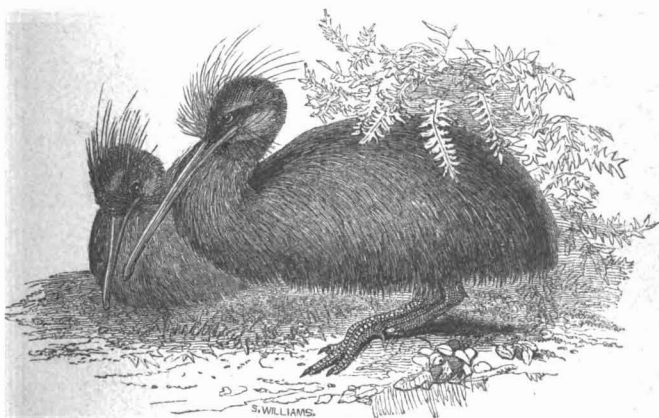


TRAVELS  
IN  
NEW ZEALAND;

WITH CONTRIBUTIONS TO THE  
GEOGRAPHY, GEOLOGY, BOTANY, AND NATURAL  
HISTORY OF THAT COUNTRY.

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IN TWO VOLUMES.—VOL. II.



*Kiwi Kiwi, or Apteris Australis.*

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## CONTENTS OF VOLUME II.

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	PAGE
PART I.	
CHAPTER I.	
The Natives of New Zealand . . . . .	1
CHAPTER II.	
Diseases of the Natives . . . . .	13
CHAPTER III.	
Native Customs regarding Children—Tattooing—Marriage . . . . .	24
CHAPTER IV.	
The Food of the Natives—their Clothing—their Dances—Witchcraft—Modes of Burial—Ideas regarding the Soul . . . . .	43
CHAPTER V.	
Native Villages and Houses—Division of the New Zealand Tribes—Their Numerical Strength . . . . .	68
CHAPTER VI.	
Origin of the New Zealanders, as shown by their Traditions—Their Religious Observances—The “Tapu” . . . . .	84
CHAPTER VII.	
The Character and Intellectual Faculties of the New Zealanders—Their Classes and Grades of Society—Property—Religion . . . . .	107

## CHAPTER VIII.

	PAGE
Native Modes of reckoning Times and Seasons—Different Sorts of Land—Modes of Tillage—Warfare—Spirit of Revenge—Their Canoes—Cannibalism .	121

## CHAPTER IX.

How to Legislate for the Natives of New Zealand .	135
---	-----

## CHAPTER X.

Fauna of New Zealand . . . . .	177
--------------------------------	-----

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PART II.—ON THE LANGUAGE OF THE  
NEW ZEALANDERS.

## CHAPTER I.

Introductory Remarks . . . . .	297
--------------------------------	-----

## CHAPTER II.

Specimens of the New Zealand Language .	306
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PART III.

GRAMMAR . . . . .	326
DICTIONARY . . . . .	355

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Body depressed, with a slightly elevated centre, with the inter-ambulacral area rather more depressed, the ambulacral and inter-ambulacral area nearly equal, the ambulacra not converging together at the end.

LIST of the ANNULOSE ANIMALS hitherto recorded as found in NEW ZEALAND, with the Descriptions of some New Species by MESSRS. ADAM WHITE and EDWARD DOUBLEDAY, Assistants in the Zoological Department of the British Museum.

Class CRUSTACEA.

1. *Paramithrax Gaimardii*. *M. Edwards*. Hist. Nat. des Crust., i., p. 325.

Inhabits New Zealand. *M. Edwards*.

2. *Chlorodius eudorus*. *M. Edw.*, l. c. i., p. 402. *Cancer eudora*. Herbst. iii., pl. 51, f. 3.

Inhabits New Zealand. *M. Edwards*.

3. *Portunus catharus*. *White*, n. s.

Inhabits New Zealand. Collection of the British Museum. *Dr. Andrew Sinclair*, R.N.

This species comes near *P. marmoreus*, *Leach* (Malac. Pod. Brit. Tab. viii., f. 1, 3), differing from the European species in being wider, in having 4 teeth in front of the carapace, the intermediate pair close together. There are 5 teeth on the sides of the carapace, and 1 tooth on the outer part of the sinus over the eye. The carapace is very smooth, has two impressed lines converging behind, and widest in front. The colour of the carapace is brownish yellow, spotted with minute brown dots; the dots forming a lunated line between the impressions on back the most distinct; the penultimate joint of the tail the largest and narrowed in front. Breadth of carapace of a male specimen, 1 inch 2 lines. Length  $10\frac{1}{2}$  lines.

"Common Crab." *Polack* (New Zealand, i., p. 326) speaks of this as inhabiting New Zealand.

4. *Grapsus strigilatus*. *White*. In *Gray's Zool. Misc.*, 1842, p. 78.

Inhabits New Zealand. *Dr. Dieffenbach*.

Carapace with the front part depressed, horizontal, and occupy-

ing more than half its breadth in front, measuring from spine to spine; lateral margins in front with three teeth; many striæ on the sides; hands large, swollen; sides very smooth; upper edge with a few wart-like excrescences.—Colour: sides of carapace red, slightly mottled with yellow; in front and on the back black, with large yellow marks; legs reddish, tinged with blue.

A species in form, &c. agreeing with *G. varius*.

5. *Cyclograpsus sexdentatus*. *M. Edw.*, l. c. ii., p. 79.  
Inhabits New Zealand. *M. Edw.*
6. *Plagusia clavimana*. *Latr. Desm. Consid.*, p. 127.  
*M. Edw.*, l. c. ii., p. 92. "Cancer planissimus.  
Herbst. pl. 59, fig. 3." Var. *Pl. serripes*. *Lam.*  
*Seba*, t. iii., pl. 19, fig. 21.  
Inhabits New Zealand. *M. Edw.* British Museum.  
*Dr. Sinclair*, R.N.
7. *Leucosia?* *orbiculus*. *Cancer orbiculus*. *Fabr.* *Ent.*  
*Syst.* 402, 13.  
Inhabits New Zealand. *Fabr.*
8. *Pagurus cristatus*. *M. Edw.*, l. c. ii., p. 218. *Edw.*,  
*Ann. des Sc. Nat.*, ser. 2, vi., p. 269.  
Inhabits New Zealand. *M. Edw.* Brit. Museum *Dr.*  
*Sinclair*.
9. *Pagurus pilosus*. *M. Edw.*, l. c. ii., p. 233. *Ann. Sc.*  
*Nat.*, vi., p. 282, pl. 14, f. 1.  
Inhabits New Zealand. *M. Edw.*
10. *Porcellana elongata*. *M. Edw.*, l. c. ii., p. 251.  
Inhabits New Zealand. *M. Edw.*
11. *Palinurus?* sp. "Lobster, or Sea Cray-fish." *Cook*.  
"Cancer homarus, L." *Forster, Voy.*, i. p. 144.  
"Kohuda, or cray-fish," *Kohura. Dieffenbach.*  
*Polack*, i. p. 326.

"The highest luxury which the sea afforded us was the lobster, or sea cray-fish, which are probably the same that, in the account of Lord Anson's Voyage, are said to have been found at the island of Juan Fernandez, except that, although large, they are not quite equal in size. They differ from ours in England in several particulars: they have a greater number of prickles on their backs, and they are red when first taken out of the water. These we

also bought everywhere to the northward, in great quantities, of the natives, who catch them by diving near the shore, and finding out where they lie with their feet."—*Hawkesworth*, Voyage of Lieut. Cook, iii., p. 440, and vol. ii., pp. 325 and 328.

Captain Cook called a place where he and his party partook of these cray-fish "Luncheon Cove." i., p. 78 (London edition, 1777).

12. *Paranephrops planifrons*. *White*, in Gray's Zool. Miscell., p. 79.

Inhabits New Zealand, R. Thames. *Dr. Dieffenbach*.

The eyes are large, as in *Nephrops*: the sides of the second thoracic segment, in the middle in front, with a spine, as in *Potamobius*, and a shorter one beneath it: the lamellar appendage of the outer antennæ extends considerably beyond the thickened basal joints of these antennæ, and on the inside is nearly straight, and margined with longish hairs: the first two joints of the outer "foot-jaws" are spined within: the sides of the abdominal segments are not nearly so acutely angulated as in *Nephrops*: the middle plate of the tail is of one piece, as in *Nephrops*, and has the spine removed further back from the much-rounded extremity: the first pair of legs is rather more slender than in *Nephrops*; the claws inside are nearly straight, and furnished with moderate-sized teeth; the hands are but slightly grooved, and have a few rows of spines, largest on the inside: the second pair of legs is the shortest of the four hind pair (while in *Nephrops* the fifth are so), the second are the longest, the fourth and fifth being nearly equal in length.

