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SYNOPSIS
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SYNOPSIS

OF

THE SPECIES OF INSECTS

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.,

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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 'Réprésentations 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 *few** 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. angulatum.]

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

** DEPRESSA. Abdomine lato, depresso; pedibus anticis brevibus latis depressis; thorace brevi. (Hæc aliquanto similiora *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."

Latreille refers to the above arrangement in a note, 'Règne Animal,' v. p. 178, but has altered it to the following plan:

"I. Le prothorax beaucoup plus court que le mésothorax; le corps et les pattes longs, linéaires.

1. Aptères.

* Antennes très courtes, grenues, en forme d'alène.

Bacillus.

** Antennes notablement plus longues que la tête et en forme de soie.

Bacteria.

2. Des élytres et des ailes du moins dans l'un des sexes.

A. Points d'yeux lisses.

* Pieds également espacés.

Cladoxerus.

** Les quatre derniers pieds plus rapprochés.

Cyphocrana.

B. Yeux lisses.

Phasma.

II. Corps plus ou moins ovalaire ou oblong, aplati, mais point linéaire.

1. Prothorax plus court que le mésothorax; des élytres et des ailes aux deux sexes.

Prisopus.

2. Prothorax presque aussi long que le mésothorax; femelles privées d'ailes; mâles avec des élytres très courtes.

Phyllium."

M. Serville has since remodelled the arrangement mentioned as given by him in the 'Encyclopédie Méthodique'; which alteration he published in the 'Annales des Sciences Naturelles' for January 1831. It differs but little from the former, except in the introduction of a new genus, *Xerosoma*, and in the transposition of his sections of the winged and unocellated forms.

In a notice of my monograph of the Australian species of *Phasma*, inserted in the 'Entomological Magazine' for October 1833, the reviewer has proposed, on what appear to me very insufficient grounds, to subdivide two decided families (those of which *Mantis* and *Phasma* may be regarded as the types,) into four; which, with the addition of a fifth for the reception of *Mantispa*, are made to compose the *Stirps* (Tribe) *Phasmina* of MacLeay. The difference between *Mantidæ* and *Empusidæ*, which is made to depend solely on the prolongation or non-prolongation of the head in the shape of a horn, (a character that can have no appreciable influence on the habits of the two groups, which are known to be identical,) is too trivial, as well as too artificial, to form the basis of a

natural classification; and a long and attentive study of the insects which constitute the *Phasmidæ* and *Phyllidæ* of the anonymous author has shown me too clearly the gradual nature of the transition between the linear and frequently apterous body of the former, and the dilated and winged body of the latter, to allow of my adopting those characters as the means of separating into distinct families insects whose habits are the same. I continue, therefore, to regard the *Spectres* of Stoll as a natural group, and include both *Phasma* and *Phyllium* under the family name of *Phasmidæ*, which I have adopted from that excellent entomologist, Mr. Kirby. In this family I have, as will hereafter be seen, many new generic subdivisions to propose, in addition to those which have been already instituted by M. Serville, which I can, however, only in part adopt.

I shall now proceed to offer some account of the structure of these insects in their several parts, and of the principal modifications to which they are subject in the different genera which I have found it expedient either to receive or to establish.

The *antennæ* of *Phasmidæ* are generally inserted near the eyes, and have their first and second joints compressed and broader than the rest, and the basal and apical shorter than the intermediate joints. These organs are sometimes setaceous and elongate, and sometimes short and subinoniliform, varying in the number of joints from thirty down to twelve. They also vary much in length, even in the same subdivision, as well as in the sexes, being sometimes much longer than the body, and in other cases not exceeding the mesothorax in length.

The *eyes* are always large, prominent, and placed at the anterior angles of the head; and some of the *Pterophasmata* possess in addition three distinct *stemmata**, or ocelli, placed triangularly between them.

* These organs were first mentioned by Stoll, in his characters for the fifth division of his genus *Spectrum*: "5. Trois petits yeux lisses, disposés en triangle entre ceux à réseau,"—leaving it to be inferred that all the species of that division possessed them. Fabricius, on the other hand, takes not the slightest notice of them either in his generic or specific characters; and Latreille, in his '*Genera Crustaceorum*,' &c. iii. p. 87, says of them, "Ocellis nullis aut vix discernendis." The Rev. Mr. Kirby remarks, that "Latreille speaks of *Phasma* as having no *stemmata*; but it seems that he examined only the apterous ones, all the winged individuals, at least so far as I have examined them, having three very visible ones." It is evident from this sentence, that Mr. Kirby must himself have by chance examined those species only which do possess *stemmata*; for many, even among the winged species, are destitute of these organs. He remarks in continuation, that "it may, I think, be laid down as a rule, that the larvæ and pupæ of *Orthoptera* have not these organs;" and certainly the rule may be applied to this family with great propriety. The use of them, Mr. Kirby tells us, "is probably for assisting them in flying;" but as many species that are destitute of *stemmata* are provided with large wings, equally with those which possess these organs, it must be regarded as doubtful whether they exist for that purpose or not. The Apterous species unquestionably do not possess them in the slightest degree.

MM. Lepelletier and Serville have laid great stress on these organs as furnishing

The *head* is sometimes quadrate, flat, or convex, or occasionally much gibbose; sometimes short and pyramidical, horned, or spined.

The *mandibles* are large, thick, somewhat rounded, with an acute, dentate, black margin, somewhat in the shape of a horse-shoe.

The *palpi* are unequal, depressed, and hairy. The *maxillary palpi* are five-jointed, with the two basal joints the smallest; the third and fourth rather longer, and nearly equal; and the fifth rather longer, broad, obliquely truncate in some, and in others sub-ovate and acute. The *labial palpi* are three-jointed, with the first joint very small, and the second and last nearly equal; they are always similar in form to the former.

The *maxilla* is membranaceous, with the apex corneous, tridentate, and black.

The *labium* is transverse, bilobed, and membranaceous.

The *thorax* is subject to great variation of form: in some it is long and cylindrical; in others short, flat, and quadrate. Its length also varies considerably; for in the *Pterophasmata* it is always shorter than the abdomen, while in the *Apterophasmata* it is in some species as long as, or even longer than that organ, and very distinctly divided into three segments. Of these, the first, or *prothorax*, is generally shorter, but in one species it is longer than the mesothorax: it is generally subquadrate, sometimes armed with acute spines, and mostly convex above and flat beneath. The second, or *mesothorax*, is in most cases long and cylindrical, but in some as short as, or even shorter than the metathorax, and subquadrate; it is also sometimes armed with spines, which, according to Lichtenstein, furnish a sexual difference, the male being more strongly spined than the female: in some cases this remark applies, but I am not inclined to consider it as a good substantial rule. The third, or *metathorax*, is not, in the *Pterophasmata*, easily distinguished, being generally short and quadrate, and partly hidden by the wings; but it is always broader than the others: in the *Apterophasmata*, on the contrary, it is generally as long as the former segments, although sometimes it is rather shorter.

The wing-coverts, or *tegmina*, are membranaceous and opaque; they vary much in length, and are rather shorter in the male than in the female. In the former sex, they are sometimes armed in the centre with an elevated ridge, and sometimes with a blunt or acute spine, while the females have the *tegmina* rather broad, longer and rounder at the tip, without armature in their centre. In the sub-

sectional characters; they mention them at the head of each genus of the winged division, and have formed two great sections, viz. those with distinct, and those with indistinct stigmata. They are far, however, from supplying tangible characters; for even the restricted genus *Phasma*, which is placed in the first section, contains species with, and others without these organs; I have therefore not noticed them in my short descriptions.

apterous imago females, these organs are always larger than the rudimental wings; and on the other hand, there are species which possess only rudimental tegmina, though they are furnished with ample wings.

The *wings* are transparent, with a broad anterior membranaceous margin, generally termed the costa or costal area, which is opaque, and when closed, entirely covers the transparent portion. The organs vary much in length, sometimes nearly covering the abdomen; in others (in the female) they are rudimental; and sometimes they are entirely wanting: their shape varies much, not merely in the species, but even in the sexes, for they are generally shorter and broader in the female than in the male.

The *abdomen* also varies considerably in form. In some it is long and cylindrical; in others, filiform: in some it is broad, convex above, and flat beneath; in others, perfectly flat and membranaceous; and others have only certain segments dilated above or laterally: it is in general composed of ten segments. The apex is variously modified, according to the species; and is generally curved upwards in the male. Some of the *Pterophasmata* have three, and others only two long or short leaflets at the extremity of the abdomen; and sometimes the last segment, or hypopygium, of the female is furnished with an elongate and cymbiform oviduct. In other species, the apex is gibbose; and in some of the *Apterophasmata* it is similar in form to the head of a spear. It is often armed with a pair of forceps (which is probably found more prominent in the males of both subfamilies), situated beneath the last upper segment or podex, and supposed to assist in copulation: in some males the last-mentioned organs are bifid. In one or two species *spiracles* are visible, placed one on each side, at the base of the segments.

The *legs* are similarly formed (adapted for running), but differ much in form and length in different species: sometimes the fore legs are the longest; sometimes the intermediate pair are much shorter than the others; sometimes the posterior pair are the shortest. The fore legs are seated so near the head as to require an excavation near the base for their reception, and are said to be directed straight forward, when at rest, as if to protect the antennæ from injury. In some these organs are spined, or more or less dentated; in others, more or less perfoliate and membranaceous.

The *tarsi* are always composed of five unequal joints, the first of which is always the longest, the others gradually decreasing in size: the fifth is large, pyriform, and armed with two long, compressed, hooked, (sometimes bifid,) acute claws, between which is placed a very prominent *plantula*, or cushion. Some species have an elevated ridge along the upper surface of their tarsi.

It may be observed as a general rule, that the males of these insects are much shorter and more filiform than the females, the former in some cases measuring only half the length of the latter sex. The means of distinguishing between their different stages of

larva, pupa, and imago, also require some notice ; and the following rules may serve the purpose of effecting this distinction.

The *larvæ* (or, as Latreille terms them, *Podophanera*,) are always apterous, much smaller than either pupa or imago, thicker throughout in proportion, of a much lighter colour, and rather brittle in their appearance.

The *pupæ* (or *Pterophanera*) of the *Pterophasmata* are much more readily known by the appearance of rudimental wings, and by having their tegmina always smaller than the future wings. The latter are invariably spotted, and the nervures are very thick : when arrived at this state, the insects have attained their full size.

The *imago* (or *Holophanera*) of the *Pterophasmata* is distinguished by the expansion of the wings, which are of various lengths, from hardly covering the first segment of the abdomen, to its entire concealment. Some of the females are subapterous even in this stage, in which case the tegmina are always larger than the rudimental wings.

The apterous species become in this state rather slenderer, and their outer surface is firmer and more durable in texture than in their former stages.

The extraordinary forms of these insects, rendered still more remarkable by their large size, have given rise to various appellations derived from a supposed resemblance to unearthly beings, such as the devil's horse, spectre, phantom, &c. ; while, on the other hand, others are denominated walking leaves, walking sticks, walking straws, and animated sticks, from the striking similarity which they bear to such vegetable substances. "To such perfection, indeed," say Messrs. Kirby and Spence, "has Nature in them carried her mimetic art, that you would declare, upon beholding some insects, that they had robbed the trees of their leaves to form for themselves artificial wings, so exactly do they resemble them in their form, substance, and vascular structure ; some representing green leaves, and others those that are dry and withered : nay, sometimes this mimicry is so exquisite, that you would mistake the whole insect for a portion of the branching spray of a tree."

"I have one from Brazil," says one of the same authors, "eight inches long, that, unless it was seen to move, could scarcely be conceived to be anything else than a small branch with its spray, the legs as well as the head having their little snags and knobs, so that no imitation can be more perfect."

Not only, indeed, are the perfect insects similar to portions of vegetables, but even their eggs bear a great resemblance to seeds and their envelopes, insomuch that some of them might at first sight be mistaken for the deeply-ribbed fruits of various umbelliferous plants.

Mr. Parkinson has given the following account of the abdomen and eggs of *Heteropteryx dilatata* : "The former," he says, "is terminated by a kind of boat-shaped organ, the keel of which possesses a

considerable space beneath the abdomen, so that fewer segments appear on that part than above. The concavity of this is covered above by a terminal scale and bifid process, constituting the tip of the abdomen on the upper part. On raising this valve, an ovum, nearly of the size of a pea, but of a more lengthened form, was discovered lying in the cavity beneath; and on inspecting further into the cavity of the abdomen, a great many more ova, exactly similar, were found, to the number of five- or six-and-twenty, some still remaining in the upper part. These eggs are of a slightly oblong shape, but flattened at one end: they are of a brown colour, and marked over with numerous impressed points; and have on one side a mark or double-waved line, so disposed as to represent a kind of cross, as if carved on the surface. The flattened end is surrounded by a small rim or ledge, and seems to be the part which opens at the exclusion of the larva, since it readily separates from the rest."

Dr. Müller has also described the ovaries of one of the species, *Bacteria arumatia*, in a paper, which points out a connexion between the dorsal vessel and the ovaries, published in the 'Nova Acta Physico-Medica Academiae Cæsareæ Leopoldino-Carolinæ Naturæ Curiosorum,' tom. xii. pars 2., 1825; which paper was reviewed in the 'Zoological Journal,' iii. p. 257, from whence I have copied the following account:

"The ovaries, which occupy the whole length of the abdomen, consist of about fifty conical tubes, the bases of which communicate with the oviduct of each side. The tubes are from four to five lines in length, and contain each from eight to fourteen eggs in various stages of development, together with certain other parts, which appear to furnish the materials for their growth. The eggs decrease in size towards the apices of the tubes, which pass insensibly into a very fine elastic filament. These filaments, of equal breadth throughout, are inserted, at their opposite extremity, into the dorsal vessel, with the inner lining of which they are unquestionably continuous. They contain a granular, medullary, irregular, and frequently interrupted substance, which is continued from the interior of the dorsal vessel, and lies in immediate contact with the contents of the tubes. When these filaments," observes the author, "have once been seen, the idea of a mistake can no longer exist. I have shown them to many; the connexion is so frequent, so obvious, and so circumscribed, that there is no occasion to employ a microscope to be convinced of its existence. I have never heard a second opinion on the subject. The connecting filament, however, does not merely unite the dorsal vessel with the apex of the ovarian tube; it passes into the interior of the latter, and lines its internal surface in immediate contact with its contents, and expanding as it advances, terminates near the union of the tube with the oviduct, in a free edge. The portion which is thus enveloped by the tube is capable of being separated from it; it alone contains

the eggs and their rudiments, the filamental portion which is exterior to the tube, being filled with the irregular medullary substance derived from the contents of the dorsal vessel. All these facts are well illustrated in the plates which accompany the Memoir."

