

HOOD, J. D. & WILLIAMS, C. B., 1915. New Thysanoptera from Florida and Louisiana. — *J. New York ent. Soc.*, 23 (2): 123-125, pl. 7, figs. 1-4.

MOULTON, D., 1937. Further notes on Hawaiian Thrips with descriptions of new species. — *Proc. Haw. ent. Soc.*, 9 (3): 411-412.

NEUMANN, H., 1958. Der Bau und die Funktion der männlichen Genitalapparate von *Trichocera annulata* Meig. and *Tipula paludosa* Meig. (Dipt. Nematocera). — *Dtsch. Ent. Z., N.F.*, 5 (3/4): 278, fig. 24b.

PRIESNER, H., 1921. Neue und wenig bekannte Thysanopteren der neotropischen Fauna aus der Sammlung des Berliner Zoologischen Museums. — *Dtsch. ent. Z.*, 1921 (3): 191-192.

WATSON, J. R., 1927. New Thysanoptera from Florida. — *The Florida Ent.*, 10 (4): 60-61.

New dragonflies of the genus *Agriocnemis*
and a key to males of this genus.

by
ELLIOT PINHEY.
National Museum, Bulawayo.

Agriocnemis falcifera n. sp.

Agriocnemis exilis forma (c) Pinhey, 1951, *Transv. Mus. Mem.* 5: 124.

This insect, described tentatively in the above volume as a form of *exilis* Selys, is actually nearer *pygmaea* (Rambur), of Seychelles and Asia, in general features, including the differential pterostigma, and like *zerafica* Le Roi in appendages, with the long tufts of hair. It is larger than *zerafica* and differs in other respects, the prothorax being more like *gratiosa* Gerstaecker.

Holotype ♂ (mature but non-pruinose). Labrum and postclypeus deep metallic blue. Postocular spots connected across occiput. Head above otherwise black. Hindlobe of prothorax with central portion trapezoidal but almost square, well raised at margins. Synthorax black to first lateral suture, with narrow pale green antehumerals. Femora yellow with black external stripes. In older males there is white pruinosity on head and thorax. Pterostigma very elongate, yellow in forewing, suffused with brown, between brown veins; in hindwing black, between brown veins. Forewing with $7\frac{1}{2}$ —8 Px. End segments of abdomen reddish, as in some other species. Segment 10 not raised terminally. Both appendages black apically, the inferior ending in a black ridge; superior slightly longer and adorned with thick tufts of long hair. (See figs. 4, 5). In older specimens whitish pruinosity develops on head, sides of thorax and ante-humerals; eventually spreading further over the thorax.

Allotype ♀. Labrum pale. Antehumerals twice as broad as in male. Pterostigma yellow, between brown veins, in all wings. Forewing with $8\frac{1}{2}$ Px. Abdomen above entirely black.

♂ ♀ abdomen 18—20 mm., hindwing 12—13 mm.

Holotype, allotype and paratypes in Transvaal Museum, a paratype male in National Museum, Bulawayo. The author collected a series at Hudley, Zululand, December, 1948.

Agriocnemis palaeforma n. sp.

This is a solitary teneral male, but the anal appendages are so remarkable for this genus that it seems reasonable to use it as a type specimen.