This species, from the River Thames in New Zealand, connects the two genera *Potamobius* and *Nephrops*, in having the habit of the former, and combining the characters of both.

The carapace of this species is almost cylindrical; the beak reaches beyond the pedicel of the inner pair of antennæ, is straight, broad, flattened, and somewhat hollowed out above; the sides have three teeth; at the base to the side are two teeth, one placed before the other; at the base of the beak, in the middle, there is a slight longitudinal abbreviated ridge; the sides of the carapace, outside the outer jaw-feet, have many short bent spines; the abdominal segments are smooth above; the caudal appendages are finely striated at the end, and tinged with pinkish-red; the thorax covered with minute hairs; the abdomen is of a yellowish, somewhat mottled colour; each segment behind with a very narrow

edge of pink. Length of largest specimen, 3 inches 8 lines, from the end of the tail to the end of the beak; length of smallest 2 inches 8 lines.

13. *Hippolyte spinifrons*. *M. Edw.*, l. c. ii., p. 377.

Inhabits New Zealand. *M. Edw.*

14. *Palæmon Quoianus*, *M. Edw.*, l. c. ii. p. 393.

Inhabits New Zealand. *M. Edw.*

“*Shrimps*.”

The quantities of shrimps and their families are unbounded. *Po-lack*, i., 326.

15. *Talitrus brevicornis*. *M. Edw.*, l. c. iii., p. 15.

Inhabits New Zealand. *M. Edw.*

16. *Orchestia Quoyana*. *M. Edw.*, l. c. iii., p. 19.

Inhabits New Zealand. *M. Edw.*

17. *Cilonera MacLeayi*, *Leach*?

This, or an allied species, was found by Dr. Sinclair on the New Zealand coast. Dr. Leach's specimen exists in the British Museum Collection, but whether he described it or not I have not been able to ascertain. It will come after the genus *Olencira* of Leach (*Dict. des Sc. Nat.* xii., p. 350).

18. *Æga seu Sphæroma*? *Oniscus imbricatus*. *Fabr.*,  
Syst. Ent. 296. 2.

Inhabits New Zealand. *Fabr.*

19. *Sphæroma armata*. *M. Edw.* l. c. iii., p. 210.

Inhabits N. Zealand. *M. Edw.*

20. *Dinemoura affinis*. *M. Edw.*, l. c. iii., p. 465, pl. 38,  
f. 15-18.

Inhabits New Zealand. *M. Edw.*

\*20. *Cypris Novæ Zelandiæ*. *Baird*. MSS.

“Shell ovate, elongated, both extremities of the same size; somewhat turgid, and slightly sinuated in centre of anterior margin; white, smooth and shining, perfectly free from hairs. Approaches *Cyp. detecta* of Müller, but differs in the shell not being flat, as in that, but turgid or rounded, being less sinuated on anterior margin, and more rounded on dorsal surface. The shell does not appear to be transparent.” *Baird*.

Inhabits New Zealand. British Museum. *Dr. Stanger*.

## (CIRRHIPIDES.)

21. *Anatifa spinosa*. Quoy et Gaim., Voy. Astrol., iii., 629, t. 93, f. 17.

Inhabits New Zealand.

22. *Anatifa elongata*. Quoy et Gaim., Voy. Astrol., iii., 635, t. 93, f. 6.

Inhabits Bay of Islands.

23. *Anatifa tubulosa*. Quoy et Gaim., Voy. Astrol., iii., 643, t. 93, f. 5.

Inhabits New Zealand.

24. *Lepas balænaris*. Gmelin. Chemn. viii., t. 99, f. 845-6. *Balanus circulus*. Mus. Genev.

Inhabits New Zealand. Dr. Dieffenbach.

25. *Tubicinella trachealis*. *Lepas trachealis*. Shaw, N. Miscel. xvii., t. 726. *L. tracheæformis*. Wood. Conch. 31, t. 10, f. 1-3. *Tubicinella major* et *T. minus*. Lam., Ann. Mus. H. N., vi. 461, t. 30, f. 1-2.

Inhabits the Skin of Whales. New Zealand.

26. *Elminius plicatus*. Gray, n. s.

Inhabits New Zealand. Mr. Yate and Dr. Dieffenbach.

"Valves yellow, strongly plicated and folded, especially at the base; opercular valves thick.

The apical part of the valves are generally much worn; like *E. Kingii*, the valves are solid and not cellular. When young the valves of these shells are purplish white and low. There is another species of this genus found on the *Concholepas*, which is folded below like this, but purple and depressed." *E. Peruviana*. Gray.

27. *Conia depressa*. Gray.

Inhabits New Zealand, on *Haliotis Iris*, Bay of Islands. Dr. Sinclair

28. *Balanus*. —?

Inhabits New Zealand, on *Mytilus smaragdus*.

29. *Balanus*. —?

Inhabits New Zealand.



## Class MYRIAPODA.

30. *Scolopendra rubriceps*, ♂. *Newport*. MSS.

Inhabits New Zealand. British Museum. *Dr. Dieffenbach*.

“Head, labium, and mandibles very dark red; body blackish brown, somewhat flattened; very much narrowed in the anterior, but dilated in the posterior segments. Antennæ and legs reddish olive. Posterior pair of legs, on the under surface, with 7 spines arranged in two oblique lines, and 3 spines on the internal superior margin. Length  $4\frac{3}{4}$  inches.” *Newport*.

Polack (i. p. 322) speaks of a species of “innocuous” centipede as occurring in New Zealand.

31. *Spirotreptus antipodarum*. *Newport*. MSS.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

“Brown, with the head smooth, and deeply excavated at the sides behind the antennæ; first segment with the sides triangular, subacute without plicæ; anterior portion of each segment substriated diagonally, and mottled with orange; posterior portion almost smooth, with very faint longitudinal striæ. Preanal scale short, rounded.”

“These specimens are in their immature state, and have but 35 segments to the body, the adult number being about 50, and the length of the individual from  $1\frac{1}{2}$  to 2 inches.” *G. Newport*.

## Class ARACHNIDA.

A spider in New Zealand (at Mawi) is named *pouwerewere*. *Walckenaer*, *Apt.* ii, p. 519.

32. *Mygale antipodiana*. *Walck.* *Apt.* i., p. 230.

Inhabits New Zealand. *Walck.*

33. *Segestria saeva*. *Walck.* *Apt.* i., p. 269.

Inhabits New Zealand. *Walck.*

34. *Lycosu nautica*. *Walck.* *Apt.* i., 340.

Inhabits N. Zealand. *Walck.*

“*Aranea viatica*—the wandering spider.” Polack speaks of this being met with continually in New Zealand (i. p. 321). It may be some species of the genus *Lycosa*.

35. *Dolomedes mirificus*. *Walck.* *Apt.* i., 355.

Inhabits New Zealand. *Walck.*

36. *Attus abbreviatus*. Walck. Apt. i., p. 477.  
Inhabits New Zealand. Walck.
37. *Attus Cookii*. Walck. Apt. i., p. 478.  
Inhabits New Zealand. Walck.
38. *Tegenaria Australensis*. Walck. Apt. ii., p. 12.  
Inhabits New Zealand. Walck.
39. *Epeira antipodiana*. Walck. Apt. ii., p. 93. Epeire plumipede. Latr., Hist. Nat. des Ins., t. vii., p. 275, No. 86.  
Inhabits New Zealand. Walck.
40. *Epeira crassa*. Walck. Apt. ii., p. 127.  
Inhabits New Zealand. Walck.
41. *Epeira verrucosa*. Walck. Apt. i., p. 135.  
Inhabits New Zealand. Walck.
42. *Tetragnatha (Deinagnatha) Dandridgei*. White,  
n. s.  
Inhabits New Zealand. Brit. Mus. Dr. Sinclair, R.N.

Brownish yellow, hooks of chelicera and ends of the legs darker ; eyes black (in one specimen pink). The chelicera are longer than the cephalothorax, narrowest at the base, with five spines at the end, the three on the upper side larger than the rest ; inner edge with two rows of small teeth, the under row containing more than the upper ; the claw is very long and curved at the base, the tip also is slightly bent. Eyes eight, placed on two slightly-lunated parallel lines, the two middle eyes of anterior line nearer each other than they are to the side eyes ; they are placed on the sides and the base of a slight projection. Maxillæ long, sinuated on the outer margin, dilated at the ends, which are abrupt and very slightly rounded on the angles ; palpi, with the second joint very long, the third thickest at the end, and shorter than the fourth, which is hairy and considerably thickened at the end ; the globular process in the male near the base of fifth joint, much as in *Dolomedes mirabilis* (Clerck, Aran. Suec. tab. 5, fig. 4), only much more complicated. Mentum rounded at the end, with an impressed line near the margin going round it : there is a slight impressed line down the middle. Cephalothorax of a longish oval figure, narrowed in front, depressed, with two deep impressions about the middle. Legs long, first pair the longest, the fourth

apparently longer than the second, the third very short. Length of a shrivelled-up male from end of body to end of chelicera 6 lines.

