

14.—*New Species of Neuropterous Insects from South Africa*
(Ephemera, Megaloptera and Embiidina).—By T. ESBEN-
PETERSEN.

EPHEMERIDA.

GEN. ATALOPHLEBIA, Eat.

ATALOPHLEBIA PELLUCIDULA n. sp. (Figs. 1 and 2.)

♂. Imago. Head and eyes blackish. Thorax castaneous with a longitudinal median streak behind and with yellowish streaks on the

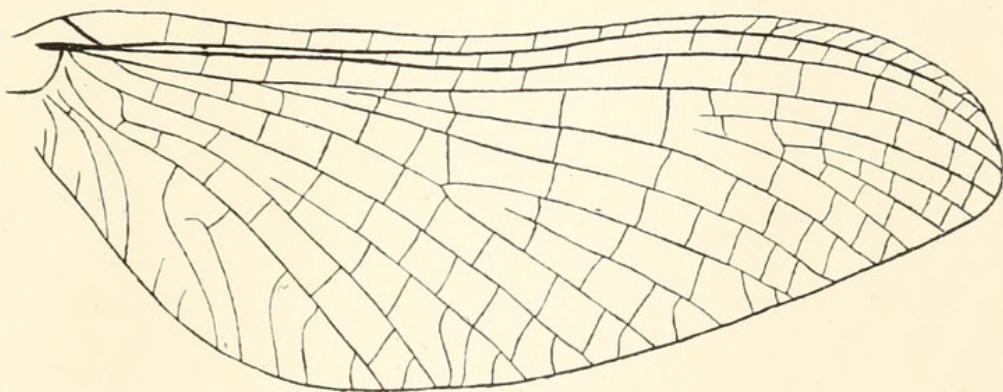


FIG. 1.—*Atalophlebia pellucidula*, ♂. Forewing.

sides. Abdomen whitish, pellucid; the segments with narrow blackish hind borders; sixth segment also with some small dark brown spots near the front margin; seventh segment with two larger brown spots near the front margin, each enclosing a whitish spot; in the eighth segment the front half is dark brown with two very small whitish spots close to the front margin; ninth segment almost complete dark brown above. Venter whitish; the terminal segment somewhat brownish and reddish yellow at apex. Forceps greyish white. Setae pale yellowish brown and brownish annulated. Legs pale yellowish brown. Femora with a narrow and indistinct brownish band at base, a broad blackish one in the middle and at the tip. Length of tarsal joint of intermediate and hind tibiae as in *At. tabularis* (Eaton, Monogr. Rec. Eph., pl. x, fig. 16 h).

Wings hyaline with a faint yellowish tinge, especially in the pterostigmatal area. Nervature blackish brown. In the forewing 6-8 cross-veins from base to the bulla; between the bulla and the pterostigma 4-5 cross-veins. The penis of the male is not cleft at the tip (as far as I can see).

♀. Subimago. Body almost coloured as in the imaginal stage, but of a more dull appearance. Femora also dark-banded. Wings with blackish-brown nervures.

♂. Length of forewing 13 mm., that of setae 29 mm.; ♀ Length of forewing 14 mm.

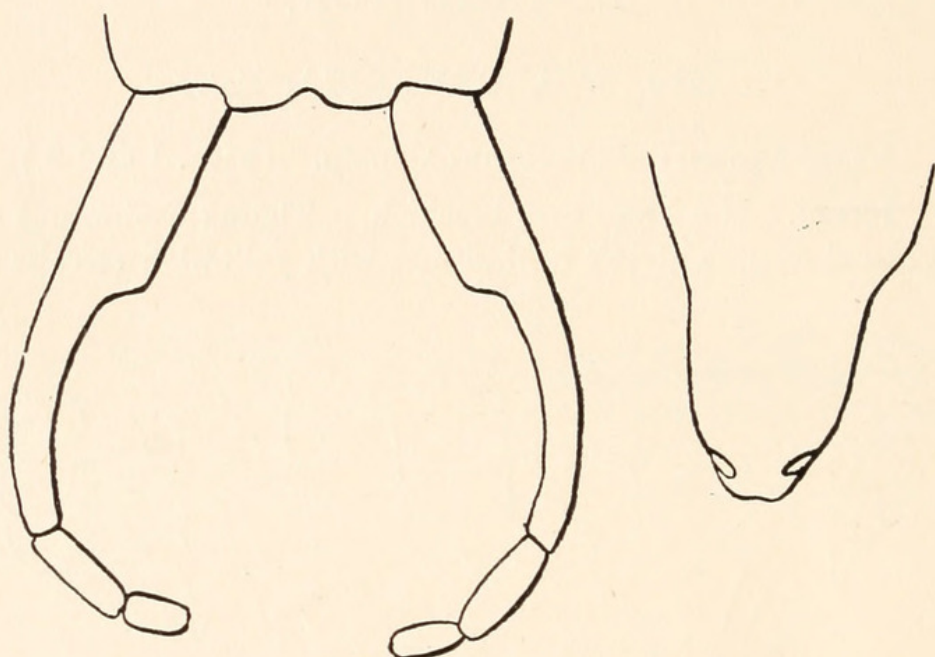


FIG. 2.—*Atalophlebia pellucidula*, ♂. Forceps and penis, seen from below.

