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***EUTROMULA PARIANA* (CLERCK) (LEPIDOPTERA: CHOREUTIDAE), THE CORRECT NAME OF THE APPLE-AND-THORN SKELETONIZER**

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ABSTRACT

Nomenclatural problems are noted which make *Eutromula pariana* (Clerck) the correct name of the apple-and-thorn skeletonizer. Previously used generic names are distinct genera (*Anthophila* Haworth and *Hemerophila* Hübner, [1817]), synonyms (*Simaethis* Leach), or unavailable names ("*Hemerophila*" Hübner, 1806). The species is now placed in the family Choreutidae (Sesioidea) which has been separated from Glyphipterigidae (Copromorphaidea).

The apple-and-thorn skeletonizer, *Eutromula pariana* (Clerck), is an occasional pest of apple trees, introduced from Europe this century. It is now firmly established in apple growing areas of the northeastern United States and southeastern Canada, and in British Columbia, going south to Oregon, Idaho, and Colorado. The specific name of the species has been combined with several generic names in the past, mostly *Anthophila*, *Simaethis*, and *Hemerophila*. The latter generic association was most recently affirmed by Danilevsky and Kuznetsov (1973) and noted by Doganlar (1977).

In a forthcoming revision of the North American Choreutidae (Heppner, in prep.), the name used for the species will be *Eutromula pariana*, following the combination used in a recent British checklist of Lepidoptera (Bradley, 1972). Danilevsky and Kuznetsov (1973), unfortunately, used an 1806 Hübner generic name that is now unavailable for use due to the rejection of Hübner's 1806 paper by

the International Commission on Zoological Nomenclature (Opinion 97, 1926). The next available generic name is *Eutromula* Frölich, 1828, with *E. pariana* as its type-species. The available and valid *Hemerophila* Hübner, [1817] (not Hübner, 1806), refers to a Neotropical genus. *Simaethis* Leach, 1815 is a junior synonym of *Anthophila* Haworth, [1811], which refers to a genus distinct from *Eutromula*.

Although there are dark and light forms of *E. pariana*, both in the Nearctic and the Palearctic, Doganlar (1977) correctly noted that only one species is involved. A recent paper has noted the reasons for the separation of glyphipterigid moths into two families. Glyphipterigidae¹ and Choreutidae (Heppner, 1977). The two families actually are unrelated and belong in different superfamilies based upon morphological and biological features, thus, Copromorphaidea and Sesioidea, respectively, with Choreutidae being relatively closely related to the specialized Sesiidae.

1. Glyphipterigidae is based on the original spelling of *Glyphipterix* as required by the International Code of Zoological Nomenclature, rather than the emendation *Glyphipteryx* (Glyphipterygidae).

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**LARVAL TAXONOMY AND DISTRIBUTION OF
GERRIS PINGREENSIS AND *G. INCOGNITUS*
(HEMIPTERA: GERRIDAE) IN BRITISH COLUMBIA**

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ABSTRACT

Diagnostic morphological characters are given for the five larval instars of *Gerris pingreenensis* and *Gerris incognitus*. The geographic ranges of the two species are compared and discussed.

INTRODUCTION

Waterstriders (*Gerris*) are common inhabitants of British Columbia's inland waters. Ease of observation and the common occurrence of multispecies assemblages make these insects attractive subjects for comparative ecological study. A knowledge of species characteristics and natural history are necessary prerequisites for such work.

Scudder (1971) provided keys and descriptions for the adults of British Columbia gerrids and Scudder and Jamieson (1972) produced an identification guide for the larvae of seven species. At the time of these publications it was not possible to separate the first three instars of *Gerris pingreenensis* D&H and *Gerris incognitus* D&H. Furthermore, the characteristics noted for separation of fourth and fifth instars of these two species are inefficient because of a typographical error missed in the proof.

In this paper we provide diagnostic descriptions for all larval instars of both species and compare the geographic ranges of these two species in British Columbia. Areas of sympatry and allopatry are noted.

METHODS AND MATERIALS

During May 1976 and 1977 we established laboratory cultures of *G. pingreenensis* and *G. incognitus*. Adult *G. pingreenensis* were collected from Westwick Lake in the Cariboo region while *G. incognitus* were obtained from small ponds in the University of British Columbia Endowment Lands. All five larval instars of both species were subsequently reared from eggs laid by isolated adults. Details of the rearing methods are given by Scudder and Jamieson (1972). Specimens of each larval instar were preserved in 70% ethanol 1 or 2 days after molting. Instar descriptions are based upon study of these laboratory-reared specimens. We have also checked the descriptions against field material collected on the lower mainland and in the central interior from locations where only one of the species is known to occur.

RESULTS AND DISCUSSION

A. Larval Taxonomy

The keys and descriptions provided by Scudder and Jamieson (1972) afford easy separation of *G. pingreenensis* and *G. incognitus*