

REVIEWS

INVESTIGATIONS ON THE LEPIDOPTERA OF NEWFOUNDLAND, I. MACROLEPIDOPTERA. By Harry Krogerus. *Acta Zoologica Fennica* 82: 80 pp. 1954. Publisher: Societas pro Fauna et Flora Fennica, Helsingfors, Finland.

During three summer months of 1949, intensive studies were carried out by a four-man Finnish-Swedish biological expedition to Newfoundland (pronounced New/found/land'). The Macrolepidoptera portion of the investigations has been published in a well written, 80-page paper (in English) by the lepidopterist of the group, Dr. KROGERUS. 280 species are listed and discussed, comprising 247 encountered by the expedition plus 33 others reported in the literature but not observed in 1949. The ecological and zoogeographical aspects of the Newfoundland fauna are emphasized by the author, whose familiarity with similar climatic conditions in northern Europe provide an appropriate basis for comparison. This greatly enhances the value of his paper. It is divided into four sections: (1) Introduction, (2) Check List of the Newfoundland Species, (3) Taxonomical Remarks and Descriptions of New Species (with 34 text figures of genitalia), (4) A Survey of the Newfoundland Species. Section 4 is the actual list, with copious annotations, the arrangement essentially that of McDUNNOUGH'S 1938 *Check List of the Lepidoptera of Canada and the United States of America. Part I. Macrolepidoptera*. Section 3 is largely occupied with discussion of relationships between Newfoundland and European populations of holarctic species. A useful list of references appears at the end.

Dr. KROGERUS departs from the 1938 Check List in considering the following European and American forms conspecific (American name first): *Plebeius scudderi* (Lycaides argyrognomon) aster Edw. and *Plebeius idas* L., *Diarsia dislocata* Sm. and *Diarsia mendica* Fabr., *Leucania* [oxygala] *luteopallens* Sm. and *Leucania pallens* L., *Cucullia intermedia* Spey. and *Cucullia lucifuga* Schiff., *Septis finitima* Gn. and *Septis basilinea* Fabr., *Eupithecia luteata* Pack. and *Eupithecia lariciata* Frt., *Euphyia intermedia* [ta] Gn. and *Euphyia unangulata* Haw. He does consider, however, that racial differences exist in most cases. He regards *Graphiphora smithi* Snell. and the European *baja* Fabr. as distinct (thus at variance with FORBES, 1954); similarly with *Anagoga occidentaria* Wlk. and *pulveraria* Linn. (this time agreeing with FORBES, 1948).

Schrankia (*Hypenodes*) *turfosalis* Wocke is listed as a new occurrence for North America, but I should caution against adding the name to our lists until Newfoundland material is more thoroughly investigated. At least three different *Hypenodes* occur there, including two of my new ones described too late for inclusion in his paper.

Two new species are described by Dr. KROGERUS—*Protorthodes lindrothi* and *Hydrelia terræ-novæ*, and the types, which I have not seen, are in the Canadian National Collection.

Although trivial, the following few irregularities of usage and spelling should be noted:

Page 22: *Papilio brevicauda* is listed as a ssp. of *polyxenes* (spelled *polixenes*) as treated by ROTHCHILD & JORDAN, and by JORDAN in Seitz, whereas in recent years it has most commonly been regarded as distinct.

Page 26: The generic name *Clossiana* Reuss is used for the bog fritillaries rather than *Boloria* Moore, but this is just a matter of opinion in choosing whether to use *Boloria* in its restricted or unrestricted sense.

Pages 8, 19, 69-70: *Xantorhoe* should read *Xanthorhoe*, as originally spelled (Hübner, *Verz. bek. Schmett.*, 327, 1816), and *concretata* Wlk. should read *congregata* Wlk.

Pages 9, 20, 71: *intermedia* Gn. should read *intermediata* Gn.

Two of Dr. KROGERUS' determinations have puzzled me. The first is *Alypia octomaculata*, known to feed only on Vitaceæ and therefore a seemingly doubtful inhabitant of Newfoundland. The other is *Abagrotis placida*, a rare species whose presence is possible but not otherwise recognized in the Atlantic Provinces.

All things considered, this paper deserves attention for its thoroughness, its

awareness of holarctic zoogeography, and its value as the only comprehensive compilation of data on Newfoundland Macrolepidoptera.

To append a comment of my own, however, it would appear that we still have little more than a superficial knowledge of the Newfoundland fauna. In spite of extremely adverse weather, my 2-week sojourn to the Avalon Peninsula in mid-summer, 1954, yielded 40 species not encountered by KROGERUS, and this number included 27 not previously reported from Newfoundland in the literature. One might guess that further collecting would more than double the present list.

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MICROLEPIDOPTERA OF NEW GUINEA. Results of the Third Archbold Expedition (American-Netherlands Indian Expedition 1938-1939). Part III. By A. Diakonoff. *Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen. Afd. Natuurkunde*. 2nd ser., vol. 49, No. 4: pp. (1)-164, figs. 373-551; 1954. — Part IV. *Ibidem*, vol. 50, No. 1: pp. (1)-191, figs. 552-719; 1954. — Part V. *Ibidem*, vol. 50, No. 3: pp. (1)-211, figs. 720-861, 1 title page; 1955. Amsterdam.

The publication of these three parts concludes a monumental work with altogether 900 pages and 861 figures in text, one separate plate, and one map (see reviews of Parts I and II in *Lepid. News*, vol. 7: p. 128, 1953, and vol. 8: p. 50, 1954). An enclosed title page and the index to the whole work enable it to be bound as a separate volume. Never before have the Microlepidoptera fauna of New Guinea been studied so accurately and on the level of recent scientific research. Although only the records of the Third Archbold Expedition are reported, the work includes review of 582 species and subspecies; of them, 514 species and 10 subspecies are described as new, and 67 new genera are established. Since keys to many Papuan genera and species, both those collected by the Expedition and others, are given, the work is a very important handbook for every student of the Papuan Microlepidoptera fauna. It is of great value for systematists and morphologists dealing with the Lepidoptera.

Part III brings descriptions and records of the families Schoenotenidae, Childanotidae, Carposinidae, and Copromorphidae, with new 13 genera and 105 species. To the family Schoenotenidae a complete key to all known genera, also of other faunas, and a brief review of those genera, are given. This review, with many figures, gives a complete idea of the "newly born" family.

Part IV reports on the families Gelechiidae, Cosmopterygidae, Scæosophidae, Xylorictidae, Stenomidae, Ecophoridae, Orneodidae and Aegeriidae. 15 genera, 119 species and seven subspecies are described as new.

Part V (the last of the work) reports on Heliodinidae, Glyphipterygidae, Elachistidae, Scythrididae, Yponomeutidae, Amphitheridae, Lithocolletidae, Epermeniidae, Plutellidae, Lyonetiidae, Tineidae, Incurvariidae, and Adelidae, with 19 genera, 90 species and three subspecies described as new. It includes also a list of the entire Microlepidoptera records of the Expedition, general remarks on and the characteristics of the Microlepidoptera fauna of Central New Guinea, references, index to the whole work, *addenda* and *corrigenda*, and a title page with publishing data of separate parts of the work.

Henceforth, any study of the New Guinean Microlepidoptera fauna is indissolubly connected to the name of Dr. A. DIAKONOFF. His other papers have shown that he has further rich materials on this fauna. Owing to the author, the New Guinean Microlepidoptera are already studied immeasurably better than those of any other tropical fauna. Let us wish the author much success in the continuation of his interesting and important research of tropical Microlepidoptera.

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