Three male specimens (imagines) and one female specimen (subimago) at Gt. Winterhoek (Tulbagh leg.), 4300 ft., 1916. Six well-defined cross-veins and in the pterostigmatic area about thirteen strongly curved and anastomosed.

Length of body and forceps 13 mm.; forewing 12 mm.; setae 17 mm.

Three male specimens, Ceres, Cape, April, 1913 (Lightfoot leg.).

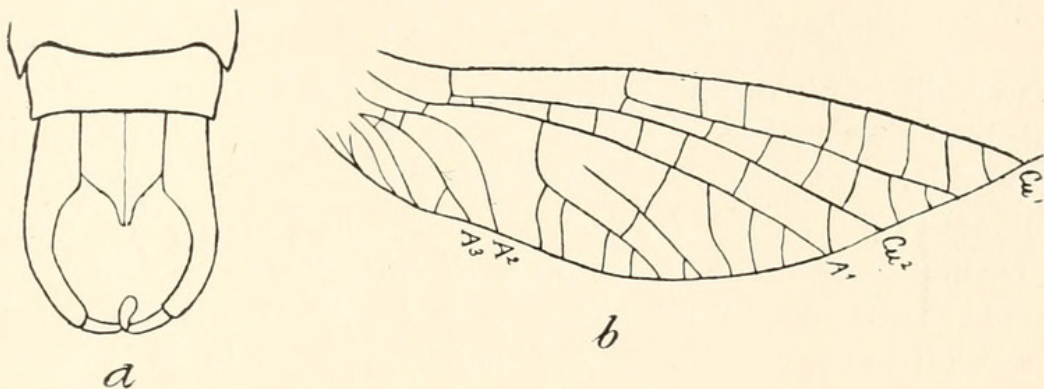
ATALOPHLEBIA TABULARIS, Eat. (Figs. 3 and 4.)

Atalophlebia tabularis, Eaton, Trans. Linn. Soc. Lond., p. 91, pl. x, 16 h, 1888.

With some hesitation I refer three specimens to this species, the description of which was made from a single specimen (♂), kept in alcohol. The specimens before me are much darker, probably due to

the fact that they are in a dried condition. I give below a description of the specimens.

Head and upper part of eyes black, lower part of eyes black brown. Thorax above shining, jet black, below and on the sides black. Abdomen dorsally dark pitchy brown with paler irregular spots; the three terminal segments above darker and without pale spots. The venter pale brown, darker at the apex. Forceps pitchy brown. Setae pale brown. Legs dark brown; femora black at the knees. Wings hyaline with a faint yellowish tinge, which is very strong in the pterostigmatic area and at the base of costa, subcosta and radius in the forewing. The nervature dark brown. In the costal area of forewing are present ten weak cross-veins before the bulla, between the bulla and the pterostigma.



FIGS. 3 and 4.—*Atalophlebia tabularis*, ♂. *a*, Anal appendages of male, seen from below; *b*, anal part of forewing.

GEN. TRICHORYTHUS, Eat.

TRICHORYTHUS, sp.

One female—specimen (subimago) collected at Smithfield, Orange Free State, 1909 (Kannemeyer leg.).

The specimen cannot be referred to *discolor*, Burm., and hardly to *varicauda*, Koll., from Upper Egypt.

I give a short description of the specimen.

Head and eyes black; head pale behind the eyes. Thorax greyish brown with black spot along the front and the lateral margins. Abdomen above blackish grey with pale annulations. Thorax and abdomen below yellowish white. Setae white. Middle and hind-legs yellowish white (fore legs lost). Wings lacteus. Costa and especially subcosta and radius dark grey.

Length of body 5.5 mm.; of wing 10 mm.

Egg mass yellowish brown.

GEN. CLOËON, Leach.

CLOËON AFRICANUM, Esb.-Peters.

Esben-Petersen, Ann. South Afr. Mus., vol. x, p. 184, 1913.

One male, Kimberley, 1912 (Power leg.), and one female, Ceres, April, 1913 (Lightfoot leg.).

I refer the female to this species. It is smaller than the male; the thorax is brown with a paler longitudinal median streak. The dark annulations at the setal joints are broader than in the male.

MEGALOPTERA.

SIULIDAE.

LEPTOSIALIS, n. gen.

