

XVII.—*Contribution to the Insect Fauna of Van Diemen's Land, (now TASMANIA), with particular reference to the Geographical Distribution of Insects. By Dr. W. F. ERICHSON. (Translated by Miss S. A. FOGG.)*

ALTHOUGH the exertions of Robert Brown have procured for us an extensive acquaintance with the Flora of New Holland, not merely with respect to individuals, but also in a general and universal sense; although we are acquainted with the Fauna of different classes of mammalia and birds, yet our knowledge of the entomological Fauna of this part of the world, viewed as a whole, is extremely limited. The most important and peculiar productions have not, indeed, remained unnoticed and unknown; different authors, Kirby, Marsham, Donovan, and others, have produced excellent descriptions of particular species; but a thorough knowledge of a Fauna demands not only an acquaintance with its chief peculiarities, but also a wide survey of its most generally distributed forms. Buisdoval has arranged all the insects of Australia which have yet been discovered, including those in the Parisian collection, and their description is to be found partly in the entomological part of the "Voyage of the *Astrolabe*," 1832, partly in the *Faune Entomologique de L'Océanie*," 1835; but the classification affords no good insight into the character of this Fauna, both on account of the paucity of its materials and their imperfect arrangement. I trust that this present brochure may be more successful.

Mr. Schayer, superintendent at Worlnorth, on the north-west coast of Van Diemen's Land, animated with the desire of improving his residence in a country so little

known, of advancing science, and of enlarging the collections in his native town, has not left the natural productions of his temporary residence unnoticed, but has enriched the different Museums at home by important additions and collections. The Entomological Cabinet has already received three assortments of carefully collected insects, which are very valuable, few specimens of the New Holland Fauna having hitherto been received; besides, these collections are not confined to the larger and more remarkable varieties, but they embrace also the most insignificant: in this respect they throw great light on the subject of the New Holland Fauna, for they show the relationship of its peculiar forms to those of more extensive circulation. I have examined systematically all the insects which Mr. Schayer sent to this collection, and I believe that an accurate description of them, with reference to their geographical distribution, would be extremely interesting. The English have many favourable opportunities of introducing the natural productions of New Holland into their Museums, and, consequently, these latter afford rich materials for the compilation of a Fauna: we can, therefore, only regret that we have hitherto been able to obtain but small portions, and not the whole of this valuable matter. This brochure will be so far interesting, in that it indicates the peculiar locality of each distinct species, for it is only by an accurate description of localities, that the geographical distribution of distinct species can be ascertained: the first step in geography, as connected with Natural History, is to ascertain the extent and boundaries of these localities. In this respect, how much further advanced is botany than entomology, for in this latter we have hitherto been satisfied with only the general term New Holland, or even Australia.

In a Natural-History point of view, Australasia must

not be considered as one entire country like Africa and America, but it must be divided into three parts. The first embraces those islands to the north of New Holland, with New Guinea, and New Ireland. They belong to the Indian Archipelago, not only geographically, but also in the character of their Fauna and Flora; they are most closely allied to the Moluccas, having the same luxuriant, rich vegetation; and although they are remarkable in ornithology as being the sole habitat of the birds of Paradise, they present no entomological forms foreign to the Asiatic Islands. (*) They are remarkable, as well as the Moluccas, for their numerous *Lepidoptera*. (†) The second part of Australasia comprehends all those small islands in the Pacific Ocean which have been elevated at a more recent date: they are covered with rich and dense vegetation, but their Fauna is extremely poor, and will not bear any comparison with the luxuriant growth of the vegetable world. (‡) Lesson found this vegetation so similar to that of India, that

(*). I bring forward the well-known genera of *Cicindela*, *Therates*, and *Tricondyla* as examples.

(†). D'Urville, *Voy. de l'Astrolabe*, Entomol., pp. 23-31. De Haan, *Treatise on the Natural History of the Dutch East Indian Islands*. Bezitt. Zool. IH., S. 3.

(‡). Boisduval (*Voy. de l'Astrolabe*, Entomologie, p. 32) expresses the hope that the time will come when its zoology will be of some importance. He says—"The vegetation, which is already varied and luxuriant, must naturally appear earlier than the insect world, to which it serves as food, and this again earlier than insectivorous birds." The ground of this opinion is a belief in the continuous creation of new species. Until, however, experience has confirmed this view, which appears to be founded on a visionary natural philosophy, rather than on a plain, we must not renounce the other view, according to which the organisms of these islands were carried thither from the West, in the course of centuries, by winds and currents: hence the slight individuality presented by the Flora and Fauna of these islands, the decline of their organisms to the eastward, and the great superiority of their vegetable world; for animals are less easily distributed than plants. That such a distribution is not impossible may be proved by the fact, that insects and plants have found their way from N. America to Great Britain. Thus, *Eriocaulon septangulare* is by no means an European species of this peculiarly American genus, but it is identical with an American species. (S. Kunth, *Enum. Plant.*, III., p. 541.)

he considered the disproportion between the Fauna and the Flora to be the great characteristic difference between these islands and the first-mentioned division of Australasia.

The character of organised nature on the continent of New Holland and its dependent islands, of which Van Diemen's Land is the most important, is more peculiar than that of any other part of the world. Notwithstanding some peculiarities, New Zealand appears in general closely connected with New Holland.

The character of an insect Fauna is much influenced by that of the corresponding Flora, even if, as in the present case, the former does not entirely depend on the latter. Unfortunately we are not yet able to trace the influence the Flora exercises on the insect Fauna: to do so we require to have a knowledge of every plant which affords nourishment to each species of insect, both in its first and last stage. Of this knowledge we are now wholly deficient, and yet it is of the greatest importance in our study of the geographical distribution of insects, for by it alone can we determine the connection between Flora and Fauna. For example, were the numerous species of the genus *Paropsis* (*Blattkäfer*) to be found only on one family or genus of plants in New Holland, the knowledge of the limits of this family or genus would have a double signification. We must hope for future elucidations of the intimate connection between the Fauna and Flora, and confine ourselves now to a comparison of their more distant relations,—a comparison from which interesting results are nevertheless obtained. In the vegetation of New Holland, the most important families, such as *Polypodiaceæ*, *Gramineæ*, *Cyperaceæ*, *Orchidaceæ*, *Compositæ*, *Euphorbiaceæ*, and *Papilionaceæ*, have an equal distribution, and are in the same proportion to the rest of the Flora as in other countries.

Restiaceæ, *Proteaceæ*, *Epacrideæ*, and *Myrtaceæ*, on the contrary, are particularly numerous. The *Myrtaceæ* have their principal locality here. The *Epacrideæ* are almost entirely peculiar to New Holland. As to Van Diemen's Land, notwithstanding that its geographical position, and the greater humidity of its climate, assimilate it to the temperate zone of the northern hemisphere, the aspect of its vegetation, according to Robert Brown, is, on the whole, the same as that of the continent of New Holland. Of the natural families, which determine the character of vegetation in the latter country, some have materially decreased in Van Diemen's Land, but none become more numerous; the *Epacrides*, the *Eucalypti*, and the leafless *Acaciæ* alone maintain an equal relative position (*).

(*). "Flinder's Voy. to Terr. Austral.," 2nd, Append. III., p. 586. "Robert Brown's Miscellaneous Writings," by Nees Von Esenbeck, I., s. 121. In the Journal of Botany for 1840, the younger Hooker commenced a systematic review of the plants of Van Diemen's Land. I think it will be interesting to mention here the families and genera [of the plants found in the same districts as the insects I am about to describe. Carefully selected specimens have been forwarded by Mr. Schayer to the Royal Herbarium; for their examination and arrangement I am indebted to Dr. Klotzsch.

The *ferns* are forms analogous to the European genera *Polypodium* (two species), *Blechnum*, *Aspidium*, *Pteris*; the *grasses* are similar to those of the genera *Panicum*, *Festuca*, *Bromus*; the *Cyperaceæ* correspond with two European species of *Carex*; the *Restiaceæ* belong to the genus *Restio* (common also to S. Africa), and to *Anthistiria* (kangaroo grass, peculiar to N. Holland); of the *Xyrideæ* there is 1 *Xyris*; of *Juncæ* 1 *Juncus* and *Luzula campestris*; of *Colchiaceæ* 1 *Angularia*; of *Liliaceæ* 1 *Blandfordia* and 3 species of the gen. *Tulbaghia* (common also to the Cape of Good Hope); of *Irideæ* 1 species of the gen. *Sisyrinchium* and 1 *Cipura* (the former is common to America also); of the *Orchidaceæ* only forms peculiar to N. Holland, 1 *Spiranthes*, 5 *Prasophyllum*, 3 *Diuris*, 4 *Thelymitra*.

Of the small family of *Stackhousiaceæ*, which is peculiar to New Holland, 3 species of *Stackhousia*; of *Thymelaceæ* the same number of *Pimelea* and 1 *Dais*; of *Proteaceæ*, 1 *Manglesia* and 1 *Banksia*. The *Primulaceæ* and *Labiata* which have been forwarded present only European forms, viz.: the former, 1 *Anagallis* and 1 *Samolus (littoralis)*, the latter, 1 *Thymus*; the *Scrophularineæ* have 1 *Veronica* and 1 *Euphrasia*; the *Solanæ* 1 *Solanum*; the *Borragineæ* 2 *Myosotis*, which are very similar to European species, and 1 *Exharrena*; the *Convolvulaceæ* 1 *Convolvulus*; the *Epacrideæ*, which are peculiar to New

As to the relationship of the New Holland Flora to others, it is a known fact, that its assimilation and analogies are principally with that of Southern Africa. *Proteaceæ*, *Restiaceæ*, and other families, which occupy an important position in the vegetation of New Holland, maintain a similar one at the Cape, but diminish in importance in America. (The *Epacrides* appear to answer to the *Ericæ* of Southern Africa.) The relationship to the South American Flora is less important, and consists chiefly in the similarity of plants of New Holland and some peculiar to the south-westerly coast of America, rather than with those of other parts of America: sometimes, although but seldom, we find relationship existing between South America and South Africa, which do not extend to Australia. Although these facts are well known, I mention them here, in order to point out how differently the Faunas are connected. Here, in contradistinction to the Floras, the relationships of New Holland to South America are more important than to Southern Africa, and not only to the western coast, but also to the eastern,

