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Book Review of *The Wood Midges (Diptera: Cecidomyiidae: Lestremiinae)* of Fennoscandia and Denmark by Mathias Jaschhof and Catrin Jaschhof

Raymond Gagne

Systematic Entomology Laboratory, PSI, Agricultural Research Service, USDA, c/o U. S. National Museum NHB 168, P.O. Box 37012, Washington, DC 20013-7012, USA, raymond.gagne@ars.usda.gov

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BOOK REVIEW

The Wood Midges (Diptera: Cecidomyiidae: Lestremiinae) of Fennoscandia and Denmark. Mathias Jaschhof and Catrin Jaschhof. 2009. *Studia dipterologica*. Supplement 18: 1–333. Halle (Saale), Ampyx-Verlag. ISBN 978-3-932795-32-9.

The present study is the result of a four-year project supported by the Swedish Taxonomy Initiative to collect and systematize the Lestremiinae. It fleshes out the skeleton presented in Jaschhof (1998) of this group for the Palearctic Region, bringing to bear the broad knowledge gained from the authors' studies since 1998 from Japan, Malaysia, South Africa, and New Zealand and Mathias Jaschhof's subsequent studies of the Mamaev types. More species of wood midges ($n = 203$) are now known from Sweden than any other country or all of the Western Hemisphere. The fact that until the 1990s only four species were known from all of Fennoscandia (Norway, Sweden, Finland, and Russian Karelia) and Denmark is a measure of the value of this work.

The Lestremiinae are the oldest Cecidomyiidae. They have retained the ancient fungus-feeding habit, chiefly in fallen wood, whence the apt common name, the wood midges. The volume covers in thorough detail the 230 named species from the covered region. All of the nine known tribes of Lestremiinae occur in Fennoscandia, as well as 28 of the 39 known genera of the subfamily. Fifty-six new species are named, balanced by nearly as many new synonyms.

Introductory sections include some exceptional photographs of collection

sites, two of them also demonstrating collection techniques for these flies. The authors present an overview of two centuries of work on Lestremiinae and an honest assessment of the late B. M. Mamaev's extensive contributions to the study of this group. This is followed by a chapter outlining the focus of the investigation, the plan of work, the area, collection methods, and specimen preservation. The authors present their accumulated knowledge of when, where, and how to collect these flies, particular problems in distinguishing species of various genera, and the importance of serial individuals of a species for proper descriptive work.

The chapter on morphology is meticulous, comprehensive, and effectively illustrated. Special attention is given to setae and other integumental projections important in the taxonomy of these flies. This is followed by a generously illustrated pictorial key to tribes and genera of the entire Holarctic region. In a pocket on the inside of the back cover is a separate, carry-away version of this key.

In the systematic portion of the work, all suprageneric categories and genera of the region are described. Genera are diagnosed and redescribed with notes on classification, phylogeny, distribution, and phenology. Points of synonymy and anatomical variation are thoroughly discussed. A key to species of Fennoscandia and Denmark is given for each genus except for two genera with problematic species.

Each species is treated with a diagnosis, notes on distribution, details about phenology, and a list of material studied. Finely detailed and annotated drawings are provided of the genitalia and often of other characters for each

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species not elsewhere already presented, mostly in Jaschhof (1998).

The volume ends with a discussion on Lestremiinae in general, their biogeography, and a phylogeny. A reclassification of the Lestremiinae is proposed in which Micromyidi, Catochini, and Stroblellini are together elevated to subfamily level as Micromyinae. This result is a satisfying conclusion to the book following as it does the authors' extensive experience and judicious and thorough analysis of the group's external morphology. This is an exemplary volume that sets a high standard and model for further work on Cecidomyiidae, Nematocera, and taxonomic entomology in general.

LITERATURE CITED

Jaschhof, M. 1998. Revision der "Lestremiinae" (Diptera, Cecidomyiidae) der Holarktis. *Studia Dipterologica Supplement* 4(1998): 1-552.

Raymond J. Gagné, *Systematic Entomology Laboratory, PSI, Agricultural Research Service, USDA, c/o U.S. National Museum, NHB 168, P.O. Box 37012, Washington, D.C. 20013-7012, USA (e-mail: raymond.gagne@ars.usda.gov).*