

PRIVATE LIBRARY  
OF WILLIAM L. PETERS

INSECTS OF SAMOA  
AND OTHER SAMOAN TERRESTRIAL  
ARTHROPODA

PLECTOPTERA

By R. J. TILLYARD, Sc.D. (Cantab.), F.R.S., and J. A. LESTAGE

[Reprinted from "Insects of Samoa," Part VII., Fascicle 2—Other Orders of Insects, published by the  
Trustees of the British Museum, 23rd June, 1928]

# INSECTS OF SAMOA

## PART VII. FASC. 2

### PLECTOPTERA (MAYFLIES)

BY R. J. TILLYARD, SC.D. (CANTAB.), F.R.S., Chief Entomologist, Commonwealth Council for Scientific and Industrial Research

(With 2 Text-figures.)

THE material collected in this Order consists only of three specimens belonging to a single species of *Cloëon*, viz. a male imago, a female imago and a male sub-imago. These are all dried specimens, pinned, and with the wings considerably damaged. Such material is not very satisfactory for description in this Order, especially in the case of small, delicate insects like the Baëtidae, which need to be preserved carefully in alcohol. The right forewing of the female imago is the only wing sufficiently well preserved to give the complete venation; this is shown in Text-fig. 1. In order to describe the genitalia, the dry and rather shrivelled end-segments of the abdomens of both male and female imagines were cut off and macerated in 10 per cent. caustic potash; the very brittle cerci were already badly damaged.

The colours in the living insects of this genus are often very different from those of the dried specimens. No notes were taken of the colours in life, so that it is only possible to state the colouring after death.

### BAËTIDAE.

#### 1. *Cloëon samoënsis*, sp. n. (Text-figs. 1, 2).

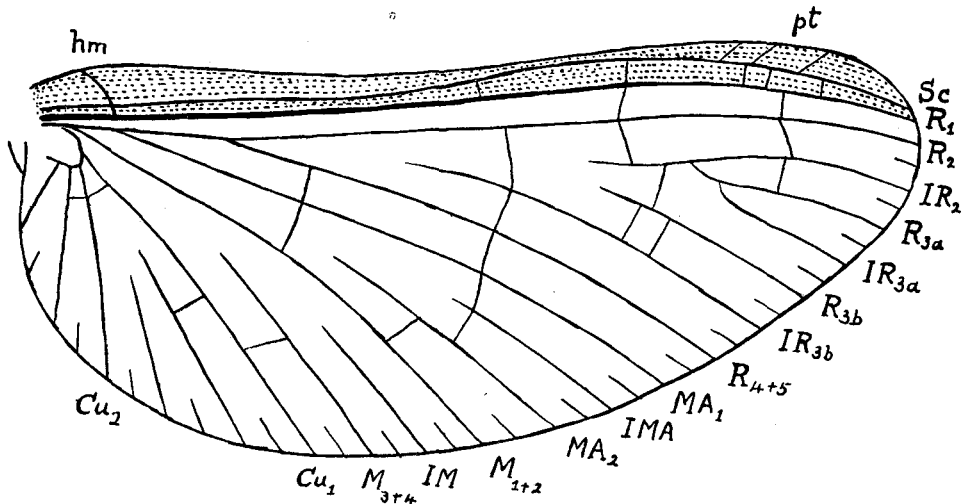
♂ *Imago* :—

*Forewing* 4.5 mm.

General body colouring dark chocolate brown; cerci pale semi-transparent brownish; wings hyaline with blackish veins.

*Head* with enormous divided eyes, black, the turban-eyes (collapsed) on broad bases; antennae with very short, broad scape, slender pedicel, and slender, delicate, indistinctly segmented flagellum.

*Thorax* dark brown without any definite pattern; legs brownish, but with the fore femora paler, mostly straw-coloured, the same colour being most



TEXT-FIG. 1.—*Cloëon samoënsis*, sp. n., allotype ♀, forewing. Length 5.7 mm. New Notation, the prefix *I* indicating interpolated veins; *MA* anterior or convex portion of media; *M* posterior or concave portion of same.

prominent around the under side of the knee-joint and extending along the basal portion of the tibia also; claws of the fore tarsus very strongly dissimilar, the outer narrow, sharply pointed, the inner broad, subtriangular, with its exterior edge straight, its interior edge long, sub-crenulate, extending to below the middle of the outer claw.