No ocelli (three very small tubercles are visible in front of the head). Antennae rather pilose. Labrum four times broader than long, with rounded lateral margins and with slightly emarginated front margin. Prothorax twice as broad as long. Wings long and rather narrow. The neurulation is not so distinct as in *Sialis*. The costal area of forewing is slightly broadened and only in the basal third part. The cross-veins in the costal area are obliquely directed towards the subcosta. The subcostal area without cross-veins. The radial area with four cross-veins in the forewing, three in the hindwing. The first branch from *Rs* not forked. In the forewing *M* fuses with *Cu*¹ for a short distance, and it forks one third out from base of wing; in the hindwing it forks two thirds out from base. *Cu* and 2 *A* fork in both pair of wings near base. Fourth tarsal joint bilobed.

Genotype: *Leptosialis africana*, n. sp. (Fig. 5.)

This interesting genus, only known from South Africa, is nearer allied to the American genus *Protosialis* than to the palaearctic-nearctic genus *Sialis*, but its broad labrum and its elongated wings offer good and distinct generic characters. It is the first genus of the *Sialinae* found in Africa.

LEPTOSIALIS AFRICANA, n. sp.

Head, thorax and abdomen black. Lateral margins of labrum greyish yellow. Head with small tubercles and several longitudinal striae, but without smooth spots or markings as in the species of *Sialis*. Legs yellowish brown; hind femora a little darker in their middle. Third, fourth and fifth tarsal joint almost dark brown. Membrane of wings sooty brown; the proximal half part darker than

the distal part. Nervature darker than the membrane. The basal cross-vein in the costal area vertical, directed towards the subcosta; all the other cross-veins more or less obliquely directed. The four cross-veins in the radial very dark and conspicuous; the other cross-veins mostly darker than the longitudinal nervures.

Length of body 8 mm., of forewing 12 mm., of hindwing 10.5 mm.

One male specimen, Gt. Winterhoek Mountain at an altitude of 4300 ft., November, 1916, Tulbagh, Cape.

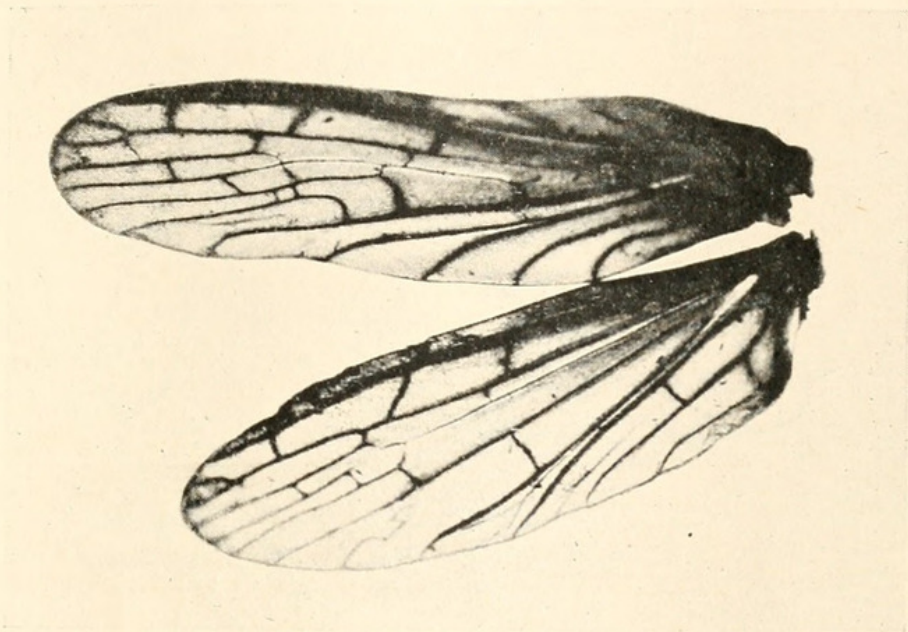


FIG. 5.—Fore- and hindwing of *Leptosialis africana*.

EMBIIDINA.

GEN. HAPLOEMBIA.

HAPLOEMBIA CAPENSIS n. sp. (Figs. 6 and 7.)

♂. Wingless. Head brownish black, somewhat narrowed behind, with almost straight lateral margins and rounded hind angles; it is about $1\frac{1}{4}$ times as long as broad. Eyes rather small and inconspicuous. Clypeus and labrum yellowish brown in some specimens, dark brown with pale margins in others. Mandibles, except their tip, palpi and antennae, yellowish brown. Antennae 12–19-jointed; the basal joint brownish black, robust, about twice as long as broad; the second joint much smaller than the first and as long as broad; the third joint as broad as the second, but as long as the first; the following joints longer than broad and increasing in length towards the apex of the antennae. The antennae with yellowish pilosity. Prothorax about half as broad as the head, brownish black, almost quadrangular,

with slightly rounded front angles and emarginate lateral margins. A somewhat curved transverse furrow one fourth from the front margin. An inconspicuous longitudinal median furrow from the

