# FAUNA OF NEW ZEALAND.

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MATERIALS TOWARDS A FAUNA OF NEW ZEALAND, AUCKLAND ISLAND, AND CHATHAM ISLANDS.

Notes on the Materials at present existing towards a Fauna of New Zealand, by John Edward Gray, F.R.S., Keeper of the Zoological Collections in the British Museum.

NOTHING was known of the Natural Productions of New Zealand until Captain Cook's first voyage, in which he was accompanied by Mr. (afterwards Sir Joseph) Banks, Dr. Solander, and Mr. Sydney Parkinson, an artist of considerable merit, who was employed by Sir Joseph Banks to draw the specimens of animals and plants which were discovered during the voyage. The notes and drawings made by these gentlemen during this voyage contain many species found by them in the various parts of New Zealand at which the expedition touched.

Captain Cook, in his second voyage, was accompanied by John Reinhold Forster and his son George Forster. The latter of these gentlemen made drawings of a considerable number of animals observed during the voyage, many of them having been discovered in New Zealand.

The drawings made by Sydney Parkinson and George Forster, together with the manuscript notes of Dr. Solander, are with the Banksian Collection of Plants in the British Museum, and form part of the very extensive and magnificent collection of Natural History Drawings belonging to that institution.

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Dr. Solander described the specimens as they were collected, consequently his notes are in geographical order; and one of the parts of his manuscript, entitled *Pisces Australiæ*, contains descriptions of 41 species of fish which he had observed on the coast of New Zealand.

The notes made by the Forsters, father and son, are now in the Library of the Royal Academy of Sciences at Berlin, and are in the course of publication entire by that body; the notes relative to the fish were printed in J. G. Schneider's "Systema Ichthyologiæ, Iconibus 110 Illustratum. Berol., 1801."

These drawings, having been ever since the return of the travellers accessible to scientific persons of all countries, have been the means of making the animals discovered during these voyages well known to naturalists, and have become the authority on which numerous species have been described. A few of them, as the *poe bird* of New Zealand, were published in the plates attached to Captain Cook's Voyages.

The late venerable Dr. Latham, when engaged on his Synopsis of Birds, examined them, and described most of the species of birds they contained, and engraved a few of the figures; and these species have been taken up by Gmelin and others. Kuhl, in his 'Monograph of the Species of Procellaria,' founded most of his new species on these figures.

They afford the ichthyologist the only certain means of identifying the species derived by Schneider from Forster's Notes. Cuvier had them and the notes copied to assist him in composing his 'History of Fish;' and, last year, Dr. Richardson consulted both collections, and compared them together, and from this comparison presented to the British Association a 'Report of the Ichthyology of New Zealand,' to which he added a few new species from other sources, an abstract of which he has kindly furnished for this Appendix.

A considerable number of specimens were brought home by the naturalists of these expeditions. Some found their way into the Leverian Museum, but these have been scattered; and the greater number, doubtless, from the length of time which has passed, and the imperfect method of preservation then used, have now perished. A few specimens of the fish, preserved in spirits, are in the collection of the British Museum, and a few birds and fish similarly preserved are in the collection of the College of Surgeons; but these have generally so lost their colour that they are of comparatively little use, except to point out any minute organic character that may have escaped the eye of the artist.

The collection of shells appears to have been numerous. Many of them remained in the hands of the late Mr. Humphreys, and were distributed a few years ago at the sale of his stock. This clever conchologist also notices many of them in his Catalogue of the Duchess of Portland's Collection, and in the Catalogue of the Calonne Collection. Martyn, the most beautiful conchological artist of his time, published three volumes of engraved imitations of his drawings, consisting almost entirely of the South Sea shells discovered by these expeditions; and his figures were copied by Chemnitz into his large and more extensively known work, and have been thus introduced into the scientific catalogues. Many of the species of Martyn's figures are from New Zealand.

The insects collected during these voyages were described from the specimens in the Banksian Cabinet by Fabricius, when he visited England, and are published in his different works.

From the time of Cook's voyages until within these last few years there appear to have been no collections received from that country, with one exception; for, in 1812 or 1813, Captain Barclay, of the ship Providence, brought home a bird which Dr. Shaw, in the last volume of the 'Naturalist's Miscellany,' described under the name of the Southern Apteryx, or Apteryx Australis. Many persons regarded this figure and description with doubt, but the specimen described by Dr. Shaw having at length found its way into the collection of the Earl of Derby, that liberal nobleman allowed it to be re-stuffed, and a second account of this bird appeared in the Transactions of the Zoological Society. Since that period several specimens have been received in London, and are known as the Kiwi of the natives.

Three of the recent French voyages of discovery have touched at New Zealand: M. Duperrey, in La Coquille, in 1824; M. Dumont D'Urville, in the Astrolabe, in 1827; and M. La Place, in La Favorite, in 1831.

In the year 1832, MM. Quoy and Gaimard, in their accounts of the animals collected during M. Dumont D'Urville's voyage round the world in the Astrolabe, described several birds and fish, many shells and soft animals, which they had observed and collected during their visit to New Zealand; but, unfortunately, several of the species described by these naturalists are the same as those that had before been described under other names by the naturalists who had consulted and used the collections resulting from Cook's Voyages, which is to be regretted, as causing a confusion in the nomenclature.

In 1835, on the return of the Rev. William Yate, he brought with him twenty-nine species of marine shells, among which were ten species which had not been before observed by either the naturalists who accompanied Captain Cook or M. D'Urville; and these were described by me in the Appendix to Mr. Yate's account of New Zealand. Since that period Mr. Busby has brought home two land helices, which I described in the 'Annals of Natural History.'

The French whalers who visit these islands are constantly sending zoological specimens to Paris. Some of the birds so collected have been described in Guérin's Revue de l' Zoologique, in the 'Annales des Sciences Naturelles;' Comptrendue in the Académie des Sciences of Paris; and by M. Dubois, in the 'Bulletin des Sciences de Bruxelles.'

Within the last two or three years several collections of animals, especially birds, have been received in London; and from some brought by Dr. Dieffenbach, Mr. Gould has described a few in his magnificent work on the Birds of Australia.

Generally speaking, many of the birds and most of the fish known to inhabit New Zealand by the voyages of Cook and D'Urville, are as yet known only by figures and descriptions to the scientific collectors of England. Except an Apteryx Australis from the Earl of Derby, sixteen species

of birds received from Miss Rebecca Stone, twenty-nine species of shells received from Mr. Yate, about the same number from Mr. Busby, five species of reptiles, three species of fish, a few insects and crustacea, and fifty-eight species of shells brought home by Dr. Dieffenbach, and described in this appendix, we have no specimens from this country in the British Museum collection—the National Collection of the mother country, which should be the richest in the natural curiosities of its different colonies.

From these materials, assisted by my friend Dr. Richardson, and my assistants in the British Museum, Mr. G. R. Gray, Mr. E. Doubleday, and Mr. Adam White, the following list of species has been compiled; and to render it more complete, the descriptions of any new species that have occurred to us have been added.

J. E. GRAY.

# British Museum, 15th August, 1842.

N.B. Since the above was written the British Museum has received a collection of shells presented by Dr. Stanger, the preserver of the remnant of the African expedition, a collection of insects and shells from Dr. Sinclair, thirty-eight specimens of birds collected by Dr. Dieffenbach, presented by the Directors of the New Zealand Company, together with three other species of fish collected by Dr. Dieffenbach, which had been sent to the College of Surgeous, but have been transferred to the Museum by Mr. Owen.

# I.—List of Mammalia hitherto recorded as found in New Zealand, by John Edward Gray, F.R.S., &c.

The physiognomy of the natives has been figured by the various navigators who have visited the Island, and more lately by Quoy and Gaimard.—Voy. Astrolab. t. 1, f. 1, 2. Homo sapiens, var. Novæ Zelandiæ.

As yet no terrestrial beast, except bats, has been found wild in these Islands, nor do any appear to be known to the natives.

# Fam. VESPERTILIONIDÆ.

1. Vespertilio tuberculatus. G. Forster. Icon. ined., n. 1.

Yellowish brown; ears small, rounded.