Holland, 9 *Epacris*, 1 *Sprengelia*, and 3 *Dracophyllum*; the *Campanulaceæ* 2 *Wahlenbergia*; the *Lobeliaceæ* 4 *Lobelia*; the *Stylidiaceæ* 1 *Stylidium*; the *Compositæ* 4 *Gnaphalium*, 1 *Marus*, 1 *Spilanthus*, 5 *Eurybia*, 4 *Senecio*, 1 *Humea*; the *Umbelliferae* only 2 species of *Apium*; the *Ranunculaceæ* 3 *Ranunculus* and 1 *Clematis*; the *Cruciferae* 1 *Lepidium*; the *Hypericineæ* 1 *Hypericum*; the *Geraniaceæ* 3 *Pelargonium* and 1 *Erodium*; the *Oxalideæ* 1 *Oxalis*; the *Violaceæ* 2 species of *Viola* and 1 *Hymenanthera*; the *Droseraceæ* 1 *Byblis*; the *Polygaleæ* 1 (shrubby) *Polygala*; the (shrubby) *Rutaceæ* 1 *Correa*, 2 *Boronia*, and 1 *Cyria*; the *Caryophylleæ* 1 *Dianthus*; the *Alsineæ* 1 *Arenaria*; the *Lineæ* 1 *L. usitatissimum*, which is identical with our own; the *Onagraceæ* 3 *Epilobium*; the *Myrtaceæ* 1 *Eucalyptus*, 5 *Leptospermum*, 1 *Melaleuca*, 3 *Baeckia*; the *Rosaceæ* 1 *Rubus*, 2 *Acæna*, 1 *Potentilla*; the *Papilionaceæ* 1 *Goodia (latifolia)*, 1 *Indigofera*, 1 *Hedysarum*, 2 *Hardenbergia*, 1 *Physolobium*, 1 *Zichya*, and 3 *Kennedyæ*. (The four last genera present those forms so characteristic of New Holland, which bear simple leaves, or rather they are leafless, with leaf-like petioles.) The *Mimoseæ* 6 species of *Acacia*; the *Rhamneæ*, 2 *Pomaderris*. The *Proteaceæ*, *Myrtaceæ*, *Papilionaceæ*, *Mimoseæ*, and *Rhamneæ* form trees in the thick, impenetrable woods with which Van Diemen's Land is partly covered. The *Kennedyæ* are creepers.

though so different in vegetation. The peculiarities of the Faunas of these three continents are most distinctly shown in the *Mammalia*. Africa and America have little in common with each other, and Australia is unlike all other countries, although the order of pouched animals is not confined to it alone; the genus *Phalangista* extends over a part of the Indian Archipelago, but is not found in Africa: it is America that in this respect presents so great an affinity with New Holland. The insect world presents numerous similar examples; among the most extraordinary is that of the genus *Thynnus* (*Hymenoptera*), which is peculiar to New Holland and both the coasts of S. America, and is rich in species on both continents. The *Coleoptera* furnish further proofs of the prevailing affinity of South America to New Holland. The genus *Julodis* (*Buprestidæ*) occupies an important position in the Fauna of South Africa; answering for, if not analogous to, the genus *Stigmodera* of South America and New Holland, which, though rich in species, is confined to these two continents. Of the *Elatere* the genus *Monocrepidius* presents numerous species in America, but elsewhere is to be found in New Holland only. Of the *Rhipiceridæ* is *Rhipicera* common to both continents; of the *Telephori*, the genus *Chauliognathus* (*Callianthia* Dej.), is characteristic of America, and only known besides to New Holland. Of the *Lucanidæ*, the *Lamprimæ* are characteristic of New Holland, and similar only to the *Pholidoti*, which are peculiar to South America; thus also the small genera *Hexaphyllum*, South America, and *Syndesus*, New Holland, present the highest degree of analogy: in New Holland the *Passali* are almost as numerous in species as they are on the eastern coast of America, whereas in Southern Africa they are entirely wanting. Of the Stag-beetles (*Bockkäfer*) the numerous group of *Stenocoridæ* are equally characteristic

of America and New Holland, but found no where else. Affinities between South America and New Holland are not wanting in the family of the *Rhyncophoræ* (*Rüsselkäfer*) ; the *Cryptorhynchæ*, but meagrely represented in other parts of the world, are in both these continents very widely distributed ; and the genera *Rhinotia* and *Homalocerus*, *Aterpus* and *Ægorhinus*, (*) *Melanterius* and *Chalcodermus*, present forms analogous to each other.

Affinities between New Holland and Southern Africa are not, however, entirely wanting, although much limited by the following laws:—Those forms which Southern Africa possesses in common with the interior of the continent do not all extend to the other countries of the southern hemisphere, and least of all to New Holland. Of the remaining forms, those of Southern Africa which are at all analogous to any on the western coast of South America, (for this alone presents any affinity to the Cape countries), do not appear in New Holland. To the first category belong the above mentioned *Julodis*, the greater part of the *Melasomæ*, so numerous both in Southern Africa and in its interior, as well the *Brachyceræ* and *Clenæ* of the *Rhyncophoræ*. These form so interesting and characteristic a part of the South African Fauna that their greater affinity latitudinally, as compared with the same longitudinally, is not to be mistaken. In the second category belong the analogies between the *Melasomæ* peculiar to Southern Africa ; as *Moluris*, with those of the western coast of South America, and the greater resemblance which the South African *Anisonyx* and *Lepitrix* have with the South West American *Cratoscelis* and *Lichnia*, than with the *Glaphyrus*, *Anthypua*, and *Amphicoma* of the central Fauna (†).

(*). *Lophotes* Schönh. But as this name belongs already to a genus of reptiles, the name I have mentioned may be retained.

(†). See volume the first of this Archive, 1st Part, p. 268.

The *Melasomæ* of New Holland are very different from those of South Africa: the greatest similarity is to be found among the *Curculionæ*. The genus *Hipporhinus* is common to both continents, but superior in South Africa as to the number of its species. The genus *Amycterus*, so rich in species, and so characteristic of New Holland, has one South African analogue. Other forms common to both South Africa and New Holland extend also over tropical Africa and the East Indies.

The Fauna of New Holland is allied to that of Madagascar in some few instances; viz.—in the *Cetoniæ* with a divided *clypeus*, and also in the total absence of the Spanish Fly, *Lytta*, so generally distributed elsewhere.

A slight affinity between New Holland and North American forms is worthy of notice;—for example, the analogy between *Carenum* and *Pasimachus*; also the genus *Notiophilus* Schönh., of *Curculionæ*, of which Schönherr mentions two North American species, to which I shall now add one from Van Diemen's Land.

We should misunderstand the character of the insect Fauna of New Holland, were we to imagine that it produces only forms peculiar to itself: on the contrary, many European forms occur here, no less than in vegetation. Rob. Brown asserts his opinion, (*) that a great number of species of plants do not owe their appearance in New Holland to colonization, but are contemporaneously indigenous to both Europe and New Holland. This observation is not, in my opinion, equally applicable to the insect world: with the exception of *Colymbetes pulverosus*, (†) and a few insects brought hither from the Indian Archipelago, I know of no species in New Holland that is not peculiar to the country,

(*) A. o. a. O.

(†) Compare volume the fifth of this Archive, 2nd Part, p. 321.

unless where its introduction can be traced to human influence. This assertion is not contradicted by the appearance of *Calosoma*, *Harpalus*, *Pterostichus*, *Cyphon*, *Limnichus*, *Cercyon*, *Onthophagus*, *Aphodius*, *Tenebrio*, *Mordella*, *Anthicus*, *Brontes*, *Graptodera*, *Phalacrus*, *Scymnus*, *Corylophus*, and *Batrisus*, for these genera are spread over the whole world; but the appearance of *Attalus*, *Salpingus*, *Cryphalus*, *Dendrophagus*, *Psyllioides*, &c., is remarkable, for they are more peculiar to the European Fauna.

Geographical peculiarities are most distinctly exhibited in the order of the *Coleoptera*; one-third of their genera appears both in Europe and New Holland; one-fifth is distributed in other parts of the world, so that less than one-half is restricted to New Holland; certainly a favourable example of the peculiarity of this Fauna. It is not so in other orders: about two-thirds of their genera are common to both Europe and New Holland; one-sixth is excluded from the European Fauna, but found in other parts of the world; and only one-sixth is peculiar to New Holland. The *Diptera* and *Hymenoptera* show a greater degree of peculiarity than the *Hemiptera*, the *Orthoptera* show least. The *Lepidoptera* are not included in my summary, none having been forwarded by Mr. Schayer, but I believe their relations similar to those of the last-mentioned. The affinity of the Fauna of Van Diemen's Land to that of New Holland is the same as Robert Brown has assigned to the Floras of the two countries, viz.—that those forms which are peculiar to this part of the world, and characteristic of it, are common to both countries. I am not sure that the genera *Carenum*, *Pamborus*, *Ryssonotus*, *Tragocerus*, &c., appear in Van Diemen's Land: no doubt we are still unacquainted with many modifications of the character of the Fauna caused by the appearance and disappearance of genera, which are confined

to particular degrees of latitude. Van Diemen's Land, as well as the Continent, possesses the remarkable and extensive genera *Diphucephala*, *Lamprima*, *Adelium*, *Amycterus*, *Gonipterus*, *Stenocorus*, *Paropsis*, *Thynnus*, *Myrmecia*, *Rutilia*, *Eurymela*, &c.; often a species appears throughout the whole of the island, and only on a part of the Continent. Their peculiarities will be shown best in a systematic account of the insects sent by Mr. Schayer from Van Diemen's Land.

COLEOPTERA.

I shall follow as much as possible the classification of Latreille, as I am not acquainted with a better one. The family of *Cicindelæ* is less extensive in New Holland than in other parts of the world, and is limited, as far as we know with certainty, to several species of the genus *Cicindela*: although the collections hitherto received have not contained a single species, still we can hardly suppose that so universally distributed a genus should be entirely wanting in Van Diemen's Land, particularly as it appears in New Zealand. Twenty-nine species of the great family of *Carabi* have been forwarded. The discovery of a species of *Calosoma* is not surprising, for the very general distribution of this genus pre-supposed the existence of at least a few species in New Holland; it is interesting, because the new species is ascertained to occupy a central position between our own well-known and indigenous species *C. sycophantes* and *C. inquisitor*. Future researches must determine whether any species of *Carabus* exist on the snow-clad mountains of Van Diemen's Land: probably they do, for their appearance in Southern America proves that they are not limited to the northern hemisphere, like *Nebria*, *Elaphrus*, and *Notiophilus*. There is a remarkable new genus (*Scopodes*) of the *Truncatipenna*, belonging to the group *Pericalides*,

which it represents in New Holland,—also by a new species. The rest of the species belong to well-known and widely-distributed genera. Thus *Plochionus*, indigenous in America and the East Indies, (and enriched by the new species *Calleida*), generally distributed, except in European Faunas, loses its bright colouring in New Holland, where it takes the colours of our *Dromia*: the specimens from Van Diemen's Land resemble our *Dromius maculatus*. *Lebia* and *Cymindis* are spread over nearly the whole earth; *L. corticalis*, (*) *L. posticalis*, (†) and *C. Australis*, (‡) and two new species of the latter genus have been forwarded: these two have a peculiar small, short, compressed, and flat appearance—they are found also in New Holland: according to *Boisduval*, *C. Australis* is found also in Port Jackson.