The habits of the *Phasmidæ* are at present little known; but Stoll informs us that they differ much from *Mantidæ* "par leur manière de vivre et par leur économie, ou qu'ils se nourrissent d'herbes, de plantes, et de feuilles d'arbres, et déposent leurs œufs en terre tout comme les Sauterelles." Mr. Allan Cunningham, the botanist, who has had occasion to observe several of the Australian species in their native haunts, has informed me, "that the reason why they are so rarely met with, is owing to their solitary and sedate habits, being found always single, or only two in company, crawling slowly up the underwood, shrubs, &c., on which they seem to pass their existence in the hot summer months, feeding on the young glutinous or gummy trees." He states, also, that they occasionally disappear, perhaps for two or three years together.

Mr. Say gives the following account of an apterous species, which in this Synopsis is called *Anisomorpha buprestoides*: "On a journey to Florida with Mr. Maclure, I obtained a female, which was crawling up the body of an orange tree on Cumberland Island, Georgia. The male I had not seen until the recent return of Mr. Peale from that country, who brought many individuals of both sexes. He observed them in plenty in the southern part of that region: they were generally in pairs on the Palmetto, lying close to the rib of the leaf. Mr. P. remarked, that when taken they discharged a milky fluid from two pores of the thorax, diffusing a strong odour, in a measure like that of the common *Gnaphalium*, or *Life-everlasting*; and as this plant was growing near the place where they occurred, he supposed that it constituted at least part of their food. They vary much in colour, but it is believed that the two dorsal yellow lines are never wanting."

I was informed by Dr. Harlan (during his stay in London), that the female of an American species had actually been seen to eat off the head of her unfortunate companion, while in the excitement of their mutual amours.

The following is a translation of the account of the habits of *Bacteria bicornis*, given by the late Rev. Lansdown Guilding, in the 'Transactions of the Linnean Society': "It is extremely common in the brushes of Equinoctial America, and the neighbouring islands, and deludes its enemies by its resemblance to a dead stick. It devours the leaves with avidity during the night; walks with a very vacillating motion; applies its anterior feet to its head when in repose, and thus defends its slender antennæ. It is tenacious of life. Its juices are green or pale.

"The imago occurs throughout the year, copulating in the months of May and June. The female lays 22 eggs from September to November, which remain quiescent from 79 to 100 days, the larva

being excluded between the months of March and August. The larva, when first excluded from the egg, is pale, with banded legs; when it has thrown off its first exuviae it grows with great rapidity, until the horns make their appearance, and the body becomes red. If it loses a leg by violence, this is reproduced, but of a smaller size, on the next change of skin.

“The pupa scarcely differs from the imago.

“The egg is solid, clouded with flesh-colour and reddish, with scattered excavated dots, and a lateral chain-like spot, brown in the middle; its operculum is honeycombed and yellowish.

“The eggs of our *Phasma* are retained long in the oviduct, until they become indurated; and although those of *Mantis* are laid with caution, these are rejected without any peculiar care.”

The geographical extension of these insects is bounded by the parallel of fifty degrees on each side of the equinoctial line; and the following plan will show their further distribution among the great physical divisions of the surface of the earth.

N. America	3	S. Europe	3
W. Indies	8	Africa	2
		India, China, and Malay Islands . .	41
		Polynesian Islands	3

Equinoctial Line.

S. America	29	New Holland	27
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Doubtful 10

Only two small apterous species have yet been with certainty detected in Africa*; and it may deserve notice, that the last ten degrees from the line contain only apterous species, while both winged and wingless are scattered over the remaining forty. They also become more numerous, and of a larger size, as we approach the equator on either side. There exist great analogies of form between the Indian and South American species, examples of which will be found among the true *Phasmata* and the *Cladoxeri*.

I have found, on examining various specimens of the same species in different collections, that they vary much in colour; a circumstance which is greatly owing to the oily nature of their bodies, and to the neglect of the collector, at the time of taking the specimen, in not making use of the precaution, which is commonly adopted

* I have only myself had the good fortune to meet with two small species from Africa, although I think there is good reason for believing these insects to be far from uncommon in that continent. Stoll, however, mentions that the *Platycrana viridana* is found in Africa, as well as in India and South America; an extent of geographical range which I cannot conceive to be at all probable. In my Synopsis I have marked its habitat as India. Edwards, also, has figured a species said to be from the Cape of Good Hope; but as the figure is very bad in itself, and represents the insect in an immature state (being a *pupa*), I cannot refer it to any species mentioned in the Synopsis, or determine with any degree of certainty whether it constitutes a new species, as is most probably the case.

in this country, in preserving the *Libellulidæ*, by means of which the colours of the insects would be in a great degree preserved. This operation (which may not be generally known) consists in opening a longitudinal slit on the under surface of the abdomen, and taking out the entrails; the cavity is then stuffed with soft cotton, and the insect is allowed to dry in an airy situation. If these precautions have not been had recourse to in preserving the specimens, it will be found that the insects, which, when living, were of a bright green, frequently change to different shades of brown; and I have even observed the abdomen in some specimens to become black. In a dark blackish brown species, I have seen that organ converted into a rust colour. A milky fluid also exudes from the thorax, when the pin is passed through it, which is capable of staining the adjacent parts yellow and other colours. These facts are stated for the purpose of showing that some allowance must be made on this score, if my short descriptions of the shades and colours here given do not in all cases exactly coincide with the individual specimens which may fall under the notice of other entomologists.

It will be perceived that, in forming my table of divisions, I have, like other authors who have written on this group, used only external characters. The cibarian organs of species belonging to distinct divisions bear so great a similarity to each other, that it is impossible to make use of them as divisional characters. Like Fabricius, I have commenced with the apterous species, considering them, as it were, the most imperfect; and from these, by means of a species which possesses wings only, equal in length to the abdomen, we are enabled to proceed to the more perfect ones, which are provided with both tegmina and wings.

ORTHOPTERA.

CURSORIA, Latr.

Fam. PHASMIDÆ, Kirby.

Gryllus, *Lin.*—Mantis, pars, *Lin.*, *Gm.*, *Fabr.*, *Oliv.*—Spectrum, *Stoll*, *Latr.*, *Lam.*—Pasma, *Stoll*, *Licht.*, *Fabr.*, *Latr.*—MANTIDES. Spectra, *Latr.*—Difförmes ou Anomides, *Dumer.*—Phasmadæ, *Guilding.*—Phasmina, *MacLeay.*

Pedes omnes assimiles, cursorii; plantula inter unguiculos.

Sub-fam. I. *Apterophasmina*, n.

Tegmina alæque in utroque sexu nullæ.

* Antennæ thorace longiores.

A. Pedes breves; thorax spinosus aut scaber.

1. Metathorax brevissimus; pedes spinosi *Eurycantha*.
2. ————— longus; ————— *Acanthoderus*.
3. —————; ————— foliato-compressi, spinosi,
Cladomorphus.
4. —————; ————— perfoliati non spinosi, *Prisomera*.

B. Pedes longi; thorax subglaber.

1. Pedes in utroque sexu æquales. *Bacteria*.
2. ——— ♂ femoribus intermediis crassis, ♀ gracilibus, *Diapheromera*.
3. ——— inæquales, ♂ longi, ♀ breves. *Anisomorpha*.
4. ——— intermedii subbreiores *Lonchodes*.
5. ——— posteriores breviores *Heteronemia*.

** Antennæ thorace breviores.

1. Antennæ 15-articulatæ, graciles; corpus filiforme . . . *Linocer*.
2. ——— 12-———, submoniliformes; corpus filiforme, *Bacillus*.
3. ———; corpus subcylindricum. . . *Pachymorpha*.

Sub-fam. II. *Pterophasmina*, n.

Alæ in utroque sexu.

§ Mesothorax abdomine multo brevior.

A. Pedes simplices, (nec spinosi nec dilatati;) alæ in utroque sexu æquales.

α. Tegmina vix conspicua *Perlomorpha*.

β. ——— in utroque sexu brevia.

1. Alæ abdominis longitudine *Phasma*.
2. ——— abdomine breviores. *Xerosoma*.

B. Pedes breves, antici foliato-compressi; alæ æquales.

γ. Tegmina in utroque sexu longa *Dinclotron*.

C. Pedes omnes dilatati.

1. Abdomen supra convexum, subtus planum, sublineare; alæ æquales. *Prisopus*.
2. ——— apice dilatatum; alæ æquales *Platytelus*.
3. ——— articulis 5, 6, et 7, dilatatis; alæ ♂ longiores, ♀ breviores *Ectatosoma*.
4. ——— planum, dilatatum, foliiforme; alæ ♂ longiores, ♀ breviores. *Phyllium*.

D. Pedes quatuor posteriores dilatati.

Thorax subtriangularis; alæ in utroque sexu æquales, *Tropidoderus*.

E. Pedes spinosi nec dilatati.

1. Thorax in utroque sexu angustatus, spinosus; alæ æquales, *Podacanthus*.
2. ——— ♂ angustatus, ♀ latus, spinosus, gibbosus; alæ æquales, *Xeroderus*.
3. ——— quadratus; alæ ♂ longæ?, ♀ breves *Heteropteryx*.

§§ Mesothorax abdominis fere longitudine.

A. Corpus longum, cylindricum.

* Alæ ♂ longæ, ♀ breves.

1. Pedes postici angulati. *Diapherodes*.
2. ——— non angulati *Aplopus*.

** Alæ in utroque sexu subæquales.

1. Caput postice gibbosum. *Cyphocrana*.
2. ——— planum; foliola abdominalia nulla. *Platycrana*.
3. ———; ——— in utroque sexu duo,
Acrophylla.

B. Corpus filiforme.

1. Pedes æquales; foliola abdominalia duo brevia. . . . *Ctenomorpha*.
2. ——— antici longissimi; foliola abdominalia nulla. . . . *Claxoderus*.
3. ——— subbreves; abdomen apice gibbosum. *Phibalosoma*.

APTEROPHASMINA.

Gen. I. EURYCANTHA, *Boisd.*

Thorax abdominis longitudine, cylindricus, metathorace mesothorace breviori, utrisque ad latera spinosis; Abdomen breve, subcylindricum apice attenuatum; Pedes 4 anteriores breves, crassi, femora posteriora crassissima, fortiter spinosa, tibiis gracilibus interne spinosis; Caput quadratum; Antennæ longæ, graciles, articulo primo magno, depresso.

Habitat in Novâ Hiberniâ.

E. horrida. *Boisd.*

Nigrescenti-brunnea; capite antennisque albidis; abdomine rufonigro.—Long. ant. 2" 3"', corp. 4" 7"'.
Eurycantha horrida, *Boisd. Voy. de l'Astrol. Zool. Ent. pl.*

10. f. 2.

Habitat in Novâ Hiberniâ. In coll. D. Hope.

Gen. II. ACANTHODERUS, n.

Pasma, *Dumer.* *Bacteria*, *Perch.*

Thorax cylindricus, abdomine brevior, spinosus, metathorace mesothoracis fere longitudine; Abdomen subbreve, cylindricum; Pedes mediocres, plus minus spinosi; Caput parvum, subquadratum; Antennæ mediocres, setacæ.

Habitant (an omnes?) in Australiâ.

A. scabrosus, n.

Thorace, femoribus posticis et pedum basibus, spinosis.—Long. ant. 1" 6"', corp. 2" 9"'.
Bacteria scabrosa, *Perch. Guer. Icon. Ins. pl. 53. f. 4. Griff.*

An. Kingd. pl. 110. f. 4.

Habitat?

A. Dumerilii, n.

Thorace scabro; femoribus quatuor posticis angulatis; tibiis posticis dentatis.—Long. ant. 1" 11"', corp. 2" 5"'.
Phasme géant, *Dumér. Consid. Ins. pl. 23. f. 3.*

Habitat?

A. spinosus, n.

Thorace, abdominis articulo primo, pedibusque fortiter spinosis:

♂ filiformis, flavescenti-brunneus, lineâ in medio nigrâ.—Long. ant.? corp. 3" 6". ♀ cylindrica, albida, lineâ dorsali æneâ.—Long. ant.? corp. 4" 3".

Habitat in Novâ Hollandiâ. (Swan River.) In coll. D. Hope.

Gen. III. CLADOMORPHUS, n.

Thorax cylindricus, abdomine brevior, scaber, metathorace mesothoracis fere longitudine; Abdomen cylindricum, subscabrum, segmenti quarti quintive apice supra dilatato, ovipositore brevi, cymbiformi; Pedes mediocres, spinosi, aliquando margine foliato-compressi aut perfoliati; Caput parvum, posticè gibbosum, cornutum; Antennæ mediocres, setaceæ.

Habitant in Brasiliâ.

C. phyllinus, n.

Albo-cinereus; antennis supra albidis, subtus nigris; capite bituberculato; thorace scaberrimo; pedibus longis, femoribus tibiisque quatuor posticis subtus spinosis.—Long. ant. ♀ 1½", corp. 8" 6".

Habitat in Brasiliâ. In coll. D. Children, &c.

C. ceratocephalus, n.

Albo-cinereus; capite bicorni; thorace scabro; pedibus brevioribus, anticis foliato-compressis, femoribus quatuor posticis crassis, dentatis, apice tibiisque perfoliatis, tarsorum articulo primo dilatato erecto.—Long. ant. ♀ 1", corp. 6".

Habitat in Brasiliâ. In coll. D. Hope.

C. dilatipes, n.

Brunneus, scaberrimus; capite tuberculato; thorace spinis duabus mediis; pedibus brevibus, anticis dilatatis, femoribus posticis spinosis, tibiis in medio dilatatis, tarsorum articulo primo dilatato triangulari erecto.—Long. ant.? corp. 3" 6".

Habitat in Brasiliâ. In coll. D. Children.

C. perfoliatus, n.

Brunneus, scaber; capite bicorni, auriformi; thorace spinoso; femoribus quatuor posticis perfoliatis.—Long. ant. ♂ 9". ♀ 2": corp. ♂ 1" 9". ♀ 3" 6".

Habitat in Brasiliâ. In coll. D. Children et auct.

Gen. IV. PRISOMERA, n.

Mantis, *Oliv.* *Phasma*, *Stoll*, *Licht.*

Thorax scaber quandoque spinosus, abdominis fere longitudine, cylindricus; Abdomen subbreve, cylindricum; Pedes breves, perfoliati, perfoliatione dentata; Caput parvum, subquadratum; Antennæ longæ, setaceæ.

Habitant in Indiâ Orientali.

P. femoratum, n.

"Fuscum; pedibus mediocribus, foliato-compressis, femoribus mediis bidentatis apice." *Licht.*—Long. ant. 1" 5", corp. 5" 2".

Phasma femorata, *Stoll*, *Spectr. pl.* 14. f. 54.

