

BOOK REVIEW

PODENAS S., GEIGER W., HAENNI J.-P. & GONSETH Y. 2006: LIMONIIDAE & PEDICIIDAE DE SUISSE. In: FAUNA HELVETICA. VOL. 14. Centre suisse de cartographie de la faune & Schweizerische Entomologische Gesellschaft, Neuchâtel, 375 pp. ISBN 2-88414-026-3. Price CHF 56.00.

The families Limoniidae and Pediciidae were previously considered a single family, the Limoniidae. They belong to little-studied and insufficiently known groups, with the Limoniidae, even in the present, restricted sense, still one of the most species-rich families of Diptera. Identification of European Limoniidae and Pediciidae is difficult, not only due to taxonomic problems, but because there are no modern identification keys to species. The species were largely identified using the 1938 treatment by Edwards, or by means of the keys adopted from that work by Coe (1950), and those that were described or re-defined subsequently had to be searched for in the literature. Between 1982–1986, the monograph of the Ukrainian Limoniidae and Pediciidae (then under Limoniidae) was published by E.N. Savchenko in three volumes in the series *Fauna Ukrainy*. Although detailed and carefully elaborated, with keys to all the species treated, this monograph is of limited use because of its inaccessibility. Moreover, as it was published in Russian (one volume even in Ukrainian), it is incomprehensible for most dipterists, including young workers from the countries of the former Soviet block. It is therefore good news that another identification work has been published recently in the series *Fauna Helvetica*, covering the Swiss Limoniidae and Pediciidae.

The hardback book contains 375 pages. It is excellent in appearance, being illustrated with plenty of drawings of a high quality, depicting important diagnostic features, especially the most significant of these, the male terminalia. The introduction (pp. 5–11) includes a brief history of the research on these families in Switzerland. After a short chapter on morphology (pp. 12–14), two principal sections follow. The “identification section” (pp. 15–191) consists of keys and figures and is the most important part of the book. Keys to the families, subfamilies and genera are presented. The species are not keyed (regretfully), but each is documented by at least a figure of the male terminalia, often with illustrations of the wing and/or other taxonomic details. Altogether 297 limoniids and 35 pediciids are illustrated. In the “map section” (pp. 193–361), each species has its own map, in which the distribution in Switzerland is marked. In addition to the maps there are diagrams showing various ecological data, such as vertical distribution and phenology. The book concludes with a reference list (pp. 363–369) and alphabetic index of generic and specific names (pp. 371–375). The keys are in French and English, the introduction and some other texts are even in three languages, French, German and English. This emphasizes the potential international coverage of this book. The English text, however, was not reviewed linguistically.

There is no list of species, nor any data on the numbers of the species, and the species are arranged in different sequences in the two principal sections, without any cross-referencing, so that their systematic position within the families is not apparent and

orientation in the book is very difficult. The answer to how many species are illustrated could only be obtained by physically counting and checking the figures. An up-to-date checklist of the Swiss Limoniidae and Pediciidae is needed and this was an excellent opportunity to provide one. This would also eliminate another shortcoming; nowhere in the book are the species names cited in full, i.e. with author and year of publication, except for a few cases in the introduction.

The drawings were prepared or adapted by the first author, and are, as already mentioned, of a high technical quality and mostly accurate taxonomically. A considerable number of them were redrawn from other sources, many more than indicated on the imprint page (not in the figure captions, as is usual). Sometimes, the scaling of the figures differs within a single genus, rather small in some cases, unnecessarily large in others. The figures are divided into two major groups, one designed to illustrate the keys to higher taxa and the other to document the species. Thought has been given to making the use of the keys as easy as possible. The text of the keys is presented on left pages, and the figures referred to in the keys on a particular page on the opposite page. As a result, the pages with figures sometimes depict a single figure (p. 51), or a few with large spaces, or the same figure occurs several times in the book. Identical illustrations of the wing of *Achyrolimonia decemmaculata*, for example, is presented four times (pp. 19, 23, 27, 152). The number of pages obviously was not a limiting factor for the authors.

The distribution maps supplement the information presented on the species. As already stated, 332 species (Limoniidae – 297, Pediciidae – 35) are illustrated. However, 330 distribution maps are provided. This discrepancy can be explained as follows: (1) In the introduction, four species are listed as having doubtful status and systematic position. Of these, *Dicranomyia lackschewitzi* and *Lipsothrix nervosa* are well-defined, valid species, with an unquestionable systematic position and should have been illustrated. They, surprisingly, are mapped. (2) There are no maps for *Hoplolabis idiophallus*, *Dicranota landrocki*, *Pedicia riedeli* or *P. tjederi*, species illustrated in the previous section.

Three taxonomically confusing imperfections in the figures should be mentioned. The male and female antennae of *Rhabdomastix hirticornis* (p. 123) are depicted as being subequal in length, with the male antenna having 14 segments, whereas they both have 16 segments and the male antenna is about three times as long as that of the female. The lateral views of the aedeagal complex of *Tasiocera murina* (p. 131) and *T. robusta* (p. 132) are upside down. In the figure of *Dicranomyia luteipennis* (p. 158), the shape of the ventromesal lobe of the gonocoxite is distorted to a degree that prevents identification.

Despite these faults I welcome this publication. I do believe it will stimulate interest in these groups and provide a comprehensible and accessible identification tool for all interested European dipterists, since most of the Swiss Limoniidae and Pediciidae are widely distributed in Europe.

J. Starý