The group of the *Heteromorphidæ* (||) is common to America and New Holland, herein presenting a point of affinity similar to that already mentioned respecting marsupial animals. New Holland contains fewer genera than America. This group is remarkable for its peculiar structure, which approaches, in some respects, to that of *Phalacrus*. Van Diemen's Land has only one species *Adelotopus*, Hope (§), which is quite new among the three genera from New Holland, which we possess.

Of the genus *Scarites*, the only species of New Holland, *Sc. rotundipennis*, Dej. (¶), has been sent to us. It is the

(*) *Carabus corticalis*, Fabr. Syst. El. I., 201, 174. *Lebia corticalis*, Dej. Spec. Gén. des Coleopt., v. 390, 60; Boisd., Faun. de l'Océan., 18, 1.

(†) *Lebia posticalis*, Guérin, Voy. de la Cocquille, Zool. 2nd, II., p. 58. Atl. Ins. Pl., I., f. 8. Boisd., Faun. de l'Océan., 19, 2.

(‡). *Cymindis australis*, Dejean, Spec. Gén. des Coleopt. II., 449, 25.

(||). Hope, Coleopterist's Manual, II., p. 108.

(§). Transact. of the Entomol. Soc. of Lond., I., p. 11.

(¶). Spec. Gén. des Col., I., 401, 35. Boisduval, Faun. de l'Océan., p. 21. Dejean assigns (though not positively) the Cape as the habitat of this species. Boisduval, a. a. O., places it in New Holland.

only insect out of the entire group of *Scaritides*: it is probable, however, that the genus *Carenum* (*), hitherto thought peculiar to New Holland, but analogous to the North American genus *Pasimachus*, is to be found in Van Diemen's Land. And it is scarcely to be supposed that the genera *Dyschirius* and *Clivina*, especially the latter, distributed everywhere else, are wanting here.

The group of *Harpalinae* presents in New Holland a peculiar genus,—*Promecoderus*, of which Van Diemen's Land possesses a series of species (†). Mr. Schayer has, however, forwarded but one: it agrees with *Pr. Brunnicornis* Dej. (‡), except that it is somewhat smaller. Of *Harpalus* the collection contains *H. Australasiae*, Dej. (||), and three new species.

Six out of the seven species of the group of *Pterostichinae* belong to the genus *Pterostichus* (§), (*Feronia*, Dej.), and in this to the division *Pæcilus* and *Argutor*, that is, according to Dejean's classification. To the first belong *P. chalybeus* (¶) *P. sphodroides*, (**) and two new species: to the second *P. Australis* (††), and one new species. In the seventh species I recognised *Carabus curtus*, Fab., which I had seen in the Kiel Museum, but of whose proper classification I had so long been doubtful. Its habitat, colour, and the formation of the feet seemed to place it among the

(*) I imagine that *Arnidius* Leach. is synonymous with *Carenum*, though they are separated by Boisduval (Faun. de l'Océan., pp. 23, 24.)

(†) Guérin (Rev. Zool., 1841, p. 188) enumerates three new species from Van Diemen's Land, viz., *Pr. gibbosus*, *degener.*, *subdepressus*.

(‡) Spec. Gén. des Col., IV., 28, 1. Boisduval (Faun. de l'Océan., p. 39) assigns Port Jackson, Brullé (Hist. Nat. des Ins., IV., p. 448) Kangaroo Island, as the place of its discovery.

(||) Spec. Gén. des Col., IV., 386, 158. Bois., Faun. de l'Océan., 44, 7.

(§) Compare "My Beetles in the Brandenb. M.," I., p. 67.

(¶) *Feronia* (*Pæcilus*) *chalybea*, Dej., Spec. Gén. des Col., III., 234, 26.

(**) *Feronia* (*Pæcilus*) *sphodroides*, Dej., (in the same), 236, 27.

(††) *Feronia* (*Argutor*) *Australis*, Dej., (in the same), 262, 55.

Truncatipennæ, but I could not arrange it among any of the known genera. An examination of the mouth gave me, at length, an insight into its systematic affinity. I shall speak of it again as the new genus *Amblytelus*.

The group of *Anchomenides* numbers six new specimens in Mr. Schayer's collection: of these there are two new species of *Anchomenus*,—one of the genus *Euleptus*, Kl., (*) (formerly observed in Africa only), and two different species of *Dyscolus* Dej., (*Loxocrepis*, Esch), found in both America and the East Indies by Dejean. It was classed with the *Truncatipennæ*, but incorrectly so, as an examination of the mouth proves. The relationship to *Anchomenus* is so close, that the arrangement of a species often depends on the shape of the fourth joint of the foot. The two species described below have one lobe (*Lappen*), perceptibly longer than the other: they are, therefore, *Loxocrepi*. A wingless beetle, which forms the new genus *Lestignathus*, has the shape and the simple feet of the more slender of the *Anchomeni*, but it presents also a great anomaly in this sub-family of *Carabici*, in its possessing strongly-defended mandibles.

The last collection contained one, but a very interesting species of the family *Dytiscus*: it belongs to the genus *Eunectes*,—is nearly related to, and yet specifically distinct from, *E. griseus*. Of this genus one single species, *E. griseus*, is distributed over all the warmer parts of the old world: two others, *E. helvolus* and *succinctus*, Kl., have a very limited distribution; and a fourth is peculiar to New Holland.

(*) Klug founded this genus on a species brought from Madagascar: another species was brought from S. Africa by Drège: I saw a third in Copenhagen, in Westerman's and the Royal Collections; it was from Guinea, and was distinguished by its broad and flattened *antenna*. Our collection has received a second species from New Holland, through Lhotzky.

The most important *Staphylinæ* were in the first collection, and have already been described by me in the "Gen. et Spec. Staphyl.;" since then we have received but one new *Aleochara*. The remaining species are *Conurus Australis*, (*) *fumatus* (†), *Xantholinus cyanopterus* (‡), *chloropterus* (||), *Staphylinus lanio* (§), *Phylonthus ruficollis* (¶), *hybridus* (* *), *pacificus* († †), *Oxytelus collaris* (‡ ‡); all of which belong to widely distributed species. The *Xantholidæ* approach more nearly to those of the tropics than to those of the northern hemisphere.

Staphylinus lanio, although closely allied to our own *St. maxillosus*, forms with the New Holland species *St. erythrocephalus*, and the New Zealand *St. oculatus*, a group peculiar to Australia, distinguishing itself in the family (*Creophilus* Leach.), to which it belongs, by its colour and its want of down. The type of this family is the above-mentioned *St. maxillosus*.

The *Buprestidæ* of New Holland present many peculiarities, particularly in the preponderance of the genus *Stigmodera*, which is common also to South America. Its numerous small species are very characteristic of New Holland. Van Diemen's Land, however, does not appear so rich in species as the continent; as yet we have received only one small, but new, species of *Stigmodera*. On the whole, the number of *Buprestidæ* there is very small. Two new species

(*) Genera et Species Staphylinorum. 221. 3.

(†) The same. 228. 15.

(‡) The same. 311. 9.

(§) The same. 311. 10.

(||) The same. 354. 9.

(¶) The same. 431. 5. *Staphyl. ruficollis* Grav. Mon. Micr. 71. 58.

(* *) Gen. et Spec. Staphyl. 432. 6.

(† †) The same. 501. 125.

(‡ ‡) The same. 789. 7

belonging to the genus *Melobasis* Gory (*Abrobapta* Dej.) conclude the present number of our specimens.

The number of the *Elateridæ* is not quite so limited as that of the *Buprestidæ*; their forms are little remarkable, though in some respects peculiar. Among those with *f. antennæ* appears the universally distributed genus *Lacon*. (*): it is represented by two species, of which one is new; the other, *L. caliginosus*, has been repeatedly described (†), and, according to Guérin, is found also in New South Wales, (Port Jackson). *Monocrepidius* Esch., a genus common both to New Holland and America (‡), affords six species, all of which are new, with one exception, *M. Australasiæ* (§) Dej. A new species of the genus *Melanoxanthus* Esch. (||), whose type (*El. melanocephalus* F.) is distributed over the East Indies and Madagascar, and of which Dejean mentions two more East India species, has been sent from Van Diemen's Land: it will be described below. Another remarkable new species presents all the characteristics of the genus *Pristilophus* Latr. (¶), which has been formed at the expense of *Ludius* Esch., although this latter requires a yet closer definition of its limits. Finally, there are two new genera to be mentioned, both of which are probably peculiar to New Holland: the one, *Crepidomenus*, presents great analogy to those forms which

(*) Laporte, Selb. Rev. Entomolog., IV., p. 11. German Periodical of Entomology, II., p. 260.

(†) *Lacon caliginosus*, Germ. a. a. O., 261. 1. *Adelocera caliginosa*, Guérin, Voy. de la Coquille, Zool. 2nd, II., p. 68. Atl. pl., II., f. 7. Boisd., Faun. de l'Océanie, 7. 98. *Elater caliginosus*, Boisd., ditto, 105. 4.

(‡) Dejean in his Catalogue mentions one East Indian species. I know of no species in the Old World which belongs to this genus.

(§) *Elater australasiæ*, Boisd., Faun. de l'Océanie, 104. 2. A second description will be necessary to distinguish it from other nearly allied species.

(||) Dejean, Catal. des Col., 3e. éd., p. 103.

(¶) Annales de la Soc. Entomol. de France, II., p. 151.

Eschscholtz arranges under *Ludius*, but it differs from them in the formation of the feet, of which the third and fourth joint (limb) have a tough sole, but no leathery appendage. It contains three new species, all remarkable for their colouring. The other genus, *Atelopus*, is closely related to *Agriotes* and *Dolopius*; but is distinguished by having the fourth joint of the foot shortened, and provided with a small appendage. The four new species belong to the least important of the *Elateridæ*.

The small family of *Rhipiceridæ*, distinguished by having an onychium between the claws, has one species in Van Diemen's Land—this is *Rhipicera mystacina* (*): the points of difference between it and the Brazilian species of the same genus have been examined by Kirby, (*a. u. a. O.*), who decided that they are too slight to require the formation of a separate genus.

In the family of *Cyphonides*, the typical genus *Cyphon* has an extensive distribution (†), and we possess species from the different parts of America, Africa, and the East Indies. It is interesting to find it also in the Australian Fauna: our collection has received, however, but one new species, which is allied to our own *Cyphon lividus*.

