

**SYNOPSIS OF THE SPECIES
OF INSECTS
BELONGING TO THE
FAMILY OF PHASMIDÆ**

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GEORGE ROBERT GRAY

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BELONGING TO

THE FAMILY OF PHASMIDÆ.

BY
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TO
JOHN GEORGE CHILDREN, ESQ.,

PRESIDENT OF THE ENTOMOLOGICAL SOCIETY,
Sec. R.S., F.R.S.Ed., ETC., ETC., ETC.,

IN SINCERE ACKNOWLEDGEMENT OF
HIS UNIFORM KINDNESS AND FRIENDSHIP,
AND OF
THE ASSISTANCE DERIVED FROM
HIS EXTENSIVE LIBRARY AND COLLECTION,

THIS WORK IS DEDICATED

BY
HIS MUCH OBLIGED

AND GRATEFUL SERVANT,

THE AUTHOR.

January 14th, 1835.

SYNOPSIS OF PHASMIDÆ.

HAVING been recently led to study the singular and interesting family of Orthopterous Insects, termed *Phasmidæ*, in order to elucidate the characters of the sixteen species described in the first part of my 'Entomology of Australia,' I have been induced to arrange the materials collected for that purpose in the form of an Essay, the object of which is to present a complete list of all the recorded insects belonging to the family, and to embrace at the same time descriptions of a considerable number of new forms which have fallen under my observation. The result of my researches may form a not uninteresting addition to the small stock of knowledge at present possessed by entomologists with regard to this striking but neglected group.

Of the extent of this knowledge, and its gradual development, some idea may be formed from the following outline of what has been written upon the subject since the days of Linnæus, who first placed these insects in the genus *Gryllus*, but afterwards removed them to that of *Mantis*. In this latter mode of arrangement he was followed by Gmelin, and by Fabricius in his earlier publications; but in the year 1787, Stoll, in his 'Représentations exactement coloriées d'après Nature des Spectres,' &c., proposed to form the Spectres into a distinct family (genus) from *Mantis*. To this genus, in the commencement of his work, he gave the name of *Spectrum*: at the end, however, he gave a list of the species figured by him from various Dutch collections, and amounting in number to 27, with Latin specific names, to which he prefixed the generic appellation of *Phasma*. He divided the genus thus formed into two families, characterized as follows:

"1. Les pieds antérieurs plus longs que les postérieurs; le corps tout à fait cylindrique.

"2. Le corps plat; les pieds antérieurs plus courts que les postérieurs. Dans quelques espèces les femelles ont les étuis aussi longs que les ailes."

In the 'Entomologia Systematica emendata et aucta,' of Fabricius, published in 1793, and consequently some years after its date, the preceding work is left unnoticed; but the Supplement, published in 1798, contains references to a *fen** of the figures given

* Although, as I have stated above, Stoll figured 27 species of *Phasma*, Fabricius referred to only 8 of these figures; and Lichtenstein, in the paper subsequently

by Stoll, and exhibits the Spectres as a distinct genus from *Mantis*, under the name of *Phasma*, although without any indication from whence that name was derived. In this work, Fabricius enumerates only 16 species of the genus, and places the apterous before the winged.

The 'Transactions of the Linnean Society' for 1802 contain a monograph of this family by Dr. Lichtenstein, entitled "A Dissertation on two natural Genera hitherto confounded under the Name of *Mantis*," in which the learned author avows that the idea of separating the *Spectres* did not originate with him, but with Stoll. In common with Fabricius, he neglects a considerable number of Stoll's figures, and describes in all only 25 species, which he arranges in the following manner :

"Phasma.

* TERETIA. Pedibus anticis longissimis tenuibus compressis.

† *Aptera*. Elytris alisque in utroque sexu nullis.
[Ph. filiformis, &c.]

†† *Subaptera*. Elytris at alis nullis. [Ph. angulat-
tum.]

††† *Alata*. Elytris alisque in utroque sexu. [Ph.
Gigas, &c.]

** DEPRESSA. Abdomine lato, depresso; pedibus anticis brevibus latis depressis; thorace brevi. (Hæc aliquanto similia *Mantibus* quam antecedentia Teretia.) [Ph. Dracunculus et citrifolium.]"

It is singular that this paper has not been referred to by subsequent systematists, except by Latreille, in the entomological department of Cuvier's 'Règne Animal.'

The profound entomologist just named, in his first great work, 'Genera Crustaceorum et Insectorum,' 1807, proposed to arrange these insects as follows :

"MANTIDES.

I. SPECTRA.

Genus *Phasma*.

I. Pedes femoribus tibiisque haud alatis; illorum lateribus non dilatato-membranaceis.

adverted to, to only 18. For what reason these two authors, referring to some of Stoll's figures, wholly neglected the remainder, I am at a loss to conceive. It seems, however, to be a rule with some naturalists, when writing monographs or general systematic works, to mention those species only which they know, by ocular demonstration, to exist; and thus many unique or very rare insects, which have been described by various authors from time to time, have been omitted from the general catalogues, and almost lost to science, until recovered by a fortunate chance. In my Synopsis of this family I have carefully referred to all Stoll's figures, and indeed, as far as my knowledge extends, to every figure or description that exists in scientific works, whether I have myself seen individuals of the species or not.

1. Alata aut saltem elytrata (elytris sæpissime brevissimis).
Ph. angulata, Gigas, necydaloïdes, &c.
2. Corpus elytris alisque nullis.
 - A. Antennæ setaceæ, elongatæ, articulis numerosissimis.
Ph. filiformis, Ferula, Calamus.
 - B. Antennæ conico-subulatæ, brevissimæ, articulis duodecim.
Ph. Rossia.

II. Pedes femoribus tibiisque alatis sive membrana externe et intus auctis.

Stoll, Mant. tab. 5. fig. 18.—tab. 18. fig. 65."

Then follows the genus *Phyllium*.

While in the first edition of the 'Règne Animal' he classifies them in the following manner :

"ORTHOPTERA.

CURSORIA.

Gen. MANTIS.

Gen. Spectrum.

Gen. Phasma.

— Phyllium."

And this arrangement is retained in the second edition, with this slight difference, that *Phasma* and *Phyllium* are no longer regarded as genera, but as subgenera of *Spectrum*, itself a subgenus of *Mantis*, one of the three genera which constitute the family of *Cursoria*.

In the 10th volume of the 'Encyclopédie Méthodique,' MM. Lepelletier and Serville propose the following plan of classification, which includes several new genera :

"I. Trois ocelles très distincts.

Phasma.

II. Point d'ocelles distincts.

A. Corps ailé ou ayant au moins des élytres.

a. Prothorax égalant presque en longueur le mésothorax.

Phyllium.

b. Prothorax plus long que la moitié du mésothorax.

Prisopus.

c. Prothorax court, n'égalant pas en longueur la moitié du mésothorax.

Cladoxerus.

Cyphocrana.

B. Corps aptère, sans ailes ni élytres.

Bacteria.

Bacillus."