂♀♀); Table Mt. (K.H.B. and H.G.W., Jan. 1933, ♂♂♀♀).

Presba piscator, sp. n. (Figs. 1 f-h, 2.)

♂. Labrum orange-yellow; clypeus and frons lemon-yellow; vertex dark metallic blue; occipital triangle ochreous; hind margin of eyes black. Thorax raw-sienna, medio-dorsal and two lateral oblique stripes pale yellow, all three stripes bordered with black, which in some lights shows a slight metallic blue sheen. Legs black, posterior surface of fore and mid femora fulvous, coxae and trochanters fulvous. Abdomen segments 1 and 2

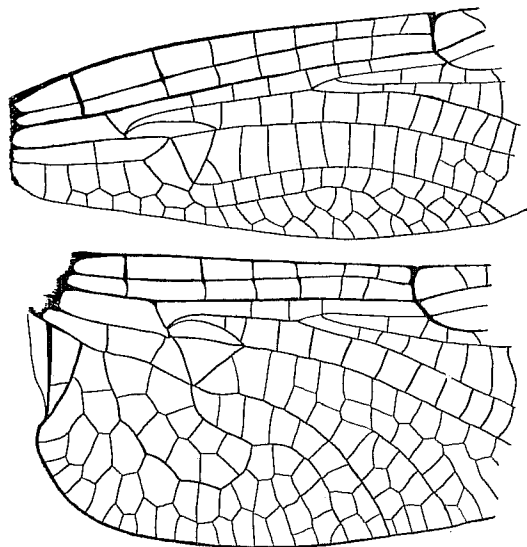


FIG. 2.—*Presba piscator*, sp. n. Basal halves of fore- and hind-wings ♂.

mostly ferruginous, 2 with 2 black stripes dorsally in posterior half, segments 3-10 black ventrally and laterally, yellow dorsally with more or less complete bands of black at junctions of segments (fig. 1h). Appendages black. Wings hyaline, slightly suffused with yellow in costal area between nodus and pterostigma, the latter black. Front margin of costa pale ochreous. Membranule whitish.

Abdomen glabrous. Dorsal keel extending to end of segment 9. Post-trigonal cells in hind-wing in one row (3-4 cells). In fore-wing M_1 and Cu_1 slightly divergent distally.

Genitalia, segment 1 unarmed; anterior lamina lobate, apically cleft; hamuli with 4 outwardly curved hooks, the posterior two larger than the other two; genital lobes moderate; penis apically with 2 strongly chitinised spiniform rods.

Fore- and hind-wing: 29 mm. Abdomen: 37 mm. (incl. appendages).

Locality. CAPE PROVINCE: Berg River at Groot Drakenstein (A. C. Harrison, December 1931, 2 ♂♂).

NOTES ON THEOBALD'S "THE PLANTLICE OR APHIDIDAE OF GREAT BRITAIN"*

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Introduction. In February 1933, through the kindness of the Trustees of the British Museum (Natural History), I had the opportunity of going through part of the Theobald collection of Aphids, and of examining some of his types, the results of which are given in the following paper.

There is no doubt that the study of the Aphids is still in a rather primitive stage and that a genus is a more or less vague conception to most workers, not so much in the generic diagnosis, as in the arrangement of border-line species. Theobald accepted Baker's system, at least in name, but judging by the way in which his species are distributed over the genera, he followed a very indefinite rule in the estimation of generic characters.

Nobody will doubt that the summer and winter forms of a migrating Aphid belong to one species. Every author has made the mistake of describing them as distinct species when the life-cycle was unknown. This is more or less to be expected, as the morphological characters of an Aphid on primary and secondary hosts may be rather different. But Theobald placed them in different genera, even though he knew the biology. As an example illustrating this point, I give the following: *Rhopalosiphum nymphaeae*, L. (Theo. 2: 60-65), is the summer form of *Aphis infusca*, Koch (Theo., 2: 204-206), and is described also under the name *Hyadaphis sparganii*, Theo. (2: 55-56). Again, *Anuraphis roseus*, Baker (Theo. 2: 294-301), is described also as *Myzus plantagineus*, Pass. (Theo. 3: 337). The latter migrates from apple to plantain.

The same species is often described many times under various names (*Macrosiphum solanifolii*, Ashm., is described as *M. gei*, Koch, *M. amygdaloides*, Theo., *M. sileneum*, Theo., *M. centranthi*, Theo. partim., *M. euphorbiellum*, Theo., and *M. hellebori*, Theo. & Walton; the same is the case with *Aulacorthum solani*, Kalt., see below).

The keys are almost useless as in some instances the characters and differences do not agree with his own material, e.g. in the key to *Macrosiphum corallium* (1: 65) is characterised by having "5 hairs each side" on the cauda, whereas the cauda of his type specimen has at least 17 hairs.

In the following paper, an attempt is made to correct some of the errors in Vol. 1. It is quite possible that new mistakes have been made in doing so, but science progresses by "trial and error." I have not yet completely examined the material in Vols. 2 and 3, but I hope to publish later the notes that I have made on some of the types. The systematics of Börner are followed for practical reasons, although I cannot agree in every detail with his ideas or with the characters given for some of his genera.

1. *Macrosiphum allii*, Jackson, Theo. 1: 75-76 (*alii*).

The Jackson slide in Theobald's collection is only *Macrosiphum (Sitobion) avenae*, Fabr., so that I place Jackson's species as a synonym.

2. *Macrosiphum cyparissiae*, Buckton, Theo. 1: 81-82.

As Theobald says, Buckton's slide in the B.M. collection is *rubifolium*, Theo.

* Theobald, F. V. *The Plantlice or Aphididae of Great Britain*, Svo. London, &c., 1, 1926; 2, 1927; 3, 1929.