No species of the family of the *Lampyridæ* has, as yet, been found.

The *Lycidæ*, on the contrary, have furnished principally new species; one of which belongs to the genus *Porrostoma*

(*) Boisd., Faun. de l'Océanie, p. 111. *Ptilinus mystacinus*, Fabr. Syst. El. I., 328, 1. Herbst, Käf. V., 45, 1, T. 46, f. 13. *Polytomus mystacinus*, Dahn, Anal., 22, 3. I do not know whether, or in what way, *Rhipicera femorata* Kirby, Trans. of the Linn. Soc., XII., 458, 9, differs from this species.

(†) *Scirtes* is widely distributed, as well in the Old World, particularly the East Indies, as in the New. Fabricius has arranged single species among his hopping *Chrysomelæ*.

(Laporte): (*) three others, (one of which *P. rufipennis*, is imperfectly described by Fabricius) (†) belong to *Metriorhynchus* Guér.; but this is not materially different from the other. (‡) A fifth new species may possibly belong to *Anarhynchus* Guér. (§)

(*) Silbermann. *Révue Entomolog.* IV. p. 26.

(†) *Lycus rufipennis*. Fab. Syst. Eleuth. II. 144, 20. Generally speaking, this has been confounded with another larger species, on which Laporte founded his genus *Porrostoma*, and which was forwarded to our collection under that name by Latreille. But the species to which I refer was sent by Fabricius himself, who received it from Labillardiere. As its description by Fabricius is very imperfect, I will give a more accurate one below. Possibly *Lycus rhipidium* or *septemcavus* Mac Leay, (*King, Narrat.* II. 442, 36.) may belong to that genus, but the question cannot be decided by its description only, as that suits several New Holland species equally well.

(‡) Guérin, *Voy. d. l. Coquille, Zool.* II. 2, p. 71, has given a classification of the *Lycus*, merely however a synoptical index, not even a list of the species belonging to the new genera. A more detailed account, (promised with a view to further elucidations,) did not appear. I am still undecided in my opinion respecting several genera, but on the whole, I think the classification far from good. Three divisions are made,—depending on the greater or less length, and the entire want of the proboscis; but a number of forms without the proboscis, as *Calopteron* Lap. (*Charactus* Dej.) have been included in the second division, with those having a short proboscis. A greater or less length of proboscis forms no generic distinction, all the three genera, which have a proboscis, have one division with a longer, and one with a shorter proboscis. *Lycus* presents a very distinguishing character in its shortened mandibles, almost like those of butterflies, and it contains partly, species in which the male has broad wings, and partly, species in which both the sexes are alike large, and have narrow wings, as *L. ferrugineus* F.; the division with a short proboscis contains *Lygisterus cardinalis*, Dej., several other Mexican, and one North American species. In this, the mandibles are the same as in the first division. A second genus is *Lygisterus*, Dej. (*Dictyoptera* Guer., but it appears to me more accordant with Latreille's views, to employ this name after Dejean's example for *Lycus aurora*, etc.) in which *L. succinatus* (Latreille) represents all those having a long proboscis; *L. sanguineus* those with a short proboscis; of the latter there are many species in different parts of the world. *Porrostoma* differs from these two genera in having the antennæ turned in, not at the base of the snout, but on the fore part of the head. The long proboscis-form, which corresponds with *Porrostoma* Lap. Guer: is confined to three extremely similar New Holland species; the short proboscis-form is distributed also over the Indian archipelago; it was called by Guérin the genus *Metriorhynchus*, but this name is now no longer applicable, so that the two forms are united in one natural division, one family of *Porrostoma*.

(§) According to Guérin's definition *Anarhynchus* has not any proboscis; the second joint of the antennæ is as long as it is broad; and the third joint is at least double as long as the second; this last characteristic distinguishes it from *Homalitus*, of which the third antenna joint is very little longer than the second. As Guérin has not described *Dictyopterus* Dej., of which I must here remark, that according to the above-mentioned definitions, *D. minutus* would be an *Anarhynchus* and *D. affinis* an *Homalitus*, I am not certain, whether I am right in supposing the Van Diemen's Land species to be an *Anarhynchus*. It assimilates most with *Homalitus*; it has a flexible head, and longer feet, not a two-plated shield behind; it differs chiefly in the shield

Of the family of *Telephoridae*, two species have been found ; one is a new, genuine *Cantharis* (*) : and the other belongs to the genus *Chanliognathus*, Hents, (†) hitherto held to be exclusively American. It has been repeatedly described (‡) under the name *C. lugubris*.

The family of *Melyridae* presents only one small beetle of the Malachian group. It is a new species of my genus *Attalus* (§), which has hitherto seemed limited to Southern Europe.

Several Van Diemen's Land species of the family of *Cleridae* have been mentioned by Mr. Newman (¶) ; one of them called *Hydnocera* (*nitens*) is distinguished from the American species by the formation of the male antennæ, though it resembles them in habit. This species was forwarded by Mr. Westwood ; the others are unknown to me. The species in our collection are very different ; one, *Clerus intricatus*, belongs to an unimportant division of this genus, which division differs from the typical form chiefly in its slightly toothed claws, and by an approach in habit to that of *Opilus*. A second species, *Opilus patricius* (**), forms with two Madagascar species a small group in this genus, which group differs from its type in the breadth

being rounded, not pointed, and in the third joint of the antennæ being fully as long as the fourth.

(*) It appears more correct to retain the Linnæan name of this genus, for Linnæus is certainly the best authority as to nomenclature. I should not, however, call the family Cantharides.

(†) Transact. Amer. Philosoph. Soc. N. Ser. III. It is identical with *Callianthia* Dej. I do not know how far the extreme elongation of the maxillæ is characteristic of the numerous species. This genus is distinguished from *Cantharis* also by the shape of the palpi, of the feet, and in the male by a large plate which covers the oval duct from below.

(‡) *Cantharis lugubris*, Fabr. Syst. El. I. 297, 17. *Telephorus pulchellus*, MacLeay, King, Nar. II., 442, 38. Guer. Voy. d. l. Coquille, Zool. II. 2, p. 77. *Callianthia pulchella*, Boisd. Faun. de l'Océanie, p. 131.

(§) Entomography, I., p. 89.

(¶) The Entomologist, 1841, p. 35. (*Clerus*?) (*Pylus*), *fatuus*, *Eleale aspera*, *Hydnocera nitens*, and *H. Malthinus*.

(**) This, and the species previously mentioned will be described in the periodicals of our academy by Dr. Klug.

of the final joint of the male *antennæ*. A third species, *Notoxus porcatus* (*) Fab., belongs to the same genus, with which it agrees in the formation of the foot, and in habit, but it differs in the final joint of the max. palpi not being club-shaped.

The *Ptiniores* have one beautifully marked new *Ptinus* in our collection: there is also a new species of *Lymexylon*. The group of the *Apate* (nearly related to the *Anobiæ*), which has been broken up by Stephens (†) into a series of feebly characterised genera, contains one new species of that genus which still retains the name of *Apate*. To this group is united also the genus *Lyctus*, (*L. canaliculatus pubescens*), whose chief characteristic is a double, instead of a treble antenna-tip; it is not found under bark, and in the ducts of other insects, like those with which it has hitherto been ranked, but it feeds on wood, like the entire family of the *Ptiniores*, including the *Apate* (‡). The genus *Xylotrogus* Steph. (§), of which one species *X. bunneus*, Steph. (||) has been sent from Van Diemen's Land, is very closely united to *Lyctus*, and, as I think, separated from it on insufficient grounds. This insect has been widely distributed in drugs and other articles of commerce, and doubtless, this was the way in which it was first introduced into Van Diemen's Land.

The family of the *Silphæ* is represented in Van Diemen's Land by the *Silpha lachrymosa* of Schreiber. (¶)

(*) Fabr. Syst. Eleuth I. 287, 1. *Not. cribripennis*. Boisd. Faun. d. l'Océan, 140, 3, might be the same insect, provided that its supposed habitat, New Guinea, be not the real one.

(†) Stephens, Illustr. of British Entomol., vol. 3, p. 349.

(‡) In this Archive, vol. 2, Part II, p. 46, I have pointed out the relationship of *Apate* to *Anobiæ*, and Westwood (Introduc. to the Mod. Classif. of Inf. I. p. 277,) is also of my opinion. *Phloeotribus* *Cis*. must however, be taken out of this group. The most natural arrangement would be to embrace the *Ptinæ*, *Lymexylæ*, and *Apatæ* in one family, of which the above-mentioned forms should represent so many different groups.

(§) Ibid 116.

(||) Ibid 117, Part I, pl. 18. f. 4.

(¶) Transact. of the Linn. Soc. VI. p. 194, 20, f. 5.

The *Nitidularidæ* are systematically as imperfectly arranged, as any division of the *Coleoptera*.

Stephen's genus *Carpophilus* is the most important of a small group, which is distinguished by shortened wings. Two new species from Van Diemen's Land belong to a new genus of this group *Brachypeplus*, whose characteristics will be found below. The *Nitidularidæ* stand in similar relationship to the *Trogositæ*, as the *Apatæ* to the *Anobiæ*. The mouth parts are alike ; the chief difference is in the formation of the foot ; the *Trogositæ* having the first joint extremely short, so that the foot has apparently but four joints. Our collection does not contain a real *Trogosita* (*), (according to the type *T. mauritanica caraboides*), but it has received a remarkable new species related to *Gymnochila*, (†), and the type of a new genus, *Egolia*, which differs in the formation of the foot, and is remarkably analogous to *Trogosita*, in the same manner as *Lyctus* to *Apatæ*.

It is remarkable, that out of the entire family of *Histeridæ*, species of *Saprinus* only have hitherto been forwarded from New Holland. Van Diemen's Land has two, *Saprinus lætus*, Er., (‡) and a new, smaller species. Is it possible that the genus *Hister*, of which numerous species are widely distributed in other parts of the world, can be entirely absent from New Holland ?

The family *Dermestidæ* presents European forms in two new species, one of *Megatoma* (||), and one of *Trogo-*

(*) Boisduval (Faun. de l'Océan, 463-2) describes a *Tr. Australis* from V. D. Land, which is unknown to me.

(†) *Gymnochila* Kl. (*Tr. squamosa* Griff. An. Kingd. XV. pl. 60. f 3) is distinguished from *Trogosita* by having the eyes situate on the top of the head, and by the long lip : *Peltis squamulosa* Gebl. (Ledebour's Journey II. App. III. 97. 3) agrees with it in the form of the lip, but differs from it in having the eyes in the usual place : *T. decorata* has not the elongated lip, else the three species (?) would agree in appearance, and in the scaly covering of their bodies. *Trog. varia* F. would also belong here.