*Wings*.—Forewing (somewhat crumpled) hyaline with blackish venation except only *C*, *Sc* and *R*<sub>1</sub>, which are more brownish. Venation much as in the female (Text-fig. 1), but pterostigmatic region broader, with only two cross-veins between *C* and *Sc* and a single one between *Sc* and *R*<sub>1</sub>. Hind wings absent.

*Abdomen* dark brown, the basal and distal margins of the segments ringed with black. Tenth tergite well-developed, overlapping base of appendix dorsalis. Forceps-basis short, rather broad; forceps (style) two-segmented, the basal segment fully as long as the ninth abdominal segment, somewhat swollen basally and clubbed distally; the distal segment a minute, ovoid

appendage attached to the club of the basal segment; penis very short, its lobes upcurved and slightly angulated in lateral view. (Text-fig. 2.) Cerci (broken in case of type) evidently very slender, with all but a few basal segments elongate.

♂ *subimago*.—Differs from the imago in having the wings lightly infuscated and the legs straw-coloured, as well as in the usual differences of the less developed eyes, cerci and forceps.

♀ *imago*.—Considerably larger than ♂; forewing 5.7 mm. General colour yellowish brown, with eyes blackish; antennae with distal end of pedicel and whole of flagellum blackish; legs with tarsi

blackish. Forewing (Text-fig. 1) hyaline, with strong brownish coloration of the whole of the costal and subcostal areas; pterostigmatic area with three cross-veins between C and Sc, and three between Sc and R<sub>1</sub>. Abdomen with ninth sternite forming a well-developed ventral plate, apparently slightly angulated at each side and with a projecting median portion, evenly rounded off (cerci damaged in case of type).

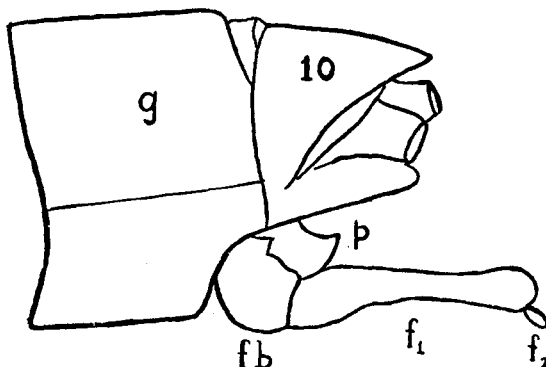
The venational notation used in Text-fig. 1 is the New Notation as given in my *Insects of Australia and New Zealand*, p. 59 (Table), 1926.

*Types and Localities* :—

♂ *imago*, *holotype*, Upolu, Vailima, 25.x.1924.

♀ *imago*, *allotype*, Upolu, Apia, 13.x.1925.

♂ *subimago*, *paratype*, Upolu, Malololelei, 2,000 ft., xii.1925.



TEXT-FIG. 2.—*Cloëon samoëense*, sp. n., holotype ♂, lateral view of genitalia. 9, 10, segments; *fb*, forceps basis; *f*<sub>1</sub>, *f*<sub>2</sub>, the two segments of the forceps; *p*, penis. (Appendix dorsalis and cerci broken off.)

#### LIST OF TEXT-FIGURES.

Text-fig. 1. *Cloëon samoëense*, sp. n., allotype ♀, forewing. Length 5.7 mm. New Notation, the prefix *I* indicating interpolated veins; *MA*, anterior or convex portion of media; *M*, posterior or concave portion of same.

„ 2. *Cloëon samoëense*, sp. n., holotype ♂, lateral view of genitalia. 9, 10, segments; *fb*, forceps basis; *f*<sub>1</sub>, *f*<sub>2</sub>, the two segments of the forceps; *p*, penis. (Appendix dorsalis and cerci broken off.)