

*RHITHROGENA SEMICOLORATA* CURTIS AND *R. SEMITINCTA* PICTET (EPHEMEROPTERA).

BY D. E. KIMMINS.

IN the course of his collecting trips to various parts of France and Switzerland, Mr. M. E. Mosely has brought back many Ephemeroptera, and amongst them are numerous examples of a *Rhithrogena* somewhat resembling *semicolorata* Curtis. Eaton, in his Monograph (1885), records that *R. semicolorata* Curt. is widely spread in Europe,

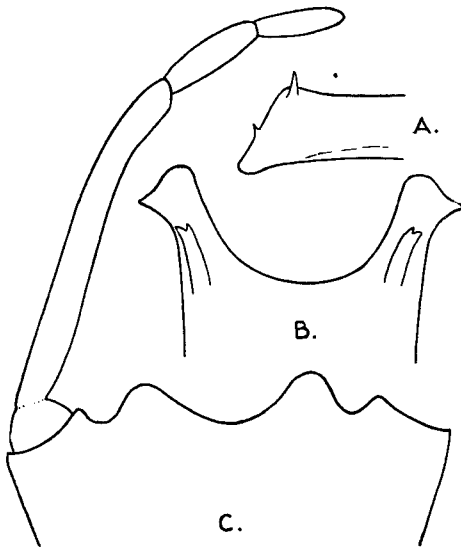


FIG. 1.—*Rhithrogena semicolorata* Curtis ♂. A, Penis lobe from side. B, Penis lobes from beneath. C, Forceps-base from beneath.

and exhibits considerable variation in the colour and extent of the wing-pattern. Mr. Mosely's captures also show a range of variation from almost colourless to rich brown wings.

The British examples of *semicolorata* Curt. are comparatively uniform in their wing coloration, therefore, out of curiosity, I compared the genitalia of British and Continental examples which had been cleared in caustic potash. This revealed certain differences, and examination of numerous specimens from France and Switzerland failed to reveal a single typical British *semicolorata*.

Eaton divided his *R. semicolorata* into three groups: typical, and Variations I and II. Under the heading of the typical form he

quotes *semitincta* of Pictet. Through the courtesy of Dr. J. Carl, of the Geneva Museum, I have been able to examine examples of *semitincta* and *semicolorata* from the Pictet Collection. As a result of this, I am of the opinion that *Rhithrogena semitincta* Pictet should be reinstated as a distinct species in the European list. Pictet's *R. semicolorata* is a more strongly coloured form of his *R. semitincta*. Eaton's *R. semicolorata* var. I is also of this form. Specimens with unicolorous brownish wings (Eaton's var. II) appear also to belong to *semitincta*.

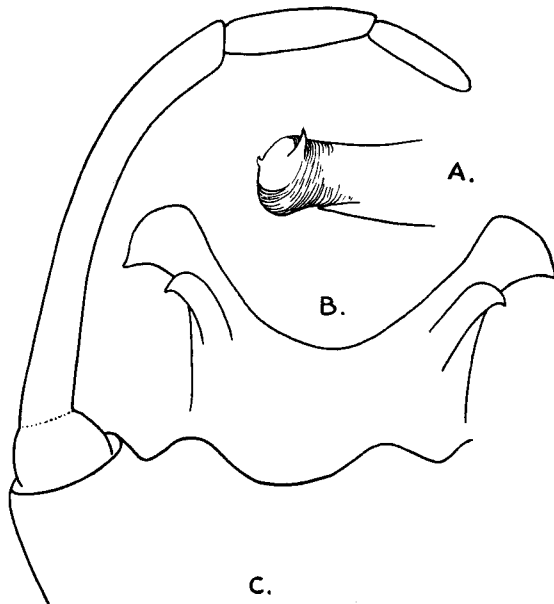


FIG. 2.—*Rhithrogena semitincta* Pictet ♂. A, B and C as in Fig. 1.

The differences in ♂ genitalia between the two species may be summarized as follows :

*R. semicolorata* Curt. (Fig. 1).—Penis lobe in lateral aspect distinctly truncate at apex ; two small hook-like spines at apex, one on outer upper angle, one on inner margin. In ventral aspect with the outer apical angle produced outwards, apical margin sinuous.

*R. semitincta* Pict. (Fig. 2).—Penis lobe in lateral aspect with apex rounded, not obliquely truncate ; two hooks much as in *semicolorata*. In ventral aspect with the apex more rounded than in *semicolorata*.