I have named this spider after one, many of whose drawings and descriptions seem to me to have been copied by Eleazar Albin, in his 'Natural History of Spiders,' published in 1736. Bradley, in his 'Philosophical Account of the Works of Nature' (1721), refers to "the curious Mr. Dandridge, of Moorfields," as having "observed and delineated" "a hundred and forty different kinds" of spiders "in England alone" (pp. 130 and 131). The Baron Walckenaer, in his elaborate list of arachnologists (Aptères, i., pp. 24-29), has not included Dandridge, though, had he been aware of his labours, he would doubtless have given him a distinguished place amongst his "Aptéristes iconographes, descripteurs et collecteurs." I have formed a new subgenus for this spider, which, with the *Tetragnatha* (*Anetognatha*) *bicolor* of Tasmania (Annals and Mag. of Nat. Hist., vii., p. 475), will form two sections of this family.

"*Aranea calycina*."

Mr. Polack (New Zealand, i., p. 321) says that in New Zealand "the innumerable spider-webs (*aranea calycina*) have the resemblance, when the morning sun shines on them, loaded with the dew of the preceding night, of so many hyads or watery stars."

"Spiders are found in vast abundance amongst the fern." *Yate*, p. 73.

"*Scorpion*," "small and harmless."

Inhabits New Zealand (under bark of trees). *Polack*, i., p. 321.

Class INSECTA.

COLEOPTERA.

43. *Cicindela tuberculata*. *Fabr.*, Syst. Ent. 225.  
*Oliv.* 11, t. 3, f. 28.

Inhabits New Zealand. *Fabr.*

Mr. Charles Darwin and Dr. A. Sinclair also found specimens there which they presented to the British Museum collection.

44. *Cicindela Douei*, *Chenu*. *Guerin*. Mag. de Zool. 1840, pl. 45.

Inhabits New Zealand. *Chenu*.

45. *Cymindis Dieffenbachii*. White. *C. australis*. Hombron and Jacquinot, (nec Dej.) D'Urv. Voy. au Pole Sud, Ins. pl. 1, f. 7.  
Inhabits Otago. Messrs. Hombron and Jacquinot.
46. *Lebia binotata*. Hombron and Jacquinot. D'Urv. Voy. au Pole Sud, Ins. pl. 1, f. 8.  
Inhabits Akaroa. Messrs. Hombron and Jacquinot.
47. *Heterodactylus Nebrioides*. Guerin, Rev. Zool. Cuv., 1841, p. 214.  
Inhabits Auckland Islands. Guerin.
48. *Promecoderus Lottini*. Brullé, Hist. Nat. des Insectes, iv., p. 450.  
Inhabits New Zealand.  
Mr. Waterhouse regards this as "a true species" of Mr. G. R. Gray's genus *Cnemacanthus*. Charlesworth's Mag. of Nat. Hist., 1840, p. 355.
49. *Anchomenus atratus*. Hombron and Jacquinot. D'Urv. Voy. au Pole Sud, Ins., pl. 1, f. 15.  
Inhabits New Zealand. Messrs. Hombron and Jacquinot.
50. *Feronia (Platysma?) australasiæ*. Guerin, Rev. Zool. Cuv., 1841, p. 120.  
Inhabits New Zealand (Bay of Islands), Portotago. Guerin. British Museum.
51. *Feronia (Platysma?) subænea*. Guerin, Rev. Zool. Cuv. 1841, p. 122.  
Inhabits New Zealand (Portotago).
52. *Oopterus clivinoïdes*. Guerin, Rev. Zool. Cuv., 1841, p. 123.  
Inhabits Auckland Islands (Guerin).
53. *Staphylinus oculatus*. Fabr., Syst. Ent. 265, 4. Oliv., t. 11, f. 19. Boisd., Voy. Astrol. ii., 54, t. 9, f. 1. Erichs., Staphyl., p. 352.  
Inhabits New Zealand. Boisd.
54. *Micronyx chlorophyllus*. Boisd. Voy. Astrol. ii. 189. Rutele chlorophylle, t. 6, f. 18.  
Inhabits New Zealand. Boisd.

55. *Stethaspis suturalis*. (Fabr.) Hope. Coleopt. Manual, i., pp. 104, 404. *Melolontha suturalis*. Fabr., Syst. Ent. 34. 12.  
Inhabits New Zealand. Fabr.
56. *Cheiroplatys truncatus*. (Fabr.) Kirby. Hope. Coleopt. Manual, i., p. 29 and 84. *Scarabæus truncatus*. Fabr., Syst. Ent. 6-12.  
Inhabits New Zealand. Fabr.
57. *Pyronota festiva*. (Fabr.) Boisd. ii., 214. *Melolontha festiva*. Fabr., Syst. Ent. 36, 23; Oliv. i. t. 5, f. 48. *Calonota festiva*. Hope, Col. Man. i., p. 40. Var. *Melolontha læta*. Fabr. Syst. Ent. 36, 24. Oliv., i. t. 6, f. 56. *Pyr. læta*. Boisd. ii., 214. *Calonota læta*. Hope. Col. Man. i., p. 41 and 107.  
Inhabits New Zealand. Fabr. British Museum.
- Dr. Sinclair found this species abundantly at the Bay of Islands, but did not bring the variety. The Rev. F. Hope has given the generic characters in a much more detailed manner than Dr. Boisduval, who merely indicates the genus. Boisduval's name, however, is, I believe, prior to that given by Mr. Hope.
58. *Opatrum lævigatum*. Fabr., Ent. Syst. i. 89. 5.  
Inhabits New Zealand. Fabr.
59. *Opilus violaceus*. Fabr. Klug. Abhandl., Berlin, 1840. p. 391. *Notoxus violaceus*. Fabr., Syst. El. i., 297, 2.  
Inhabits New Zealand. Fabr.
60. *Notoxus porcatus*, Fabr.  
Inhabits New Zealand. Hope, Col. Man. iii., p. 137.
61. *Dryops lineata*. Fabr., Syst. El. ii., 68, 4. *Lagria lineata*. Fabr., Syst. Ent. 124. 3. *Nacerdes* sp.? Stev. Dej.  
Inhabits New Zealand. Fabr. Brit. Museum. Dr. Sinclair.
62. *Pseud-helops tuberculatus*. Guerin, Rev. Zool. Cuv. 1841, p. 125.  
Inhabits Auckland Islands.
63. *Brentus barbicornis*. Fabr. Oliv. *Curculio barbicornis*. Fabr., Syst. Ent. 134. 41. Ent. v., t. 1, f. 5, t. 2, f. 5. Schœnh. i., p. 353; and v., p. 578.  
Inhabits New Zealand. Fabr. British Museum.

Dr. Sinclair, in company with Dr. Joseph Hooker, found a specimen of this species in a chink between the bark and wood of the Cowrie (*Damara Australis*): it is now in the British Museum collection.

64. *Brentus assimilis*. *Fabr. Oliv.* Ent. v., p. 433, pl. 2, f. 6. *Curculio assimilis*. *Fabr. Syst. Ent.* 134. 42. *Schænh. i.*, p. 356.

Inhabits New Zealand. *Fabr.*

65. *Brentus cylindricornis*. *Fabr. Schænh. i.*, p. 368. Inhabits New Zealand. *Fabr.*

66. *Rhadinosomus acuminatus*. *Schænh.*, *Curc. vi.*, p. 473. *Leptosomus acuminatus*. *Schænh.*, *Curc. ii.* p. 169. *Waterhouse*, *Trans. Ent. Soc. ii.*, pl. 17, f. 2, pp. 192, 193. *Curculio acuminatus*. *Fabr.*, *Syst. Ent.* 152. 132.

Inhabits New Zealand. *Fabr.* British Museum.

67. —————. *Rhynchænus bidens*. *Fabr.*, *Syst. Ent.* ii. 457, 96. *Curculio bidens*, *Fabr.*, *Syst. Ent.* 136. 51. *Oliv. Coleopt.*, pl. x., f. 113.

Inhabits New Zealand.

68. *Cryptorhynchus? bituberculatus*. *Curculio bituberculatus*. *Fabr.*, *Ent. Syst. ii.*, 414. 90.

Inhabits New Zealand.

69. *Cryptorhynchus? modestus*. *Curculio modestus*. *Fabr.*, *Ent. Syst. ii.* 453. 250.

Inhabits New Zealand.