Phasma latipes, *Licht. Linn. Trans.* vi. 11.

Mantis foliopeda, *Oliv. Ency. Meth.* vii. 638.

Le Spectre aux pattes feuilles, *Stoll*, p. 44.

Habitat in Amboinâ.

P. spinicollis, n.

Brunneo-nigrum; capite bicorni, auriformi; thorace scabro, meso-metathoraceque spinosis, longis, acutis; abdomine subbrevis, scabro; pedibus longis, femoribus quatuor posticis juxta basin perfoliatis, dentatis, tibiis foliato-compressis.—Long. ant. 2'' 5''' , corp. 4'' 4'''.

Habitat in Ceylonâ. In coll. Mus. Brit.

P. ? phyllopus, n.

Olivaceum; thorace scabriusculo; femoribus posticis quatuor basi et apice perfoliatis.

Habitat in Americâ Australi. In coll. D. Hope.

Gen. V. BACTERIA, *Latr., Lep. et Serv.*

Mantis, *Oliv. Phasma, Stoll, Fabr., Licht., Guild.*

Corpus maris filiforme, fœminæ cylindricum; Thorax subglaber, abdominis fere longitudine; Abdomen subbreve, glabrum; Pedes longi, in utroque sexu æquales, simplices, tarsorum articulis aliquando dilatatis erectis; Caput parvum, aliquando cornutum; Antennæ longæ, setaceæ.

Habitant in utroque Continente.

B. arumatia, n.

Fusca, testaceo-annulata; pedibus aliquanto corpore brevioribus, tarsorum articulo primo triangulari erecto.—Long. ant. 3'' 9''' , corp. 7'''.

Phasma arumatia, *Stoll, Spectr. pl.* 13. f. 51.

Mantis baculus, *Oliv. Ency. Meth.* vii. 638. *pl.* 132. f. 2.

Ræsel, pl. 19. f. 10.

Mantis Ferula, *Fabr. Ent. Syst.* ii. p. 12.

Phasma Ferula, *Fabr. Ent. Syst. Suppl.* 187. *Latr. Gen.*

Crust. et Ins. iii. 88. *Licht. Linn. Trans.* vi. 10.

Bacteria Ferula, *Serv. Ann. des Sci. Nat.* xxii. 64.

Spectrum Ferula, *Lam. An. sans Vert.* iv. 255.

La Branche de Bouillot, *Stoll*, p. 41.

Habitat in Indiâ Occidentali.

B. bicornis, n.

Dilutè fusca; capite oblongiusculo, cornu auriformi; pedibus obscuro-fasciatis, femoribus intermediis subtus apice muticis.—Long. ant. ♂ 2'' 5''' . ♀ 2'' 11''' , corp. ♂ 3'' 6''' . ♀ 6'''.

Phasma bicornis, *Stoll, Spectr. pl.* 15. f. 57.

Mantis Keratoskeleton, *Oliv. Ency. Meth.* vii. 639.

Phasma cornutum, *Licht. Linn. Trans.* vi. 10. *Guild. Linn.*

Trans. xiv. 137. *pl.* vii. (non *Ph. filiformis*, *Fabr.*)

Le Spectre ou Squelette cornu, *Stoll*, p. 46.

Habitat in Indiâ Occidentali. In coll. D. Children.

B. simplex, n.

Obscure testacea; thorace cylindrico, scabro, tuberculis cinereis, postice attenuato; pedibus anticis elongatis; tarsorum articulo primo dilatato triangulari erecto.—Long. ant. 2" 4"', corp. 5" 3".

Phasma simplex, *Stoll, Spectr. pl.* 14. f. 55.

Mantis squeleton, *Oliv. Ency. Meth.* vii. 639.

Phasma sceleton, *Licht. Linn. Trans.* vi. 10.

Le Squelette chinois, *Stoll, p.* 45.

Habitat in Chinâ.

B. Calamus, Serv.

Virescens; corpore subplano, subscabro, lineâ mediâ elevatâ; femoribus lineis elevatis striatis.—Long. ant. ? corp. 3" 7".

Mantis Calamus, *Fabr. Ent. Syst.* ii. 13.

Phasma Calamus, *Fabr. Ent. Syst. Suppl.* 187. *Licht. Linn. Trans.* vi. 10. *Latr. Gen. Crust. et Ins.* iii. 88.

Bacteria Calamus, *Serv. Ann. des Sci. Nat.* xxii. 64.

Spectrum Calamus, *Lam. An. sans Vert.* iv. 255.

Habitat in Indiâ Occidentali. In coll. D. Children.

B. viridis, n.

Viridis, glabra; thorace lineâ mediâ, pedibus lineis elevatis striatis.—Long. ant. 1" 1"', corp. 2".

Habitat in Insulis Sandvicensibus. In coll. Mus. Brit.

B. filiformis, Serv.

Fusca; antennis longis, nigris; pedibus corporis longitudine inermibus testaceo-annulatis.—Long. ant. ♂ . ♀ , corp. ♂ . ♀ .

Phasma filiformis, *Fabr. Ent. Syst. Suppl.* 186. *Latr. Gen. Crust. et Ins.* iii. 88.

Mantis filiformis, *Oliv. Ency. Meth.* vii. 625.

Phasma filiforme, *Licht. Linn. Trans.* vi. 9. pl. 1. f. 1.

Bacteria filiformis, *Serv. Ann. des Sci. Nat.* xxii. 64.

(*Phasma cornutum*, ♂, *Guild. Linn. Trans.* xiv. 137, sed falso.)

Spectrum filiforme, *Lam. An. sans Vert.* iv. 255.

Habitat in Indiâ Occidentali.

? *B. linearis*, n.

Cinerea; lineis longitudinalibus albis.—Long. ant. ? corp. 2" 3".

Mantis linearis, *Drury, Ins.* i. pl. 50.

Habitat in Indiâ Occidentali, (Antigua).

B. lineata, n.

Cœrulescens, lineis longitudinalibus albis et nigris.—Long. ant. ? corp. 3".

Habitat in Africâ, (Sierra Leona).

B. Indica, n.

Flavescenti-brunnea, glabra, filiformis; antennis subbrevibus, rufescentibus basi viridescentibus; pedibus mediocribus, simplicibus, anticis lineis elevatis striatis.—Long. ant. ? corp. 4" 2".

Habitat in Indiâ Orientali. In coll. DD. Hardwicke et Sykes.

B. cænosa, Hope MSS.

Flavescenti-brunnea; thorace scabro; abdominis apice viridi; pedibus longis, hirsutis; antennarum articulis apicibus nigris.—Long. ant. 1" 10"', corp. 2" 11'''.

Bacteria cænosa, *Hope, MSS. G. R. Gray, Ent. of Austr. i. pl. 2. f. 2.*

Habitat in Australiâ. In coll. D. Hope.

B. fragilis, Hope MSS.

Nigrescenti-viridis; capite fasciis duabus albis.—Long. ant. 1" 8"', corp. 1" 11'''.

Bacteria fragilis, *Hope, MSS. G. R. Gray, Ent. Austr. i. pl. 7. f. 1.*

Habitat in Australiâ. In coll. D. Hope.

B. Ægyptiaca, n.

Brunnea; capite flavo-lineato; thorace nigro-lineato, marginibus flavis; pedibus gracilibus, rufescentibus, anticis longis, quatuor posticis subæqualibus.—Long. ant. 7"', corp. 2" 1'''.

Habitat in Ægypto. In coll. Mus. Brit.

Gen. VI. DIAPHEROMERA, n.

Spectrum, *Say*.

Corpus maris filiforme, fœminæ paulum incrassatum; Thorax longus, glaber; Abdomen thorace brevius; Pedes longi, maris femoribus intermediis crassis, fœminæ gracilibus.

Habitat in Americâ Septentrionali.

D. Sayi, n.

Viridescenti-brunneum; capite flavescenti, fasciis tribus fuscis; femoribus anticis viridibus, intermediis crassis, flavo-brunneis, fusco-annulatis, quatuor posticis subtus juxta apicem spinâ piceâ acutâ. ♀ paulum incrassatum, cinereum, robustum; pedibus gracilibus, quatuor posticis spinosis.—Long. ant. ♂ 2" 9'''. ♀ 1" 9''', corp. ♂ et ♀ 2" 9'''.

Spectrum femoratum, *Say, Amer. Ent. iii. pl. 37.*

Habitat in Americâ Septentrionali.

Gen. VII. ANISOMORPHA, n.

Pasma, *Stoll, Pal. Beauv. Spectrum, Say.*

Thorax et abdomen, maris subfiliformes, fœminæ paulum incrassati, longitudine æquales; Pedes inæquales, maris longi, fœminæ breves, simplices.

Habitant in Americâ Septentrionali.

A. ferruginea, n.

Fusco-ferruginea; pedibus viridibus; fœminæ mesothorace et abdominis basi lateribus viridibus.—Long. ant. ♂ 1". ♀ 1" 1''', corp. ♂ 1" 6'''. ♀ 2" 3'''.

Pasma ferruginea, *Pal. Beauv. Ins. Orth. pl. 14. f. 6 et 7.*

Habitat in Carolinâ.

A. buprestoides, n.

♂ nigra; fasciis longitudinalibus duabus flavis; antennis rufo-brunneis; pedibus obscuris, femoribus apice nigris; ♀ brunnea.—Long. ant. ♂ 10'''. ♀ 1'' 1''', corp. ♂ 1'' 10'''. ♀ 3'' 1'''.

Phasma buprestoides, *Stoll, Spectr. pl. 23. f. 87.*

Spectrum bivittatum, *Say, Amer. Ent. iii. pl. 38.*

Le Spectre, air d'escarbot, *Stoll, p. 68.*

Habitat in Georgiâ. In coll. D. Children.

Gen. VIII. HETERONEMIA, n.

Corpus filiforme; thorace abdomine longiori; Pedes mediocres, simplices, posteriores reliquis breviores.

Habitat in Americâ Æquinoctiali.

H. Mexicana, n.

Olivacea; capite albido; pedibus lineis elevatis striatis.—Long. ant. 1'' 11'', corp. 3'' 5'''.

Habitat in Mexico. In coll. D. Children.

Gen. IX. LONCHODES, n.

Phasma, *Curtis, MSS.*

Thorax subcylindricus, abdominis longitudine; Abdomen breve, subcylindricum, apice lanceiformi; Pedes mediocres, plus minus dentati, intermediis reliquis breviores.

Habitant in Indiâ Orientali.

L. brevipes, n.

Brunneus; thorace scabriusculo, abdominis longitudine; capite bicorni parvo; pedibus brevibus, mediis brevioribus, femoribus crassis, subtus apice dentatis.—Long. ant. 2'', corp. 3'' 4'''.

Habitat in Orâ Malabariensi. In coll. D. Children.

L. geniculatus, n.

Nigrescenti-viridis; thorace subglabro; abdomine thorace breviori, apice gibboso, subplano; pedibus longis, viridibus; femoribus apice rubris, tarsis simplicibus.—Long. ant. , corp. .

Phasma geniculatum, *Curtis, MSS.*

Habitat in Indiâ Orientali. In coll. D. Curtis, "a Dominâ Murchison communicatus."

L. pterodactylus, n.

Brunneus; capite cornubus duobus brevibus; thorace scabriusculo; pedibus brevioribus, foliato-compressis, interruptis; tarsorum anticorum articulo primo elongato dilatato erecto.—Long. ant. ♂ 9'''. ♀ 1'' 6''', corp. ♂ 2'' 4'''. ♀ 4'' 8'''.

Habitat in Indiâ Orientali. In coll. D. Children.

Gen. X. LINOCERUS, n.

Corpus filiforme; Thorax abdominis longitudine, glaber; Pedes

longi, graciles, simplices; Caput parvum; Antennæ breviores, articulis 15, primo et secundo magnis, depressis, reliquis uniformibus, moniliformibus.

Habitat in Chinâ.

L. gracilis, n.

Viridescenti-brunneus; pedibus longis, simplicibus.—Long. ant. 6''' , corp. 3''.

Habitat in Chinâ. In coll. D. Hope.

Gen. XI. BACILLUS, Latr., Lep. et Serv., Serv.

Mantis, Rossi, Fabr., Petagn. Phasma, Fabr., Latr., Licht., Charp.

Corpus filiforme, in medio subcarinatum; Thorax abdominis longitudine, glaber; Pedes mediocres, simplices; Caput parvum; Antennæ breviores, articulis 12, primo magno, reliquis submoniliformibus, ultimo conico-ovato.

Habitant in Europâ, Australiâ, et Insulis Sandvicensibus.

B. Rossia, Serv.

Viridis; thorace scabriusculo; femoribus quatuor posticis striatis ad apicem subtus dentatis, var. brunneus.—Long. ant. 3''' , corp. 2'' 10'''.

Phasma Rossia, Fabr. Ent. Syst. Suppl. 187. Latr. Gen. Crust. Ins. iii. 88. Lep. et Serv. Ency. Meth. x. 101.

Mantis Rossia, Fabr. Ent. Syst. ii. 13. Rossi, Faun. Etrus. i. tab. 8. f. 1.

Phasma Plocaria, Licht. Linn. Trans. vi. 11.

Phasma Rossium, Charp. Horæ Ent. p. 93.

Bacillus Rossii, Serv. Ann. des Sci. Nat. xxii. 65.

Plocaria domestica, Scop. Delic. Insubr. i. 60. t. 24. f. A.

Spectrum Rossii, Lam. An. sans Vert. iv. 255.

Habitat in Europâ Australi. In coll. D. Children, &c.

B. gallicus, Serv.

"Thorace marginibus lateralibus crenulato-punctatis: in capitis abdominisque lateribus striga et punctis duobus in segmentorum parte superiore brunneis." (Charp.)—Long. ant. ?, corp. ?.

Phasma gallicus, Charp. Horæ Ent. p. 94.

Bacillus gallicus, Serv. Ann. des Sci. Nat. xxii. 65.

Habitat in Europâ.

B. granulatus, Brullé.

"Fuscus, tuberculis numerosissimis instructus, corpore longitudinaliter unicarinato; capite pallide nigro-lineato; antennarum articulis longitudine æqualibus; abdomine thoraceque subtus cinereo albicantibus; femoribus pedibusque nigro-maculatis; tarsis apice nigricantibus." (Brullé.)—Long. ant. 3''' , corp. 2'' 8'''.

Bacillus granulatus, Brullé, Exp. Se. de Morée, Ent. pl. 29. f. 6.

Habitat in Moreâ.

B. brunneus, n.

Flavescenti-brunneus; thorace tuberculis parvis albis; pedibus brevibus, femoribus interne dentatis, anticis lineis elevatis striatis.—Long. ant. 3''', corp. 2'' 11'''.