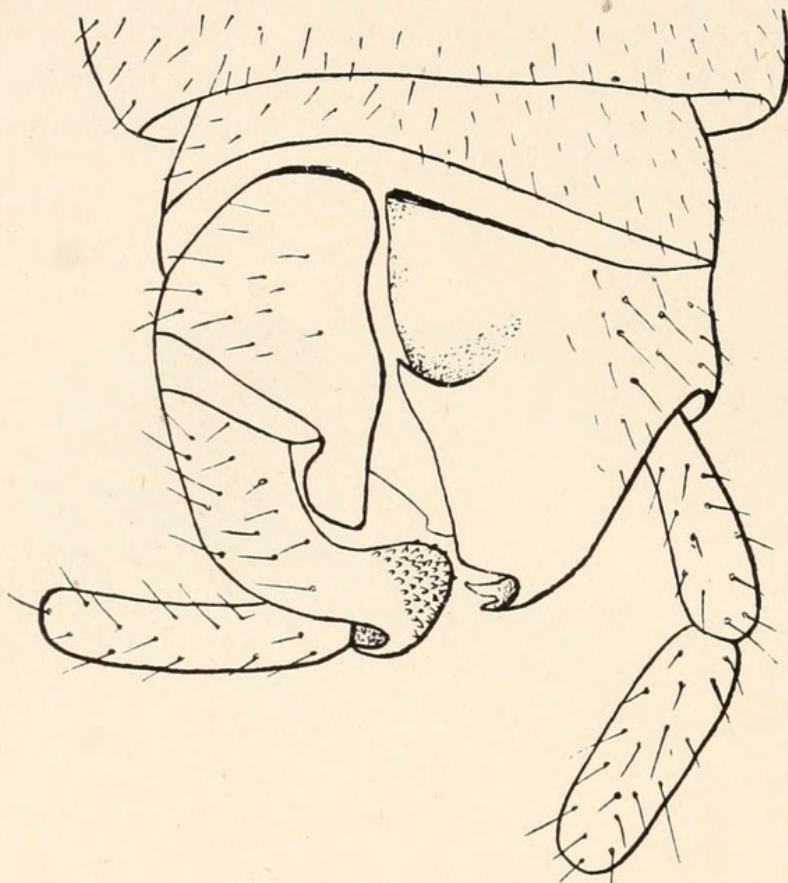


FIG. 6.—*Haploembia capensis*, ♂. Anal appendages, dorsal view.

transverse furrow to the hind margin. Meso- and metathorax and abdomen blackish brown; abdomen in some specimens a little paler. Cerci yellowish brown. Legs brown; intermediate and hind tarsi

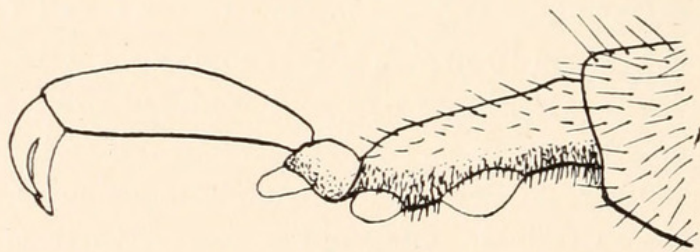


FIG. 7.—*Haploembia capensis*, ♂. Hind tarsus.

yellowish. Basal joint of hind tarsi with two cupules on the under-side. Body and legs with short yellowish pilosity.

♀. Wingless, robust. Head only a little longer than broad, with strongly rounded lateral margins and hind angles. Eyes inconspicuous. Clypeus dark brown with narrow blackish front margin.

Labrum pale. Antennae pale yellowish brown, 28 (?) -jointed. The first antennal joint robust, twice as long as broad ; second joint much smaller, and as long as broad ; third joint about twice as long as broad ; fourth as long as broad ; the following joints longer than broad, increasing in length towards the tip of the antennae. Prothorax about as long as broad, narrowed in front ; one third from the front margin a transverse furrow and on the disc a fine impressed longitudinal median line. Head, thorax and abdomen dark brown ; prothorax a little paler. Cerci yellowish brown. Legs brown ; joints and tarsi paler. Hind tarsi with two cupules on the underside. Body and legs with short yellowish pilosity.

Length of body : ♂ 10-11 mm. ; ♀ 17 mm.

6 ♂ ♂, 1 ♀, Dunbrody, Cape (Rev. J. O'Neil leg.). ; 1 ♂, Dunbrody (Rev. J. Vogt leg.). All the material kept in alcohol.

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Esben-Petersen, T. 1920. "New species of neuropterous insects from South Africa (Ephemera, Megaloptera, and Embiidina)." *Annals of the South African Museum. Annale van die Suid-Afrikaanse Museum* 17, 499–505.

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