70. *Psepholax sulcatus*. *White*, n. g., n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair.*

Beak short, perpendicularly bent down, wide, somewhat dilated at the end, near which arise the antennæ. Antennæ spring from the end of a deep groove, twelve-jointed; first joint as long as the next seven taken together, the tip nearly, if not quite, reaching the eye, very smooth, and gradually thickened to the end; the second joint minute; the five preceding the club somewhat moniliform; club large, oval, pointed at the end, (of four joints?) covered with minute hairs. Eyes roundish, of an ovate-elliptical form. Thorax behind nearly as wide as the elytra at base; elytra widest a little behind the base. Legs rather stout. Femora thick-

ened, those of the first pair with the margin sinuated, bulging into a broad blunt tooth; tibiæ of second pair with a strong tooth near the end.

This little Curculionideous genus comes, I believe, near *Gronops* and *Aterpus* of the scientific Schœnherr (Gen. et Spec. Curc. ii., pars 1, pp. 250—252).

The species is of a deep pitchy brownish black; the thorax above with three distinct brownish ashy lines; the lateral ones broadest and somewhat irregular. These lines are formed by distinct coloured scales. The elytra are ribbed, each having, at least, six raised ribs, two of which meet at the end; some of them have erect scales along the irregular edge; between each is a line of impressed points. The sides of the elytra, at the broadest part, are especially hairy. The legs are punctate, and, like the under surface of the body, have brownish ashy hairs, longest on the posterior part of the tibiæ and tarsi. Length about four lines.

71. *Aterpus?* or *Hipporhinus?* *Curculio tridens. Fabr.*  
Inhabits New Zealand.

72. *Eurhamphus fasciculatus. Shuck., Ent. Mag. v., p.*  
506, pl. 18.

Inhabits New Zealand. *Shuckard.*

73. *Nitidula abbreviata. Fabr., Syst. El. i., 348. 5.*  
Inhabits New Zealand.

74. *Apate minutus. Fabr., Syst. Ent. 54. 4.*  
Inhabits New Zealand. *Fabr.*

75. *Dermestes carnivorus. Fabr., Syst. Ent. 55. 2.*  
Inhabits New Zealand. *Fabr.*

76. *Dermestes navalis. Fabr., Syst. Ent. 56. 9.*  
Inhabits New Zealand. *Fabr.*

77. *Pristoderus scaber. (Fabr.) Hope, Col. Man., iii.,*  
p. 181, and p. 81. *Dermestes scaber. Fabr. Syst.*  
*Ent. 57. 16.*

Inhabits New Zealand. *Fabr.*

78. *Dermestes limbatus. Fabr., Ent. Syst. Eleuth. i.,*  
318. 36. Inhabits New Zealand.

79. *Prionoplus (Prionus. auct.) reticularis. White, n. s.*  
Inhabits New Zealand. British Museum. *Dr. Sinclair.*

Pitchy brown; the margins of the abdominal segments beneath

paler; the elytra margined, and of a lighter colour, with three longitudinal veins springing from the base, and connected together by yellowish nervures, forming irregular reticulations, not corresponding on each elytron; the elytra have a short spine at the end close to the suture. The head, thorax, and general surface of the elytra are irregularly punctured and vermiculated.

The thorax is short, transverse, not nearly so wide as the elytra, and covered with many short woolly-like hairs, which give it a brownish hue, and seems to have a longer tuft on each side behind; the sides have a strongish spine about the middle, which spine is angulated at the base.

The femora have two spines at the end, and the tibiæ have three spines, two shorter on the inside at the end, and a longer one on the outside.

The face between the antennæ is hollowed out; the shortish strong angulated mandibles are punctured on the outside; the trophi are prominent, and somewhat clubbed at the end. The eyes are large, and are separated both above and beneath by a rather narrow division. The antennæ are somewhat more than three-quarters the length of the insect; the first joint is strong, short, and thickest at the end; the second is very small, and somewhat cup-shaped; the next eight have a spine at the end of each, the third being the longest joint of the antennæ, and the others gradually shorter; the terminal joint is bluntish at the end; the last joints are somewhat flattened. The sides of the scutellum are nearly parallel, the end abruptly rounded, and down the middle there is a smoothish ridge. The elytra are longish, rounded at the end, and narrowest there; the margin is slightly turned up. Length 1 inch 6 lines; greatest breadth of elytra about  $6\frac{1}{2}$  lines.

This *Prionus* forms a section or subgenus distinct from *Sceleocantha* and *Toxectes* of Newman (Annals and Magazine of Nat. Hist., v. pp. 14, 15), the latter founded on the Australian *Prionus arcuatus*, Fab.; it differs essentially from *Malloderes Dupont* (Guerin, Mag. de Zool., 1835, pl. 125) and *Aulacopus*, Serville (Annales de la Soc. Entom., 1832, pp. 144, 145), of the characters of the species of which it partly partakes.

80. *Callichroma* (*Calliprason*) *Sinclairi*. White, n. s.

Inhabits New Zealand. British Museum. Dr. Sinclair.

Above of a grass green, beneath silvery-grey, with silky scales or hairs; the abdomen is reddish-brown where seen through the



silvery-grey. Legs, antennæ, and cibarial organs reddish; parts about the mouth with grey hairs. Head and thorax above darker than the elytra, in some places inclined to blackish. Elytra strongly margined; margin yellowish brown, upper surface minutely punctured, with three rather indistinct longitudinal ridges. Length  $4\frac{1}{2}$  lines.

Head behind the eyes not wider than the thorax. Eyes very large, prominent, very slightly (if at all) notched near the insertion of the antennæ. Antennæ eleven-jointed; first joint longest, dilated at the end; second minute; third, fourth, and fifth the most slender; third and fourth knobbed at the end; the fifth gradually, and the terminal joints slightly, dilated. Thorax longer than broad, narrowed in front and behind. Sides with a short spine behind the middle. Legs long, slender. Femora clavate. Elytra long, gradually growing narrower towards the end, which is simple.

I have placed this delicately pretty little longicorn beetle in a new subgenus, which in the system seems to me to come near the genus *Promeces* of Serville: it is larger than the *Encyclops pallipes*, Newman (Entomological Magazine, v. p. 392), to which North American species, discovered by Mr. Edward Doubleday, it has some resemblance at first sight. I have named it in compliment to Dr. Andrew Sinclair, surgeon, R. N., who found the insect in New Zealand, and presented it, with many other New Zealand Annulosa, to the British Museum. This insect (like *Encyclops*) seems to be one of the links connecting the *Cerambycidae* with the *Lepturidae*, a family by no means abundant out of America, Europe, and Africa.

81. *Phoracantha dorsalis*. (*Mac Leay*.) *Newm.* Annals of Nat. Hist., v. p. 19. *Stenochorus dorsalis*. *Mac Leay*. Appendix to King's Survey, ii., p. 451, sp. 85.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

82. *Coptomma variegatum*. (*Fabr.*) *Newm.* *Tmesisternus variegatus*. *Boisd.* *Guer.* *Callidium variegatum*. *Fabr. Oliv.*, t. 5, f. 58. *Coptomma vitticolle*. *Newm.*, Ann. Nat. Hist., v. p. 18.

Inhabits New Zealand. *Fabr.* British Museum. *Drs. Dieffenbach* and *Sinclair*.

83. *Coptomma sulcatum*. (*Fabr.*) *Callidium sulcatum*.

- Fabr.*, Syst. Ent., 189. 11. *Tmesisternus*, sp. Latr.  
Guer. Voy. Coquille, letter-press, ii., p. 130.  
Inhabits New Zealand. *Fabr.*
84. *Coptomma lineatum*. *Fabr.* *Callidium lineatum*.  
*Fabr.*, Syst. Ent. 189. 10. *Tmesisternus*, sp. Latr.  
Guer. Voy. Coquille, ii., p. 130.  
Inhabits New Zealand. *Fabr.*
85. *Lamia heteromorpha*. *Boisd.*, Voy. Astrol. ii., 505.  
Inhabits New Zealand.
86. *Lamia crista*. *Fabr.*, Syst. Ent., 170. 3.  
Inhabits New Zealand. *Fabr.*
87. *Xyloteles griseus*. (*Fabr.*) *Newm.*, Entomologist, No.  
12. *Saperda grisea*. *Fabr.*, Syst. Ent. 186. 9.  
Inhabits New Zealand. *Fabr.* British Museum. *Drs.*  
*Dieffenbach* and *Sinclair*.
88. *Xyloteles lynceus*. (*Fabr.*) *Newm.*, Entomologist, No.  
12. *Saperda lyncea*. *Fabr.*, Syst. Ent. 185. 8.  
Inhabits New Zealand. *Fabr.*
89. *Saperda tristis*. *Fabr.*, Syst. Ent. 186. 11.  
Inhabits New Zealand. *Fabr.*
90. *Saperda villosa*. *Fabr.*, Syst. Eleuth. ii., 320, 13.  
*Saperda hirta*. *Fabr.*, (olim.) Syst. Ent. 184. 4.  
Inhabits New Zealand. *Fabr.*
91. *Clytus minutus*. *Fabr.* *Callidium minutum*. *Fabr.*,  
Syst. Ent. 192. 23.  
Inhabits New Zealand. *Fabr.*
92. *Phaedon brunneum?* (*Fabr.*) *Colaspis*. *Fabr.* *Hope*.  
Coleopt. Man. iii., p. 97. *Chrysomela brunnea*.  
*Fabr.*, Ent. Syst. Eleuth. i., 439. 104. *Donov.*, Ins.  
New Holland, pl. xx.  
Inhabits New Zealand. *Donov.*

## ORTHOPTERA.

93. *Blatta Americana*.  
Inhabits New Zealand. (Introduced by the whale-  
ships.—*Polack*, i., p. 320.)