Bacillus brunneus, *G. R. Gray, Ent. of Austr.* 1. pl. 7. f. 3.

Habitat in Australia (Swan River). In coll. D. Hope.

B. Beecheyi, n.

Brunneus, glaber; capite cornubus duobus brevibus; pedibus brevibus, obscuro-fasciatis, lineis elevatis striatis.—Long. ant. 2''', corp. 3'' 2'''.

Habitat in Insulis Sandvicensibus. In coll. Mus. Brit.

Gen. XII. PACHYMORPHA, n.

Bacillus, *Hope, MSS. G. R. Gray.*

Corpus cylindricum, in medio carinatum, subscabrum; Abdomen basi depressum, apice compressum; Pedes anteriores lineis elevatis striatis, quatuor posticis supra dentatis; Caput magnum, subplatum; Antennæ breves, articulo primo magno, depresso, reliquis apice incrassatis.

Habitat in Australiâ.

P. squalida, n.

Brunneo-nigra, albo-mixta, rugosa; capite bicorni parvo.—Long. ant. 4''', corp. 2'' 1'''.

Bacillus squalidus, *Hope, MSS. G. R. Gray, Ent. Austr.* i. pl. 3. f. 2.

Habitat in Australiâ. In coll. D. Hope.

PTEROPHASMINA.

Phasmata, § alata; § depressa; et § subaptera. *Licht.*

Gen. XIII. PERLAMORPHUS, *Curtis, MSS.*

Tegmina vix conspicua; Alæ utriusque sexûs fere abdominis longitudine; Abdomen subfiliforme; Pedes subbreves, simplices, hirsuti; Prothorax brevis, subquadratus; Mesothorax brevis, oblongo-quadratus; Antennæ longæ, setacæ, subhirsutæ.

Habitant in Indiâ Orientali.

P. hieroglyphicus, *Curtis.*

Sericeus, viridi-nitens, brunneo-reticulatus; alis hyalinis, nigrescentibus, areâ costali viridi, maculis inter nervos rufescenti-nigris; abdomine griseo-brunneo, subtus hirsuto; pedibus flavescenti-viridibus, nigro-fasciatis.—Long. ant. ?, corp. 2'' 2'''. Exp. alar. 3'' 2'''.

Perlamorphus hieroglyphicus, *Curtis, MSS.*

Habitat in Javâ. In coll. D. Curtis, "à Dominâ Murchison communicatus."

Pupa imagini similis, nisi quoad abdomen maculatum, alasque rudimentales flavas inter nervos striatas.

P. Peleus, n.

Pallide brunneus, nigro-lineatus; alis albidis, areâ costali undulatâ; pedibus brevibus, hirsutis, femoribus anticis crassis.—Long. ant. 1" 4"', corp. 1" 11"'. Exp. alar. 2" 2"'.
 Habitat in Orâ Malabariensi. In coll. D. Children.

Gen. XIV. PHASMA, *Serv.*

Gryllus, *Linn.*—Mantis, pars, *Fabr.*, *Oliv.*—Pasma, pars, *Stoll*, *Licht.*, *Fabr.*—Phasmata alata, *Licht.*—Spectrum, pars, *Stoll*, *Lam.*, *Latr.*—Pasma, I. pars, *Latr.*

Tegmina minima, aliquando longiora, ovalia, in medio spinosa, vel quandoque elevata; Alæ sublineares, in utroque sexu fere abdominis longitudine, areâ costali angustatâ; Abdomen filiforme; Pedes mediocres, simplices, aliquando subdentati aut lineis elevatis striati; Mesothorax brevis, spinosus vel lævis; Caput parvum, subdepressum; Antennæ longissimæ, setaceæ.

Habitant in utroque Continente.

P. laterale, *Licht.*

Nigrum; mesothorace teretiusculo glabro; tegminibus alarumque basi sulphureis; abdomine nigro, marginibus lateralibus brunneis; pedibus inermibus.—Long. ant. ?, corp. 2" 1"'. Exp. alar. 3".

Mantis lateralis, *Fabr. Ent. Syst.* ii. 15. *Oliv. Ency. Meth.* vii. 634.

Mantis xanthomela, *Oliv. Ency. Meth.* vii. 638.

Phasma lateralis, *Stoll, Spectr. pl.* 10. f. 36 et 37. *Fabr. Ent. Syst. Suppl.* 188. *Latr. Gen. Crust. Ins.* iii. 87. *Serv. Ann. des Sci. Nat.* xxii. 58. *Lep. et Serv. Ency. Meth.* x. 101.

Phasma laterale, *Licht. Linn. Trans.* vi. 15.

Le Spectre noir de Surinam, et Spectre noir de Coromandel, *Stoll*.

Habitat in Brasiiliâ.

P. bimaculatum, *Licht.*

Fuscum; mesothorace tereti glabro; tegminibus lanceolatis, dilute fuscis, maculâ in medio sulphureâ; alis albidis, basi rufescentibus, areâ costali fuscâ, basi albidâ.—Long. ant. 2" 11"', corp. 2" 4"'. Exp. alar. 3" 7"'.
 Phasma bimaculata, *Stoll, Spectr. pl.* 8. f. 29. *Serv. Ann. des Sci. Nat.* xxii. 58.

Mantis bimaculata, *Oliv. Ency. Meth.* vii. 637.

Phasma bimaculatum, *Licht. Linn. Trans.* vi. 15.

La double tache, *Stoll, p.* 26.

Habitat in Coromandel?

P. spinosum, n.

"Capite thoraceque spinosis; tegminibus acutis, alis fuscis." (*Fabr.*)—Long. ant. ?, corp. ?. Exp. alar. ?.

Mantis spinosa, *Fabr. Ent. Syst.* ii. 14. *Oliv. Ency. Meth.* vii. 633.

Phasma spinosa, *Fabr. Ent. Syst. Suppl.* 188. *Latr. Gen. Crust. Ins.* iii. 87. *Serv. Ann. des Sci. Nat.* xxii. 58.

Habitat in Indiâ Orientali.

P. marginatum, n.

Viride; tegminibus areâque costali viridibus, margine exteriori lactifloreis, interne nigro-marginatis; alis roseis.—Long. ant. 2'', corp. 2'' 5'''. Exp. alar. 3'' 3'''.

Habitat in Orâ Malabariensi. In coll. D. Children.

P. Tithonus, n.

E flavescenti, viride; capite thoraceque brunneo-flavis, nigro-lineatis; tegminibus in medio elevatis, nigro-lineatis; alis hyalinis; abdomine basi brunneo-flavo, apice viridi, nigro-maculato; pedibus supra viridibus, nigro-lineatis, subtus nigris; antennis nigris, griseo-albo-annulatis.—Long. ant. ♂ 1''. ♀ 1'' 7''', corp. ♂ 1'' 7''', ♀ 2'' 9'''. Exp. alar. ♂ 2''. ♀ 4''.

Habitat in Indiâ Orientali? In coll. D. Children, et Mus. Brit.

P. annulatum, n.

Fuscum; tegminibus margine exteriori flavis, in medio dente brevi elevato; alis fuscis; antennis longis, albo-maculatis.—Long. ant. ?, corp. ? Exp. alar. ?

Phasma annulata, *Fabr. Ent. Syst. Suppl.* 189. *Latr. Gen.*

Crust. Ins. iii. 87.

Habitat in Tranquebariâ.

P. acanthopterum, n.

Fuscum; tegminibus spinosis; alis flavescenti-brunneis; areâ costali rufescenti, brunneo-maculatâ.—Long. ant. ?, corp. 1'' 11'''. Exp. alar. 2'' 8'''.

Phasma acanthoptera, *Stoll, Spectr. pl.* 21. f. 78.

Spectre moucheté, *Stoll, p.* 62.

Habitat in Amboinâ.

P. auritum, n.

Fuscum; capite thoraceque spinosis; tegminibus concavis elevatis in medio compressis; alis obscuris, margine exteriori lato rufescenti, fusco-maculatis, fasciâ latâ albâ.—Long. ant. ?, corp. ? Exp. alar. ?

Mantis aurita, *Fabr. Ent. Syst.* ii. 15.

Phasma aurita, *Fabr. Ent. Syst. Suppl.* 189. *Latr. Gen. Crust. Ins.* iii. 87.

Habitat in Indiâ Orientali.

P. atrophicum, Licht.

Griseum; mesothorace quadrispinoso, erecto; tegminibus basi aristato mucronatis; abdomine apice spinoso.—Long. ant. 2'' 9''', corp. 3'' 6'''. Exp. alar. 6''.

Mantis atrophica, *Pall. Spic. 9. t. 1. f. 1.* *Fabr. Ent. Syst.* ii. 14. *Oliv. Ency. Meth.* vii. 633.

Phasma atrophica, *Fabr. Ent. Syst. Suppl.* 188. *Latr. Gen. Crust. Ins.* iii. 87.

Spectrum atrophicum, *Lam. An. sans Vert.* iv. 254.

Phasma atrophicum, *Licht. Linn. Trans.* vi. 14.

Habitat in Javâ.

P. variegatum, Licht.

Brunneum; mesothorace tereti glabro; tegminibus ovatis; areâ costali fuscâ, fasciis quatuor sulphureis; alis brunneis, basi albis.—Long. ant. ?, corp. 2" 1^{'''}. Exp. alar. 3" 3^{'''}.

Phasma variegata, Stoll, *Spectr. pl.* 8. f. 26. *Fabr. Ent. Syst.*

Suppl. 189. *Latr. Gen. Crust. et Ins.* iii. 87.

Phasma variegatum, Licht. *Linn. Trans.* vi. 15.

Mantis tessulata, Oliv. *Ency. Meth.* vii. 637.

Phasma tessulata, Serv. *Ann. des Sci. Nat.* xxii. 58.

Le Spectre marqueté, Stoll, p. 24.

Habitat in Surinam.

P. bioculatum, n.

Brunneum; antennis flavis; tegminibus viridibus, maculâ nigrâ, flavo-marginatâ.—Long. ant. ?, corp. 2" 9^{'''}. Exp. alar. 3" 5^{'''}.

Phasma bioculata, Stoll, *Spectr. pl.* 20. f. 76.

Mantis phthisica, Oliv. *Ency. Meth.* vii. 626. *Linn. Syst. Ed.*

Gmel. p. 2049.

Phasma phthisica, Serv. *Ann. des Sci. Nat.* xxii. 58.

Phasma edule, var., Licht. *Linn. Trans.* vi. 33.

Spectre brun sombre, à miroirs noirs, Stoll, p. 61.

Habitat in Surinam.

P. bispinosum, n.

Viride; mesothorace flavo, teretiusculo, anticè bispinoso nigro; tegminibus margine flavis; alis pallide roseis, areâ costali viridi, margine anteriori juxta basin albo.—Long. ant. ? corp. 3" 2^{'''}. Exp. alar. 3" 7^{'''}.

Mantis bispinosa, Linn. *Syst. Ed. Gmel.* p. 2054. *Fabr. Ent.*

Syst. ii. 14. Oliv. *Ency. Meth.* vii. 633. *Rees's Ency. Nat.*

Hist. Ins. Hem. pl. 1. f. 1. *Shaw's Misc. pl.* 323. *Ency.*

Brit. t. 204. f. 20.

Phasma bispinosa, *Fabr. Ent. Syst. Suppl.* 188. *Latr. Gen.*

Crust. Ins. iii. 87. *Serv. Ann. des Sci. Nat.* xxii. 58.

Habitat in Brasiiliâ.

P. perspicillare, n.

Griseo-brunneum; areâ costali flavo-striatâ, alarumque basi albidâ; tarsorum articulo primo flavo.—Long. ant. 1" 7^{'''}, corp. 2". Exp. alar. 3" 4^{'''}.

Phasma perspicillaris, Stoll, *Spectr. pl.* 23. f. 86.

Spectre manière de papillon, Stoll, p. 67.

Habitat in Surinam.

P. fasciatum, n.

Nigrum; capite albo-lineato; mesothorace scabro; tegminibus nigris, margine anteriori viridibus; areâ costali nigrescenti, fasciis longitudinalibus viridibus; alis hyalinis, albis, margine nigrescentibus.—Long. ant. , corp. . Exp. alar. .

Habitat in Brasiiliâ. In coll. D. Children.

P. cinereum, Licht.

Cinereum; mesothorace tereti glabro; tegminibus lanceolatis, cinereis, fusco-reticulatis; alis dilute cinereis, fusco-venosis; areâ costali rufescenti.—Long. ant. 7''', corp. 2'' 5'''. Exp. alar. 3'' 3'''.

Phasma cinerea, *Stoll, Spectr. pl.* 14. f. 56.

Mantis cinerea, *Oliv. Ency. Meth.* vii. 641.

Phasma cinereum, *Licht. Linn. Trans.* vi. 16.

Phasma cinerea, *Serv. Ann. des Sci. Nat.* xxii. 58.

Le Spectre de couleur cendrée, *Stoll, p.* 45.

Habitat in Surinam.

P. Hopii, n.

Nigro-brunneum; capite thoraceque flavo-lineatis; tegminibus areâque costali margine anteriori viridescenti-flavis; alis albidis, apice nigris; abdomine nigro-brunneo, apice pallidiori nigro-maculato.—Long. ant. ♂ 3'', ♀ 2'' 6''', corp. ♂ 2''. ♀ 3''. Exp. alar. ♂ 2'' 9'''. ♀ 3'' 6'''.

Habitat in Brasiliâ. In coll. DD. Children et Hope, et Mus. Brit.

P. flavo-maculatum, n.

Nigrescenti-brunneum; thorace flavo-maculato, subtus virescenti; tegminibus margine anteriori, lineâ mediâ, margineque posteriori, viridescentibus; alis obscuro-hyalinis; areâ costali nervis longitudinalibus viridibus; pedibus viridescentibus.—Long. ant. 2'' 3'', corp. 2'' 6'''. Exp. alar. 2'' 7'''.

Habitat in Brasiliâ. In coll. D. Children.

P. Bennettii, Curtis.

Capite thoraceque viridibus, nigro-lineatis; tegminibus areâque costali æruginosis, margine anteriori et nervis nigris; alis nigrescentibus; abdomine pedibusque nigris, femoribus lineis longitudinalibus viridibus elevatis.—Long. ant. 1'' 9''', corp. 2''. Exp. alar. 3'' 2'''.

Habitat in Columbiâ. In coll. D. Curtis, "à Dom. E. Bennett communicatum."

P. unicolor, Curtis.

Rufescenti-brunneum; mesothorace scabro; tegminibus in medio elevatis; alis cinereis, apice obscuris; pedibus longis, lineis elevatis striatis; antennis luridis, articulorum apicibus nigris.—Long. ant. , corp. . Exp. alar. .