(‡) In Klug's "Annual of Entomol." I. 179, 15. (*Hist. Cyanens.* Payk, Mon. Hist. 56, 40, t. 5. f. 2.)

(||) There is still some uncertainty as to the definition of the genera *Attagenus* and *Megatoma*, which would be remedied by abolishing the latter name altogether :

derma(*). In the family of *Byrrhæ*, the forms peculiar to our northern hemisphere are replaced by the genus *Microchætes* Hope, (†) which has enriched our collection with one new species. The genus *Limnichus* is found in every zone ; one new species from Van Diemen's Land is extremely similar to our European *L. versicolor*, Waltl. (riparius Dej.)

Of the family of *Hydrophilæ*, the waters of Van Diemen's Land probably contain some species ; for it is a family distributed nearly equally throughout the different zones ; the rivers and lakes of New Holland, however, have as yet been but little examined ; we know of only one genus, *Cercyon*, which is found everywhere.

Of the *Lamellicornæ* :—A continent destitute of the larger Mammalia, cannot be expected to produce the more important forms of *Coprophagæ* ; thus, while America on the one hand, Africa and East India on the other, are rivals in the number, importance, and the peculiarities of their genera ; New Holland presents few that are valuable, and Van Diemen's Land possesses only *Onthophagus* and *Aphodius*, both widely distributed, and rich in species ; of the former genus we have six, of the latter one species, all new, and some remarkable ;—one, *Onthophagus (pronus)* has an unarmed head, but a long, spear-shaped horn issuing from the neck-plate, (of the male) and projecting beyond the head in a straight direction. In another species the unarmed head (of the male) is compensated for by longer fore legs.

Attagenus would then be a fitting name for *D. pelli* : *Tiresias* for *D. serra*, and a new name must be found for the third genus, now known in England as *Megatoma*. Meanwhile, however, I shall employ the English definition. *Megatoma* distinguishes itself from *Attagenus*, by the front edge (Rande) of the Prosternum occupying (?) the mouth. Neither Stephens nor Heer, who have adopted the generical definitions of the English, have characterised them rightly ; hence they confine these definitions to *M. undatum*, although *D. emarginatus* Payk. and *D. nigripes* F. belong here.

(*) The characteristics of *Trogoderma* are not so much the number of joints in the clubbed antennæ, as in their cavities on the under part of the neck plate, which are wanting in *Megatoma*. The form of the antennæ is different in the different species, those of V. D. Land, are only three-jointed, and club-shaped.

(†) Trans. of the Entomol. Soc. of London I. p. 12. The species here described is

Of the group of *Trogidæ*, I have to mention a most remarkable and rare insect, it is the *Scarabæus proboscideus* Schrieb. (*) from which MacLeay formed the genus *Elephastomus* (†). Doubtless modifications occur in the length of the horn and the snout shaped prolongation of head-plate, not in this male only, but in all Lamellicorn males, according to the size and form of the individual; these being dependent on the amount of nourishment received by the larvæ; the insect, therefore, which was described by MacLeay (‡) as a *female*, having a blunter horn, a shorter snout, and a slightly marked vertical appendage (fortsatz) must be a less perfectly formed *male*: the real female is a true *Bolbocerus*, viz.—*B. Australasiæ* Kirby (§), with the exception of the sexual distinctions, it agrees accurately with *Elephastomus proboscideus*, and, like this, is to be found in our collection. It follows, therefore, that *Elephastomus* must not be regarded as a distinct genus, but as an erratic form of *Bolbocerus*, in which the irregular formation of the mouth parts, especially the elongation of the palpi, depends on the particular position of the mouth: and this again on those parts which protect the head.

The widely distributed genus *Trox*, is represented in Van Diemen's Land by *Trox Australasiæ* Latr.

The collection contains two species of the family *Dynastidæ*, both of which belong to forms peculiar to New Holland: one is a new species of the genus *Cheiroplatys* Kirby (||); the second forms a distinct genus,—*Pimelopus*.

distinctly different from our own. To this genus belongs also without a doubt *Byrrha Australis* Dej., which however is too imperfectly described by Boisduval (Faun. de l'Océan, p. 149) to be recognised as a third species.

(*) Transact. of the Linn. Soc. vi., p. 189.

(+) Horæ. Entom. I., p. 121.—Griffith's Animal Kingdom, xiv., pl. 40, f. 4.

(‡) Ibid, p. 122.

(§) Trans. Lin. Soc., XII., 462, 11, T. 23, f. 5.

(||) Hope, Coleopterist's Manual, i., p. 84. Besides *Geotr. truncatus*, (considered to

Van Diemen's Land furnishes one new species of the genus *Cryptodus* MacLeay (*), the systematic arrangement of which occasions so much difficulty (†).

The *Melolonthæ* forwarded from Van Diemen's Land all belong to genera peculiar to New Holland. *Anoplognathus* appears to have its chief habitat on the Continent:—only one species, *A. suturalis*, Boisd (‡), has been sent to us from Van Diemen's Land. Four new genera occur between *Melolontha* and *Serica*; they agree with the former in having a distinctly marked lip, with the latter in other peculiarities, particularly in the form of the maxillæ, which have a palate, but a sharpened and unarmed point. *Silopa*, containing no less than eight new species, whose number in time will increase materially, is easily recognized by the projecting upper edge of the lip. *Nepytis*, founded on a single species, is distinguished by having only seven antenna-joints, an example I believe to be unparalleled in the entire division of the *Melolonthæ*. *Scitala* has eight antenna-joints, also a rare occurrence. *Telura*, with the usual number of nine, is distinguished by the unusual length of the third joint.

Of the genera already known, *Diphucephala* affords us two species *D. splendens* (MacLeay) (§) and *D. pulchella* (Kirby:) (||) *Liparetrus* (¶) presents one new one, very similar to *L. sylvicola* (*Melol. sylvicola* F.) *Phylloctocus* (**) presents *Ph.*

be its type,) this genus contains the species : *Scar. latipes* Guer. Voy. d. l. Coquille Zool. II. 2. p. 80. Atl. Ins., pl. 3, f. 1. Boisd. Faun. de l'Océan, 163, 3,—and probably also *Sc. porcellus* Boisdual a. a. O. 164-5.

(*) Horæ. Entomologicæ i., p. 138.

(†) Compare the sixth series of this Archive, vol. 2, p. 249.

(‡) Faun. de l'Océan, 178-14.

(§) Cpt. King's Narrat. of a Survey of the Intertrop. and West. Coasts of Austr. ii., 440, 15.—Waterhouse Transact. of the Ent. Soc. of Lond. I., 220-6.

(||) Waterhouse ibid, 221-7.

(¶) Guérin, Voyage de la Coquille, Zoologique, II. 2, p. 90.

(**) Fischer Mem. de la Soc. Imp. des Nat. de Moscou, VI., p. 255. It is identical with the genus *Macrothops* MacLeay, but this name must be subordinate to that of Fischer as it was given subsequently.

MacLeay Fisch. (*) and one new, analagous species.

The *Melitophilæ* must be rare in Van Diemen's Land, as compared with the Continent; our collection does not contain a single species.

The *Lucanidæ* present much that is remarkable.

Two species of *Lamprima* appear in Van Diemen's Land, *L. fulgida* Boisd. and a new one (†): *Dorcus* presents *D. cancr-*

(*) The same, t. 25, f. 2.—*Macrothops præustus* Dej. Boisd. Faun. de l'Océan, 210-1.

(†) In Guérin's Revue, Zool., 1841, p. 50, Mr. Reiche declares all the species of *Lamprima* hitherto known, particularly those arranged by MacLeay, to be merely varieties of one and the same species, whose general and specific characteristic is the three-cornered shape of the one point on the front of the leg, (in the male.) I cannot decide how far this opinion respecting MacLeay's species is correct, for I know them but slightly; but after a careful examination of a number of specimens in our own collection, I have come to the conclusion, not only that several species are there distinguishable, but also that all these species are different to *L. ænea*, (Lethr. æn. F.) so carefully described by Schreiber: they differ in the proportions of the body, in color,—which is not nearly so varied, as it is supposed to be by the French (on Lesson's Authority, s. Boisd. Faun. de l'Océan, p. 231)—in the markings, especially those on the wing-cases of the female, and the direction of the projection of the Mesosternum, in the following manner:

One point on the front of the leg of the male axe-shaped.

L. Latreillei. Sterni mucrone acute prominente, viridis, nitida, capite rufo-aureo.

Mas.—Thorace sparsim subtiliter punctato.

Fem.—Thorace fortiter crebreque punctato, elytris fortius crebrius-que punctulatis.

MacLeay. Hor. Ent. i, 101-2.—*Lamp. ænea* Boisd. Faun. de l'Océan, 228-1.—*Lucan æneus* Donovan. Ins. of N. Holl. fig. infer.

The Mandibles of the male longer than in 3 and 4: the edge of the tip, particularly in the large specimens, rimmed: the wing-cases, as compared with the neck-plate shorter than in the other species. Donovan has figured this species unmistakeably, and MacLeay follows his authority.

(‡)

L. splendens n. sp.

Sterni mucrone acute prominente, viridis, capite, thorace elytrisque supra purpureo-aureis.

Fem.—Nitidissima, thorace crebre fortiterque punctato. elytris parce subtiliterque punctulatis.

Similar to the female of the former species, excepting in colour, which is of a reddish golden hue on the back of the neck-plate, and of a deep copper gold on the wing-cases; these are rather longer than those of *L. Latreillei*, simple, and covered with minute punctures scarcely visible to the naked eye. The male is not yet known.

(§)

L. fulgida.

Sterni mucrone recte truncato, viridi-cuprea, thorace obsolete canaliculato.

Mas.—Viridi-auratus, subnitidus, thorace crebrius, subtiliusque punctulato.

Fem.—Viridi-cuprea, nitida, tibiis, tarsisque chalybeis, thorace creberrime fortiter punctato, elytris fortius crebriusque punctulatis.

Boisd. Faun. de l'Océan, 231-2.—*Lucanus æneus* var. Don. Ins. of N. Holland, (fig. super.)—*Lucan æneus* var. Schreib. Transact. Linn. Soc., vii, p. 117, t. 19, f. 9-14—*L. aurata* MacLeay. Hor. Ent. I., 100-1.

oides (*) and *D. obtusatus* (†). *Ceratognathus* Westwood (‡) and *Syndesus cornutus* (§) are forms peculiar to this island. *Passalus* presents only one species, *P. hexaphyllus* Latr. (||).