Inhab. Dusky Bay, New Zealand. G. Forster.

"The Pekápeká, or Bats, and various small batlets, are very common in the Island, but none of the Vampire species. (Pteropus? or Glossophaga?) They are among the smallest of the Australian species."—Polack, i. 304. I am not aware that any of these animals have reached Europe; they would be interesting, and doubtless new. "There is, apparently, only one species; probably the one figured by Forster."—Dieffenbach.

The following Marine Mammalia are recorded as found there by Polack and others; but, as I have seen no specimen of any of them, I am not able to verify the accuracy of the systematic names applied to them.

#### Fam. PHOCIDÆ.

The Bottle-nose Seal.—Polack, N. Z. ii. 316. Macrorhinus leoninus: Phoca leonina, Linn.; P. proboscidea, Péron and Lesueur, Voy. Terres Aust. ii. 34, t. 32; Sea Lion, Anson, Voy.

Inhab. Uwona, 1836.—Polack.

 Sea Lion and Lioness.—Polack, N. Z. ii. 316. Forster, Cook's Voy. iv. 71 t. Otaria jubata, Desm. Mam., 248. O. Leonina, Péron, Voy. O. Pernettyi, Lesson. Phoca jubata, Schreb. 300, t. 83 B., from Pernetty, Voy. ii. 47, t. 10.

Inhab. Southern Islands. Islets to the south-west of Island of Victoria.

I saw a skin of one which was caught on the west coast of the middle island.—Dieffenbach.

4. Sea Bear.—Polack, N.Z. 317. Arctocephalus Ursinus, F. Cuvier. Phoca Ursina, Linn. I. N. i. 55. Bursina potius volans. Forster. Icon ined., n. 2. Otaria Ursina, Desm. Ursina marina, Steller, Nov. Com. Petrop., ii. 331, t. 15; cop. Schreb., t. 82.

Inhab. New Zealand, Dusky Bay.—G. Forster.

Young.—Black, beneath rather browner, fins black.

Seals are "called by the general name of Karavake Kekino by the natives."—Polack.

From 6 feet to 10 feet in length.

"The Fur-Seal of commerce (probably A. Ursinus) was formerly hunted in great numbers, especially on the western coast

of the middle island of New Zealand, in Stewart's Island, and Chatham Islands. Now, owing to this exterminating warfare, only straggling individuals are met with, and the animal may be said to have deserted the country. Sealers assured me that there was no difference between the Otaria Falklandica and that of New Zealand, which, however, seems to be very doubtful. Kekino is their native name."—Dieffenbach.

#### Fam. DELPHINIDÆ.

- 5. New Zealand Dolphin.—Delphinus Zelandiæ, Quoy et Gaim., Voy. Astrol., i. t. 28, f. 1, 2.

  Inhab. Cook's Straits.—Dieffenbach.
  - 6. Grampus, or Killer.—Polack, N. Z. ii. 407. Delphinus Orca?

#### Fam. BALÆNIDÆ.

7. Sperm Whale.—Polack, N. Z. ii. 323; ii. 408. Physeter Macrocephalus.

Inhab. New Zealand.—Pârá Paráuá, natives; Tohora, Dieffenbach.

Varies in colour-white, black, ochreous, dingy red, and mot-tled.

- 8. Humpback, or Gibbosa.—*Polack*, N. Z. ii. 404. Balæna gibbosa?

  Inhab. New Zealand? Gregarious.
- Physalis, or Fin-Back.—Polack, N. Z. i. 323; ii. 405.
   Balæna Physalus?
   Inhab. New Zealand?
- 10. Pike-headed Balæna.—Polack, N. Z. ii. 405. Balæna Boops? Linn.
  Inhab. New Zealand?
- Musculus, or Large-lipped Whale.—Polack, N. Z.
   i. 323; ii. 406. Balænopterus musculus.
   Inhab. New Zealand. Common.
- 12. Tohora, or Right Whale.—Polack, N. Z. i. 323; ii. 401. Balæna Antipodum, Gray, N. S. t. 1. B. Mysticetus, Polack; Cuv. Oss. Foss. 368, t. 25,? bones. B. Australis, Desmoulins?

Inhab. New Zealand. Tuku peru of the natives.—

Dieffenbach.

The body smooth, short, thick; the gape very large, arched, suddenly bent down at the angle; the blower on the back part of the head, a little before a perpendicular line from the eye; the ends of the upper and lower jaw with a roundish rough protuberance; length of the body 60 feet; length of the head to the angle of the gape 9 feet; of the flippers, or fins,  $3\frac{1}{2}$  feet; breadth between fins on the abdomen 8 feet 2 inches.

The above short description of this species is taken from a very good drawing made from the actual admeasurement of the specimen. This drawing has been carefully reduced by squaring in the accompanying plate; and, as the proportions differ considerably from the figure usually given of the Northern Whalebone Whale, I have been induced to regard it as a new species.

Polack records two other Whales, as-

- 13. The Mungu Nué, or Black Physeter, *Polack*, i. 323, which is the same as the Pike-headed Whale of the Appendix.
- 14. The Razor-back, Polack, ii. 407.

"Back remarkably serrated, and the mouth very much pointed like to the Porpoise."

Besides these quadrupeds there are mentioned-

15. The New Holland Dog.—Canis familiaris Australis, Desm.; Canis Dingo, Blumenb.

Said to have been introduced from Australia, but according to *Polack*, i. 320, "It has been an inhabitant some two or three centuries." It would be interesting to institute an accurate comparison between these animals and an Australian specimen. The adults are called *Kararake*, and the young *Kuri*, by the natives.

"The dog of the natives is not the Australian dingo, but a much smaller variety, resembling the jackal, and of a dirty yellowish colour. It is now rarely met with, as almost the whole race of the island has become a mongrel breed. A native dog of New Zealand is not a sufficiently powerful animal to do harm to domestic sheep, but it is different with the introduced and mongrel dogs, mostly bull-terriers or bloodhounds, which are savage pigdogs, although with men they are great cowards. In want of better sport they hunt young birds, and to this cause the scarcity of many indigenous birds must be ascribed. The natives also call the dog sometimes "Pero" (Spanish): they have a tradition that

their ancestors brought the dog with them when they first peopled New Zealand. Is it not probable, from the Spanish name, that the dog was brought to them by navigators of that nation before the time of Tasman?"—Dieffenbach.

# 15. The Rat.—Mus Rattus, Linn.?

"Called Kiore by the natives; said to have been introduced at an early period by European vessels."—Polack. It would be interesting to see whether it is the European, the Indian, or the New Holland rat that has been introduced, or if there may not be more than one kind.

"There exists a frugiferous native rat, called Kiore maori (indigenous rat) by the natives, which they distinguish from the English rat (not the Norway rat), which is introduced, and called Kiore Pakea (strange rat). On the former they fed very largely in former times; but it has now become so scarce, owing to the extermination carried on against it by the European rat, that I could never obtain one. A few, however, are still found in the interior, viz. at Rotu rua, where they have been seen by the Rev. Mr. Chapman, who described them as being much smaller than the Norway rat. The natives never eat the latter. It is a favourite theme with them to speculate on their own extermination by the Europeans, in the same manner as the English rat has exterminated their indigenous rat."—Dieffenbach.

# 16. The Mouse.—Mus Musculus, Linn.?

"The common domestic mouse of Europe has also been introduced."—Dieffenbach.

Besides these the Colonists have purposely introduced—

The common Cat.—Felis Domestica; called Pichéki by the natives. Polack. Dieffenbach.

"The cat often runs wild, and is another cause of the extermination of indigenous animals. It is remarkable to observe that these wild cats soon resume the streaky grey colour of the common wild cat."—Dieffenbach.

The Pig.—Sus Scropha, Linn.; called Puorka by the natives. Poaka, Dieffenbach.

The Horse.—Equus caballus, Linn.

The Ass.—Asinus vulgaris.

The Sheep.—Ovis aries, Linn.; but they are much hunted down by the native dog.

The Ox.—Bos Taurus, Linn.