Habitat in Columbiâ. In coll. D. Curtis.

P. corniceps, n.

Nigrescenti-brunneum; capite bicorni auriformi, dentato; thorace scaberrimo, mesothorace anticè bispinoso; tegminibus longis, juxta basin elevatis, reticulatis; alis subhyalinis, cinereis, nervis brunneo-nigris; areâ costali basi carneâ, reticulatâ; abdomine piceo; pedibus (anticis casu deficientibus), femoribus mediis dentatis, posticis vix dentatis, tibiis simplicibus.—Long. ant. ? corp. ? Exp. alar. 4'' 7'''.

Habitat in Demerarâ. In coll. auct.

P. armatum, n.

Obscurè brunneum; capite anticè fasciis duabus tuberculatis; mesothorace anticè gibbo, fasciis quatuor spinarum armato; tegminibus areâque costali brunneis, reticulatis; alis hyalinis, pallidè rubris; pedibus nigro-brunneis, albo-fasciatis.—Long. ant. 1" 6"', corp. 2" 2"'. Exp. alar. 3" 1"'.
 Habitat in Demerarâ. In coll. auct.

P. maculatum, n.

Capite thoraceque flavo-brunneis, strigis brunneis; tegminibus in medio spinâ armatis; alis hyalinis fuscis, margine exteriori obscuro; areâ costali flavo-brunneâ, brunneo-maculatâ; pedibus brunneis, fasciis albo-brunneis.—Long. ant. 2" 11"', corp. 2" 1"'. Exp. alar. 2" 11"'.
 Habitat in Brasiliâ. In coll. D. Children.

P. Servillii, n.

Viride; antennarum articulis quinque basalibus annulatis apice albis; capite spinis duabus, acutis; tegminibus nigrescentibus, viridipunctatis, juxta apicem spinosis; alis nigris, viridi-reticulatis; pedibus viridibus nigro-annulatis.—Long. ant. 3" 3"', corp. 2" 8"'. Exp. alar. 3" 6"'.
Phasma annulata, *Serv. Ann. des Sci. Nat.* xxii. 58. *Guer. Icon. Ins. pl.* 53. f. 1. *Griff. An. Kingd. pl.* 110. f. 1.
 Habitat in Brasiliâ.

P. ambiguum, n.

Cinereum; tegminibus nigris, spinâ in margine anteriori; areâ costali alisque fulvis, margine cinereo; corpore nigro.—Long. ant. 3" 3"', corp. 3" 5"'. Exp. alar. 4" 5"'.
Phasma ambigua, *Stoll, Spectr. pl.* 25. f. 98.
 Habitat —?

P. acuticorne, n.

Pallide viride, nigro reticulatum et fasciatum; antennis nigris, albo-annulatis; capite bicorni, cornubus brevibus, acutis; mesothorace subscabro; tegminibus (longis in medio elevatis) areâque costali fasciis obscuris, interruptis; alis nigrescentibus.—Long. ant. 3", corp. 3" 4"'. Exp. alar. 5".
 Habitat in Americâ Æquinoctiali. In coll. auct.

P. lineare, n.

"Fuliginosum; mesothorace tereti glabro; tegminibus basi aristato spinosis; alis brunneis, extus maculis oblongis fuscis; abdomine subtus griseo." (*Licht.*)—Long. ant. 3" 4"', corp. 3" 2"'. Exp. alar. 4" 5"'.
Phasma linearis, *Stoll, Spectr. pl.* 8. f. 27.
Phasma umbretta, *Licht. Linn. Trans.* vi. 14.
 Le double Epine brun, *Stoll, p.* 24.
 Habitat in Surinam.

Gen. XV. XEROSOMA, *Serv.*

Tegmina minima, ovalia; Alæ mediocres, abdomine tertiâ parte

breviores; Abdomen sublatum, tuberculatum, rugosum; Thorax sublatum, tuberculatus; prothorax mesothorace dimidio longior.

Habitat in Brasiiliâ.

X. canaliculatum, Serv.

Nigrescenti-brunneum; capite brunneo, medio profundè canaliculato, ad latera tuberculato; tegminibus viridibus, rugosis; alis brunneis albo-maculatis; femoribus dentatis.—Long. ant. ? corp. ? Exp. alar. ?

Xerosoma canaliculatum, *Serv. Ann. des Sci. Nat.* xxii. 61.

Habitat in Brasiiliâ.

Gen. XVI. DINELYTRON, n.

Tegmina linearia, alarum dimidium longitudine superantia; Alæ in utroque sexu abdominis fere longitudine; Abdomen maris filiforme, fœminæ cylindricum, supra convexum, subtus planum; Pedes subbreves præsertim anteriores, marginibus subcompressis.

Habitant in Brasiiliâ.

D. Hipponax, n.

Cinereum; prothorace spinis duabus; tegminibus basi areâque costali, albis, viridi- et brunneo-reticulatis; alis albidis, maculis interruptis nigrescentibus.—Long. ant. , corp. . Exp. alar.

Habitat in Brasiiliâ. In coll. D. Westwood.

D. grylloides, n.

Pallide brunneum; tegminibus areâque costali griseis, hâc basi pallidiori; alis albedo-hyalinis, apice obscuris.—Long. ant. , corp. . Exp. alar. .

Habitat in Brasiiliâ. In coll. Soc. Zool.

Gen. XVII. PRISOPUS, *Lep. et Serv.*, *Serv.*

Martis, *Oliv.* *Phasma*, *Stoll.* *Phasmata* §§ *depressa*, *Licht.*
Phasma II., *Latr.*

Tegmina longa, subangustata, alis tertiâ parte breviora; Alæ in utroque sexu abdominis longitudine, areâ costali latâ; Abdomen sublatum, supra convexum, subtus planum; Pedes breves, membranaceo-dilatati, præsertim anteriores, dentati ciliatique; Caput quadratum anticè planum, posticè gibbosum, spinosum; Antennæ mediocres, setaceæ.

Habitant in Indiâ Orientali.

P. flabelliformis, n.

Capite spinoso, albedo; mesothorace brevi, depressiusculo, multico; tegminibus viridibus, apice rubris; alis cinereis, fusco-undatis; areâ costali fusco-maculatâ, apice rubrâ; pedibus brunneis, anticis membranaceis, ciliatis.—Long ant. 1" 9''' , corp. 3" 3''' . Exp. alar. 4" 9''' .

Phasma flabelliformis, *Stoll, Spectr. pl.* 18. f. 65.

Mantis sacrata, *Oliv. Encyc. Meth.* vii. 639.

Phasma Dracunculus, *Licht. Linn. Trans.* vi. 16.

Prisopus sacratus, *Serv. Ency. Meth.* x. 444. *Serv. Ann. des Sci. Nat.* xxii. 63.

Le Dragon d'Amboine, *Stoll*, p. 53.

Habitat in Amboinâ.

P. Nympha, n.

(Pupa.) Brunneus; thorace albo-maculato, pedibus omnibus membranaceis, ciliatis, nigro-annulatis.—Long. ant. 2'' 2''', corp. 2'' 3''' Exp. alar. ?

Phasma Nympha, *Stoll, Spectr. pl.* 5. f. 18.

Mantis Draco, *Oliv. Encyc. Meth.* vii. 636.

Phasma Dracunculus, pupa, *Licht. Linn. Trans.* vi. 16.

Prisopus Draco, *Lep. et Serv. Encyc. Meth.* x. 444. *Serv. Ann. des Sci. Nat.* xxii. 63.

Le petit Dragon, *Stoll*, p. 14.

Habitat in Javâ.

P. Orhtmanni, n.

"Thorace brevi, teretiusculo, subbiarticulato; tegminibus mediocribus, ovatis, oblongis; alis rotundatis; areâ costali concolori griseofuscâ, abdomine brevior; pedibus anticis latissimis, omnibus membranaceis, marginato-ciliatis." (*Licht.*)—Long. ant. 7''', corp. 2'' 4''' Exp. alar. 3''.

Phasma Orhtmanni, *Licht. Linn. Trans.* vi. 17. pl. 2. f. 1.

Habitat in Indiâ Orientali.

P. manicatus, n

"Tegminibus brevissimis, basi denticulato, elevato; femoribus anticis membranaceis." (*Licht.*)—Long. ant. ?, corp. ? Exp. alar. ?

Mantis linearis, *Fabr. Ent. Syst.* ii. 16. *Oliv. Encyc. Meth.* vii. 634.

Phasma linearis, *Fabr. Ent. Syst. Suppl.* 189.

Phasma manicatum, *Licht. Linn. Trans.* vi. 17.

Habitat in Indiâ Orientali.

"Antecedenti proxime adfine atque ejus forte mas." (*Licht.*)

Gen. XVIII. PLATYTELUS, n.

Prisopus, *Westw. MSS.*

Mas ignotus.

Fœmina, Tegmina longa, alarum dimidium longitudine superantia, prope basin elevata; Alæ (in utroque sexu?) abdominis longitudine; Abdomen sublatum, segmentis sex ultimis planis, ad latera dilatatis irregularibus; Pedes mediocres, dilatati, dentati, femoribus anterioribus apice filamentis duobus hirsutis, tibiis posticis apice spinâ curvatâ, armatâ; Thorax brevis, latus; Caput subquadratum, spinosum; Antennæ breves, setacæ.

Habitat in Americâ Æquinoctiali.

P. horridus, n.

Obscure brunnescenti-niger; tegminibus pallidioribus; alis pal-

lide griseis, nigro-maculatis; pedibus rufescentibus.—Long. ant. ,
corp. . Exp. alar. .

Prisopus horridus, *Westw. MSS.*

Habitat in Columbiâ. In coll. D. "Leigh."

Gen. XIX. ECTATOSOMA, n.

Phasma, *MacL.*

Mas, Tegmina parva, ovalia; Alæ abdominis longitudine; Abdomen subfiliforme, articulis quinto ad septimum dilatatis, apice subcompressum, recurvatum; Pedes mediocres, trigoni, marginibus, præsertim exterioribus, dilatatis; Pro- mesothoraxque angustati, spinosi, hoc spinis duabus magnis prope prothoracem; Caput parvum, pyramidatum, spinosum; Antennæ sublongæ, setacæ, hirsutæ.

Fœmina subaptera; Abdomen latius; Pedes magis dilatati; Antennæ breves, hirsutæ.

Habitant in Australiâ.

*E. Hopii**, n.

♂. Viride; tegminibus areâque costali viridibus, ultimâ undato-fasciatâ; alis hyalinis, nigrescentibus, fasciis interruptis subalbidis; pedibus nigro-fasciatis; tarsorum anticorum articulo primo elongato, paulum dilatato.—Long. ant. ♂ 1" 10"', corp. ♂ 3" 10"'. Exp. alar. ♂ 5" 6"'.
♀. Viride; tegminibus areâque costali viridibus, ultimâ undato-fasciatâ; alis hyalinis, nigrescentibus, fasciis interruptis subalbidis; pedibus nigro-fasciatis; tarsorum anticorum articulo primo elongato, paulum dilatato.—Long. ant. ♀ 1" 10"', corp. ♀ 3" 10"'. Exp. alar. ♀ 5" 6"'.
Habitat in Australiâ. In coll. D. Hope.

Extatosoma Hopei, *G. R. Gray, Ent. Austr. i. pl. 8. f. 1.*

Habitat in Australiâ. In coll. D. Hope.

E. tiaratum†, n.

(Pupa? ♂.) Viride; tegminibus alisque?; abdominis segmentis supra laminis binis dentatis in medio armatis, marginibus lateralibus denticulatis, tarsorum anticorum articulo primo brevi, dilatato, erecto.—Long. ant. 9"', corp. 3" 6"'. Exp. alar. ?

Phasma tiaratum, *MacLeay, King's Survey of the Coast of Australia, App. ii. 455. tab. B. f. 3, 4. ♀.*

Extatosoma tiaratum, *G. R. Gray, Ent. of Austr. 1. pl. 8. f. 2.*

Habitat in Australiâ, (Paramatta). In coll. DD. Hope et Dunn.

Gen. XX. PHYLLIUM, *Illig., Latr., Lep. et Serv., Serv.*

Mantis, *Fabr., Oliv.* *Pteropus*, *Thunb.* *Phasma*, *Stoll, Licht.*

Mas, Tegmina subbrevia, subhyalina; Alæ lineares, abdominis

* I am unacquainted with the female of this species, but no doubt it may be easily distinguished, by wanting the two rows of dentated laminæ on the upper surface of the abdomen, as in the subsequent species; and also by the length of the first joint of the anterior tarsi.

† The above description is taken from a male pupa, which is represented in the 'Entomology of Australia,' as I have not yet met with the perfect state of that sex: the larva of the same sex is about two inches in length, and of a light reddish brown, covered with tubercles. The imago female is figured by Mr. MacLeay, as referred to above: it is about four inches and seven lines in length, of the same colour as my figure, but much more covered with spines, especially on the under surface.

fere longitudine ; Abdomen planum, dilatatum, pyriforme ; Pedes mediocres, dilatatissimi, præsertim anteriores ; Mesothorax brevis, subtriangularis, lateribus dentatis ; Caput subquadratum, depressum ; Antennæ longæ.

Fœmina, Tegmina abdominis fere longitudine ; Alæ conspicuæ ; Abdomen latius ; Antennæ breves.

Habitant in Indiâ Orientali.

P. siccifolium, Latr.

Viride ; (capite thoraceque brunneis) ; alis albido-hyalinis.—Long. ant. ♂ corp. 2'' 8''' . Exp. alar. 3'' 8''' . ♀ Long. corp. 4'' 2''' . Exp. corp. 1'' 4½''' .—Long. corp. 3'' 5''' . Exp. corp. 1'' 2''' .—Long. corp. 3'' 3''' . Exp. corp. 1'' 6''' .—Long. corp. 3'' 2'''* . Exp. corp. 1'' 7½''' .

Mantis siccifolia, *Fabr. Ent. Syst.* 276. *Linn. Syst. Nat. Ed. Gmel. p.* 2049. *Oliv. Ency. Méth.* vii. 626.

Phasma siccifolia, *Stoll, Spectr. pl.* 7. *Lam. An. sans Vert.* iv. 253.

Phyllium brevicorne, *Latr. Gen. Crust. et Ins.* iii. 89. ♀.

Phyllium siccifolium, *Latr. ibid. Lep. et Serv. Ency. Méth.* x.

115. *Latr. Regne An.* v. 179. *Serv. Ann. des Sci. Nat.* xxii. 63.

Pteropus siccifolius, *Thunb. Mém. de l'Acad. Imp. des Sc. de St. Pétersb.* v. 286.

Phasma citrifolium, *Licht. Linn. Trans.* vii. 17.

La feuille de Citron, *Stoll, p.* 21.