94. *Locust grasshopper*. *Yate's New Zealand*, p. 72.  
*Polack*, i., p. 319.

Inhabits New Zealand.

Dr. Sinclair has brought from New Zealand two or three species of Locustidæ.

95. *Mantis*.

Dr. Sinclair brought the egg-case of a species of Mantis from New Zealand.

96. *Deinacrida* (*Anostostoma*, *G. R. Gray*). *Heteracantha*. *White in Gray's Zool. Misc.*, 1842, 78.

Inhabits New Zealand. *Drs. Dieffenbach and Sinclair*.

Hind legs nearly twice the length of the insect; tibiæ quadrangular, broadest behind, the edges armed with spines coming out alternately; spines very strong and sharp: body brown, beneath yellow: head punctured on the vertex: antennæ at least  $2\frac{1}{2}$  times the length of the insect: thorax punctured, with some small smoothish spaces in the middle; the lateral margins somewhat thickened. The head is not nearly so broad nor so large as in *Anostostoma*; the mandibles much shorter; the labial palpi have the terminal joint swollen at the end; when dry it is slightly compressed from shrinking; the maxillary palpi are very long; the three last joints cylindrical, the last longest, gradually clubbed at the end.

The length of the specimen brought by Dr. Dieffenbach, measuring from the forehead to the end of the abdomen, exclusive of appendages, is 2 inches; from the end of the tarsus of hind leg to end of antenna stretched out this specimen measures at least  $12\frac{1}{2}$  inches. The specimen may be in the larva state. The præsternum, as in *Anostostoma*, with two spines, approximating in the middle; meso- and meta-sternum deeply grooved behind, with a strong tooth on the sides behind.

Dr. Andrew Sinclair, since my short description was published in the second part of Mr. Gray's *Zoological Miscellany*, has brought from New Zealand a specimen of this species, which, with its hind legs and antennæ stretched out, is at least 14 inches long; its head and body, exclusive of appendages, being  $2\frac{1}{2}$  inches. The specimen is a female; its ovipositor is rather more than an inch long; is slightly bent upwards, and compressed through the greater part of its length, the 2 cultelli, forming its principal part, being somewhat angular at the base. Nearly the whole insect is of an ochry-yellow colour, the end of the ovipositor, and the ex-

treme tip of the spines on the legs being brown; the margins of the abdominal segments are of a lighter colour; the transversely-ridged and rough-surfaced femora have many light-coloured streaks. The greater portion of the dorsal part of the thorax is somewhat ferruginous. This specimen was found by itself on the Marsh Pine in Waiheke, in the Firth of Thames. Five other specimens of smaller size Dr. Sinclair found congregated under the bark of trees. The *Deinacrida*, according to the Maories, generally keeps high up on the trunk, which the natives are afraid to climb, as the insect, especially the dark-headed, long-jawed male, bites severely.

The fore tibiae have no spine in the middle in front, and the head is much smaller than in Mr. George Gray's *Anostostoma*, of which it may, however, be a species merely.

*Kikáraru. Polack.*

Inhabits New Zealand (Spear-grass). *Polack*, i., p. 329.

“The most disgusting insect in nature.” *Polack*. It is impossible to say to what order this insect is to be referred.

NEUROPTERA.

*Libellula?* Dragon-fly.

Inhabits New Zealand. *Yate*, p. 373.

Dr. Sinclair brought five species of Dragon-flies from New Zealand: two of these are Agrionideous; the largest is described below.

97. *Petalura Carovéi. White*, n. s.

Inhabits New Zealand. (Auckland.) British Museum.

*Dr. Sinclair.*

Dilated anal appendages, somewhat rounded at the end; anterior margins of wings dark brown; the tips, especially of second pair, are slightly tinged with dusky. The yellow-coloured plaggæ on the thorax are wide, and more distinct than in *P. gigantea*, *Leach*. Total length from 4 inches 5 lines, to 4 inches 8 lines.

In the type of this genus, established by Dr. Leach in the *Zoological Miscellany*, ii., p. 96, tab. 95, the anal appendages are notched or sinuated near the end within, and the anterior edge of both wings is varied with white; the forehead is wider, and the frontal ridge somewhat different; the femora are dark, while in this they are ferruginous.

Those who have read ‘The Story without an End,’ translated

by Sarah Austin from the German of F. W. Carové, and illustrated so beautifully by W. Harvey, will know why I have given the above name to this fine large Dragon-fly.

*Ephemera.*

Two species found by Dr. Sinclair in New Zealand.

HYMENOPTERA.

98. *Ichneumon lotatorius*. Fabr., Syst. Ent. 330. 16.

Inhabits New Zealand. Fabr.

99. *Ichneumon solicatorius*. Fabr. l. c. 332. 30.

Inhabits New Zealand. Fabr.

Dr. Sinclair found this species there also; his specimens are in the British Museum collection.

100. *Ichneumon decoratorius*. Fabr. Syst. Ent. 333. 32.

Inhabits New Zealand. Fabr.

*Formica?* Black ant. Polack, i., p. 320.

Inhabits New Zealand. Polack.

Cook also speaks of Ants.

101. *Ophion?* *Ichneumon luteus* (L). Fabr., Syst. Ent. 341. 75.

Inhabits New Zealand. Fabr.

102. *Sphex fugax*. Fabr., Syst. Ent. 350. 27.

Inhabits New Zealand. Fabr.

HOMOPTERA.

103. *Cicada Zelandica*. Boisd., Voy. Astrol. ii., 611, t. 10, f. 6.

Inhabits New Zealand. British Museum.

104. *Cicada cingulata*. *Tettigonia cingulata*. Fabr., S. Ent., 680. 9.

Inhabits New Zealand. Fabr. (British Museum.)

Dr. Sinclair found this "very noisy" species at Auckland in a marshy spot, where the *Phormium tenax* abounds. This may be one of the "scorpion flies with whose chirping the woods resound," referred to in Cook's 'Third Voyage,' i., p. 153 (2nd edit).

105. *Cicada cruentata*. *Tettigonia cruentata*. Fabr., S. Ent., 680. 10.

Inhabits New Zealand. Fabr.

106. *Cicada muta*. *Tettigonia muta*. *Fabr.*, S. Ent., 681. 17.

Inhabits New Zealand. *Fabr.* British Museum. *Dr. Sinclair.*

## HEMIPTERA.

107. *Forest Bugs*. *Yate*, p. 73.

Inhabit New Zealand.

*Dr. Sinclair* brought a green-coloured *Pentatoma*, allied to *P. prasina*.

108. *Reduvius (Pirates) ephippiger*. *White*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair.*

Black, with reddish-yellow legs and antennæ, and an ochraceous patch on the inner edge of each hemelytron near the base. Length, 9 lines.

109. *Kutu*. *Polack*, i., p. 320. "*Pediculus humanus*."

*Polack*, i., p. 320.

Inhabits New Zealand.

## LEPIDOPTERA.

110. *Lycæna Edna*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair.*

Exp. Alar., 1 unc. 2-4 lin.

Male with the wings above bright copper-colour; nervures slightly, the outer margins very distinctly bordered with black. Anterior wings with two rounded black dots before the middle; a larger quadrate one on the false nervure, closing the discoidal cell, midway between which and the outer margin is a curved series of 5 or 6 rather obsolete black dots. Near to the outer margin is a more distinct row of black dots, occasionally slightly confounded, especially near the apex, with the border itself. Posterior wings, with a discoidal lunule, and a waved maculiform band beyond, of a dusky hue; and towards the anal angle three marginal black dots. Cilia fulvous. Beneath, the anterior wings have the disc of a paler fulvous; the base, anterior, and outer margins dull yellow; the discoidal spots and the first macular band very distinct; and three rather large spots of the same colour at the anal angle. Posterior wings ochreous yellow, with two small black dots near the base, and 5 or 6 similar ones near the outer margin; the disc, with fuscous markings, in the same situation as those on the upper surface.

