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BOOK REVIEW

FAUNA OF THE U.S.S.R., LEPIDOPTERA, VOL. 4, PART 2, TINEIDAE, PART 2. SUBFAMILY NEMAPOGONINAE. By A. K. Zagula-jev, 5 May 1964, 424 pp., 385 text figs., 2 colored pls. Published by the Zoological Institute of the Academy of Sciences, Moscow & Leningrad, U.S.S.R. (new series no. 86) [In Russian].

This new volume of the "Fauna" forms the second part of the extensive monograph of the interesting family, of which the third part has been published already four years ago (cf. my review in this journal, vol. 15, no. 2, pp. 130-132, 1961). The present volume comprises an extensive treatment of the second subfamily, the chiefly mycetophagous Nemapogoninae, with regard to the species occurring in the Soviet Union and the adjoining countries. The source of the material is the same as before, the collections in Leningrad and Moscow, personal collecting by the author, and Wocke collection.

The set up of the work is about the same as of the third part. A chapter on general morphology of adult and immature stages comprises 55 pages; it is followed by remarks on biology; on classification and phylogeny; and on geographical distribution. Then a chapter on economic importance of the insects is added where the injury, the measures,

and the technique of their application are described. Several species belonging to the subfamily represent serious temporary or permanent pests of certain stored products, as grain, grain products, products of bakeries, and also dried fruits and dried mushrooms (used for food). An extensive list of literature completes the general part.

In the special part the subfamily Nemapogoninae is treated systematically, starting with an extensive description of the subfamily in order to discriminate it from the closely allied first subfamily, Scardiinae. The Nemapogoninae are divided into three new tribes, viz. 1. Triaxomerini, containing the genera *Neurothaumasia* Le March (6 species), *Triaxomasia* g. n. (1), *Triaxomera* Zag. (3), and *Nemaxera* g. n. (1). 2. Nemapogonini, with *Petalographis* Zag. (2), *Nemapogon* Schr. (2), *Anemapogon* Zag. (8), *Paranemapogon* g. n. (2), *Archinemapogon* Zag. (5), and *Longiductus* g. n. (5), and 3. Haplotineini, with a single genus, *Haplotinea* Diak. & Hint. (3). Altogether 11 genera with 57 species, five of which are new, are treated.

For the identification of the genera three different kinds of keys are presented, based on external characters, on male, and on female genital characters. For identification of the species three similar kinds of keys are available and besides, a key based on larval chaetotaxy.

Numerous text figures illustrate head with mouthparts, wing neuration of all genera; and the adult and the male and female genitalia of every species.

Larval chaetotaxy of more injurious species is given and illustrated. Seventeen species are illustrated on colored plates.

For the classification of genera wing venation, mouthparts, and genitalia of the two sexes are used. In this part abbreviated literature references are given not only for the species (as in the previous part) but also for the genera which is a better practice. The merits of the present (second) part of the monograph are similar to those of the already published third part, but exceed that in the completeness of description, the number of treated species in this subfamily being the same, while the amount of pages doubled. Therefore, the work may justly serve as a standard which the student of any other group of Microlepidoptera may copy to his advantage.

The author may be congratulated with this excellent piece of work. It forms a further step towards the completion of the revision of the Palearctic representatives of the Tineidae and a sound basis for further study of the taxonomy of this interesting group. I have no doubt that the concluding part, Scardiinae, will follow soon.