LIST of the BIRDS hitherto recorded as found in New Zea-LAND, CHATHAM, and AUCKLAND ISLANDS, with their Synonyma, by George Robert Gray, Esq.

#### Fam. FALCONIDÆ.

- 1. Falco harpe. Forst. Icon. ined. t. 36; juv., t. 37. Falco Novæ Zealandiæ, Gm. Lath., Ind. Orn., i. 28.??
  - Kahu of natives? Yate, Polack, Dieffenbach. Queen Charlotte's Sound and Dusky Bay. Forst.
  - Falco brunnea. Gould, Proc. Zool. Soc., 1837.— Synop. of Austr. Birds, pt. iii. Falco harpe, Forst. Icon. ined. t. 38. Falco Australis, Homb. et Jacq. Ann. des Sci. Nat. 1841, p. 312.

Kauaua of the natives. Yate, Polack, Dieffenbach.

Kari-area of the natives of Queen Charlotte's Sound.

Forst.

# Fam. STRIGIDÆ.

3. Athene Novæ Seelandiæ.—Strix fulva, Forst. Icon. ined. t. 39. Vieill. Ency. Meth. 1291. Strix Novæ Seelandiæ, Gmel. Syst. Nat. 296, sp. 38: Lath. Ind. Orn. i. 65, Strix Zealandica, Quoy et Gaim. Voy. de l'Astrol. Zool. i. 168, pl 2, f. 1.

Heroòroo of the natives of Queen Charlotte's Sound. Forst. Eou Hou of the natives of Tasman Bay. Quoy et Gaim. Kou Kou of the natives. Yate. Kao Koa of the natives. Polack. Ruru ruru. Dieffenbach.

# Fam. HIRUNDINIDÆ.

Mr. Polack refers the following native names of Riroriro, Piripiri, Toutouwai, Tuturiwatu, as species of "swallows." These names are also mentioned by Mr. Yate, but not as belonging to this or any other family, except the last, which he says is a plover.

# Fam. ALCEDINIDÆ.

Halcyon vagans.—Alcedo cyanea. Forst. Icon. ined.
 59. Alcedo sacra, Gmel. Syst. Nat. i, 453: Lath.

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Ind. Orn. 251, var. δ et ε. Halcyon sanctus? Vig. et Horsf. Linn. Tr. xv. 206. Alcedo vagans, Less. Voy. de la Coq., Zool., 694: id. Man. d'Orn., ii. 89.

Ghotarre of the natives of Dusky Bay. Forst. Kotoretare of the natives. Yate. Kotaritari of the natives. Polack, Dieffenbach. Kotare popo of the natives. Lesson.

M. Lesson also refers to another species under the native name of Poukeko.

#### Fam. UPUPIDÆ.

5. Neomorpha Gouldii. G. R. Gray, List of Genera of Birds, p. 15. Neomorpha acutirostris et crassirostris. Gould, Syn. Austr. Birds: Birds of Australia. pt., pl.

Huia, Yate. Uia of the natives. Polack, Dieffenbach.

#### Fam. MELIPHAGIDÆ.

- 6. Prosthemadera Novæ Seelandiæ. Strickl. Ann. of Zool.; G. R. Gray, List of Genera of Birds, p. 20. Certhia cincinnata. Forst. Icon. ined., t. 61. Merops Novæ Seelandiæ. Gmel. Syst. Nat., i. 464. Merops cincinnata. Lath. Ind. Orn., i. 275. Sturnus crispicollis. Daud. Elem. d'Orn. Meliphaga concinnata. Temm. Men., lxxxvii. Philemon concinnatus. Vieill. Ency. Meth., 613. Anthochæra. Vig. et Horsf. Linn. Trans. xv., 323. Le Cravate frisée. Levaill. Ois. d'Afr., pl. 92.
  - Poe, or Toi of the natives of Queen Charlotte's Sound. Forst. Toui of the natives. Less. Tui of the natives. Dieffenbach.
  - 7. Ptilotis cincta. Meliphaga cincta. Dubus, Bull. Acad. Sc. Brux., 1839, pl. i. p. 295.
    - Kotihe of the natives. Yate. Ihi of the natives of Taranaki.—Dieffenbach.
  - 8. Anthornis melanura, G. R. Gray, List of Genera of Birds, p. 20. Certhia olivacea. Forst. Icon. ined., t. 62. Certhia melanura. Sparrm. Mus. Carl., t. 5. Certhia sannio. Gmel. Syst. Nat. i. 471: Lath. Ind.

Orn., 735. Philedon Dumerilii. Less. Voy. de la Coq. Zool., 644, pl. xxi. Anthomyza cœruleocephala. Sw. Class. of Birds, ii. 327. Philedon sannio. Less. Compl. Buff., ix. 165.

He-ghòbarra of the natives of Queen Charlotte's Sound. Forst. Koho-i-mako of the natives, Less. Koho-rimako of the natives. Yate. Korimaku of the natives of the Northern Island, and Mako mako of the natives of the Southern Islands. Dieffenbach.

# 9. Anthornis melanocephala.

Yellowish olive; head steel black, with a tinge of the same colour on the neck; wings and central tail-feathers brown, margined with yellowish olive, the outer feather brown, and the second, third, and fourth feathers on each side blackish brown, margined with steel black; vent pale yellow. Total length  $11\frac{1}{4}$  inches; wings,  $4\frac{1}{4}$  inches; tarsi,  $1\frac{1}{2}$  inch: bill, 13 lines.

Chatham's Islands.—Dieffenbach.

#### Fam. CERTHIDÆ.

- Acanthisitta citrina. G. R. Gray, List of Genera of Birds, App., p. 6. Motacilla citrinella. Forst.
   Icon. ined., t. 164. Motacilla citrina. Gmel. Syst. Nat., 979. Sylvia citrina. Lath. Ind. Orn., ii. 529.
- Acanthisitta tenuirostris. Lafr. Mag. de Zool., 1841.
   Acanthiza tenuirostris. Lafr. Rev. Zool., 1841, 242.
   Piwauwau of the natives, a bird confined to the upper regions of the hills. Dieffenbach.
- 12. Acanthisitta punctata. G. R. Gray, List of Genera of Birds, App., p. 6. Sitta punctata. Quoy et Gaim. Voy. de l'Astrol., i. 221, pl. 18, f. 1: Less. Compl. Buff., ix. 133.
- Acanthisitta longipes. G. R. Gray, List of Genera of Birds, App. p. 6. Motacilla. Forst. Icon. ined., t. 165. Motacilla longipes. Gmel. Syst. Nat., 979. Sylvia longipes, Lath. Ind. Orn., ii. 529.

É tectee tee pomou of the natives of Dusky Bay. Forst. The bird, with the native name of Didadido, given by M. Lesson, may probably prove a species of this genus.

Mohoua ochrocephala. G. R. Gray, List of Genera of Birds, p. 25. Muscicapa chloris. Forst. Icon. ined., t. 157. Muscicapa ochrocephala. Gmel. Syst. Nat., 944: Lath. Ind. Orn., ii. 479. Certhia heteroclites. Quoy et Gaim. Voy. de l'Astrol. Zool., i. 223, pl. 17, f. 1. Orthonyx icterocephalus. Lafr. Rev. Zool., 1839. Orthonyx heteroclitus. Lafr. Mag. de Zool., 1840, pl. 8. Mohoua — Less. Compl. Buff., ix. 139. Mohoua houa of the natives of Tasman Bay. Quoy et Gaim. Popokatea, natives of Cook's Straits. Dieffenbach.

#### Fam. Luscinidæ.

Sphenæacus? punctatus. G. R. Gray, List of Genera of Birds, p. 27. Synallaxis punctata. Quoy et Gaim. Voy. de l'Astrol., i. 255, pl. 18, f. 3; Less. Compl. Buff., ix. 122.

Mata of the natives of Tasman Bay. Quoy et Gaim. Matata of Yate, Polack, and Dieffenbach.

Lives in the Typha swamps and amongst fern. Its flight is very short and heavy.—Dieffenbach.