Female with all the wings dusky at the base; anterior with the discoidal spots more distinct than in the male; the first series of dots united together so as to form a distinct curved band, the second almost entirely confounded with the border. Posterior wings with the discoidal spot very distinct. Beyond the middle are two macular bands, the second more or less confounded with the border. The under surface, especially of the posterior wings, is more obscure than in the male, and the markings less distinct.

111. *Hamadryas Zoilus*. *Boisd.*, Voy. Astrol., 91.  
Nymph. Nais. *Guerin.*, Voy. Coq. t. . Pap.  
*Zoilus*. *Fabr.*, Ent. Syst. iii., 128.

Inhabits New Zealand. *Fabr.*

112. *Vanessa Gonerilla*. *Boisd.*, Voy. Astrol., 122.  
*Papilio Gonerilla*, *Fabr.*, Syst. Ent., 498. 237.  
*Don.*, Ins. Ind.

Inhabits New Zealand. *Fabr.*

113. *Vanessa (Itea)* *Fabr.* *Boisd.*, Voy. Astrol., 122.  
*Papilio Itea*. *Fabr.*, Syst. Ent., 498. 238. *Don.*  
Ins. Ind.

Inhabits New Zealand and New Holland. *Boisd.*

### *Sphinx* ?

"The caterpillars feed on *Convolvulus batatas*. The *Sphæria Robertii*, Hooker, is found parasitical on this caterpillar, which only occurs at the roots of the rata-tree (*Metrosideros robusta*)."  
—*Dieffenbach*.

114. *Hepialus virescens*. *Doubleday*.

Inhabits Waitemata, New Zealand. British Museum.  
*Dr. Dieffenbach*.

Anterior wings triangular, very slightly falcate, pale greenish, marked with numerous darker clouds, giving them a tessellated appearance. Beyond the middle is a duplex, transverse fascia, greenish exteriorly, pallid internally; the outer margin and the costa at the base being of the latter colour; posterior wings greenish; thorax pallid, greenish anteriorly; abdomen greenish.

115. *Leptosoma annulatum*. *Boisd.*, Voy. Astrol., 197.

Inhabits New Zealand. *Dr. Sinclair*.

116. *Heliothis Peltigera*. *Ochs*.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.  
The specimens brought home by *Dr. Sinclair* appear to be

identical with the European species; they are however in rather faded condition: perhaps, if more perfect specimens be obtained, some slight distinction may be detected.

117. *Plusia eriosoma*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 1 unc. 10 lin.

Anterior wings purplish-ash, glossed with copper in various places, especially towards the outer margin. Across the middle of the wing is a broad brown bar, less distinct on the costa than on the inner margin, bounded externally by a very indistinct, wavy, fuscous striga, and internally by a bright silvery line extending obliquely from the inner margin to the median nervure, upon which, a little beyond this line, is a V-shaped silvery mark, followed by an oval silvery spot. Near the apex, in certain lights, there is an appearance of an oblique dusky striga approximating to, but not connected with, a similar striga ascending from the anal angle. Posterior wings fuscous. Abdomen, with the extremity and the sides beyond the middle clothed with long fulvescent hairs.

118. *Aspulates? subochraria*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 1 unc. 1-2 lin.

Anterior wings ochraceous; the costa, a very faint striga near the base, a broad transverse fascia beyond the middle and parallel with the outer margin, brown; the space between this and the margin tinged with light brown, darker on the margin itself. Disc with a small rounded black dot. Posterior wings pale ochraceous, immaculate. Below, the anterior wings of the male have the disc fuscous, the margins ochraceous, the posterior one darker than above, and irrorated with brownish scales, almost condensed into transverse bands. The female is ochraceous, with a common transverse striga and a distinct spot. Male with the pectinations of the antennæ very short. Antennæ of the female simple.

119. *Cidaria rosearia*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 1 unc.

Anterior wings pale brown, tinged with rosy purple, fuscous at the base; this portion bounded by a wavy fuscous striga. Before the middle is a wavy transverse fuscous band, and a similar but broader one beyond the middle; both less defined near the margins of the wing, appearing composed of three coalescing strigæ.



Beyond these are a few scattered blackish dots, chiefly on the nervures and outer margin, and in some individuals there is a slight fuscous cloud near the apex. Disc with a small black crescent. Posterior wings pale, with an indistinct transverse striga across the disc.

120. *Cidaria? cinerearia*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 9 lin.

Anterior wings acuminate, very slightly falcate, pale brownish-ash, with numerous fuscous strigæ, mostly very slender, but occasionally uniting to form transverse bands, of which one, not very distinct, is situated near the base, another a little before, and a third a little beyond the middle, these two being very distinct near the costa, but almost obliterated near the inner margin. Near the outer margin, which is rather darker than the ground-colour of the wing, is a slender much-waved whitish striga, and near the middle of the costa is a minute white dot. Posterior ashy-white, rather shining, with numerous indistinct fuscous strigæ. Antennæ of the male emitting from their lower surface two stout pectinations of unequal length, closely approximating at their origin, clothed with a delicate silky pubescence; at the base and apex these pectinations are very short. Palpi rather long.

This interesting little species will undoubtedly some day be found to constitute a genus distinct from that in which I have provisionally placed it, but only having seen one sex of it I was unwilling to attempt to characterise it generically.

121. *Acidalia pulchraria*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 11 lin.

Anterior wings elongate, trigonate, posterior subquadrate; all pale greenish-white, marked beyond the middle with five common transverse strigæ, composed of faint lunulated dots. The posterior wings have a faint indication of two or three strigæ near the base, and a small greenish discoidal dot.

122. *Ptychopoda? rubraria*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 9-10 lin.

All the wings pale brownish, irrorated with fuscous, the posterior slightly tinged with reddish, the outer margins with a series of small black dots. Anterior wings with a slender much-waved

striga near the base, a second similar striga near the middle, on which is placed a distinct black dot; a broad indented fascia near the margin, followed by a series of oval or rounded spots, all fuscous. Posterior wings with a slender-waved striga near the middle, two approximating ones beyond the middle, and a row of oval or rounded spots near the outer margin, all fuscous. Antennæ of the male strongly pectinated; of the female simple, annulated with black and white. First and second pair of legs in the male very long, the anterior tibiæ simple; those of the second pair of legs furnished with two spurs at the apex; posterior legs short, stout, compressed, furnished with the usual tuft of hair; claw wanting. Female with all the legs elongate; posterior tibiæ with one long and one short spur at their extremity; tarsi long.

123. *Ptychopoda rubropunctaria*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 9-10 lin.

All the wings brownish white, with numerous delicate very much-waved transverse darker strigæ; a small red dot beyond the middle towards the anal angle, and a marginal series of minute black dots. There are also three series of more or less distinct minute black dots, one near the base, one just before the middle, the third a little beyond the middle of the anterior wings; the second and third being continued on to the posterior wings.

124. *Diasemia grammalis*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 7-8 lin.

Anterior wings rufous brown, the rufous colour predominating near the base; inner margin with a black dash at the base, and before the middle a black triangular blotch, preceded and followed by a whitish patch. Beyond the middle is a transverse white line, not quite reaching the inner margin, where it bounds externally a second triangular black blotch. Posterior wings rufous brown, more or less irrorated with fuscous, with two irregular transverse whitish strigæ, between which is a black patch. Cilia of all the wings varied with black and white. Antennæ black. Legs elongate, rufous.

125. *Margaritia flavidalis*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 8-9 lin.

All the wings ochraceous, the outer margins with a series of minute dots. Anterior wings with a faint striga near the base, a

still fainter one near the middle, and a more distinct much-waved one near the outer margin, and two discoidal stigmatiform spots fuscous. Posterior wings with a discoidal spot, preceded towards the anterior margin by a smaller one, a transverse striga beyond the middle, and the anal angle fuscous.

126. *Margaritia quadralis*. *Doubleday*, n. s.

Inhabits New Zealand. *Dr. Sinclair*.

Exp. Alar., 10 lin.

Anterior wings fuscous, clouded with ochraceous, especially at the base and along the costa; a paler ochraceous spot near the middle, not far from the costa. Towards the outer margin is a waved, slender, fuscous striga. Posterior wings fuscous; darkest at the anal angle.

127. *Margaritia polygonalis*. *Treits*?

Inhabits New Zealand. *Dr. Sinclair*.

The only specimen of this species brought by *Dr. Sinclair* being much rubbed, I cannot be positive of its identity with the European *polygonalis*.

128. *Margaritia?* *cordalis*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 1 unc., 1 lin.

Anterior wings subdiaphanous, very pale straw-colour, slightly irrorated with fuscous and rufous; the base, a heart-shaped spot before the middle; a quadrate one on the costa beyond the middle, and the apex rufescent: the apical spot edged internally with fuscous. Costa towards the apex, and the outer margin marked with fuscous dots. Posterior wings subdiaphanous, with three fuscous spots; one towards the middle of the anterior margin, a second below it near the hinder margin, a third near the apex. Outer margin dotted with fuscous. Legs pale, dotted with fuscous.

