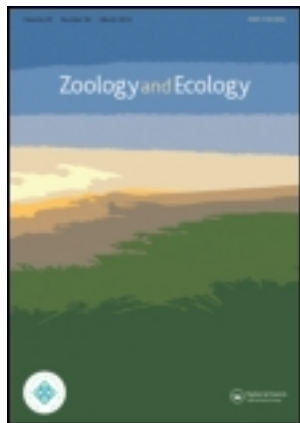


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## MONOGRAPH REVIEW

**Leaf-mining insects of Lithuania. The Nepticulidae (Lepidoptera): Taxonomy, chorological composition and trophic relationships** [Monograph, Biomedical Sciences, B250 Biology: Entomology and Plant Parasitology] – Kaunas: Lututė Publishers, 2012.

By Arūnas Diškus and Jonas Rimantas Stonis.

The monograph presents a short review of leaf-mining insects and a comprehensive analysis of the Lithuanian Nepticulidae (Insecta, Lepidoptera) fauna. So far, this is the first thorough evaluation of Lithuanian Nepticulidae. Based on the original investigation data collected by A. Navickaitė, A. Diškus, J. R. Stonis and other researchers, the monograph gives the first chorological evaluation of the Lithuanian Nepticulidae fauna, presents an updated taxonomic catalogue of the fauna, considers rare and frequent species and sheds new light on trophic relationships of the family. According to the data contained in this book, to date 75 Nepticulidae species are known in Lithuania, most of them being recorded in south-western (66 species) and south-eastern (65 species) regions of the country. A great majority of Lithuanian Nepticulidae species (75%) are attributed to the *Stigmella* Schrank genus, a rather significant part belongs to *Ectoedemia* Busck and other five genera are represented by several or merely a single species (constituting 1–3%). The given analysis of Nepticulidae distribution ranges has revealed chorological heterogeneity of the Lithuanian fauna of Nepticulidae: Lithuanian Nepticulidae are determined to form eight different chorological groups. The most numerous are the groups of moderately limited European distribution: Euro-Submediterranean and Euro-Nemoral. The main part of Nepticulidae (26–31%) in nearly all terrestrial regions of Lithuania are the species of Euro-Submediterranean distribution; however, such species are considerably less numerous in the coastal region (8%). The coastal region mostly inhabits the species of Euro-Mediterranean distribution (32%), which are markedly less abundant in other Lithuanian regions (including the Curonian Spit, where they account for merely four per cent of the total fauna of Nepticulidae). The authors, based on the data of their own investigation, state that from the chorological point of view the most unique among Lithuanian regions is the Curonian

Spit, which chiefly inhabits the species of Sub-Baltic distribution that are absent from other regions of the country. No less unique is the coastal region which, as mentioned before, is characterised by the highest occurrence of species of Euro-Mediterranean distribution compared with other regions of Lithuania. The monograph gives a rather wide analysis of trophic relationships of Nepticulidae. Though many of Lithuanian Nepticulidae are oligophagous (28 species, 38%), most of the species use plants of one particular species (as per authors' data, monophagous species account for 62% of the whole Lithuanian fauna of Nepticulidae).

The book is abundantly illustrated by original photographs. The photographs make the publication more interesting for the reader. A great value of the monograph lies in its being the first provider of mines of almost all species of Lithuanian Nepticulidae. Identification of Nepticulidae species has always been a great problem. An atlas of Nepticulidae mines presented in the book will facilitate identification of a great majority of Nepticulidae species. However, it should be noted that not all Lithuanian Nepticulidae species can be reliably identified solely according to the samples of mines collected. A more precise identification of some species of *Ectoedemia* and *Stigmella* genera needs genital preparations. The methodology of preparing genital slides is adequately described in the book. The monograph ends with the conclusions some of which are probably not final, because the Lithuanian Nepticulidae fauna is still in the process of investigation. This monograph will hopefully encourage more intensive investigations into Lithuanian leaf-mining insects (including Nepticulidae) to discover new species in the local fauna. At the end of the monograph, one can find terminology explanations and a list of Lithuanian standardised names of some leaf-mining insects, the majority of which are terminological neologisms. We think that this monograph is not only the first comprehensive analysis and evalua-

tion of Lithuanian Nepticulidae to be widely used by researchers of related areas and plant protection specialists, but also a guide and encouragement for further investigations. Moreover, this book as a source of scientific knowledge will be a useful tool for students attaining Master's degree in biology as well as for doctoral students in zoology, biology, entomology and plant parasitology.

The monograph is written in Lithuanian, but the abstract in English and the numerous illustrations make it valuable both for Lithuanian and foreign readers.

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Figures 1–3. Leaf-mines and male genitalia of Lithuanian Nepticulidae culidae published in the monograph ‘Leaf-mining insects of Lithuania. The Nepticulidae (Lepidoptera): Taxonomy, Chorological composition and Trophic relationships’ by A. Diškus and J. R. Stonis (Courtesy of A. Diškus, J. R. Stonis and A. Navickaitė): 1 – leaf-mine of *Stigmella anomalella*; 2 – leaf-mine of *Enteucha acetosae*; 3 – male genitalia of *Stigmella roborella*.