- Acanthiza igata.—Curruca igata. Quoy et Gaim.
   Voy. de l'Astrol., Zool., i. 201, pl. 2, f. 2.
   Igata of the natives of Tasman Bay. Quoy et Gaim.
- 17. Certhiparus senilis. Lafr., Rev. Zool. Parus senilis, Dubus, Bull. Acad. Sc. Brux. 1839, 297.
- 18. Certhiparus Novæ Seelandiæ. Lafr., Rev. Zool.
  Parus urostigma, Forst. Icon. ined. t. 166. Parus
  Novæ Seelandiæ, Gmel. Syst. Nat., 1013; Lath.
  Ind. Orn., 571.

Toe Toe of the natives of Dusky Bay. Forst.

- 19. Certhiparus maculicaudus.—Parus Zelandicus, Quoy et Gaim. Voy. de l'Astrol., Zool., i. 210, pl. ii. f. 3. Less., Compl. Buff. viii. 318.
- Momohoua of the natives of Tasman Bay. Quoy et Gaim. Riro Riro of the natives of the Northern Islands. Dieffenbach.
  - Mr. Yate speaks of two birds under the native names of Tata-

riki, Tataiato, which may be species of this genus Certhiparus: the latter is also mentioned by Mr. Polack.

#### Fam. TURDIDÆ.

20. Turnagra crassirostris. G. R. Gray, List of Genera of Birds, 2 edit., p. 38.—Forst. Icon. ined. t. 145. Turdus crassirostris. Gmel., Syst. Nat., 815. Lath. Ind. Orn. Tanagra macularia, Quoy et Gaim. Voy. de l'Astrol., Zool. i. 186: pl. 7, f. 1. Keropia crassirostris. G. R. Gray, List of Genera of Birds, 1 edit. Turnagra. — Less. Compl. Buff. viii. 216.

Golobieo of the natives of Dusky Bay, or Queen Charlotte's Sound. Forst. Pio Pio of the natives of Queen Charlotte's Sound. Dieffenbach. Keropia et Koko Eou of the natives of Tasman Bay. Quoy et Gaim.

#### Fam. Muscicapidæ.

Rhipidura flabellifera. — Muscicapa ventilabrum.
 Forst., Icon. ined., t. 155. Muscicapa flabellifera.
 Gmel., Syst. Nat., 943. Lath. Ind. Orn. Muscipeta
 flabellifera. Temm., Man. d'Orn.

Diggowagh wagh of the natives of Dusky Bay. Forst. Piwaká-waká of the natives. Polack, Dieffenbach. Pi-oua-ka-oua-ka of the natives. Less.

Rhipidura macrocephala.—Swains. Nat. Libr. Flyc.,
 p. 122. Parus macrocephalus. Gmel., Syst. Nat.,
 1013. Lath., Ind. Orn., 571.—Hist. of Birds, i. p. 110.

23. Rhipidura melanura.

Dark olivaceous brown; head and neck greyish black with a supercilious spot on each side white; tail black. Total length  $6\frac{1}{2}$  inches; bill  $\frac{1}{2}$  inch.; tail 4 inches; tarsi 10 lines.

Inhabits Cook's Straits. Dieffenbach.

- 24. Miro albifrons. G. R. Gray, List of Genera of Birds, p. 43. Turdus ochrotarsus. Forst., Icon. ined., t. 148. Turdus albifrons. Gmel., Syst. Nat., 822. Lath., Ind. Orn., 354.
- 25. Miro longipes. Less., Tr. d'Orn., 389. Muscicapa longipes. Garnot's Voy. de la Coq.; Zool., 594, pl. 19, f. 1. Less., Comp. Buff., viii. 373.

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Gha toitoi of the natives of Dusky Bay. Forst. Miro miro of the natives. Garnot.

26. Miro Forsterorum.—Turdus minutus. Forst., Icon. ined., t. 149.

Deep-shining black, with the breast and abdomen pale yellow; deeper on the former. The base of the secondaries of some of the quills, and of the outer tail-feathers, also a small spot on the forehead, white. Bill and tarsi black, with the toes pale. The female is represented by Forster as brown, in the place of the black of the male, otherwise the sexes are alike. Total length  $5\frac{3}{4}$  inches; bill 7 lines; wings  $1\frac{1}{2}$  inch; tarsi 1 inch.

Mirro mirro of the natives of Queen Charlotte's Sound. Forst. Pirangirangi of the natives of Queen Charlotte's Sound. Dieffenbach.

27. Miro Dieffenbachii.

This species is very like the preceding, but is altogether of a smaller size, and the colour on the chest is darker, with the base of the lower mandible pale. Found on the Chatham Islands.

28. Miro toitoi.—Muscipeta toïtoï. Garn., Voy. de la Coq., Zool., pl. 15, f. 3. Less., Man. d'Orn., p. 188, ed. Compl. Buff., viii. 383.

Nirungiru of the natives. Polack. Ngirungiru of the natives. Yate, Dieffenbach. To-i-toe of the natives. Less.

# Fam. Corvidæ.

29. Callaeas cinerea. Lath., Ind. Orn., i. 149. G. R. Gray, List of Genera of Birds, p. 51.—Forst., Icon. ined., t. 52. Callaeus. Forst., Ench., p. 35. Glaucopis cinerea. Gmel., Syst. Nat., i. 363. Swains. Class. of Birds, ii. p. 267. Quey et Gaim., Voy. de l'Astrol., pl. 15.

Kokako of the natives.—New Zealand crow. Yate.

Dieffenbach. Kakako of the natives. Polack.

#### Fam. STURNIDÆ.

- 30. Aplonis Zelandicus.—Lamprotornis Zelandicus. Quoy et Gaim., Zool., i. 190; pl. 9, f. 1. Less., Compl. Buff., ix. 73.
- 31. Aplonis obscurus.—Lamprotornis obscurus. Dubus Bull. Acad. Sc. Brux., 1839, 297.

- 32. Aplonis australis.—Turdus australis. Sparm., Mus. Carl., pl. 69. Lath. Ind. Orn. i. 338.
- 33. Creadion carunculatus. G. R. Gray, List of Genera of Birds, p. 54.—Forst., Icon. ined., t. 144. Sturnus carunculatus. Gmel., Syst. Nat., 805. Lath., Ind. Orn., 324. Wagl., Syst. Av., sp. 6. Creadion pharoides. Vieill., Ency. Meth. Icterus rufusater et Novæ Zealandiæ. Less. et Garn., Zool. de la Coq., pl. 23, f. 1. Xanthornus carunculatus. Quoy et Gaim., Voy. de l'Astrol. Zool., i. 212; pl. 12, f. 4, 5. Philesturnus.—J. Geoffr., Ann. du Mus.; Less., Compl. Buff., ix. 51. Oxystomus carunculatus. Swain., Class. of Birds, ii. p. 270.

Tieke of the natives of Tasman Bay. Quoy and Gaim. Tiaka or Purourou of the natives. Yate. Tira-oua-ké of the natives. Less. Tierawaki, Cook's Straits. Dieffenbach.

#### Fam. FRINGILLIDÆ.

34. ———? Fringilla albicilla. Less., Voy. de la Coq., Zool., 662.

To-i-to-i of the natives of New Zealand. Less.

35. Alauda Novæ Seelandiæ. Gmel., Syst. Nat., 799. Lath., Ind. Orn., ii. 497. Alauda littorea. Forst., Icon. ined., t. 143.

Kogoo aroure of the natives of Queen Charlotte's Sound.

Forst. Kataitai of the natives of Cook's Straits.

Dieffenbach.

A "Ground Lark" is given under the name of Pihoihoi, by Mr. Yate; Piohiohi, by Mr. Polack; Pi-o-oie, by M. Lesson, which may prove to be the above species. Mr. Polack also mentions a lark-like bird, of a black colour, under the native name of Purourou, which I do not think belongs to this genus.

# Fam. PSITTACIDÆ.

36. Platycercus Novæ Seelandiæ. Wagl. Monogr. Psitt.
—Forst., Icon. ined. t. 46. Psittacus pacificus, var.
β. Gmel., Syst. Nat., 329; var. ε. Lath., Ind. Orn.,

i. 104. Psittacus Novæ Seelandiæ. Sparm. (non Gmel.), Mus. Carl., t. 28.