129. *Crambus ramosellus*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 1 unc.

Anterior wings acuminate, brown, with a longitudinal silvery stria branching before and again after the middle, edged below from the base nearly to outer margin with a black line broken for a short space beyond the middle. Near the apex is a curved series of six or seven minute black dots, and on the margin itself

a similar series. Cilia, except at the apex, fuscous. Posterior wings fuscous, immaculate.

130. *Crambus flexuosellus*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 10 lin.

Anterior wings brown, marked a little below the costa with a slightly-waved silvery vitta, scarcely attaining the outer margin, which it only touches just below the apex, at which point the cilia are silvery. On the disc, immediately below this vitta, are two or three small brown spots; and on the outer margin, also below the vitta, are four brown dots. Cilia, except near the apex, fuscous. Posterior wings fuscous.

131. *Crambus vittellus*. *Doubleday*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair*.

Exp. Alar., 10-12 lin.

Anterior wings acuminate, brown, divided longitudinally by a silvery vitta extending from the base to the middle of the outer margin. Outer margin very delicately edged with black; this colour extending slightly along one or two of the lower nervures. Costa beyond the middle rather pale. Posterior wings, and cilia of all the wings, fuscous.

This species seems to vary a little; one specimen, which I believe to be only a variety, has the costa beyond the middle silvery-white. It is even possible that the preceding species may ultimately prove only a variety of this.

132. *Argyrosetia stilbella*. *Doubleday*, n. s.

Inhabits New Zealand. *Dr. Sinclair*.

Exp. Alar., 7 lin.

Anterior wings silvery-white, slightly tinted with yellow along the inner margin, marked with a longitudinal brown vitta extending quite from the base to the apex, occupying about one-third the width of the wing. The costa, except the middle, slenderly edged with black, emitting near the apex an oblique line to the central fascia. Cilia at the apex long, silvery-white, tipped with brown. Posterior wings fuscous.

In addition to the species of Lepidoptera described above, I may record the existence of the genera *Phycita*, *Aphelia*, *Anacampsis*, *Depressaria*, and, I believe, *Eudorea*; but unfortunately the specimens brought by *Dr. Sinclair* are not sufficiently perfect to admit of their being described with the necessary minuteness.

## DIPTERA.

*Simulium?* Namu, or sand-fly. *Polack*, New Zeal.,  
p. 319.

Inhabits New Zealand.

Most numerous on the beach and by the sides of creeks and rivers.—*Yate*, New Zealand, p. 72.

To some insect, of a genus allied to *Simulium*, is to be referred the New Zealand sand-fly alluded to in the following passage:—  
“A sort of little crane-flies (*tipula alis incumbentibus*) became remarkably troublesome during the bad weather. They were numerous in the skirts of the woods, not half so large as gnats or musketoes, and our sailors called them sand-flies. Their sting was extremely painful. . . . All, however, were not equally affected.”—*Forster*, Voyage, i., pp. 135, 136.

“The most mischievous animals (at Dusky Bay) are the small black sand-flies, which are very numerous, and so troublesome, that they exceed everything of the kind I ever met with: wherever they bite they cause a swelling, and such an intolerable itching that it is not possible to refrain from scratching, which at last brings on ulcers like the small-pox.”—*Cook*, Voyage in Resolution and Adventure, i., p. 99.

*Culex?* Waiwai-roa, or Mosquito. *Polack*, l. c. i., p. 319.

Inhabits New Zealand (swamps). *Polack*.

“Musketoes abound in the woods, and by the side of streams; but they are only lately imported. According to *Cook*, these insects were found on his first visit in great abundance in the woods. The natives deny this.”—*Yate*, p. 72.

On Lieutenant *Cook*'s voyage in the *Endeavour*, these flies are mentioned as follows:—“Of mosquitoes and sand-flies, however, which are justly accounted the curse of every country where they abound, we did not see many: there were, indeed, a few in almost every place where we went on shore, but they gave us so little trouble, that we did not make use of the shades which we had provided for the security of our faces.”

133. *Thereva bilineata*. (*Fabr.*) *Wiedem.*, *Aussereur.*  
*Zweifl.*, Ins. i., p. 229. *Biblio bilineata*. *Fabr.*  
*E. Syst.*, 757. 3.

Inhabits New Zealand.

134. *Eristalis trilineatus*. (*Fabr.*) *Wiedem.*, *Aussereur.*

*Zweifl.*, Ins. ii., p. 168. *Syrphus trilineatus*.  
*Fabr.*, E. Syst., 766. 16.

Inhabits New Zealand. *Fabr.*

Dr. Sinclair brought home a small species closely allied to this, if not the same.

135. *Eristalis cingulatus*. (*Fabr.*) *Wiedem.* l. c. ii., p.  
162. *Syrphus cingulatus*. *Fabr.*, E. Syst., 767.  
23.

Inhabits New Zealand. *Fabr.*

136. *Musca (Sarcophaga) læmica*. *White*, n. s.

Inhabits New Zealand. British Museum. *Dr. Sinclair.*

Thorax and scutellum black, slightly tinged with hoariness; a few longish stiff hairs scattered over the surface, which is covered with minute hairs. Abdomen above of an obscure metallic green, in some lights yellowish, caused by minute yellow scales and hairs profusely spread over it; beneath it is more yellow, the green varying in some lights. The legs are yellow, with some obscure hairs; the tarsi blackish-brown; wings at base with a yellowish hue; head in general yellow, between the eyes brown, and with two longitudinal lines of stiffish hairs. Length of female 6 lines, of a male  $4\frac{3}{4}$ . Agrees pretty nearly with the genus *Sarcophaga*, *Meigen.*, Syst. Besch. Europ.; *Zweifl.*, Ins. v., p. 14, taf. 43, fig. 1-10.

Dr. Sinclair informs me that the Rev. Mr. Taylor, of Waimaté, has made beautiful drawings of many of the insects around his station; and, amongst others, has delineated the transformations of this flesh-destroying species. It is to be hoped that this missionary will publish his researches on the natural history of the island. This may be the "gad-fly, or œstrus," referred to by *Polack* (*New Zealand*, i., p. 320), as being "a great nuisance at table;" and the "flesh-flies very like those of Europe," mentioned in *Hawkesworth's* relation of *Cook's Voyage of the Endeavour*, iii., p. 439.

#### APHANIPTERA.

137. *Pulex*. Keha, or flea. *Polack*, l. c. i., p. 321.  
*Tuiaiu*. *Dieffenbach*.

Inhabits New Zealand.

The natives say that fleas were introduced by the Europeans, and for that reason call them sometimes "he pakea nohinohi," the little stranger.—*Dieffenbach*.

Additional RADIATED ANIMALS and ANNELIDES. By J. E. GRAY, Esq.

Fam. FLUSTRADÆ.

138. *Membranipora pilosa*. Johns, Brit. Zooph., t. 24, f. 10, 12.

Inhabits New Zealand, on Fuci. Dr. Sinclair.

139. *Menipea cirrata*. Ellis, Zooph., t. 4, f. 1.

Inhabits New Zealand. Dr. Sinclair.

*Tricellaria* of Fleming, and *Crissia tricythara*, Lamx. Pol. flex., t. 3, f. 1, belongs to this genus, and *Menipea hyalæa*. Lamx. Pol. flex. is a *Catenicella*.

140. *Acamarchis prismatica*.

Inhabits New Zealand. Dr. Sinclair.

Coral reddish brown, with prismatic reflections; the cells two-rowed, elongate; ovarial cell globular, polished white.

141. *Selbia Zelandica*. Gray.

Inhabits New Zealand. Dr. Sinclair.

The coral of this new genus is frondose, forked, continuous; the cells are ovate, alternating, forming two rows on the upper surface of the frond, and each furnished with a bristle-like fibre; the other surface of the frond has a central ridge, and diverging grooves. It much resembles *Cabera* and *Canda* of Lamoroux, both genera very badly described and figured by that author; but it differs from the former in only having two instead of four or six rows of cells, and from *Canda* in the fibres being free and bristle-like, while in that genus the fibres are thick, and go from branch to branch, forming the coral into a broad netted frond.

142. *Halophila Johnstonæ*. Gray.

Inhabits New Zealand. Rev. W. Yate.

Coral ridged, straight, horn coloured. This genus is peculiar for being horny, and formed of two alternate series of half-ovate coriaceous cells, all placed on one side, and forming a continued linear frond. It differs from *Selbia* in being destitute of any root-like fibres, and in the cells being farther apart. It more closely resembles *Bicellaria*, but it differs from that genus in not being calcareous, circinate, nor jointed. Named in honour of Mrs. Johnston.