Of the family *Melasoma* (belonging to the *Heteromerae*) but one insect appears; it is *Silpha lœvicollis* Fabr., of which none but Fabricius (¶) and Olivier (***) make any mention, I must therefore form it into a separate genus *Saragus*. A genus described by Dejean as *Cestrinus*, is nearly related to *Opatrum*, but separated from it again by its crippled (small) wings, and a few other characteristics: two species of *Cestrinus* appear both in Van Diemen's Land and on the Con-

The edge of the tip of the mandibles is not rimmed, even in the largest specimens; the wing-cases, as compared with the neck-plate are a little longer than in *L. Latreillei*; Mac Leay appears to have confounded both species with *aurata* and *Latreillei* but Donovan's plate is very accurate.

L. rutilans. Prosterni mucrone prominente, obtusiusculo, rubrocuprea, thorace obsolete canaliculato.

Mas.—Subopacus, thorace crebrius subtiliusque punctato.

Fem.—Nitida, thorace creberrime fortiterque punctato, elytris parcius subtiliusque punctulatis.

The mandibles as in the last species; the male is distinguished by its color, the female by the scarcely visible punctures on the wing-cases, these are a little longer as compared with the neck.

L. ænea MacLeay Hor. Ent. I., 101-3.—*Lucan æneus* Schr. [Transact. Linn. Soc. VI., 185-7, t. 20, f. 1. *Lethr. æneus* Fab. Syst. El. I., 2, 2, from Norfolk Island: with the exception of the spined thigh it appears to resemble mostly the following species; it resembles this also in the structure of the mandibles (compare Schreib. a. a. O. t. 19, f. 1-3.

* Termination of one spine of the front thigh of the male knife-shaped.

L. viridis (n. sp.) Prosterni mucrone recte truncato, viridis, nitidula.

Mas.—Thorace vage subtiliter punctato. The hinder thighs have also a different form from those of other *Lamprimæ*; they are rather longer and thicker, but equally thick throughout, whereas in other *Lamprimæ* the point is somewhat broad. A second species of this division would be *L. Micardi* Reiche (a. a. O.)

L. pygmæa MacLeay, a. a. O. 101-4, is perhaps an eighth species, unknown on the Continent: it belongs probably to the first division.

(*) *Lucanus cancroides*, Fab. Syst. El. II., 239, 12. Oliv. Ent. I., 1, 18, 12, t. 4, f. 11 Boisd. Faun. de l'Océan, 234, 1. *Dorcus cancroides* Westwood Entom. Mag. V. p. 267.

(†) Westwood Entom. Mag. V., p. 267.

(‡) Ditto, p. 260.

(§) MacLeay Hor. Ent. I., p. 104. Boisd. Faun. de l'Océan, 240. *Sinodendron cornutum* Fab. Syst. El. II., 377, 2, *Lucanus parvus* Donov. Ins. of N. Holland.

(||) Boisd. Faun. de l'Océan, 241, 1,

(¶) Syst. Ent., 73-7, Syst. Eleuth. I., 338, 8,

*** Ent. II. 11, 12, 9, t. 2. f. 15.

continent. *Upis* and *Tenebrio*, so widely spread over the whole earth, are the only genera of this division not peculiar to N. Holland. *Upis* (and of this the insects having square neckplates, included by Dejean under *Iphthinus*) has sent one new species; *Tenebrio* two new species, and *T. Australis* Mac Leay? (*). *Heleus* has not, as yet, sent any species, although its presence in Van Diemen's Land may be reasonably supposed: of the analagous, but less remarkable genus *Cilibe* Latr.(†) one new species has been forwarded. *Adelium* is well known as being peculiar to New Holland: our collection contains four species; three of which are new, the fourth is known as *A. abbreviatum* Latr.(‡). Nearly allied to *Adelium* is a new species of a new genus *Olisthæna*; and *Pachycælia* also, of which the only species *P. sulcicollis*, (§) Dej. is one of the commonest insects in Van Diemen's Land. The new genus *Helops* assimilates more with the *Stenochiæ*, and is represented by two new species of the name of *Titæna*.

One single species of a new genus *Ulodes*, is related to *Boletophagus*.

The remaining *Heteromera* belong to more widely distributed forms; as *Lagria grandis* Schônkh, (||) two new species of *Anthicus*, one of *Mordella*. Of the family of the *Cantharides* we have but one single insect *Tmesidera rufi-*

(*) Boisd. Faun. de l'Océan, 254, 1.

(†) Dejean Catl. des Coleopt. 3me, ed. p. 208, *Celibe*. Boisd. a. a. O. p. 262. Here belongs Kirby's *Heleus piceus*, Transact. of the Linn. Soc. XII. p. 468, where also the characteristics of the genus are given.

(‡) Boisdual, a. a. O. 281, 11.

(§) Boisd. Faun. de l'Océan, p. 246, Voy. de l'Astrolabe, Ins. pl. 7, f. 5. Westwood in his Arcana Entomologica n. III. p. 44, t. 12, f. 4, under the name *Lepispilus sulcicollis*, Hope, has given a much more satisfactory representation of this insect, and an analysis of its generic distinctions, but he has omitted the mention of a very characteristic incision in the centre of the tongue.

(||) Synonym. Ins. III. App. 9. 9. *Lagria rufescens* Latr. Boisd. Faun. de l'Océan, 286. 1.

pennis Westwood, (*) which, though peculiar in form, is not sufficiently so to warrant its generic separation from *Zonitis*. (†) Of *Edemeridae* one *Edemera punctum* MacLeay (‡) belongs to Dejean's genus *Nacerdes*; (§) two others belong to *Pseudolyceus* Guér. (||) one being *Ps. hæmopterus* Guér. (¶) the other *Lycus hæmorrhoidalis* Fabr. (**) And lastly, a new *Salpingus* assimilates pretty closely to its European generic allies.

The *Curculionæ* of New Holland present mostly peculiar forms, few being more widely distributed. Although no species of the rich genus *Bruchus* have as yet been forwarded to us, it is highly improbable that they are entirely wanting in New Holland, because in other parts of the world they invariably accompany papilionaceous plants, and these occupy an important position, both in New Holland and Van Diemen's Land. Three new *Anthribi* belong to small species; two, to the universally distributed genus *Tropideres*, one of remarkable formation assimilates in its most important characteristics to *Anthribus*. One small new *Rynchites*, with antennæ turned in at the base of the proboscis, presents much affinity to European forms, and is regarded by Schönherr as a distinct genus, *Auletes*. The genera *Rhinotia* and *Eurhynchus*, both limited to New Holland, are represented,

(*)Guer, Mag. de Zool., 1841. 12 e. Livre. Ins. pl. 85. The male antennæ are nearly as long as the body; the third to the seventh joint rather broad. A remarkable variety has black wing-cases, with the exception of the base, and the outer edge.

(†) The species mentioned above has blunted palpi, a very similar species of New Holland agrees in this respect with *Zonitis*.

(‡) Captain King, Narrative of a Survey, etc., II. 443, 43.

(§) It is identical with *Nacerdes palliata* Dej. Catl. Col. 3 ed. p. 250.

(||) Ann. de l'Soc. Ent. d. Fr. II. p. 155. Guérin mentions three other species of this (assumed) genus, one from Port Jackson, and two from Kangaroo Island.

(¶) The same.

(**) I have seen its type in the collection of Fabricius, and convinced myself, that he did not mistake it for the similarly coloured species of *Porrostoma*, *metriorhynchus* Guér.

the former by one, the latter by two new species. The trunk-beetles with short snouts and folded (?) antennæ which have been forwarded from Van Diemen's Land, belong exclusively to New Holland forms. Of *Gonipterus*, one known species, *G. gibberus* Dej. (*) has been sent: of *Amisallus*, a second new one: of *Prostomis*, *Pr. scutellaris* (†): of *Aterpus* two new ones: (of which one, *A. scoparius*, is nearly related to *A. cultratus*; the other, *A. rubus*, is the most important of the yet known species:) of *Pelororhinus* a second new one: of *Rhinariæ*, which I prefer, placing here, rather than with the long-snouted beetles, also a new one; of *Amycterus*, three species, two new, and one the real *A. mirabilis*. (‡) The remaining trunk-beetles of this division, though unimportant, form three new genera, one of these, *Steriphus*, is most nearly united to the European *Plinthus*; the other two *Nothrodes* and *Mandalotus* belong to the group *Otiorhynchæ*, and have most affinity with *Tyloderes*: our collection contains four species of *Mandalotus*, and one each of the other two genera.

Of the trunk-beetles with folded antennæ and long snouts, the genus *Orthorhinus*, peculiar to New Holland, presents us with three species, viz. *O. Klugii* Hope, (§) and two new ones; the more widely spread genus *Erirhinus* has sent one remarkable new species. One small Bagous-like

(*) Boisd. Faun. de l'Océan, 324, 8. Schonh. Gen. et Spec. Curc. VI. 463. 5.

(†) Schonh. Gen. et Spec. Curc. I. 504. 1. *Curcul. scutellaris* Fab. Syst. Eleuth. II. 519. 71. Oliv. Ent. V. 83, 393, 475, t. 12. f. 142, t. 19, f. 420. Herbst. Beetles. VI. 312. 286, t. 84. f. 10. *Curc. exsertus* Fabr. Syst. El. II. 534. 163.

(‡) *Psalidura mirabilis* Kirby, Transact. of the Linn. Soc. XII. 469, 21, t. 23, f. 9. *Amycterus mirabundus*, Schonh. Gen. et Spec. Curc. II. 471. 2. Schonherr describes the female only; his *A. mirabilis* is another somewhat larger species, of which the male has a cork-shaped appendage to the thorax; this appendage is wanting in Kirby's species. A fine specimen of this trunk beetle might be thus described; Fusco squamulosus, thorace vitta laterali lineaque media tenui cinerieis, elytris nigro-cinereoque tessellatis.

(§) Schonh. Gen. et Spec. Curc. III. 246. 3. In one beautifully coloured specimen the band of the wing-cases is snowy white in the centre, the terminating point of the wing cases is either fawn-coloured or white.

trunk-beetle presents all the characteristics ascribed by Schônher to his genus *Notiophilus*.(*) One of the most remarkable and peculiar forms is *Rachiodes spinicollis* Schonh. (†) : three other less remarkable insects of this division form an equal number of new genera ; of these *Cryptoplus* is related to *Anoplus* ; *Meriphus*, with much of the appearance of *Anthonomus*, is closely allied to *Erirhinus* ; and *Diapelmus*, with exactly the appearance of *Erirhinus* ; *Dorytomus* is intimately connected with *Anthonomus*. The group of *Cryptorhynchi* appears to be very extensive, and presents unmistakeable American forms : of thirteen new species eight belong to *Cryptorhynchus* ; three to *Acalles* ; two, having the snout-groove not closed behind, form new genera, of which one, *Melanterius*, corresponds to the American genus *Chalcodermus* ; the other *Cyllorhamphus* stands apparently in a similar relationship to *Cyphorhynchus* Sch. but in reality it belongs to a different division.