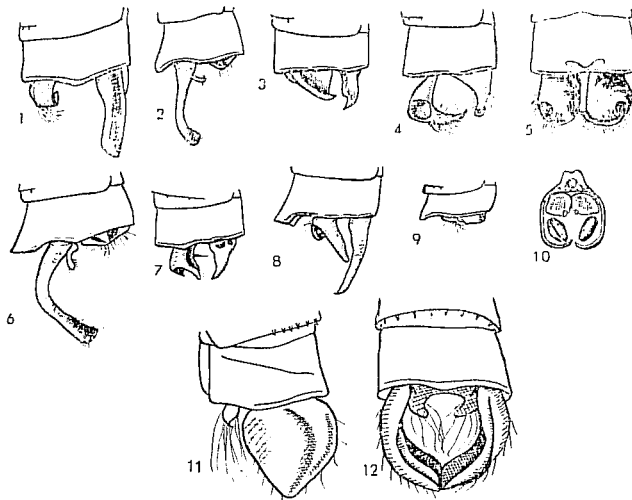
Holotype ♂ (general, preserved in spirit). Labrum, postclypeus, frons and head above black; genae pale ochreous. Occiput and the isolated postocular spots pale blue. Prothorax dark ferruginous with pale blue anterior collar; posterior lobe in three rounded sections, the middle one broad. Synthorax black almost to first lateral suture, spreading over this suture at upper end. Pale blue antehumeral, narrow, complete almost to upper end. Metepisternum pale blue, metepimeron and ventral surface yellowish; a black dot at upper end of second lateral suture. Legs yellowish. Pterostigma pale yellowish brown; 6 Px; Ac midway between antenodals; arculus well distal to second Ax. Abdomen I-VI with black dorsal band constricted at each end, segmentally; VII to X red above, VII with black basal suffusion. Appendages (see figs. 11, 12) yellowish; superior paddle-shaped, very large, foliate, incurved apically, with a ridge on inner surface; a small black basal spine on dorsal surface. Inferior very reduced, black-tipped. Abd. 20 mm., hw. 11.5 mm.

Remarks. Readily distinguished from known species by the broad appendages, and the small inferiors. It was bred from a larva found by Corbet in a grassy swamp stream at Nyenga, near Jinja, 18th May 1955; the adult emerging on the 31st of May. The type will be in the British Museum (Nat. Hist.).

A preliminary key to males of African members of the genus *Agriocnemis* Selys, including the closely allied species *Mortonagrion stygium* (Fraser):

- 1 Superior appendages slender, forcipate and very long; inferiors minute. Femora in adults all black. Labrum blackish. Hind-lobe of prothorax complete, with the median portion small, rounded. Dorsum of 10th segment raised posteriorly. 2
- Superior appendages not forcipate. Femora normally yellow, with black bands or streaks. 3
- 2 (1) Abdomen 20—22 mm. Pterostigma rhomboidal. Mature male usually lacking antehumeral and abdomen 9—10 above black (red in less mature condition). (Congo and West Africa). ***forcipata* Le Roi**
Abdomen 15—16 mm. Pterostigma slightly more elongate. Narrow antehumeral present; abdomen 9—10 reddish. (Uganda and West Africa). ***victoria* Fraser**
- 3 (1) Adult without antehumeral stripe. Appendages rather like *exilis* Selys, but the superiors without a ventral spine (Congo and West Africa). ***Mortonagrion stygium* (Fraser)**
With antehumeral stripe. 4
- 4 (3) Superior appendage straight, horizontal, very robust, with broad, down-turned basal tooth. Inferior about a third as long. Labrum black, edged with pale blue. (Angola). ***angolense* Longfield**

- Superior appendage not as above. Labrum uniform dark brown to black, with or without purple sheen. 5
- 5 (4) Superior appendage cordate or paddle-shaped, very broad; inferior much smaller. (Uganda). ***palaeforma* n. sp.**
Appendages not of these forms. 6
- 6 (5) Hind portion of prothorax distinctly trilobed, well developed laterally as well as medially. 7
Hind lobe of prothorax reduced at sides, only the median portion prominent. 9
- 7 (6) Pterostigma yellow in all wings. Superior appendages short, coiled and having basal spine; inferiors as long as superiors. Abdomen 15—18 mm. (tropical and subtropical Africa). ***exilis* Selys**



Male Appendages of *Agriocnemis* Selys.

1—4, 6—9, from right; 5 from above; 10 posteriorly; 11—12 from left and from above.
1. *maclachlani* 2. *victoria* 3. *gratiosa* 4—5. *falcifera* 6. *forcipata* 7. *exilis*
8. *inversa* 9—10. *zerafica* 11—12. *palaeforma*.