## Fam. CELLEPORIDÆ.

143. *Elzerina Blainvillii*. Lamx. Pol. flex., 123, t. 2, f. 3.

Very bad. Blainv., Man. Actin.

Inhabits New Zealand. Dr. Sinclair.

Lamoroux's figure very incorrectly represents this species. The cells are of the wrong shape, and too numerous. It may be described thus:—Coral, horny, flexible, branched, forked, subquadrangular, not jointed, formed of four series of ovate convex cells, with an oblong margined mouth, and scattered with flexible root-like fibres.

144. *Margaretta cereoides*. Gray. Cellaria cereoides.

*Ellis*, Zooph., t. 5, f. 6. *C. hirsuta*. Lamx., P. F., t. 2, f. 4.

Inhabits New Zealand. Dr. Sinclair.

Fronde subcylindrical, cells white, beautifully frosted with small pellucid dots; the axis brown when dry. This coral forms a peculiar genus, which may be thus defined:—Coral subcylindrical, forked, jointed, rather crustaceous, pellucid, formed of four or six series of ovate cells, with a subcylindrical subtubular mouth, and having elongate bristle-like fibres. I can see no difference between the New Zealand specimens and some from the Cape of Good Hope, which I received from Dr. Kraus. It is also said to be found in the European seas.

*Salicornaria* differs from this genus, in being destitute of fibres, and in the cells being six-sided, with a sunken mouth.

## Fam. CRISSIADE.

145. *Catenicella bicuspis*. Gray.

Inhabits New Zealand. Dr. Sinclair.

Coral white, pearly; cells half-ovate, truncated, with a small compressed point on each side; the mouth round.

The coral branched, forked, circinate; each joint formed of a single cell, with the mouths all placed on one side; the joint at the divergence of the forks is formed of two united cells.

146. *Emma crystallina*. Gray.

Inhabits New Zealand.

The coral of this new genus is circinate, branched, forked, and jointed; the cells are all on one side of the coral, placed together in



pairs, forming a cordate joint fringed on the side, and separated from each other by a very narrow cylindrical articulation; the coral is glassy, and nearly transparent.

Fam. SERTULARIADÆ.

147. *Dynamene bispinosa*. Gray.

Inhabits New Zealand. Dr. Sinclair.

Coral slender, branched; the cells rather distant, small, in pairs; the tubular mouth, obliquely truncated, ending in two minute spines: vesicle large, ovate, oblong, with a small tooth on each side near the top, near D. operculata.

148. *Dynamene abietinoides*. Gray.

Inhabits New Zealand. Dr. Sinclair.

Coral slender, branched, branches pinnate, compressed, simple; cells rather close, subopposite, ovate, tubular, mouth denticulated; vesicles large, oblong ovate, with a long process on each side near the mouth.

Like *D. abietina*, but the vesicle with two long horn-like processes, and the mouth of the cells toothed.

149. *Sertularia Johnstoni*.

Inhabits New Zealand Dr. Sinclair.

Coral slender, branched; cells small, distant, alternate, tubular short, oblique, with three or four short teeth round the mouth; vesicles rather large, oblong, swollen transversely, wrinkled.

Like *Sertularia rugosa*, the vesicles resemble the figures (Johnst., Brit. Zooph., t. 8, f. 4, 6) of the cells of that species. May not the true cells have been overlooked?

150. *Plumularia Banksii*. Gray.

Inhabits Dusky Bay, New Zealand. Sir Joseph Banks.

Stem compound, branched; branchelets simple, opposite, pinnate, unilateral, incurved; cells close, rather crowded, bell-shaped, toothed at the mouth; vesicles —?

Allied to *P. myriophyllum* (Johnst., Brit. Zooph., 145, t. 29, f. 4 and 8), but more branched.

151. *Thuiaria Zelandica*.

Inhabits New Zealand. Dr. Sinclair.

Pale brown, erect, branches oppositely pinnate; cells small,

exactly opposite, triangular, mouth truncated, with a small central tooth.

Differs from *Th. articulata* (Johnst., Brit. Zooph., f. 3, 4) in the form of the cells. There are no vesicles on my specimens.

Fam. TUBULIPORIDÆ.

152. *Tubulipora patellata*. Lamx.

Inhabits New Zealand. Dr. Sinclair.

Fam. SERPULIDÆ.

153. *Spirorbis Zelandica*. Gray.

Inhabits New Zealand, Great Barrier Island, on *Patella Hookerii*.

Shell reversed, whorls two or three, rapidly enlarging; the last with three spiral ridges, the middle rib most prominent.

Fam. SPONGIADÆ.

154. *Spongia Sinclairi*. Gray.

Inhabits New Zealand. Dr. A. Sinclair.

Branchy; branches cylindrical, forked; apices conical, yellow; surface with branched subcylindrical grooves, in certain spots; ostioles small, numerous.

Var. 1.—Branches elongate, cylindrical, free.

Var. 2.—Branches short, repeatedly forked, apices often anastomosing.

155. *Spongia ramosa*. Gray.

Inhabits New Zealand. Dr. Sinclair.

Pale brown, soft, spongy, branchy; branches elongate, subcylindrical, of a very fine uniform texture, with a few small scattered ostioles in a line on each side; fibres horny, very thin.

Var. 1.—Branches moderately elongate, sometimes anastomosing.

Var. 2.—Branches very long, free.

156. *Spongia varia*. Gray.

Inhabits New Zealand. Dr. Sinclair.

Pale brown, soft, flexible, branchy; branches elongate, subcylindrical, soft, of a fine texture, with large scattered ostioles; tips of the branches subclavate, sometimes united to one another.

Like the former, but of a larger size, rather looser texture, and with larger ostioles.

ON THE FOSSIL SHELLS FROM NEW ZEALAND. By  
J. E. GRAY, Esq.

Under *Pectunculus*, I have referred to some fossil shells which Dr. Sinclair brought with him from the East Cape of the Northern Island: since that notice was printed, Dr. Dieffenbach has shown me some specimens from the same locality, from Parengarenga in the Northern Island, from Kawia and Waingaroa, and from Chatham Island.

The specimens from the East Cape, in addition to the *Pectunculi* brought by Dr. Sinclair, contain a *Natica*; some fragments of a large *Dentalium*; a specimen of *Pyrula*, like *P. Smithii*, but smaller; many specimens of a *Fusus*, and of an *Ancillaria* with a very callous apex. All these specimens so much resemble in form and condition, and in the character of the matrix, the shells found at Bognor, in Sussex, that they might easily be mistaken for specimens coming from that locality.

The specimens from Chatham Island consist of the two lower valves of a large *Ostrea* with a very large area, allied to *O. gigantea*, or *O. expansa*, and having the calcareous deposit of the abductor muscle destroyed by fossilization in the same manner as the specimen of *O. expansa* figured by Mr. Sowerby, t. 238, f. 1, and of several specimens of the convex valve of a vesicular *Gryphæa* near *G. Columba*. They appear to belong to the greensand formation.

The specimens from Parengarenga are in a conglomerate, and all consist of fragments of a species of *Turritella*, with smooth finely spirally striated flat whorls, the animal of which fills up the cavity of the upper whorl of the shell.

The specimens from Kawia and Waingaroa consist of a very thick ponderous *Ostrea*, three specimens of *Terebratulula*, a *Pecten* like *P. Japonica*, and a *Spatangus*. They are in a limestone matrix.

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*Vespertilio tuberculatus*, p. 181.—I have just received two specimens of this bat: it is a new genus, differing from *Embalonura*, Kuhl, and *Urocryptus*, Temm., in having only two large cutting teeth in the middle of the upper jaw; the fur is close, erect, dark brown, with minute white tips to the hair; the under surface is paler; the face has a series of short, rigid, black bristles round the base of the muzzle, the wings near the body and bones of the limbs are thickened and transversely grooved; the tragus is elongate, subulate. It may be called *Mystacina tuberculata*.—J. E. GRAY.

## PART II.

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### ON THE LANGUAGE OF THE NEW ZEALANDERS.

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#### CHAPTER I.

##### *Introductory Remarks.*

IT is shown by the researches of Leyden, Humboldt, Marsden, Chamisso, Bopp, and others, that the languages which are spoken by all the islanders in the great ocean, excepting the Austral negroes, with whose languages we are not sufficiently acquainted to judge, are more or less related to each other. Such relationship has been proved between the Tagalo, Bisayo, in the Philippine Islands, the Kawi language in the island of Java, the languages of the different divisions of the Polynesians, and the Malayan language properly so called. The last has been regarded as the mother tongue, and has in its turn been shown to be connected with the Sanscrit. But although the Malayan language is most widely spread, we are scarcely justified in calling it the parent root of all the rest, the