We have not received any species of the group *Calandræ* so widely distributed elsewhere : the *Cossonidæ* have afforded us two new species of *Rhyncolus*.

To this family belong also the bark-scarabs of two new species received by us, one is a *Tomicus* (*Bostrichus* Fabr.) and the other belongs to the genus *Cryphalus* (‡), of which hitherto, with the exception of *Cr. tiliæ*, we were acquainted only with European, pine-inhabiting species.

The number of Latreille's *Xylophagi* will be much reduced by the absence of the bark-scarabs, of the *Apate* with *Lyctus*, the *Trogositæ* with *Rhyzophagus* and *Nemosoma*, the *Lathridii* with *Dasycerus* *Monotoma* and *Paussus*, all of

(*) This name cannot be employed, on account of the similarly called *Carabus* genus, we might change it to *Notionomus*.

(†) Gen. et Spec. Curc. III. 362. 1.

(‡) Second yearly volume of these Archives, Part I, p. 61.

which have been or will be separated from them : on the other hand, however, they will be enriched by the addition of *Sarrotrium* and the analagous genera *Corticus* and *Coxelus* ; these have four joints in each foot, and assimilate with *Diodesma*, which Latreille has already rightly numbered among the *Xylophagi*. They approach most closely to *Colydium*, *Synchita*, and others (*) : one of the connecting forms is *Meryx rugosa*, (†) a native of V. D. Land, and not of the East Indies, as Latreille asserts. Insects having feet similar to those of the *Heteromeræ* are not entirely excluded from this family, as is shown in a species of a new genus, *Latometus*, which maintains a central position between *Sarrotrium* and *Synchita*.

A third species belonging to this division is nearly related to our *Cerylon histeroides* ; I have formed a new genus, *Pycnomerus*, for it and several other species, of which some are American. A fourth new Van Diemen's Land species of this division belongs to *Ditoma*.

Van Diemen's Land has afforded us some interesting species of *Cucujus*, another family of the *Xylophagi*: the most important is a new genus, *Platusus*, which is most intimately connected with *Cucujus*, both in size, form, and the difference of the foot-joints in the two sexes : it is founded on a single species, represented in our collection by specimens of both sexes. Two other species of this family belong to the widely spread, though not rich genus *Brontes* ; a third to *Dendrophagus*, its position being determined by the antennæ joints ; and lastly, we must include *Silvanus*, of which our collection has received a new species, slightly differing in form from its type.

(*) I hope to give a further account of the stematic relations of these insects in the next volume of my "Insects of the Mark of Brandenburg."

(†) Latreille *Genera Crust. et Ins.* III. p. 17, t. 11. f. 1.

The group of *Prione*, in the family of *Cerambycinæ*, sends us two species: one, a new one, belongs to the genus *Macrotoma*, which is found in Southern Europe, the East Indies and New Holland, but principally in Africa: the other, described by Fabricius as *Prionus arcuatus*, forms a distinct, and in many respects a remarkable new genus, *Oncinotus*.

The group of *Stenocoridæ* occupies a prominent position among the *Cerambycinæ*: the typical form, which still retains the generic name, *Stenocorus* (*), has afforded us one new species, Hope's *St. longipennis* (†) and *assimilis* (‡) from the division having 2 spined antennæ, neck-plate and wing-cases, *St. elongatus* (§) and *rhombifer* (||) from that having a jagged neck-plate, and *St. scutellaris* (¶) from its having jagged neck-plate, antennæ not spined, and wing-cases rounded at the tip. Of the genera allied to *Stenocorus* we have received Hope's *Trachelorachys fumicolor* (**), *Meropachys MacLeayi* (††), *Scolecobrotus Westwoodii* (‡‡), and a new species. The group of *Callidiæ* presents one form peculiar to

(*) Hope, Transact. of the Zool. Soc. I. p. 107. Newman, Annals of Natur. Hist. V, p. 17, calls it *Phoracantha*, Dejean includes it under *Mallocera*.

(†) Hope, Proceed. of the Zool. Soc. 1840. p. 47, 3. *Phoracantha hamata* Newman Entomologist, 1841. p. 3, is only a variety; one of the specimens sent in comes very near to it, but it is deficient in the dark, transverse marking.

(‡) Hope, Proceed. of the Zool. Soc. 1840, p. 49, 11. *Phoracantha allapsa* Newman, Entomologist 1841, p. 4. Hope, (a. a. O. p. 47, n. 6, 7) assigns also *St. Obscurus* and *punctatus* Don, Epit. of the Ins. of New Holland to Van Diemen's Land.

(§) Boisd, Faun. de l'ocean, 478, 6.: *Stenochorus uniguttatus*, (MacLeay,) Hope, Proceed. of the Zool. Soc., 1840, y. 49. It seems widely distributed, as Hope obtained it from Swan River.

(||) Hope, Proceed. of the Zool. Soc. 1840, 49. It resembles the smaller specimens of the former species, but is distinguished by the situation of the spots, and the very short, scarcely visible spine at the extremity of the wing-cases,

(¶) *Callidium scutellare* Fabr. Syst. Eleuth. II. 538, 26, *Nov. Gen. piceum*, Newman, Entomologist, 1841, p. 9. I am surprised that Hope does not mention this beetle, as it is not by any means rare.

(**) Hope, Proceed. of the Zool. Soc., 1840, p. 51. Hope is of opinion that his second species also. *Tr. pustulatus*, comes from Van Diemen's Land, (Hobart Town.)

(††) Hope, ditto, p. 52.

(‡‡) Hope, Transact. of the Zool. Soc. I. p. 109, t. 15, f. 5. Proceed. of the Zool. Soc.

V. D. Land: though resembling *Hesperophanes* Dej. in appearance, it differs from it in some characteristics, and is arranged by Newman as the genus *Phacodes* (*); one of its species *Ph. obscurus* (†), was brought home by Banks, a second is new. The group of *Stenopteræ* affords one new genus, *Mecynopus*, remarkable for the great length of its antennæ and hinder legs.

The paucity of *Lamia* is remarkable; it presents but one species of the genus *Zygocera*, peculiar to New Holland. *Saperda* is equally limited to one, (unusually small) species, which forms the new genus *Illæna*. The group of *Lepturæ* is represented in New Holland by *Stenoderus*: our collections contain only the known species *St. abbreviatus* (‡) and *ceramboides* (§).

Of the *Chrysomelinæ*. We have not received as yet a single species of the groups *Eupoda* and *Cassidaria*; we must not, however, thence infer that these divisions, though represented in New Holland by but few species, are entirely wanting in Van Diemen's Land: certain it is, that New Holland cannot compare with South America in the number of its *Cassidi*. Among the *Chrysomelæ*, the genus *Paropsis* Ol. (*Notoclea*

1840, p. 33. Hope brings forward also *Uracanthus pallens*, (Proceed. of the Zool. Soc., 1840, p. 53.) and Newman, *Amphirhoe decora*. (Entomologist, 1841, p. 25.) as natives of Van Diemen's Land.

(*) Newman, *ibid*, p. 7. The third and fifth antennæ joints are described as having one spine at the tip, but this is scarcely correct.

(†) *Callidium obscurum*, Fabr. Syst. Eleuth. II. 333. 1. Olivier, Ent, IV. 70, 9, 7. 4, f. 45. *Phacodes lentiginosus*, Newman, Entomologist. 1841, p. 8. It is strange that in London an insect is described as new, which must be found in Banks' Cabinet.

(‡) *Cerambyx abbreviatus*. Fabr. Syst. Eleuth. II. 275, 44. *Stenochorus suturalis*, Olivier, Ent. IV. 69, 29 25, t. 3. f. 29.

(§) *Leptura ceramboides*, Kirby, Trans. of the Linn Soc., XII. 472, 25, t. 23, f. 11. MacLeay (King's Narrat. II. 451, 87.) considers both insects to be one and the same the differences being merely sexual; but this is scarcely probable. Newman is also of the same opinion, (Entomologist, 1841, p. 35.

Macrones exilis, is a Van Diemen's Land insect, nearly allied to *Stenoderus*, Newm. Entomologist, 1841. p. 35.

Marsh, (*) peculiar to New Holland, is of great importance in the Fauna of Van Diemen's Land ; among seventeen species sent in we distinguish *P. morio* (†), *rufipes* (‡), *lineata* (§), and *notata* (||), the remaining new ones are described below ; among the smaller species, several resemble the *Casidi*, in having the wing cases ornamented with shining, golden, silver, or mother-of-pearl coloured markings ; which though they disappear after death, can be restored temporarily by means of moisture.

The genus *Chrysomela* as hitherto described, is divided in Dejean's catalogue into a series of genera, of which, for example, *Zygogramma* is formed merely from a certain similarity in its markings ; it must nevertheless be divided into several parts, these to depend on the form of the palpi and clams. *Oreina* must not be separated from *Chrysomela*, though irregular in the shape of the last palpi-joint because this and other extreme forms will be connected by intermediate series. Other genera will be more easily and

(*) Olivier counts fourteen ; Marsham twenty-four ; Boisduval in the Faun de l'Océan, twenty-five ; Dejean, in his last catalogue, twenty ; (this is with the exception of two Siberian species that do not belong here) our own collection, though not particularly rich in the insects from New Holland, numbers fifty-seven species, how many more must be found in English collections to which the natural productions of New Holland find so easy an entrance !

(†.) *Chrysomela morio* Fabricius Syst. Eleuth. I. 308. 5. A more faintly colored variety is not uncommon ; it is reddish brown on the upper part of the body, and has narrow black streaks on the wing-cases,

(‡.) *Chrysomela rufipes* Fabricius I. c. 430. 41.

(§.) *Notoclea lineata* Marsham Transact. of the Linn. Soc. IX. 293. 19. t. 25. f. 19. The streaks on the wing-cases are more yellow than red.

(||.) *Paropsis notata* Olivier, Entomol. V. 92. 13. 14., pl. 1., f. 14.

naturally arranged, as, for example, *Australica* Chevr. (*) a form limited and peculiar to New Holland. *Ch. Curtisii* (†) and *Ch. maculicollis* (‡) have been forwarded from Van Diemen's Land. Another peculiar form with two species, *Chr. constricta* and *pacifica* has some resemblance to our *Helodes* in the pointed palpi ; but differs from it in the clams, which are toothed at the root. A third widely distributed form is Dejean's *Phaedon*, which also presents two new species.