Dry leaf Mantis, *Shaw.*

Walking leaf, *Edwards.*

Icon. *Ræsel, Ins.* ii. pl. 17. f. 4, 5. *Edwards, pl.* 258. *Donovan's Ins. Ind. pl.* . f. . *Dict. d'Hist. Nat.* xxvi. pl. G. 42. f. 4. *Dumer. Consid. Cl. Ins.* pl. 23. f. 2. *Shaw's Misc. pl.* 119. *Id. Gen. Zool.* vi. 1. pl. 47. *Encyc. Meth. Ins.* pl. 133. f. 2. *Encyc. Portative, Orth.* pl. 27. f. 1.

Habitat in Indiâ Orientali. In coll. Mus. Brit. &c.

P. bioculatum, n.

Viride ; tegminibus alisque hyalinis, linearibus ; abdomine maculis duabus nigro-ocellatis rotundatis, medio hyalinis.—Long. ant. ♂ ? corp. 2'' 4''' . Exp. alar. 3'' 3''' . Long. corp. ♀ 3'' 2''' . Exp. corp. 1'' 7''' .

Phyllium bioculatum, *G. R. Gray, in Griff. An. Kingd.* ii. 191. pl. 63. f. 3.

Habitat in Indiâ Orientali. In coll. Mus. Brit. et D. Hope.

* As the specimens and figures which I have examined, vary much in size and outline, I am induced to consider that there probably exist two species, which have hitherto been confounded under one denomination.

Thus, the Ceylonese specimen above referred to and also the figure in Dumeril's '*Considérations*' are probably distinct, on account of their being shorter and much broader in proportion than the figures in Stoll and Donovan and several specimens, which I have examined, which are longer and not so broad by several lines ; as may be seen by referring to the measurements given above.

P. Donovanii, n.

(Pupa.) Viride; abdomine medio maculis duabus hyalinis, subquadratis.—Long. ant. ? corp. 1" 5^{'''}. Exp. corp. 6³/₄"^{'''}.

*Donov. Ind. Ins. pl. f. **.

Habitat — ?

P. chlorophyllum†, n.

Pallide flavum; abdomine subcymbiformi.—Long. ant. 1" 8^{'''}, corp. 3". Exp. alar. 3" 11^{'''}.

Phasma chlorophyllia, *Stoll, Spectr. pl. 23. f. 89.*

Phyllium Stollii, *Lep. et Serv. Ency. Meth. x. p. 115.*

La Patte feuillette, *Stoll, p. 69.*

Habitat — ?

P. Gorgon‡, n.

Cinereum; abdomine sublineari, articuli tertii basi, quartique apice reliquis latioribus.—Long. ant. ? corp. 4" 2^{'''}. Exp. corp. 1" 2¹/₂"^{'''}.

Habitat — ?

P. siccifolium, *Perry, Arc. of Sci. i. pl.* .

Gen. XXI. TROPIDODERUS, n.

Trigonoderus, *G. R. Gray.*

Tegmina longa, abdominis dimidium æquantia; Alæ in utroque sexu æquales, areâ costali latâ, subarcuatâ; Abdomen latum, apice attenuatum, supra convexum, subtus planum, apice foliolis duobus brevibus, ovipositore brevi, gibboso; Pedes mediocres, anteriores longi, lineis elevatis striatis, femoribus quatuor posticis externè dilatatis, margine dentatis; Mesothorax brevis, subtriangularis, in medio carinatus, lateribus declivibus; Caput subplanum, oblongum; Antennæ breves, setaceæ, maris longæ.

Habitat in Australiâ.

T. Childreni, n.

Capite prothoraceque albidis; mesothorace scabro, subflavo; tegminibus viridibus; alis hyalinis, albis, nervis flavescentibus; areâ costali viridi juxta basin flavâ, basi violascenti; abdomine sulphureo, marginibus lateralibus viridibus; pedibus glaucis.—Long. ant. ♀ 10", corp. ♀ 5" 5^{'''}. Exp. alar. ♀ 7" 5^{'''}.

Trigonoderus Childreni, *G. R. Gray, Ent. of Austr. 1. pl. 3. f. 1.*

Habitat in Australiâ. In coll. DD. Children et Hope.

* A pupa; and as this state in the *Phasmidæ* is always equal in size to the imago of the same species, I am induced to consider this as distinct, on account of its small size in comparison with the others.

† Considered as the male of a distinct species by Latreille, in the '*Regne Animal*'.

‡ A specimen agreeing with the figure referred to was in the collection of the late Mr. Haworth; I have therefore thought it right to form it into a species.

Gen. XXII. PODACANTHUS, *n.*

Tegmina longa, alarum dimidium æquantia ; Alæ in utroque sexu æquales ; Abdomen cylindricum, fœminæ paulum incrassatum, apice attenuatum, foliolis duobus longis, angustatis, ovipositore brevi, gibboso ; Pedes subbreves, anteriores lineis elevatis striatis, quatuor posticis subtus dentatis ; Mesothorax brevis, angustatus, spinosus ; Caput subquadratum, anticè planum, posticè gibbosum ; Antennæ subbreves, setacæ.

Habitat in Australiâ.

P. Typhon, *n.*

Viridi-flavus ; tegminibus viridibus, subtus basi roseis ; alis hyalinis albis, nervis roseis ; areâ costali viridi, basi et subtus roseâ ; abdomine flavo ; pedibus carneis.—Long. ant. ♂ 1" 9^{'''}. ♀ 1" 6^{'''}, corp. ♂ 4" 1^{'''}. ♀ 5" 4^{'''}. Exp. alar. ♂ 5" 9^{'''}. ♀ 8" 6^{'''}.

Podacanthus Typhon, *G. R. Gray, Ent. of Austr. i. pl. 2. f. 1.*
Habitat in Australiâ. In coll. DD. Children, Hope, et Mus. Brit.

Gen. XXIII. XERODERUS, *n.*

Tegmina parva, ovalia, in medio elevata ; Alæ in utroque sexu abdominis fere longitudine ; Abdomen maris subfiliforme, fœminæ paulum incrassatum, basi depressum, apice attenuatum, segmenti cujus vis in utroque sexu, lateribus in processum subtriangularem productis ; Pedes breves, spinosi, præsertim intermedii ; Mesothorax longus, maris angustatus, fœminæ vix longior quam latus, supra spinosus, subtus lævis ; Caput quadratum, planum ; Antennæ mediocres, setacæ.

Habitat in Australiâ.

X. Kirbii, *n.*

Cinereus ; thorace depresso, spinoso ; tegminibus areâque costali nigro-reticulatis, basi nigris ; alis purpurascenti-coccineis, margine lato nigrescenti.—Long. ant. ♂ 1", corp. ♂ 2" 8^{'''}. ♀ 4". Exp. alar. ♂ 3" 5^{'''}. ♀ 5" 6^{'''}.

Habitat in Australiâ. In coll. D. Hope.

Gen. XXIV. HETEROPTERYX, *n.*

Phasma, *Shaw.*

Mas ignotus.

Fœmina, Tegmina magna, subovalia ; Alæ brevissimæ, subsecuriformes ; Abdomen subplanum, apice attenuatum, ovipositore longo, cymbiformi ; Pedes anteriores breves, posteriores longiores, femoribus crassis, tibiis gracilibus, spinosis ; Pro- mesothoraxque subquadrati spinosi ; Caput quadratum, spinosum.

Habitat in Indiâ Orientali.

H. dilatata, *n.*

Mesothorace abdomineque brunneis ; tegminibus viridibus ; alis pallide coccineis, hyalinis, apice viridibus, nervis brunneis ; pedibus

olivaceis; abdomine tibiisque posticis spinosis.—Long. ant. ♀ , corp. 6'' 3'''. Exp. alar. 3'' 6'''.

Phasma dilatatum, *Shaw*, *Linn. Trans.* iv. pl. 18. *Id. Misc.* pl. 347, 348. *Id. Gen. Zool. Ins.* vi. t. 45. & 46.

Habitat in Indiâ.

Gen. XXV. DIAPHERODES, n.

Mantis, *Gmel.*, *Fabr.*, *Drury*, *Latr.* *Phasma*, *Fabr.*, *Licht.*, *Pal. Beauv.* *Cyphocrana*, *Lep. et Serv.*, *Serv.*

Mas. Tegmina brevia, ovalia, in medio obtusè elevata; Alæ longæ, sublineares, abdominis ferè longitudine; Abdomen subfiliforme; Pedes mediocres, lineis elevatis striatis, femoribus quatuor posterioribus angulatis; Mesothorax longus, spinosiusculus; Caput parvum, posticè gibbosum, cornutum; Antennæ longissimæ, setaceæ.

Fæmina, subaptera; Tegmina brevia sed majora alis, quæ rudimentales; Abdomen incrassatum, apice attenuatum, ovipositore longo, cymbiformi; Mesothorax fortiter spinosus; Pedes plùs minùs angulati aut serrati.

Habitant in Indiâ Occidentali.

D. Gigas, n.

Mas, olivaceus; prothorace mesothoraceque scaberrimis; tegminibus juxta basin elevatis; alis albis, areâ costali brunneâ, apice pallidiori, nervis nigro-brunneis; pedibus anticis lineis elevatis striatis, femoribus quatuor posterioribus subtus angulatis, omnibus serratis.—Long. ant. 2'' 9''', corp. 5''. Exp. alar. 4'' 4'''.

Fæmina, prasina; thorace spinoso, spinis lateralibus nigris; tegminibus viridibus; femoribus crassis, posticis subtus angulatis.—Long. ant. ? corp. 7'' 9'''.

Mantis gigantea, *Gmel. Syst. Nat. ed.* xiii. p. 2055.

Mantis angulata, *Fabr. Ent. Syst.* ii. 13.

Phasma angulata, *Fabr. Ent. Syst. Suppl.* 187. *Latr. Gen. Crust. Ins.* iii. 87.

Mantis Gigas, *Drury, Ins.* ii. pl. 50.

Phasma angulatum, *Licht. Linn. Trans.* vi. 11.

Cyphocrana cornuta, *Lep. et Serv. Ency. Meth.* x. 445.

Cyphocrana angulata, *Serv. Ann. des Sci. Nat.* xxii. 61.

Habitat in Indiâ Occidentali, (St. Vincent). In coll. D. Children.

Larva, Antennis brevibus, crassis, brunneo flavoque annulatis; capite gibboso, flavo, brunneo-maculato; abdomine flavo, lineâ longitudinali brunneâ; pedibus brevibus, crassis, lineis elevatis striatis, flavis, apice brunneis.—Long. 8½'''.

D. glabricollis, n.

Mas, incognitus.

Fæmina, viridis; mesothorace dorso glabro, anticè spinis quatuor, marginibus scabro; tegminibus alisque viridibus; pedibus

brevibus, lineis elevatis striatis, posticis vix angulatis.—Long. ant. 1" 6"', corp. 5" 6'''.

Habitat —? In coll. Mus. Brit.

D. spinipes, n.

Maris pupa, viridis; corpore pallidiori; capite thoraceque scaberrimis; femoribus posterioribus quatuor angulatis.—Long. ant. 2", corp. 5" 3'''.

Phasma angulata, *Pal. Beauv. Ins. pl. 14. f. 4. Ency. Port. Ins.*

Orth. pl. 27. f. 2.

Habitat in Indiâ Occidentali, (St. Domingo.)

D. pulverulentus, n.

Mas, incognitus.

Fœmina, brunneo-nigra, pulvere albo superinduta; thorace scaberrimo; pedibus brevibus, intermediis paulò dilatatis, femoribus posticis angulatis.—Long. ant. ? corp. 4" 9'''.

Habitat —? In coll. Mus. Brit.

D. scabricollis, n.

Maris pupa, flavescens; lateribus fasciis albis interruptis; pro mesothoraceque spinis nigris, acutis; pedibus subtùs omnibus angulatis.

Fœmina, subcylindrica; pro mesothoraceque spinis minoribus.—Long. ant. ♂ , ♀ , corp. ♂ , ♀ .

Habitat —? In coll. Soc. Linn.

D. dubius, n.

Mas, ignotus.

Fœmina, cylindrica, nigrescens, pulvere albo superinduta; pro mesothoraceque spinis minoribus.—Long. ant. , corp. .

Habitat in Cayenne. In coll. Soc. Linn.

Gen. XXVI. APLOPUS, n.

Phasma, *Stoll. Cyphocrana*, *Serv.*

Mas, ignotus.

Fœmina. Tegmina minora, ovalia; Alæ breves, abdominis segmentum primum tantum æquantes; Abdomen longum, cylindricum, ovipositore longo, cymbiformi; Pedes mediocres, subdentati; Mesothorax longus, vix spinosus; Caput subgibbosum, cornutum; Antennæ longæ, setacæ.

Habitat in Indiâ Orientali.

A. micropterus, n.

Mas, ignotus.

Fœmina, flavescens; capite bicorni; thorace scabro; tegminibus alarumque areâ costali nigrescentibus, ultimâ maculâ juxta basin albâ; alis flavescentibus, nigro-fasciatis; pedibus quatuor posterioribus dentatis.—Long. ant. 2", corp. 5" 4'''.

Phasma angulata, *Stoll, Spectr. pl. 21. f. 77.*

Cyphocrana microptera, *Lep. et Serv. Ency. Meth.* x. 445. *Serv. Ann. des Sci. Nat.* xxii. 61.

Spectre à Ailes petites, *Stoll, p.* 61.

Habitat in Amboinâ.

Gen. XXVII. CYPHOCRANA, *Serv.*

Mantis, *Linn., Fabr.* Phasma, *Stoll, Fabr.*

Tegmina longa, alas semitegmentia; Alæ in utroque sexu ferè abdominis longitudine; Abdomen longum, cylindricum, (apice foliolis tribus brevibus); Pedes mediocres, dentati; Mesothorax longus, cylindricus, plus minus spinosus; Caput magnum, posticè gibbosum; Antennæ subbreves, setaceæ.

Habitant in Indiâ Orientali.

C. Beauvoisi, *Serv.*

Fusca; thorace scabro; tegminibus elongatis, viridibus; alis hyalinis; areâ costali abdomineque viridibus, ultimo nigro reticulato; pedibus spinosis.—Long. ant. , corp. 7" 1". Exp. alar. 7" 6".

Phasma Gigas, *Pal. Beauv. Ins. Am. et Afr.* 109. *pl.* 13. *f.* 1.

Cyphocrana Beauvoisi, *Serv. Ann. des Sci. Nat.* xxii. 60.

Habitat — ?

C. Gigas, *Serv.*

Viridis; mesothorace teretiusculo, scabro; tegminibus areâque costali viridibus, planis, ovalibus; alis obscurè testaceis, fusco-undatis: pedibus spinosis, flavo-viridibus.—Long. ant. , corp. 6" 7". Exp. alar. 7".