- Pterostigma in hindwing grey or black. Appendages unequal in length. 8
- 8 (7) Abdomen 21—23 mm. Forewing with 8—8½ Px. Inferior appendage about three times as long as superior. (East and West Africa). **maclachlani** Selys
Abdomen 16—17 mm. Forewing with 5—6 Px. Inferior appendage minute. (Uganda and West Africa). **zerafica** Le Roi
- 9 (6) Pterostigma very elongate, yellow in forewing, black in hindwing. 10
Pterostigma yellowish in both wings 11
- 10 (9) Abdomen 19—21 mm. Postocular spots connected across occipital plate. Middle portion of posterior lobe of prothorax nearly square. Superior appendage with long hair-tuft; inferior only slightly shorter. (Natal). **falcifera** n. sp.
Abdomen 17—18 mm. Postocular spots isolated. Middle part of hindlobe of prothorax nearly hemispherical. Inferior appendage minute, much shorter than superior, spiny at apex. (Seychelles). **pygmaea** (Rambur)
- 11 (9) Abdomen 19—21 mm. Middle portion of posterior lobe of prothorax a trapezoid, upturned at edges. Pterostigma fairly broad. Abdomen 10 not raised. Superior and inferior appendages of about equal length. (tropical Africa, Natal, Madagascar). **gratiosa** Gerstaecker
Abdomen 17—18.5 mm. Middle portion of posterior lobe of prothorax short and broad, not upturned at edges. Pterostigma very narrow. Abdomen 10 sharply raised distally. Inferior appendage nearly twice as long as superior. (East and West Africa). **inversa** Karsch

Mortonagrion stygium can, of course, also be separated generically from *Agriocnemis* by the slight venational difference in the anal vein.

Thus, in South Africa, three species of the genus are known at present: *cxilis*, *gratiosa* and *falcifera*.

Notes on African Odonata nymphs.

by

ELLIOT PINHEY.

National Museum, Bulawayo.

As in the case with many other insect groups, far more has been written about the appearance and habits of adult Odonata than about the early stages. As far as endemic African species are concerned, valuable work has been done on the dragonfly nymphs by Barnard and Corbet; and we know a little about some species through the more occasional work on certain nymphs of the African species by Fraser, Longfield and other specialists. Nymphs of a few of the more widespread migrants have been described in other continents. Perhaps the following notes and records may be added to this small quantity of literature on this particular subject. Valuable assistance in the compilation of the descriptions was accorded by Drs V. G. L. van Someren and Vernon van Someren and Dr A. H. Newton.

In the case of the Zygoptera (ending at the note on *Pentaphebia stahli*) body length does not include the anal appendages, the lengths of which are given separately. In Anisoptera the body length is a total measurement. The term shuck used here refers to the empty exuvia of the fullgrown nymph after emergence of the adult.

1. *Chlorolestes conspicua* Selys, 1862, *Bull. Acad. Belg.* (2) 14: 34.

Nymph: Barnard, 1921, *Ann. S. Afr. Mus.* 18: 445.

2. *Lestes pallidus* form *ochraceus* Selys. *Lestes ochraceus* Selys, 1862, *Bull. Acad. Bel.* (2) 13: 325.

The adults are widespread in Africa.

Nymphal shuck from which adult was bred from swamp in Karura Forest, Nairobi, Kenya: Labium reaching second pair of legs; 6 mental and 3 lateral setae. Body (without gills) 15.5—16 mm., caudal gills 8 mm. Fig. 2.

3. *Lestes tridens* McLachlan, 1895, *Ann. Mag. nat. Hist.* (6) 6: 21.

A coastal species from Natal to East Africa.

Nymphal shucks and freshly emerged adults collected at Lake Duluti, Arusha, Tanganyika: Body sparsely coated with short setae. Labium reaching second pair of legs; 7 mental, 3 lateral setae. Apices of gills somewhat rounded. Body 16.5—17.5 mm., plus caudal gills 9—10 mm. Fig. 1.