Kakariki of the natives. Dieffenbach. Powaitere of the natives. Yate. Po-é-tèrè of the natives. Less.

Very common in the Chatham Islands.—Dieffenbach.

- 37. Platycercus Auriceps. Vigors, Zool. Journ., 1825, p. 531, pl. suppl. ii. Psittacus Pacificus, var. δ.; Lath. Ind. Orn., i. 104. Psittacus Auriceps. Kuhl, Monogr. Psitt., 46, sp. 69. Conurus Auriceps. Kuhl, Monogr. Psitt. New Zealand. Wagl.
- "Never seen by me in New Zealand."—Dieffenbach.
- 38. Trichoglossus Aurifrons. Wagl. Monogr. Psittac.
  Psittacus (Lathamus) Aurifrons. Less. Cent. Zool.,
  pl. 18.
- "Also called Kakariki."—Dieffenbach.
- 39. Nestor Meridionalis.—Psittacus Hypopolius. Forst.
  Icon. ined., t. 50. Psittacus Meridionalis. Gmel.
  Syst. Nat., i. 333. Psittacus Nestor. Lath. Ind.
  Orn., i. 110. Psittacus Australis. Shaw, Mus.
  Lev., pl. 87. Nestor hypopolius. Wagl. Monogr.
  Psitt.,: G. R. Gray's List of Genera of Birds,
  p. 68.

Kaka of the natives. Yate, Dieffenbach.

# Fam. CUCULIDÆ.

- 40. Eudynamys taitensis. Cuculus fasciatus. Forst.
  Icon. ined., t. 56. Cuculus taitensis. Sparrm. Mus.
  Carl., t. 32; Lath. Ind. Orn., i. 209; Vieill. Ency.
  Meth., 1329. Cuculus taitius. Gmel. Syst. Nat.
  412. Eudynamys Less. Tr. d'Orn., 32.
  - Kohaperoa of the natives. Yate. "Koheperoa," from a specimen. Miss Stone. Kohapiroa. Polack? Koekoia of the natives. Dieffenbach.
- Chrysococcyx lucidus.—Cuculus nitens. Forst. Icon. ined., t. 57. Cuculus lucidus. Gmel. Syst. Nat., i. 421; Lath. Ind. Orn., i. 215; Vieill. Nouv. Dict. Hist. Natr., viii. 233; Ency. Meth., 1335. Chalcites.—— Less. Tr. d'Orn., 153.

Poopoo arouro of the natives. Forst. Pipiwawaroa of the natives. Yate, Dieffenbach.

"Both these birds are migratory, appearing near the coasts in the month of December. The latter is known to lay its eggs in the nests of smaller birds, especially in that of the fantail flycatcher."—Dieffenbach.

"To this family probably belongs the bird called Kakapo by the natives, and to judge from some tail-feathers of a green metallic lustre, which I obtained in the interior, the bird may be a Centropus. It has become so rare, that it has never been seen by any of the missionaries, nor by the natives for many years past. Its destruction is owing to the introduction of cats and dogs. The bird used to perch on the lower branches of trees, according to the accounts of the natives, who caught it by the glare of a torch during the night."—Dieffenbach.

#### Fam. COLUMBIDÆ.

42. Carpophaga Novæ Seelandiæ.—Columba argetræa. Forst. Icon. ined., t. 137. Columba Novæ Seelandiæ. Gmel. Syst. Nat., 773; Less. Compl. Buff., viii. 107. Columba Zeelandica. Lath. Ind. Orn., ii. 603. Columba spadicea. Lath. Ind. Orn. Suppl. lx.; Less. Compl. Buff., viii. 85. Columba spadicea leucophæa. Homb. et Jacq. Ann. des Sci. Nat., 1841.

Hagarrèroo of the natives of Dusky Bay. Forst. Koukoupa of the natives. Kukupa of the natives. Yate. Kuku and Kukupa of the natives. Dieffenbach.

43. Carpophaga ———?
Columba ænea, var. β.—Lath. Ind. Orn., ii. 602.

44. ———?

Columba brunnea.—Lath. Ind. Orn., ii 603; Less. Compl. Buff., viii. 109.

"I doubt the existence in New Zealand of more than one species of pigeon, the Columba argetræa of Forster. Very slight varieties in plumage exist, but not sufficient to constitute species."—Dieffenbach.

# Fam. Tetraonida.

45. Coturnix Novæ Zealandiæ. Quoy et Gaim. Voy. de l'Astrol., Zool., i. 242, pl. 24, f. 1; Less. Compl. Buff., vii. 459.

"Seen by me once in the northern island, but is very scarce."— Dieffenbach.

#### Fam. STRUTHIONIDE.

Apteryx Australis. Shaw, Nat. Misc., pl. 1057, 1058;
 Trans. Zool. Soc.; Gould's Birds of Australia,
 pl. Dromiceius Novæ Zealandiæ. Less. Man., ii.
 210.

Kiwi or Kiwikiwi of the natives.—Less., Dieffenbach.

"Its eggs are laid at the root of trees."-Miss Stone.

"To this order probably belongs a bird, now extinct, called Moa (or Movie) by the natives. The evidences are, a bone very ittle fossilized, which was brought from New Zealand by Mr. Rule to Mr. Gray, and by him sent to Professor Richard Owen. (Proc. Zol. Soc., 1839. 169.) I possess drawings of similar bones, and of what may possibly be a claw, which are in the collection of the Rev. Richard Taylor in Waimate. They are found on the east coast of the northern island of New Zealand, and are brought down by rivulets from a neighbouring mountain called Hikorangi."—Dieffenbach.

# Fam. CHARADRIDÆ.

47. Charadrius xanthocheilus, Wagl. Syst. Av. sp. 36. Jard. and Selby's Illustr. of Orn., pl. 85.

Tuturiwhatu of the natives. Miss Stone. Takahikaki of the natives. Yate. Tuturuata of natives of Cook's Straits. Dieffenbach.

48. Charadrius obscurus. Gmel. Syst. Nat., 686; Lath. Ind. Orn., ii. 747; Wagl. Syst. Nat., sp. 35. Charadrius glareola. Forst. Icon. ined., t. 122.

Ha-poho-era of the natives of Dusky Bay. Forst. Tuturiwatu of the natives. Yate.

To this order may also be referred two other birds spoken of by Mr. Yate under the names of Pukunui, Pututo.

49. Hiaticula Novæ Seelandiæ.—Charadrius torquatulus. Forst. Icon. ined., t. 121. Charadrius Novæ See-

landiæ. Gmel. Syst. Nat., 684. Charadrius Novæ Zealandiæ. Lath. Ind., ii. 745.

Doodooroo-attoo of the natives of Queen Charlotte's Sound. Forst.

- 50. Anarynchus frontalis.—Quoy et Gaim. Voy. de l'Astrol., Zool., i 252, pl. 31, f. 2; Less. Compl. Buff., ix. 427.
- 51. Hæmatopus picatus, Vigors's King's Voy. Coast of Austr. ii. 420. Hæmatopus Australasianus. Gould, Desc. of New Sp. of Austr. Birds, p. 6.

Scarcely different from this species, and very common in New Zealand.

Toria of the natives. Dieffenbach.

#### Fam. ARDEIDÆ.

52. Botaurus melanotus.—Ardea (Botaurus) Australis. Cuv.; Less. Tr. d.'Orn., 572?

Blackish brown on the back, with some of the feathers and wings reticulated with yellowish white; head, neck, quills, secondaries and tail dirty brown; sides of head, throat, and streaks down some of the feathers and beneath the body yellowish white, the two latter with blackish-brown streaks, more or less perfect, down several of the feathers. Young, blackish brown, reticulated all over with yellowish white, like the common bittern.

Total length, 2 feet 2 inch.; bill, 3½ inch.; wings, 12¼; tarsi, 3¾.

Matuku of the natives. From a specimen found on the Hokianga River. Miss R. Stone. Dieffenbach. Matuku urepo of the natives, or Crane of Yate. Also found on the Murray, South Australia. Mr. Fortnum.