Mantis Gigas, *Linn. Syst. Nat.* ii. 689. *Fabr. Ent. Syst.* 274. *Oliv. Ency. Méth.* vii. 625. *Shaw, Misc. pl.* 43.

Phasma Gigas, *Stoll, Spectr. pl.* 2. *f.* 5. *Fabr. Ent. Syst. Suppl.* 187. *Donov. Ins. Ind. pl.* . *f.* . *Licht. Linn. Trans.* vi. 11.

Spectrum Gigas, *Lam. An. sans Vert.* iv. 254.

Cyphocrana Gigas, *Lep. et Serv. Ency. Méth.* x. 445. *Serv. Ann. des Sci. Nat.* xxii. 60.

Le Géant, *Stoll, p.* 6.

Great Mantis, *Shaw.*

Habitat in Amboinâ.

C. Empusa, *n.*

"Mesothorace tereti granulato; tegminibus medio gibbis dente elevato, obtuso, dilutè testaceis, basi et apice fuscis; pedibus spinulosis." (*Licht.*)—Long. ant. , corp. 7". Exp. alar. 7".

Phasma Gigas, *Stoll, Spectr. pl.* 1. *f.* 1.

Phasma empusa, *Licht. Linn. Trans.* vi. 12.

Cyphocrana Gigas, *Lep. et Serv. Ency. Méth.* x. 445.

Le Géant, *Stoll, p.* 1.—*Pl. enl. t.* 65. *f.* 1.

Habitat in Indiâ Orientali.

Gen. XXVIII. PLATYCRANA, n.

Mantis, *Linn.*, *Fabr.*, *Drury*, *Oliv.* Phasma, *Stoll*, *Fabr.*, *Latr.*, *Licht.*,
Pal. Beauv., *Curtis MSS.* Cyphocrana, *Lep. et Serv.*, *Serv.*

Tegmina parva, ovalia; Alæ maris longæ, abdominis ferè longitudine, fœminæ abdominis dimidium subæquantes; Abdomen maris subfiliforme, fœminæ cylindricum; Pedes mediocres, plus minus dentati; Mesothorax cylindricus, plus minus spinosus; Caput parvum, quadratum, subplanum; Antennæ longæ, setacæ.

Habitant in utroque Continente.

P. viridana, n.

Viridis; mesothorace tereti, maris scabro, fœminæ glabro; tegminibus areâque costali viridibus, basi coccineis; pedibus brevibus, submuticis, femoribus posticis spinosis.—Long. ant. ♂ , ♀ , corp. ♂ 3" 5"', ♀ 6" 1"'. Exp. alar. ♂ 5", ♀ 5" 8"'.
 Mantis Gigas, *Linn.* *Houtt. Nat. Hist.* x. pl. 79. f. 1.
 Phasma Jamaicensis, *Stoll, Spectr.* pl. 6. f. 20, 21.
 Mantis viridana, *Oliv. Ency. Méth.* vii. 636.
 Mantis viridis, *Donov. Ind. Ins.* pl. . f. .
 Phasma edule, *Licht. Linn. Trans.* vi. 13.
 Cyphocrana viridana, *Serv. Ann. des Sci. Nat.* xxii. 60.
 Le Spectre verd, *Stoll*, p. 15.

Habitat in Indiâ Orientali.

P. maculata, n.

Viridis; mesothorace cylindrico, maris glabro, fœminæ scabro; tegminibus ovatis angulatis; alis fuscis, hyalino fenestratis, basi rubris; femoribus omnibus nigro-spinosis.—Long. ant. ♂ 2" 2"', ♀ 1" 6"', corp. 5" 2"', ♀ 6" 6"'. Exp. alar. 6" 2"', ♀ 6" 4"'.
 Mantis cylindrica, *Linn. Syst. Nat. Ed. Gmel.* p. 2048. *Oliv. Ency. Méth.* vii. 626.
 Mantis maculata, *Oliv. Ency. Méth.* vii. 636.
 Mantis Necydaloïdes, *Fabr. Ent. Syst.* 274. *Oliv. Ency. Méth.* vii. 625.
 Phasma Necydaloïdes, *Stoll, Spectr.* pl. 4. f. 8, 11. *Fabr. Ent. Syst. Suppl.* 188. *Latr. Gen. Crus. Ins.* iii. 87. *Lep. et Serv. Ency. Méth.* x. 101.
 Spectrum Necydaloïdes, *Lam. An. sans Vert.* iv. 254.
 Phasma nævium, *Licht. Linn. Trans.* vi. 13.
 Cyphocrana maculata, *Lep. et Serv. Ency. Méth.* x. 445. *Serv. Ann. des Sci. Nat.* xxii. 61.
 Le Spectre à Aîles tachetées, *Stoll*, pp. 8 et 10.

Habitat in Amboinâ.

P. hectica, n.

"Mesothorace tereti, scabriusculo; tegminibus juxta basin spinosis; alis hyalinis, fusco-maculatis; pedibus angulatis, anticis spinosis." (*Licht.*)—Long. ant. , corp. 4" 11"'. Exp. alar. 3" 6"'.
 Phasma hecticum, *Licht. Linn. Trans.* vi. 14. pl. 1. f. 2.
 Habitat in Chinâ.

Habitat in Amboinâ.

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Habitat in Amboinâ.

P. punctata, n.

Mas, viridis, flavo-maculata; thorace scabriusculo, flavescente; tegminibus medio flavis, maculâ nigrâ; alis albido-hyalinis; areâ costali viridi, lineâ mediâ et maculis flavis; pedibus flavescentibus, nigro- et viridi-fasciatis; antennis longis, flavescentibus, nigro-annulatis.—Long. ant. 2'' 7''', corp. 2'' 6'''. Exp. alar. 3''.

Habitat in Indiâ Orientali. In coll. D. Children.

P. affinis, n.

Mas, viridis; thorace scabriusculo; tegminibus lineâ mediâ et maculâ flavis; alis albido-hyalinis, areâ costali lineâ flavâ; pedibus viridibus; antennis flavescentibus, nigro-annulatis.—Long. ant. 2'' 6''', corp. 2'' 7'''. Exp. alar. 2'' 9''.

Habitat in Indiâ. In coll. D. Children.

P. Rafflesii, n.

Cœrulescenti-viridis; maculâ inter oculos flavâ; mesothorace longo, gracili; tegminibus maculis duabus in medio albis; alis hyalinis, albis, coccineo-marginatis; abdomine basi sulphureo, apice cœruleo-viridi; (pedes carent sed basi flavi).—Long. ant. , corp. 2'' 2'''. Exp. alar. 2'' 7''.

Habitat in Sumatrâ. In coll. Soc. Zool.

P. rosea, n.

Viridis (aut rufescenti-brunnea); mesothorace tereti, glabro; tegminibus lanceolatis; alis roseis; areâ costali viridi; capite maculâ magnâ frontali fulvâ; pedibus flavis, femoribus dentatis.—Long. ant. 1'', corp. 3''. Exp. alar. 3'' 9''.

Pasma rosea, *Stoll, Spectr. pl.* 5. f. 17.

Mantis rosea, *Fabr. Ent. Syst.* ii. 16.

Pasma rosea, *Fabr. Ent. Syst. Suppl.* 190. *Latr. Gen. Crust. et Ins.* iii. 87. *Lep. et Serv. Ency. Méth.* x. 101.

Mantis erythroptera, *Oliv. Ency. Méth.* vii. 636.

Pasma roseum, *Licht. Linn. Trans.* vi. 14.

Pasma rosea, *Serv. Ann. des Sci. Nat.* xxii. 58.

Le Spectre à Ailes rouges, *Stoll, p.* 13.

Habitat in Indiâ Orientali.

P. annulipes, n.

Antennis nigrescentibus, albo-annulatis; capite flavo, nigro-lineato; thorace suprâ rufo, nigro-lineato, scabro, subtùs viridi-flavo; tegminibus viridi-flavis, margine interiore rufo-brunneo, in medio maculâ flavâ; alis pallidè roseis; areâ costali viridi-flavâ, lineis tribus longitudinalibus rufo-brunneis; abdomine lurido; pedibus flavis, quatuor posterioribus annulis rufo-brunneis.—Long. ant. 2'' 7''', corp. 2'' 6'''. Exp. alar. 3'' 1''.

Pasma annulipes, *Curtis MSS.*

Habitat in Indiâ Orientali. In coll. D. Curtis. "A Dominâ Murchison communicata."

P. curvipes, n.

Cinerea, gracilis; mesothorace tereti, glabro; tegminibus ovatis,

nigro-lineatis; alis hyalinis; femoribus anticis extrorsum divaricatis.
—Long. ant. 2" 3"', corp. 2" 1". Exp. alar. 2" 6'''.

Phasma curvipes, *Stoll, Spectr. pl.* 13. f. 52.

Mantis inflexipes, *Oliv. Ency. Méth.* vii. 641.

Phasma valgum, *Licht. Linn. Trans.* vi. 16.

Phasma inflexipes, *Serv. Ann. des Sci. Nat.* xxii. 58.

Le Spectre aux pieds de devant courbés, *Stoll, p.* 43.

Habitat in Chinâ. In coll. Auct.

P. Jamaicensis, n.

Viridis; tegminibus margine exteriori flavo; alis pallidè roseis.—

Long. ant. , corp. 3" 3'''. Exp. alar. 3" 7''.

Mantis Jamaicensis, *Fabr. Ent. Syst.* ii. 346. *Oliv. Ency.*

Méth. vii. 634. *Drury, Ins.* ii. pl. 49. f. 1.

Phasma Jamaicensis, *Fabr. Ent. Syst. Suppl.* 188. *Lep. et Serv. Ency. Méth.* x. 101.

Phasma edule, var. β ., *Licht. Linn. Trans.* vi. 13.

Cyphocrana Jamaicensis, *Lep. et Serv. Ency. Méth.* x. 445.

Habitat in Indiâ Occidentali.

P. reticulata, n.

Viridis; mesothorace teretiusculo scabro; tegminibus ovalibus, viridibus, fusco-undatis; areâ costali viridi, basi rubrâ; alis hyalinis fusco-reticulatis; pedibus tarsisque spinosis, femoribus anticis lineis elevatis striatis.—Long. ant. 1" 7''', corp. 6" 6'''. Exp. alar. 5" 3'''.

Phasma reticulata, *Pal. Beauv. Ins. Am. et Afr. pl.* 14. f. 5.

Habitat — ?

P. Stollii, n.

Fusca; alis fasciis pallidioribus interruptis, basi nigris.—Long. ant. 1" 18''', corp. 3" 8'''. Exp. alar. 5" 2'''.

Phasma reticulata, *Stoll, Spectr. pl.* 23. f. 85.

Habitat — ?

P. rugicollis, n.

Pallidè flavescenti-brunneus; pro et mesothorace scaberrimis, tuberculis nigris; tegminibus basi lineis brevibus duabus nigris; alis flavo-albis, fasciis interruptis et nervis juxta basin nigris, basi coccineis; abdomine nigrescente; pedibus lineis elevatis striatis, subhirsutis.—Long. ant. 2" 6''', corp. . Exp. alar. 4" 1'''.

Phasma rugicollis, *Curtis MSS.*

Habitat in Rio Janeiro. In coll. D. Curtis. "A Dom. Harris communicatus."

Gen. XXIX. ACROPHYLLA, n.

Phasma, *MacL., Lcach.* *Diura*, *G. R. Gray.*

Tegmina parva, aliquando in medio elevata; Alæ in utroque sexu æquales, abdominis dimidium longitudine æquantes, aliquandò longiores; Abdomen longum, cylindricum, foliolis duobus plùs minùs longis, ovipositore brevi; Pedes mediocres, plùs minùs dentati, spi-

nosi; Mesothorax longus, cylindricus, spinosus; Caput parvum, subplanum; Antennæ plûs minûs longæ, setacæ.

Habitant in Australiâ.

A. Goliath, n.

Cœrulescenti-viridis; mesothorace scabriusculo, flavo, lineâ mediâ cœrulescenti-viridi; tegminibus magnis, viridibus, maculâ lineâque rubro-albis, margine interiori sanguineo; alis hyalinis, glaucis, basi nervis sanguineis; areâ costali viridi, basi lineâ mediâ et subtûs sanguineis; abdomine flavescente viridi, articulis flavis, nigro-marginatis, foliolis brevibus, in medio carinatis, litteram V inversam referentibus.—Long. ant. , corp. $8\frac{1}{2}''$. Exp. alar. $8''$.

Diura Goliath, *G. R. Gray, Trans. Ent. Soc., part i. p. 45.*

Habitat in Australiâ. In coll. DD. Dunn et Curtis.

A. Titan, n.

Mas, subfiliformis; mesothorace scaberrimo.

Fœmina, cylindrica; mesothorace scabro. Subcinereo-fusca; tegminibus nigro-viridibus, testaceo-maculatis, maris margine anteriori albido, fœminæ maculâ in marginis antici medio magnâ, albidâ; alis nigro-fuscis, albo-maculatis; areâ costali nigrâ, testaceo-maculatâ; pedibus albo-cinereis, anticis trigonis angulo inferiori dentibus magnis rufis, superiori vix dentatis; foliolis duobus longis, trigonis, dentatis.—Long. ant. ♂ $1'' 7'''$, ♀ $1'' 9'''$, corp. ♂ $5'' 6'''$, ♀ $9'' 7'''$. Exp. alar. ♂ $6''$, ♀ $7'' 6'''$.

Phasma Titan, *MacLeay, in King's Survey of the Coast of Australia, ii. 454.*

Diura Titan, *G. R. Gray, Ent. of Austr. i. pl. 4.*

Habitat in Australiâ. In coll. D. Children, &c.

A. Enceladus, n.

Mas, subfiliformis; prothorace scabro; mesothorace scaberrimo.

Fœmina, cylindrica; pro et mesothorace scaberrimis; maris tegminibus brunneis in medio nigro-maculatis, margine anteriori flavo-viridi, fœminæ flavescenti-viridibus, margine posteriori nigro; alis nigrescentibus, albo-maculatis; areâ costali viridescenti-testacæâ, maculis nigris: foliolis duobus brevissimis, latis, apice dilatatis; pedibus anticis lineis elevatis striatis, quatuor posterioribus subtûs spinosis.—Long. ant. ♂ , ♀ , corp. ♂ $5'' 5'''$, ♀ $7''$. Exp. alar. ♂ $6'' 6'''$, ♀ $6'' 7'''$.

Habitat in Australiâ. In coll. D. Hope.

