

Catalogue of the Lepidoptera Phalaenæ in the British Museum. Vol. XIII. Noctuidæ (part). By SIR G. F. HAMPSON, Bart. London, 1913. Pp. xiv + 609.

In this volume the consideration of the Noctuidæ is continued, the subfamily Cato-calinæ being concluded from Vol. XII., the Mominæ and Phytometrinæ (better known as Plusiinae), being given in full. There are 70 genera and 679 species included, besides some unrecognized ones. Colored plates CCXII. to CCXXXIX. accompany the volume.

Some of our most familiar names disappear, not by necessity, but by the author's non-recognition of the names in Hübner's "Tentamen" and "Zuträge." *Euclidia* Hübn. (Tent.) is replaced by the totally unfamiliar *Gonospileia* Hübn. (Verz.); *Agnomonina* Hübn. by *Argyrostromis* Hübn. (Verz.); *Plusia* Hübn. (Tent.) by *Phytometra* Haw., which changes the familiar sub-family Plusiinae to Phytometrinæ. However, this is in part set off by the retention of *Phurys* Guenée, which should have been replaced by *Crochiphora* Hübn. (Zutr.). According to the rules of nomenclature it appears to us that Hampson is clearly wrong in discarding these names.

On page 188, my species *distilla* is made a synonym of *Safia amella* Guen., but it is, in fact, abundantly distinct.

On page 207, *Zale* Hübn. is used instead of *Phæocyma* Hübn., by page priority, although the late J. B. Smith used *Phæocyma* in the monographic treatment of the American species. We are in favor of Hampson's action, and mention it only because it was held at the National Museum at the time that Smith could use either name he chose.

On page 331 some corrections of previous volumes appear. Our familiar genus *Erebis* replaces *Nyctipao* (Vol. XII., p. 273), a purely Asiatic genus and is lost to us. Likewise *Melipotis* Hübn. replaces *Ercheia* Walk., an old world genus, and disappears from our lists.

Under the Mominæ, my genus *Zazunga*¹ should have been included, with two species *zetacelis* and *opinor*. It would fall in the

¹ *Proc. U. S. Nat. Mus.*, XXXVIII., 251, 1910.

table with *Elydnodes*, but the thorax is clothed with hair only.

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Einführung in die Vererbungswissenschaft.

By RICHARD GOLDSCHMIDT. Second edition. Leipzig, Wilhelm Engelmann. 1913. Pp. 546. Price 14 marks.

The second edition of this work has been somewhat enlarged and in part rewritten. The first alteration to challenge attention is the thorough rearrangement of certain parts of the book. The chapters on Mutation and on the Inheritance of Acquired Characters are related to one another, and both are deferred to near the end of the book, after the sections on hybridization and sex determination. In the first edition those chapters are in the early part of the book, immediately after the discussion of variation. Graft hybrids and chimeras, instead of following hard upon Mendelian hybrids, are not discussed until after sex determination. Other chapters of the old edition are divided and the parts recombined. For example, the cellular basis of heredity is taken up in connection with sex determination, instead of independently; while minor sections are freely shifted under new captions. These changes appear to the reviewer to be in the interest of logical presentation.

The most extensive addition to the book is in the treatment of sex determination, sex inheritance, etc. These chapters are enlarged to the extent of about 35 pages. The striking feature of this enlargement is a proposed new formula for sex inheritance. Each sex is represented as containing factors for both sexes; one sex is homozygous for both these factors, the other is heterozygous for one of them and homozygous for the other. The factors are then weighted, in a manner not unlike that proposed by Spillman,¹ so that in one case femaleness, in the other maleness, come to expression. This formulation thus maintains the form of Mendelian inheritance, but contains elements of the quantitative theory of sex determination. The formula

¹ Spillman, W. J., *Amer. Nat.*, Vol. 44, 1910, pp. 214-228.