53. Herodias Matook.—Ardea jugularis. Forst., Icon. ined., t. 114; Wagl., Syst. Av., sp. 18. Ardea cærulea, var. γ. Gmel. Syst. Nat., 631. Ardea matook. Vieill. N. Dict. Hist. Nat., xiv. 416; id., Ency. Méth., 1118.

Matook of the natives of Queen Charlotte's Sound. Forst. Matou cou of the natives. Less.

# Fam. Scolopacida.

54. Himantopus Novæ Zealandiæ. Gould, Proc. Zool.

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Soc., 1841; Birds of Austr., pl. Himantopus melas (\$\varphi\$.) Homb. et Jacq. Ann. des Sci. Nat., 1841, 320.

Tutumata of the natives of Port Nicholson. Dieffenbach.

#### Fam. RALLIDÆ.

55. Ocydromus Australis. Strickl. Ann. Nat. Hist.; G. R. Gray, List of Genera of Birds, p. 91. Forst. Icon. ined., t. 126. Rallus Australis. Sparrm. Mus. Carl., t. 14; Lath. Ind. Orn., ii. 756; Vieill. Ency. Méth., 1067. Rallus troglodytes. Gmel. Syst. Nat., 713. Ocydromus. Wagl.

Weka or Weka-weka of the natives of Cook's Strait, Wood-hen of the Settlers. Dieffenbach.

#### 56. Rallus assimilis.

The pectoral buff band on the breast, and rufous colour of the cheeks and on the sides of the neck, are much less prominent than on the Australian specimens, otherwise these birds are very similar.

Konini of the natives of Cook's Strait. Dieffenbach.

Katatai of the natives. Yate and Miss Stone.

# 57. Rallus Dieffenbachii.

Back olive brown, irregularly banded with buff and black; breast and lower posterior part of the neck and breast rufous yellow, banded transversely with black; quills, scapulars, under-tail coverts, deep rufous banded with black; lower part of chest, abdomen, sides, and jugulum, black banded with white; top, hind part of the head, cheek, and a streak below the eye, olive-brown, the two last tinged with rufous; a band from the nostril to the middle above the eye white, the continuation of this band behind the eye and throat grey, but white beneath the bill; tail dark brown with longitudinal streaks of deep rufous near the base. Total length 12\frac{3}{4} inches, bill 1\frac{1}{2}, wing 5, tail 3\frac{1}{2}, tarsi 1\frac{1}{2}.

Moeriki of the natives of Chatham Islands. Dieffenbach.

58. Porphyrio melanotus, Temm. Man. d'Orn. ii. 701. Pukeko of the natives.—Yate, Dieffenbach.

#### Fam. ANATIDÆ.

Casarca variegata.—Anas cheneros. Forst. Icon. ined. t. 67. Anas variegata. Gmel. Syst. Nat. 505.
 Lath. Ind. Orn., ii. 836. Bernicla variegata. Steph. Shaw, Zool., xii. 59. Casarca castanea. Eyton, Monogr. Anat., 108 pl.

Pooa dugghie dugghie of the natives of Dusky Bay. Forst. Putangi tangi of the natives of Cook's Strait;

Paradise Duck of the settlers. Dieffenbach.

Anas superciliosa, Gmel., Syst. Nat., 537; Lath.,
 Ind. Orn. ii. 852; Eyton's Anat., 139; Steph. Shaw,
 Zool., xii. 109. Anas leucophrys. Forst. Icon. ined., t. 77.

He-Parrera of the natives of Dusky Bay and Queen Charlotte's Sound. Forst. Parera of the natives. Yate. Dieffenbach.

61. Malacorynchus Forsterorum, Wagl., Isis, 1832, p. 1235. Anas malacorynchus. Forst., Icon. ined., t. 74; Gmel., Syst. Nat., ii. 526; Lath., Ind. Orn., ii. 862. Rhynchaspis malacorynchos. Steph., Shaw, Zool., xii. 123. Mergus Australis. Homb. et Jacq. Ann. des Sci. Nat., 1841.

He-weego of the natives of Dusky Bay. Forst.

62. Spatula rhyncholis—Rhynchaspis rhyncholis, Steph. Shaw. Zool., xii. 123. Eyton, Monogr. Anat. 133. Anas rhyncholis, Lath. Ind. Orn. Suppl. 70. New Zealand and Chatham Island. Dieffenbach.

63. Fuligula Novæ Zealandiæ. Steph., Shaw, Zool., xii. 210. Anas atricilla. Forst., Icon. ined., t. 79. Anas Novæ Zealandiæ. Gmel., Syst. Nat., 541; Lath., Ind. Orn., ii. 870.

He-patek of the natives of Dusky Bay. Forst.

# Fam. COLYMBIDÆ.

64. Podiceps (Poliocephelus) rufopectus.

Back ochreous black, with the feathers slightly margined with white, top of head and back of neck black, the shafts of former somewhat prolonged, and light fulvous; cheeks and throat ash; BIRDS. 199

lower part of neck, before, and breast, deep rufous; beneath the body white, tinged with rufous; vent plombious; quills brownish black, secondaries white-margined, and tips brownish black; bill black; legs lead-colour. Total length  $12\frac{1}{4}$  in.; bill,  $1\frac{1}{4}$  in.; wings,  $4\frac{3}{4}$  in.; tarsi,  $1\frac{1}{4}$  in.

New Zealand. Dr. A. Sinclair.

#### Fam. ALCIDÆ.

65. Spheniscus minor. Temm., Man. d'Orn., p. cxiii.
Aptenodytes minor. G. Forst. Icon. ined., t. 84, 85;
J. R. Forst., Comm. Gotten., iii. 147; Gmel., Syst.
Nat., 558; Lath., Ind. Orn., ii. 881. Chrysocoma
minor. Steph., Shaw's Zool., xiii. 61. Catarrhactes
minor. Cuv., Reg. An., 551.

Koròra of the natives. Forst. Dieffenbach.

Lays two white eggs in the crevices of rocks and holes near the sea-shore.—Dieffenbach.

66. Eudyptes antipodes.—Catarrhactes antipodes. Homb. et Jacq., Ann. des Sci. Nat., 1841.

Auckland's Island.

M. Lesson refers to a species of this family under the native name of Ho-i-ho.

# Fam. PROCELLARIDÆ.

- 67. Pelecanoides urinatrix, Cuv. Procellaria tridactyla.

  Forst., Icon. ined., t. 88. Procellaria urinatrix.

  Gmel., Syst. Nat., 560; Lath., Ind. Orn. 327. Haladroma urinatrix. Illig. Prod. 274; Steph., Shaw,

  Zool., xiii. 257. Puffinuria Garnotii. Less., Voy. de la Coq., Zool., 730, pl. 46.
  - Teetee of the natives of Queen Charlotte's Sound. Forst.
- 68. Puffinus æquinoctialis. Steph., Shaw, Zool., xiii. 229.
  Procellaria æquinoctialis. Linn. Syst. Nat. i. 213
  Lath., Ind. Orn., ii. 821.
- 69. Procellaria gigantea, Gmel. Syst. Nat., 563. Lath. Ind. Orn., ii. 820.

Cook's Straits. Dieffenbach.

70. Procellaria Cookii. Procellaria velox, Banks, Icon. ined., t. 16?

Grey above, with the apex of each feather narrowly margined,

as well as their bases, white; oblong spot below each eye; wing-coverts, secondaries, and quills brownish black, with the basal portion of the inner webs of the two last, white; the front, cheeks, under wing-coverts, and the whole of the under part, white. Bill black; tarsi and knee brownish yellow; feet black, with the intermediate webs yellow. Total length 12½ inches: bill, length 1 inch 7 lines, depth in middle, 3½ lines; wings 9¼ inches; tarsi 1 inch 2 lines.

The wings project above an inch beyond the tail, like the one represented by Parkinson in the above-mentioned 'Icones,' but the bill is longer and more slender.

Titi of the natives .- Dieffenbach.