Of three new *Colaspi*, not one is peculiar to New Holland ; one belongs to the typical genus *Colaspis*, so remarkably numerous in America, though deficient in other parts of the world : the other two belong to the genus placed by Chevrolat in Dejean's catalogue under the name of *Odontionopa* ; it is easily distinguishable by an appendage resembling two little teeth, which is affixed to the anterior part of the head.

Among the *Cryptocephali*, the form now regarded as typical, and which is more or less universally distributed,

(*) This genus has the palpi and the simple bands of the typical *Chrysomelæ*, but its claws are strongly toothed to within a short distance of the tips. The antennæ are compressed from the sixth joint upwards. With respect to the name we should scarcely imagine that another branch of Zoology contains a similar one ; and yet Lesson has an *Australasia* : Entomologists however, reject this name for the insect genus, as do ornithologists for the parrot genus (*Trichoglossus Horsf.*), Hope (*Col Manual* III, p. 166.) proposes for this Chrysomela-form the new appellation of *Calomela*, a name which would always remind us of calomel.

(†.) *Chrysomela Curtisii*, Kirby, Transact. of the Linn. Soc. XII. 473, 26, t. 23, f. 12
Boisd. Faun. de l'Océan, 577, 1:

(‡.) *Chrysomela maculicollis* d'Urv. Boisd. ibid, 578, 3.

is not wanting in New Holland, though Mr. Schayer's collections do not contain a single species. I do not know of any New Holland species of Dejean's genus *Pachybra-chis*, which is distinguished by the mouth not being covered by the anterior edge of the Prosternum; in America it is particularly rich in species, and found occasionally in the three other continents also. On the other hand, New Holland possesses some peculiar forms; one of which corresponds with the genera *Cadmus* and *Odontoderes* of Dejean's catalogue, and is distinguished by its broad feet, thickly furred on the under side, with the terminal joint scarcely issuing from beyond the third joint, as in *Cassida*. Here belongs also the Van Diemen's Land *Cr. Australis* Dejean (*.)

A second form is *Ditropidus* Chevr. whose deviations from *Cryptocephalus* are as follows :—

The neckplate is deeply hollowed behind on either side; the central segment extends in between the wing cases, and is cut out at the smaller extremity for the reception of the point of the little plate. The little plate is oblong, narrow, pointed at each end, not prominent. The Prosternum terminates at the mouth without forming a projection, as in the typical *Cryptocephali*. The eyes are but slightly rimmed internally. The feet short and broad; the claw limb pro-

(*) *Cryptocephalus Australis*, Boisd. de l'Océan, 584, 1. In this description the prevailing color of the wing-cases is said to be a pale red, whereas it is in reality of a bright golden yellow. On this species is founded the genus *Odontoderes*, Chevr. I do not know how this latter is distinguished from *Cadmus*, to which also *Cr. rugicollis*, Gray An. Kingd. XV. pl. 67, f. 5; *rubiginosus*, Boisd. a. a. o. 587, 5; *crucicollis*, Boisd. a. a. o. 585, 2, belong. The toothed lateral edges of the neck-plate, to which the former name seems to allude, belong also to most of the species of *Cadmus*.

jecting but little from between the segments of the third limb ; the antennæ moderately long, thin, the last joints rather broad. A new species from Van Diemen's Land, with two New Holland species, is described below.

Of *Galeruca* only one new, wingless species has been found. Of *Halticæ* three species, one of which, *H. (Graptotodera) corusca* is nearly related to our *H. oleracea* (*), the second is a new species belonging to *Psylliodes*, a genus limited almost exclusively to Europe ; the third species is also new, and it belongs to the genus *Arsopoda*,(†), which is peculiar to the Fauna of New Holland.

The family of *Erotylidi*, which unites so naturally with *Chrysomela* on the one hand, and with *Coccinella* and *Endomychus* on the other, contains besides those forms arranged under *Erotylus*, *Triplax*, and *Languria*, also *Engis*. Why Dejean's genera *Encaustes* and *Episcapha* have been separated from this family, I cannot tell ; they agree with it in the formation of the feet and palpi, more closely than *Engis* does which has both simple feet and palpi and yet is rightly placed in this family. To *Engis* assimilate three new species, (I do not know any others,) of a Van Diemen's

(*) A second species from V. D. Land is *H. Australis*, M. Leay ; which Dejean places in his catalogue (with many other species) as a variety of *H. oleracea*.

(†.) Waterhouse (Transact. of the Entomol. Soc. of London II. p. 131) describes 16 species of New Holland *Halticæ*, but he does not define them very accurately or systematically. One of them, *H. variegata*, is from V. D. Land ; another is said to be nearly related to *H. nemorum* ; a third belongs to *Psylliodes*, (*Macronema*), five are *Diboliæ* (?), but I think these last ought more properly to be classed with *Plectroscelis*, Chev., one of the most widely distributed forms.

Land genus, *Thallis*, which differs principally in the shape of the tongue.

The proper position of *Phalacrus* has yet to be determined ; analogous forms of this genus appear to be distributed over the whole earth ; a new species from Van Diemen's Land is described below :—

Of the family of the *Coccinelli*.—Two varieties (*) of *Coccinella tricineta*, Fab. (†) have spread from the East Indies to Van Diemen's Land. *C. conformis* Dej. (‡) is common to Van Diemen's Land and New South Wales. A third species of the typical form is new. (§.) The genus *Scymnus* of which three species have been forwarded, assumes a larger, longer, and more flattened form in New Holland, than elsewhere. In other respects the New Holland species are not peculiar ; they have the same number (ten) of antennæ joints, which distinguishes *Scymnus* from other *Coccinelli*, (a circumstance, which, however, I do not find anywhere observed,)—only *Corylophus*, Leach, (||)

(*) Syst. El. 361, 33. Schonh. Syn. II. 169, 42.

(†.) *a.* Rather smaller than its type, the connecting plate (Binde) behind the centre shortened, angularly bent.

b. Only half as large, the suture (Naht) broad and black ; the c. plates behind the centre not shortened, but more distinctly, angularly bent.

(‡.) Boisd. Faun. de l'Océan, 604, 24.

(§.) This new species might belong to the *Micraspis* of Dejean's catalogue ; I have not however succeeded in determining any varieties of *Coccinella*, any more than of *Cheilomenes*.

(||.) Stephens Illustr. of Brit. Ent. II. p. 185.

Clypeaster, And. Latr. Regn. An. V. 162.

Cassypus Gyll. Ins. Suec. II. p. 576. Latreille is the only entomologist who

has a similar number of antennæ joints ; its species are mostly of an exceedingly small size, and are widely distributed. Van Diemen's Land has furnished two species described below.

The family of *Endomychidæ* presents a new genus *Daulis* which is not peculiar to the Fauna of New Holland, but common also to that of South America.

The family of the *Lathridiæ* have furnished us with two species ; one, a real *Lathridius* is new and probably peculiar to Van Diemen's Land ; the other is *Corticaria gibbosa*, (*Lathridius gibbosus* Hbst. Gyll.) without doubt, it wandered over originally from Europe.

In the family of *Pselaphiæ*, it is interesting to observe how great a similarity exists between the exotic and the indigenous species. The genus *Batrisus*, whose indigenous species live as guests in the nests of ants, appears to be the most widely distributed. Some species from the different parts of America and Southern Africa are already known, and a new species from Van Diemen's Land will be described below.

The new species and genera of Tasmanian Coleoptera, forwarded by Mr. Schayer, are as follows :—

has rightly determined its systematic position ; (a. a. o.), but he is not correct in stating that the number of antennæ joints is only nine ; it has ten like *Scymnus*. It is with this genus that it presents the greatest similarity, particularly in the larger species.

1. *Calosoma Schayeri*.

Supra viride, nitidum, elytris dense punctato, striatis, subtilissime transversim rugosis punctisque impressis triplice serie.—Long. 10 lin.

Statura fere *C. sycophantæ* et minimis enis individuis æquale, supra totum laete viride nitidum. Antennæ piceæ. Palpi castanei. Mandibulæ transversim rugosæ. Caput subtiliter punctulatum. Thorax subcordatum brevis, basi utrinque profunde impressus, omnium subtilissime parce punctulatus. Elytra confertim punctato striata, interstitiis rugis subtilibus transversis imbricatis, 4, 8, 12 punctorum majorum serie interruptis. Corpus infra jam piceum jam castanæum, viridi relucens. Pedes picei, maris validi, feminae sat graciles, tibiis intermediis maris fortius, feminae levissime arenatis.

1. *Scopodes*.

Fam. Carabi. Trib. Pericalidæ.

Labrum elongatum, mandibulas obtegens.

Palpi filiformes.

Mentum dente medio nullo, lobis lateralibus brevissimis.

Tarsi postici elongati.

A small beetle resembling an *Elaphrus* in its large and protuberant eyes, but distinguished also by its having front plates and the mandibles almost entirely covered by the

labrum ; these characteristics place it in the group of the *Pericalidæ* (Hope, Col. Manuel, II. p. 105.) The missing tooth in the rim of the mentum assimilate it with the *Pericalus* and *Beleoptenus*, (Nycteis Lap.) but it differs from these and all other genera of the same group in the shortness of the lateral segments of the chin, the size of the eyes, the shape of the neckplate, the length of the hinder feet, &c., and it forms a distinct and very peculiar genus. The labrum is rather longer than broad, a little notched at each lateral tip, and almost entirely covering the mandibles. The lateral segments of the chin are short and small, bent inwards : the anterior space smooth.

Comparatively speaking, the maxillary palpi are short ; the second joint is rather short—the third very short, the fourth as long as (all) the rest put together, and pointed ; of the labial palpi, the second joint is rather long and thick, cylindrical, the third rather shorter and thinner, pointed. The antennæ are short, reaching only to the base of the wing-cases ; the first joint is rather thick, the second and third are thinner than the following ones, which are rather compressed. The head is broader than the neck-plate, the eyes are very convex and protuberant. The neck-plate is narrow and narrowing posteriorly, it is provided laterally, in front, with a tooth-shaped, angular projection, and at the hinder part, immediately before the base, with a very prominent sharp tooth. The wing-cases are rather broad, flat, slanting towards the tip, and somewhat hollowed. The feet are simple, thin, the hinder feet half as long again as the thighs ; in the male the fore feet are rather broad.



Erichson, W. F. 1859. "Contribution to the insect fauna of (V.D.Land) Tasmania, with reference to the geographical distribution of insects." *Papers and proceedings of the Royal Society of Van Diemen's Land* 3(2), 298–338.

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