A. Chronus, n.

E flavescente subnigro-viridis; maris mesothorace scaberrimo, fœminæ vix scabro; tegminibus flavo- aut brunneo-viridibus, nervis flavescentibus; alis nigris, obscurè albo-maculatis; areâ costali brunneo-viridi, basi nervisque flavescentibus, lineis irregularibus nigris; foliolis duobus longis apice latioribus; pedibus mediocribus, quatuor posterioribus dentatis; pedum lateribus griseo-reticulatis.—Long. ant. ♂ , ♀ $11'''$, corp. ♂ , ♀ $6'' 11'''$. Exp. alar. ♂ , ♀ $2'' 11'''$.

Diura Chronus, *G. R. Gray, Ent. of Austr. pl. 5. f. 2.*

Habitat in Australiâ. In coll. D. Children, &c.

A. Briareus, n.

Brunnea; mesothorace vix scabro; tegminibus brunneis, nervis flavis; alis nigris, maculis albis, quadratis; areâ costali brunneâ, nervis flavis; foliolis duobus brevissimis, latis; pedibus brevibus, quatuor posterioribus subtus spinosis.—Long. ant. ♂ , ♀ , corp. ♂ , ♀ 5'' 9'''. Exp. alar. ♂ , ♀ 2'' 5'''.

Diura Briareus, *G. R. Gray, Trans. Ent. Soc. part i. p. 45.*

Habitat in Australiâ. In coll. D. Dunn.

A. Japetus, n.

Flavo-viridis; pro et mesothorace scaberrimis; tegminibus mediocribus; alis nigris, albo-maculatis; areâ costali viridi; foliolis duobus brevibus, latis; pedibus mediocribus, dentatis.—Long. ant. ♀ 9''', corp. 5'' 9'''. Exp. alar. 3'' 1'''.

Diura Japetus, *G. R. Gray, Ent. of Austr. i. pl. 5. f. 1.*

Habitat in Australiâ (Melville Island). In coll. D. Hope.

A. Osiris, n.

Pupa, pallidè brunnea; mesothorace scaberrimo; foliolis duobus brevissimis, trigonis; pedibus (anticis casu deficientibus) dentatis, intermediis et posticis brevibus, lineis elevatis striatis; tibiarum apice et basi parùm dilatatis.—Long. ant. , corp. 4'' 6'''. Exp. alar. .

Diura Osiris, *G. R. Gray, Trans. Ent. Soc. part i. p. 46.*

Habitat in Australiâ. In coll. D. Hope.

A. Acheron, n.

Larva, Albida, brunneo admixta; thorace subglabro; foliolis longis, sublatis; pedibus brevioribus, anticis foliato-compressis, intermediis et posticis femoribus subcrassis, ultimis spinosis; tibiis internè spinis in medio duabus latis armatis; tarsorum articulo primo erecto dilatato.—Long. ant. , corp. 4'' 8'''. Exp. alar. .

Diura Acheron, *G. R. Gray, Trans. Ent. Soc. part i. p. 46.*

Habitat in Australiâ. In coll. D. Dunn.

A. Typhæus, n.

Brunnea; mesothorace scabriusculo; tegminibus posticè olivaceis, disco antico albo, extrorsum viridi-marginato, introrsum rufo-marginato; alis hyalinis albidis, nervis brunneis, basi violascentibus; areâ costali olivaceâ, margine anteriori juxta basin albo, hoc internè rufo-marginato; foliolis duobus longis, subfiliformibus; pedibus anticis longioribus, quatuor posterioribus mediocribus, dentatis.—Long. ant. 1'' 7'', corp. 4'' 10'''. Exp. alar. 5'' 7'''.

Diura Typhæus, *G. R. Gray, Ent. of Austr. i. pl. 6. f. 2.*

Habitat in Australiâ. In coll. Mus. Brit.

A. violascens, n.

Prasina; mesothorace scabro; tegminibus areâque costali margine anteriori, albis; alis maris violascentibus, fœminæ pallidioribus; foliolis duobus filiformibus; pedibus anticis longioribus, intermediis brevibus, dentatis, posticis longis, femoribus maris crassis, angulatis,

dentatis, lineis elevatis striatis, fœminæ subsimplicibus.—Long. ant. ♂ 9''' ♀ , corp. ♂ 3'' 4''' , ♀ . Exp. alar. ♂ 2'' 6''' , ♀ .

Piasma violascens, *Leach, Zool. Misc.* i. pl. 9.

Diura violascens, *G. R. Gray, Ent. Austr.* pl. 6. f. 1.

Habitat in Australiâ. In coll. Mus. Brit.

A. roseipennis, n.

Viridis; mesothorace scabro, anticè angustato, in medio subcarinato, lineis tribus flavis; tegminibus viridibus; alis minoribus, roseis; areâ costali viridi, basi flavâ, apice attenuatâ; abdomine longo, crasso, viridi, lineis longitudinalibus tribus subflavis; foliolis duobus brevibus subfiliformibus; pedibus mediocribus, dentatis; antennis brevibus.—Long. ant. 3'' 6''' , corp. 3'' 9''' . Exp. alar. 1'' 1''' .

Diura roseipennis, *G. R. Gray, Ent. Austr.* pl. 7. f. 1.

Habitat in Australiâ. In coll. Mus. Brit.

Gen. XXX. CTENOMORPHA, n.

Tegmina minima, ovalia; Alæ in utroque sexu æquales, ferè abdominis longitudine, lineares; Abdomen subfiliforme, maris apice recurvatum, foliolis duobus brevissimis; Pedes mediocres, subæquales, plùs minùs dentati; Mesothorax filiformis, longus, aliquandò spinosus; Caput parvum; Antennæ longæ, setaceæ.

Habitant in Australiâ.

C. marginipennis, n.

Olivacea; mesothorace maris annulis parvis nigris, fœminæ scabro; tegminibus brunneis, margine anteriori albis; alis subhyalinis, albo-brunneis; areâ costali brunneâ juxta basin albo-marginatâ; pedibus spinosis.—Long. ant. 2'' , corp. 4'' . Exp. alar. 3'' 9''' .

Ctenomorpha marginipennis, *G. R. Gray, Ent. Austr.* pl. 1. f. 2.

Phasma brachyptera, *Westw. MSS. (Pupa)*.

Habitat in Australiâ. In coll. D. Hope, Mus. Brit., et D. Westw.

C. spinicollis, n.

Brunnea; mesothorace scaberrimo; tegminibus brunneis, juxta apicem albo-marginatis; alis hyalinis basi flavo-albidis, margine exteriori nigrescentibus; areâ costali brunneâ, basi subhyalinâ, flavo-albidâ, apice nigrescenti; pedibus brevibus, dentatis.—Long. ant. 1'' 10''' , corp. 4'' . Exp. alar. 4'' 3''' .

Ctenomorpha spinicollis, *G. R. Gray, Ent. of Austr.* i. pl. 1. f. 1.

Habitat in Australiâ (Melville Island). In coll. D. Hope.

C. Haworthii, n.

Brunnea; cornubus inter oculos duobus longis, compressis; thorace rugoso; alis brunneis, margine exteriori nigrescentibus, basi nigris, nervis obscuris et albo-maculatis; tegminibus in medio paulùm elevatis; pedibus longis, gracilibus, simplicibus, hirsutis.—Long. ant. ?, corp. 4'' 3''' . Exp. alar. 5'' 4''' .

Habitat in Australiâ. In coll. D. Hope.

C. MacLeayi, n.

Rubro-brunnescenti-nigra, nigro-fasciata; tegminibus areâque costali pallidioribus, albido-maculatis; alis hyalinis pallidè brunnescenti-

nigris; pedibus gracilibus, pallidè fasciatis.—Long. ant. ♂ ,
 ♀ , corp. ♂ 3" 2"', ♀ 3" 10"'. Exp. alar. ♂ 3" 2"', ♀ .
 Habitat in Australiâ. In coll. Soc. Linn.

Gen. XXXI. CLADOXERUS, *Lep. et Serv., Serv.*

Pasma, Stoll.

Tegmina minima, ovalia; Alæ breves, abdominis dimidium longitudine æquant; Abdomen filiforme, longum, apice subdilatatum; Pedes anteriores longissimi, graciles, dentati, quatuor posteriores breves, dentati; Thorax abdominis ferè longitudine, mesothorax longus, lævis; Caput parvum; Antennæ longissimæ, setacæ.

Habitant in utroque Continente.

C. serratipes, n.

Fusco-cinereus; tegminibus arcæque costali cinereis, margine anteriori flavescenti-albis, internè nigro-marginatis; alis cinereis; pedibus anticis femoribus serratis, posticis dentatis.—Long. ant. 3" 10"', corp. 6" 6"'. Exp. alar. 3" 2"'.
 Habitat in Malabariâ. In coll. D. Children.

C. longipes, n.

Brunneus; capite, mesothorace juxta basin, tegminibus arcæque costali, albo-marginatis.—Long. ant. 3" 9"', corp. 4" 5"'. Exp. alar. 2" 3"'.
 Habitat in Demerarâ. In coll. D. Children.

C. gracilis, Serv.

"Fuscus, lævis; capite pallido-lineato; elytris fuscis, exterius viridi-albido-marginatis; alis hyalinis." *Lep. et Serv.*—Long. ant. , corp. ?. Exp. alar.?

Cladoxerus gracilis, *Lep. et Serv. Ency. Méth.* x. 445. *Serv. Ann. des Sci. Nat.* xxii. 59.

Habitat in Brasiliâ.

C. filiformis.?

Larva, brunnea.—Long. ant. 4" 3"', corp. 5" 6"'.
Pasma filiformis, *Stoll, Spectr. pl.* 22. f. 81.

L'Escogriffe maigre, *Stoll, p.* 64.

Habitat ———?

Gen. XXXII. PHIBALOSOMA, n.

Tegmina minima in medio elevata; Alæ lineares, abdomine tertiâ parte breviores; Abdomen filiforme, apice gibbosum, ovipositore longo, cymbiformi; Pedes mediocres vix dentati; Mesothorax longissimus, filiformis, glaber; Caput minimum; Antennæ longæ, setacæ, hirsutæ.

Habitat in Brasiliâ.

P. Lepelletieri, n.

Cinereum; mesothorace tuberculis parvis nigris, lineis lateralibus pallidè roseis; alis linearibus, albo-hyalinis.—Long. ant. 2" 6"', corp. 5" 2"'. Exp. alar. 4" 3"'.
 Habitat in Brasiliâ. In coll. D. Children et D. Hope.

ADDENDA.

Page 16, after *Bacteria arumatia* add

B. simplicitarsis, n.

Præcedenti affinis; pedibus gracilibus, tarsorum articulo primo longo, simplici.—Long. ant. , corp. .

Habitat in —? In coll. Mus. Brit.

After *Bacteria filiformis* add

B. spinosa, n.

E viridi flavescenti-brunnea; capite, pro et mesothorace, singulis spinis duabus acutis; pedibus simplicibus, longis; antennis longissimis.—Long. ant. , corp. .

Habitat in Brasilîa. In coll. D. Children.

After *Bacteria Indica* add

B. Samouellei, n.

Flavo-brunnea; antennis brevibus juxta basin canaliculatis; capite elongato, cœlato; thorace præsertim anteriori tuberculato; abdomine brevi, apice pluri-sulcato; pedibus gracilibus, lineis elevatis striatis.—Long. ant. 1" 2"', corp. 3" 3'''.

Habitat —? In coll. Mus. Brit.

Page 27, for the description of *Dinelytron grylloides* read

Pallidè brunneum; tegminibus areâque costali brunneo-griseis, obscuro-maculatis, hâc basi pallidiori; alis albido-hyalinis, apice obscuris.—Long. ant. , corp. 1" 9'''. Exp. alar. 2" 5'''.

Add after it

D. Shuckardii, n.

Brunneum; alis obscuro hyalinis, nervis brunneis.—Long. ant. , corp. . Exp. alar. .

Habitat in Brasilîa. In coll. Soc. Zool.

Page 28, after *Prisopus Nymppha* add

P. cornutus, n.

Pupa, capite bicorni; obscure brunneus, obscuro-maculatus.—Long. ant. 9''', corp. 2" 3'''.

Le petit Dragon cornu, *Stoll, Gryll. pl.* 20, b. f. 79.

Habitat in Indiâ.

Page 30, line 5, for *conspicuæ* read *nullæ*

Page 32, after *Podocanthus Typhon* add

P. viridiroseus, n.

Præcedenti affinis, sed multò minor; viridis; alis roseis, nervis suturationibus, basi violascentibus.—Long. ant. , corp. 3" 9'''. Exp. alar. 5" 9'''.

Phasma viridirosea, *Curtis MSS.*

Habitat in Australiâ. In coll. D. Curtis.

Page 42, after *Ctenomorpha MacLeayi* add

C. tessulata, n.

Albido-brunnea ; mesothorace spinoso ; tegminibus areâque costali flavescenti-brunneis, flavo-albo-marginatis ; alis hyalinis, nigro-reticulatis ; pedibus gracilibus, quatuor posterioribus dentatis.—Long. ant. 1" 8"', corp. 3" 6"'. Exp. alar. 3" 6"'.
Phasma tessulata, *Curtis MSS.*

Habitat in Australiâ. In coll. D. Curtis.

DOUBTFUL SPECIES, &c.

Phasma acicularis, *Stoll, Spec. pl. 25. f. 97.* belongs to *Mantis*.

Phasma vermicularis, *Stoll, pl. 23. f. 88.* probably belongs to the subgenus *Anisomorpha*.

Phasma Nympha, *Stoll, pl. 10. f. 39.*

Mantis labiata, *Gmelin*, is supposed by *Lichtenstein* to belong to this family.

Phasma baculus, *Latr. Hist. Nat. des Crust. et des Ins. xii. p. 104. pl. 94. f. 2.*

Spectrum baculus, *Lam. Anim. sans Vert. iv. 254.*

"Corpore cinerascens, tuberculato, aptero ; pedibus angulatis. Antilles, Il a les antennes courtes ; serait-ce une femelle."

The figure referred to above represents a pupa of a true *Mantis*.

Cladoxerus roseipennis, *Guer. Iconog. Ins. pl. 53. f. 5.*

known only by the dissection of the *Trophi*, as given by *M. Guerin*.

Figures will be found in the following works, which are so incorrect that it is impossible to refer them to any of the species mentioned in this list.

Seba (Albert), Locupletissimi Rerum Naturalium Thesauri accurata Descriptio. 4 vols. folio, 1734–1765.

Renard, Poissons des Moluccques. fol. 1754.

Petiver, Gazophytacium Naturæ et Artis.

Edwards, Birds, pl. 288. f. 4. Walking stick from the Cape of Good Hope. A pupa of a species, probably belonging to *Platy-crana*.

De Geer, Mém. des Insectes, ii. 403. pl. 36. f. 1.

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