- Prion vittatus, Cuv. Procellaria vittatus. Gmel., Syst. Nat., 560. Procellaria Forsteri. Lath., Ind. Orn., ii. 827. Procellaria latirostris. Bonn, Ency. Meth. Pachyptila vittata. Illig., Prod. 274. Pachyptila Forsteri. Steph., Shaw, Zool., xiii. 251.
- 72. Diomedea exulans, Linn., Lath. Ind. Orn., ii. 789.
- "Not immediately near the shores, which, however, they also visit, but in the New Zealand seas, exist several kinds of albatrosses, which the natives call Toroa."—Dieffenbach.

# Fam. LARIDÆ.

- 73. Lestris antarcticus. Less., Tr. d'Orn., 616; id. Compl. Buff., ix. 511. Lestris cataractes. Quoy et Gaim. Voy. de l'Uranie, pl. 38.
- 74. Larus fuscus. Linn. Syst. Nat. i. 225. Lath. Ind. Orn. ii. 815.
- 75. Larus scopulinus. Forst., Icon. ined., t. 109. He-Talle of the natives of New Zealand. Forst.
- M. Lesson speaks of a species under the native name of Akiaki.
- 76. Sterna striata. *Gmel.* Syst. Nat., 609. *Lath.* Syn. vi. 358, t. 98.

# Fam. Pelecanidæ.

77. Sula australis, Gould, Proc. Zool. Soc., 1840, 177. Pelecanus serrator, Banks, Icon. ined., t. 30.

Tara of the natives of Queen Charlotte's Sound.— Dieffenbach.

- 78. Graucalus carunculatus. Pelecanus carunculatus. Forst., Icon. ined. t. 104. Phalacrocorax? carunculatus. Steph., Shaw, Zool. xiii. 94.
- Graucalus cirrhatus. Pelecanus cirrhatus. Gmel.,
   Syst. Nat., 576. Hydrocorax cirrhatus. Vieill.,
   Ency. Meth. Phalacrocorax? cirrhatus. Steph.,
   Shaw's Zool. xiii. 95.
- 80. Graucalus punctatus. Forst., Icon. ined. t. 103. Pelecanus punctatus. Sparrm. Mus. Carl. t. 10; Gmel., Syst. Nat., 574; Lath., Ind. Orn., 11. Phalacrocorax punctatus. Steph., Shaw, Zool., xiii. 88. Pelecanus nævius. Gmel., Syst. Nat., 575. Phalacrocorax nævius. Cuv., Reg. An., 565.

Pa-degga-degga of the Natives of Queen Charlotte's Sound. Forst.

Common in Cook's Strait. They are social birds, and build their nests, many together, on high trees overhanging the rivers and coasts. They lay two white, as large as hen eggs, and feed especially upon the eels and smaller fishes of rivers.—Dieffenbach.

- 81. Graucalus auritus.—Carbo auritus. Less., Tr. d'Orn.; id. Compl. Buff. ix. 497. Hydrocorax dilophus. Vieill. Gal. des Ois. pl. 275.

  New Zealand. Less.
- 82. Graucalus varius. Pelecanus pica. Forst., Icon. ined. t. 106. Pelecanus varius. Gmel., Syst. Nat., 576. Phalacrocorax varius. Steph., Shaw, Zool. xiii. 92.
- M. Lesson mentions a species of this genus under the native name of Ka-oua-ko. "All the species of cormorants are called Kauwau by the natives."—Dieffenbach.
  - 83. Graucalus carboides.—Phalacrocorax carboides, Gould,
    Desc. of New Sp. of Austr. Birds, p. 7.
  - 84. Graucalus flavirostris. Phalacrocorax flavirostris, Gould, Desc. of New Sp. of Austr. Birds, p. 8.

III. DESCRIPTIONS of the REPTILES and AMPHIBIA hitherto observed in New Zealand, by J. E. Gray, F.R.S., &c.

# Fam. Scincidæ.

1. Tiliqua Zelandica. Harmless Lizard. Polack, N. Z. i. 317.

Pale brown, with irregular small black spots, with a narrow white streak from the nostril over the outer edge of the eyebrow, along the sides of the body and tail, and a narrow black streak below it; sides rather darker, with a few short black-edged white spots; throat and beneath greenish silvery, with a narrow silvery streak from the cheek across the middle of the ears on the side of neck, and another down the middle of the front of the fore feet; tail tapering, slender; toes slender; ears deep, round, with a few very obscure rounded scales in front; scales smooth, of the nape obscurely three-grooved.

"Is called Moko-Moko by the natives of Cook's Strait, where it lives amongst fern on the hills, or in the shingle of the sea-coast. The general native name for reptiles is Ngarara."—Dieffenbach.

# 2. Tiliqua ornata.

Inhab. New Zealand, Cook's Straits.—Dieffenbach.

Pale brown with small black and white dots, sides paler with similar dots, darker above, and separated from the back by an indistinct pale marginal streak; beneath, silvery, varied with the darker edge of the scales; tail thick, tapering, above brown black and white dotted and varied; beneath white; ears deep, round, with a few very obscure round scales in front; scales smooth, thin, with three more or less distinct white streaks.

Like the former, only described from a single specimen in spirits, which may be immature. Other specimens would be desirable.

# Fam. GECKOTIDÆ.

Genus Naultinus. Gray, Brit. Mus., and Zool. Misc., 72.

Toes 5. 5. free, base thick, rather dilated; last joint elongated, thick, compressed, free, clawed; all with entire cross scales beneath. Thumb similar, but the base is shorter. Scales small, granular, subequal above and below. Tail tapering, round, with scales like the body.

This genus is most nearly allied to Gehyra, but differs from it in the end of the toes not being compressed. "Amongst fern, and in the forest of the Northern Island."—Dieffenbach.

\* Femoral pores none.

3. Naultinus elegans. Gray, Zool. Misc., 72.

Inhab. "Northern Island, amongst decayed trees, and running about between the fern. Called Kakariki."

Thumb clawless; green, rather paler beneath; streak along the under lip to the ear, two arched stripes on the top of the head, irregular-shaped spots on each side of the back, hind legs, interrupted streak along each side of the body and tail white, with a narrow black edge; tail with a cross series of compressed larger scales at the base.

- "Departed spirits are said to transfer themselves into this and the former species, and the natives regard them therefore with a certain dread, calling them Atuas Gods." Dieffenbach.
- \* \* Triangular patch of the scales in the front of the vent pierced with a central pore.
  - 4. Naultinus pacificus.—Gray, Zool. Misc., 73. Gecko pacificus, Gray, Brit. Mus. Platydaetylus Duvaucelii, Dum. and Bib., Herp. Gen. iii. 312.

Pale brown, marbled, and dotted with darker brown, forming four broad, irregular, unequal confluent bands across the back; a dark streak from the back angle of the eye to the angle of the mouth, and a broad irregular band from the upper part of the back of the eyes to just over the ear. Lower lip with six larger plates on each side the rostral one, the three front largest; the upper lip with a small roundish scale in the middle just above the rostral plate.

Var. 2. Small, with only the two front lateral lower labial plates large.

Inhab. New Zealand, Cook's Straits.—Dr. Dieffenbach.

"Islands of the Pacific Ocean."—Mr. S. Stutchbury, 1830.

This species appears to have a more general distribution than the preceding, as we some years ago received a small specimen from Mr. S. Stutchbury, who brought it from one of the islands of the Pacific. It agrees in many points with the P. Duvaucelii of Dumeril, but they describe that species as coming from Bengal.

5. Naultinus punctatus.

Inhab. New Zealand.—Museum of Haslar Hospital, presented by H. Kelsall, Esq., Surg. R.N.

Thumb clawed, dark green, back with very small scattered black specks the size of a granule; the under side yellow green; length of body 4 inches; tail broken; toes 5. 5.; claws 5. 5. all acute; toes elongate, unequal, short, the lower joints dilated and furnished with a series of cross plates; the last joint rather tapering, flat beneath, triangular above, covered with granular scales; belly with a fold of skin on each side. The body, limbs, and tail covered with uniform granular scales, the throat with similar, and the rest of the under side with rather larger granular scales. The head covered with larger flat polygonal scales, forming small shields over the muzzle. The under side of the base of the tail covered with rather large many-sided smooth scales; labial plates regular. The scales in the front of the vent, between the thighs, rather larger, each pierced with a pore, forming together a triangular spot, and there are two series of pores along the under side of each thigh.

