

A new species of *Stegopterna* Enderlein, and its relationship to the allotriploid species *St. mutata* (Malloch, 1914) (Diptera: Simuliidae)

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Abstract

A new species of black fly, *Stegopterna diplomutata* n. sp. (Diptera: Simuliidae) is described and illustrated. This species is most closely related to *Stegopterna mutata* (Malloch, 1914), with which it has long been confused. The two species are most easily distinguished based on the presence or absence of males; *St. diplomutata* is a diploid bisexual species that possesses males, whereas *St. mutata* is a triploid parthenogenetic species that lacks males. The two species are otherwise not distinguishable except through examination of their larval polytene chromosomes. Observations are provided about the evolution of triploidy in *Stegopterna*.

Key words: Simuliidae, *Stegopterna*, cytology, triploidy, evolution

Introduction

Stegopterna Enderlein is a relatively small genus of black flies with 9 nominal species distributed throughout the Holarctic Region. Females are unusual among the 'Cnephia-grade' simuliines in possessing a simple (as opposed to a bifid) tarsal claw and the presence of exceptionally long hind tibial spurs. The tibial spurs are further distinguished in being distinctly bicolored — the basal three-quarters being brown and the apex contrastingly pale, almost colorless.

The immature stages of *Stegopterna* typically occur in small, temporary- or semi-permanent woodland streams. Larvae attach themselves to a variety of submerged substrata and are relatively easy to observe and collect. Pupae, on the other hand, are exceedingly cryptic and often difficult to find, occurring typically on the undersurfaces of stones or deep within the streambed.