BOOK REVIEW

Bengtsson, B.Å. & Johansson, R. 2011. Nationalnyckeln till Sveriges flora och fauna. Fjärilar: Bronsmalar-rullvingemalar. Lepidoptera: Roeslerstammiidae-Lyonetiidae. ArtDatabanken, SLU, Uppsala. 494 pp. ISBN 978-91-88506-76-4 (hard cover), ISBN 978-91-88506-77-1 (soft cover). Price excluding postage 54 EUR. Contact: www.apollobooks.com or www.vermandel.com

What a great refreshing in these times of speedy molecular papers on Lepidoptera to keep in hands this outstanding volume of classical taxonomy, richly illustrated with superb quality drawing from the hand of Roland Johansson. The book pays tribute to HRH Crown Princess Victoria who supports this mega project which aims at producing an encyclopedia of the highest quality, covering the entire Swedish fauna. Perhaps the entomological scientific community already reached the point that only those who are above politics, interests groups, and scientific fashions are able to provide their people what they really are longing for: a high quality, richly illustrated overview of their native fauna with detailed and correct distribution maps. The text is in Swedish, however, even for those who are not so closely familiar with the Scandinavian languages the book is easy to use. The illustrated keys are presented in Swedish and in English, all species names are given also in Latin and the illustrations on morphological genital parts as well as wing venation are presented with indications using Latin terms, which are widely accepted and understood internationally.

After a few pages about the series of Encyclopedia and introductory parts (pp. 1–30) the book includes two main chapters: Gracillarioidea (pp. 31–247) and Yponomeutoidea (pp. 248–424), followed by an illustrated, summarizing overview on host plants (pp. 425–447), and an illustrated, summarizing overview of treated moths, both males and females with the indication of intraspecific variation (pp. 448–469). At the end of the book an explanatory dictionary of used terms is presented (pp. 470–477), a comprehensive list of literature with major internet sources (pp. 478–481), a taxonomic index (pp. 482–490), a detailed regional map of Demark, Finland, Island, Norway, and Sweden (pp. 492–493), and the last page gives a short explanation on the pronunciation of Latin names and declination rules with numerous examples. The introductory part provides an explanation of how the hierarchical system of the Linnaean classification is built, then explains the taxa grouping following the place of common ancestor (monophyletic, paraphyletic and polyphyletic groups), classifications based on phylogeny. The general public gets acquainted with the basics of constructing phylogenetic cladograms, and is introduced to the use of synapomorphic and plesiomorphic characters and the basics of nomenclature. Afterwards, follows the overview of the systematics of the taxa belonging to the Swedish fauna. On p. 21 the evolutional tree of Swedish Lepidoptera is presented with the outgroup Trichoptera, and with special attention showing enlarged the detailed position, illustrated with the overview drawings, of 12 Ditrysian families belonging to Gracillarioidea and Yponomeutoidea, which are treated in detail in the following pages.

The book presents the overview of 248 species belonging to the following families: Roeslerstammiidae (1 species), Douglasiidae (5 species), Bucculatricidae (19 species),

Gracillariidae (106 species), Yponomeutidae (56 species), Ypsolophidae (20 species), Plutellidae (12 species), Acrolepiidae (6 species), Glyphipterigidae (8 species), Heliodinidae (1 species), Bedelliidae (1 species), and Lyonetiidae (13 species). Richly illustrated keys are given to families, and then to species. Species are illustrated with superb colour drawings of the imago (male, female, different morphological forms), including the actual size of the moth to have an immediate idea how big it is, male and female genitalia with enlarged diagnostic characters, a nice-looking, colourful distribution map, and a fine drawing of the mine.

The book might be reviewed using only positive epithets in the highest degree. I again would like to stress the fine art of the numerous illustrations. I had the great pleasure to meet the author of these aquarels, Roland Johansson ca. 20 years ago, who was then in respectful age, so we only can wish him still many long and productive entomological years. I have only very few and very minor considerations on the items which could have been done differently. First, I would like to comment on the endings of the specific names. Though the ICZN recommends the agreement in gender of the generic and specific name (Art. 31.2), the General Meeting of the European Society of Lepidopterists (SEL) adopted the resolution to keep the original orthography of species-group names. The decision was followed by the subsequent discussion (*Nota lepidopterologica* 25, 191–204). In the age when cybertaxonomy, including digital online catalogues, is taking firmer and firmer place in everyday use by microlepidopterists worldwide, the uniformity in species-group names is of great demand. The other point which I would like to mention, is that in some cases it is probably wiser to adopt a more conservative approach until we obtain unarguable evidences: for example, *Phyllocnistis xenia* Hering, 1936 was treated by some authors as a junior synonym of *Phyllocnistis labyrinthella* (Bjerkander, 1790), and this point is accepted in this book. However, far more microlepidopterists treat both taxa as two different species. The genitalia of *Phyllocnistis* in general are not always suited for diagnostic specific characters due to their uniformity, but the pupal characters of some tropical *Phyllocnistis* are clearly diagnostic (*ZooKeys* 27, 7–30). Furthermore, the set of the DNA barcodes of *Phyllocnistis* available on the CBOL sequence database, shows that the DNA barcodes can suite rather well for the differentiation of *Phyllocnistis* species. Probably, it would have been better that both species-group taxa *labyrinthella* and *xenia* were kept separately. The third item of comments is valid for all robust books. The data are changing faster than the book is published and some facts are outdated the day of its publication. I am very pleased that the Global Taxonomic Database of Gracillariidae was consulted and it is mentioned as the first internet source. However, this website from 2010 onwards obtained its own URL and it is available from www.gracillariidae.net. The phylogenetic position of Gelechioidea is presented as one of the radiations in Ditrysia (p. 21), but recent evidence derived from morphology (*Cladistics* 20, 303–340) and molecules (*BMC Evolutionary Biology* 9, 280; *Proceedings of the Royal Society*, B 277, 107–128; *Molecular Phylogenetics and Evolution* 61, 801–809) suggests that this huge mega-diverse superfamily belongs to Apoditrysia, a more derived clade of Ditrysia.

This book can be very warmly recommended to Lithuanian entomologists, especially those interested in microlepidoptera. I should also point to the democratic price of this outstanding opus. Having the print of the highest quality and every page in colour, I wouldn't be surprised to see the price of this book 10 times higher. We should acknowledge very gratefully the Swedish authorities who made it possible that so detailed and well prepared treatments of North European fauna are affordable to everybody who is interested.

Jurate De Prins