Venation dark brown to blackish. Pterostigma pale brown between blackish veins. Abdomen with dorsal black band on segments 1-8; segments 9-10 bluish, 9 with two black basal triangles, narrowly linked mid-dorsally. Cerci short, black.

Abdomen 31.5 mm., hindwing 22 mm.

Paratype Q (teneral) paler on face and from (as in d), paler on legs than allotype, with less black.

Material. Zwimbango River, Malange, Angola, holotype ♂, allotype ♀ 8th March,

1970, paratype of ♀ 14th February, 1970.

The three damaged 33 were collected at the same time. All were taken by Dr Estes. By anal appendages this species is nearest *hageni* but with larger inner basal hook. The face is greener, more like *angolense*. Pterostigma in the male blacker, the abdomen black dorsally on segments 8-9.

References

- PINHEY, E. C. G. 1964. A revision of the African members of the genus *Pseudagrion Selys* (Odonata). *Revta Ent. Mocamb.*, 7 (1): 5-196.
- Ris, F. 1936 (ed. Schmidt, E.). Die *Pseudagrion* Arten des Kontinentalen Afrika. *Abh. senckenb. naturforsch. Ges.*, 433: 1-68.
- SART, A. COMPTE. 1967. Nuevos especies de Odonatos etiópicos. Boln R. Soc. Esp. Hist. nat. (Biol.), 65: 5-15.

ARNOLDIA

(RHODESIA)

SERIES OF MISCELLANEOUS PUBLICATIONS

NATIONAL MUSEUMS OF RHODESIA

No. 6

Volume 5

25th January, 1971

NOTES ON THE GENUS *PSEUDAGRION* SELYS (ODONATA: COENAGRIONIDAE)

by
ELLIOT PINHEY
National Museum, Bulawayo

Pseudagrion glaucoideum Ris (1936) (fig. 1)

Pseudagrion isidromorai Sart (1967), syn. nov.

Compte Sart described a single male of *isidromorai* from Mongomo, Río Muni, collected in August 1962 by Isidro Mora. Comparing the description and figures with the long and variable series of *glaucoideum* in the National Museum it is evident that they are conspecific.

The typical male *glaucoideum* has the face and thorax mainly blue-green. In some melanic examples the postclypeus is all black and the synthoracic dorsum is black with blue antehumeral stripes which are each only slightly wider than the black zone

of the mesepisternum.

The superior anal appendages also show slight variation, both in orientation and in the gap between the branches. The slender lower branch is often brown, becoming black later than the upper one. The appendages and prophallus are figured here from an Etoumbi Forest male and the former are essentially similar to Sart's Río Muni figures.

The pro-mesothoracic region of the female is illustrated from an Mbalmayo (Cameroons) example. It is similar to the metallotype described by the present author (1964) from Abone (Company)

(1964) from Abong-Mbang (Cameroons).

Material examined:

Bondo, N. Congo (Kinshasa), February 1958 (leg. Pinhey) Buta, N. Congo (Kinshasa), February 1958 (leg. Pinhey)

Etoumbi Forest, Makoua, Congo (Brazzaville), August 1960 (ex T. H. E. Jackson) Mekoum Forest, Souanke, Congo (Brazzaville), March 1960 (ex T. H. E. Jackson)

Abong-Mbang, Cameroons, 9th September, 1962 (leg. P. Lascelles)

Mbalmayo, Cameroons, 1970 (leg. A.-R. Mbarga)

Received, 28th October, 1970

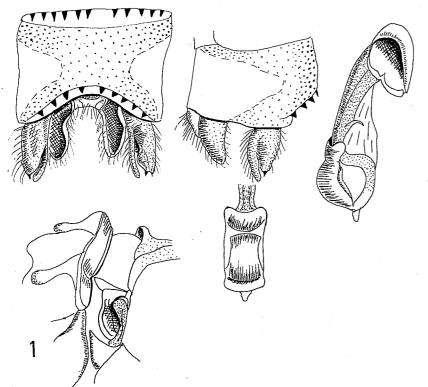


Fig. 1. Pseudagrion glaucoideum

3 (Etoumbi Forest) anal appendages from above and from left; prophallus from left and from below; \$\varphi\$ (Mbalmayo) mid-thoracic region showing prothoracic stylets and mesostigmal lamina.

Pseudagrion estesi spec. nov. (fig. 2)

This new species is close to *P. angolense* Selys and to *P. hageni* Karsch but darker than either of these. I take pleasure in naming this species after the mammal ecologist Dr Richard Estes who has collected various insects for the National Museum in Angola including a short series of this new coenagrionid.

Holotype of (mature). Labium pale ochreous to greenish distally, all the face olivaceous (possibly bluish-green in life?), except a broad black basal band on postclypeus; frons entirely brownish olivaceous. Vertex all black except for the large, isolated, pyriform

greenish postocular spots.

Prothorax black with green anterior collar, small pyriform green lateral spots on middle lobe, the ventral margin green; posterior lobe with green lateral streak on the posterior margin. Synthorax black to well below the humeral suture, with narrow green antehumeral stripes, rather like angolense but less inflated at ventral ends. Sides pale green to yellowish with continuous black band on second lateral suture, joined by an oblique black stripe on first suture. Ventral surface and the black femora coated with white pruinosity. Tibiae and tarsi shading from greenish to ferruginous, with black setae.

Venation dark brown to blackish, pterostigmata black. Forewing with 14 Px, hindwing with 12-13 Px. Discoidal cell with distal angle acute in forewing, less so in hindwing (as in *hageni*). Anal vein leaves hindwing margin at Ac (and in right hindwing it is traversed by an additional cross-vein half-way along the sub-discoidal cell).

Abdomen slender, broadly black dorsally on all segments, with a bronze-green sheen on segments 3-6. Superior anal appendage shaped as in *hageni*, without the inner central flange of *angolense*, but with a much more robust baso-ventral hook than in either of these others. Prophallus with a more slender funnel.

Abdomen 31.5 mm., hindwing 21.8 mm.

Paratype of very similar.

Three other males differ in having the face more blackened on postclypeus and frons but since each of these has lost the end of the abdomen they cannot be definitely determined as this species.

Allotype \mathfrak{P} . Head as in holotype \mathfrak{P} but the face and from browner, the postclypeus all black and the black of the vertex encroaches on to base of froms. Postocular spots

linked across back of occiput.

Prothorax black with pale collar, large pale triangular lateral spots and central twin spots; posterior lobe similar to 3 but with pale central spot. Stylets very long, black at apices. Synthorax dorsally black to just below humeral suture, with broad greenish antehumeral stripes, almost as wide as half each mesepisternum. Sides greenish to whitish, with slender clavate black stripe on first suture and just a dorsal spot on second suture. There is a setal pad (as figured) and a semi-erect epaulette. Legs whitish ochreous with black exterior streaks on femora and interior stripes on tibiae; tarsi with black apices.

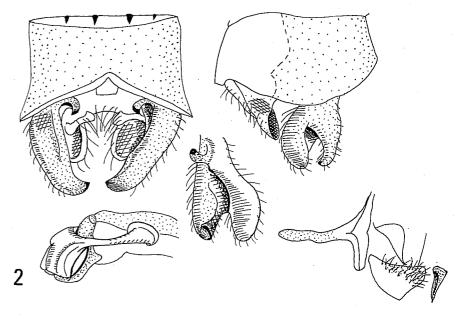


Fig. 2. Pseudagrion estesi
3 anal appendages from above and from left, and left superior appendage from inner view;
prophallus; \$\partial \text{prothoracic stylet, setal pad and epaulette of left side.}