The Hemidactylus Oualensis, Dumeril and Bibron, Herp. Gen. iii. 351, t. 28, f. 7, probably belongs to this genus.

# Fam. AGAMIDÆ.

Genus HATTERIA. Gray, Zool. Misc. 72.

Head quadrangular, covered with small scales; throat with a cross fold; nape and back with a crest of compressed spines; body covered with small scales, belly and under side of the tail with large squarish keelless flat scales placed in cross series; tail compressed, triangular, covered with small scales, and with a ridge of large compressed spines; legs strong; toes 5. 5., short, strong, cylindrical, slightly webbed at their base, covered above and below with small scales; claws short, blunt. Femoral porcs, none. Pre-anal scales small; a few of them are pierced in the centre.

6. Hatteria punctata. Gray, Zool. Misc. 72. Gigantic Lizard, Cook's Voy., 3, I. 153., or Guana.—Polack, N. Z. i. 317.

Inhab. New Zealand.

Olive; sides and limbs with minute white specks; beneath yellowish. The spines of the nuchal and dorsal crests yellow, of the caudal brown; the scales of the back, head, tail, and limbs small,

granular, nearly uniform; with irregular folds in the skin, which are fringed at the top with a series of rather larger scales. An oblique ridge of larger scales on each side of the base of the tail, and a few shorter longitudinal ridges of rather smaller ones on each side of the upper part of the tail.

There is a young specimen of this species more brightly co-

loured in the Museum of Haslar Hospital, Gosport.

"I had been apprized of the existence of a large lizard, which the natives called Tuatera, or Narara, with a general name, and of which they were much afraid. But although looking for it at the places where it was said to be found, and offering great rewards for a specimen, it was only a few days before my departure from New Zealand that I obtained one, which had been caught at a small rocky islet called Karewa, which is about two miles from the coast, in the Bay of Plenty, and which had been given by the Rev. W. Stack, in Tauranga, to Dr. Johnson, the colonial surgeon. From all that I could gather about this Tuatera, it appears that it was formerly common in the islands; lived in holes, often in sandhills near the sea-shore; and the natives killed it for food. Owing to this latter cause, and no doubt also to the introduction of pigs, it is now very scarce; and many even of the older residents of the islands have never seen it. The specimen from which the description is taken I had alive, and kept for some time in captivity: it was extremely sluggish, and could be handled without any attempt at resistance or biting."-Dieffenbach.

# Fam. HYDRIDÆ.

7. Two-coloured Sea Snake. Pelamys bicolor. Polack, N. Z., i. 318.

Inhab. New Zealand, River Hokianga.

Polack observes, a native showed Captain Cook a drawing of a guana and a snake: he suspects the latter must have been a conger-eel. N. Z., i. 318.

"Neither sea nor land snakes have ever been seen by me. An English captain tried to introduce (!) the common black snake of New South Wales, but it is said that they died, and frustrated his benevolent design."—Dieffenbach.

# Fam. TESTUDINIDÆ.

"On the authority of Mr. Charles Heaphy I state here that a small land tortoise was found near the Wanganui River, in Cook's Strait; the natives never mentioned to me the existence of such an animal."—Dieffenbuch.

#### Order AMPHIBIA.

Polack, i. 318, mentions "toads and frogs as not uncommon, especially near the mountain districts, but he believes they do not differ from the species in Europe."

As the species of these animals are very local in their distribution, I have no doubt, when they come to be examined, or specimens of them are sent to Europe for comparison, that they will prove new to science, and different from any hitherto described. "They have never been seen by me."—Dieffenbach.

IV.—LIST of FISH hitherto detected on the Coasts of New Zealand, by John Richardson, M.D., Inspector of Hospitals at Haslar; with the description, by J. E. Gray, Esq., and Dr. Richardson, of the New Species brought home by Dr. Dieffenbach.

#### Fam. Percoideæ.

- Serranus lepidopterus.—Butterfly Barber-fish. Richardson, Annals of Natural History, for March, 1842.
   —(Perca lepidoptera, J. R. Forster, MS. II. 58, apud Bl. Schn., p. 302.)
- Polyprion cernuum.—Wreck-fish, Cherney, or Jew-fish. C. and V. 3, p. 24, t. 42. (Sciæna gadoides, Solander MS. Pisces Australiæ, p. 38. Banks, fig. pict. 2, t. 74. Palo-tera, G. Forster, fig. pict. Bibl. Banks, 2, t. 218. Perca prognathus, J. R. Forster, MS. IV. 19, apud Bl. Schn., p. 301.)
- 3. Centropristes trutta.—The Kahavai. C. and V. 2, p. 54. (Sciæna trutta, G. Forster, fig. pict. 2, t. 210. Perca trutta, J. R. Forster, apud Bl. Schn., p. 542.) Inhabits Queen Charlotte's Sound.
- Centropristes mulloides.—(Sciæna mulloides, Banks, fig. pict. 2, t. 68. Sciæna mulloides β. (sapidissima), G. Forster, fig. pict. 2, t. 211.)
   Inhabits Hetrawaii and Queen Charlotte's Sound.
- 5. Centropristes sapidissimus.—(Mulloides sapidissimus,

Solander, Pisc. Austr., p. 22. Banks, fig. pict. 2, t. 67.)

Inhabits Tegadoo Bay and Tolaga.

- Aplodactylus meandratus.—Richardson, Zool. Trans.
   p. 83. (Sciæna mæandrata, Banks, fig. pict. 2,
   f. 65. Sc. Mæandrites, Solander, Pisc. Austr., p. 2.)
   Taken off Cape Kidnappers.
- Percis colias.—Coaly Percis, C. and V. 3, p. 273.
   (Labrus macrocephalus, Solander, Pisc. Austr., p. 27. Banks, fig. pict. 2, t. 57. Gadus colias, G. Forster, fig. pict. 2, t. 181. J. R. Forster, MS. II. 36, apud Bl. Schn., p. 54.)

Inhabits Queen Charlotte's Sound.

- 8. Percis nicthemera.—Black and white Percis. C. and V. 3, p. 274.
  - An inhabitant of the Bay of Islands, and perhaps not specifically distinct from the preceding.
- 9. Uranoscopus maculatus. Bearded Uranoscope. Richardson, Ann. Nat. Hist. for May, 1842. (Uranoscopus maculosus, Solander, Pisc. Austr., p. 21. U. maculatus, J. R. Forster, apud Bl. Schn., p. 49. G. Forster, fig. pict. 2, t. 176, 177. U. kouripoua, Lesson, Voy. par Duperrey, pl. 18. U. cirrhosus, C. and V. 3, p. 314. U. Forsteri, Id., p. 318.)

Frequents Queen Charlotte's Sound, Tolaga, and the Bay of Islands. "Bedee" is stated to be its native name by Forster, and "Kouripooa" by Lesson.

10. Upeneus vlamingii.—C. and V. 3, p. 452. (Labrus calopthalmus, Solander, Pisc. Austr., p. 35. Banks, fig. pict. 2, t. 46.)

Inhabits Queen Charlotte's Sound.

11. Upeneus porosus. — C. and V. 3, p. 455. Inhabits the rivers.

# Fam. Cottoide ...

12. Trigla papilionacea.—The Kumu. C. and V. 4, p. 50. (Solander, Pisc. Austr., p. 23. Banks, fig. pict. 2, t. 104.)

- Has been taken in Tolaga Bay, at Oporagee, in the Bay of Islands, and on other parts of the coast.
  - Scorpæna cardinalis. Richardson, Annals Nat.
     Hist. for 1842, p. 212. (Solander, Pisc. Austr., p. 28. Banks, fig. pict. 2, t. 212.)
     On the coast of Eahee-no-mauwee.
  - Scorpæna cottoides. J. R. Forster, apud Schn., p. 196. (G. Forster, fig. pict. 2, t. 190.)
     The native name is "Enooheetara."
- Scorpæna plebeia.—Richardson, Ann. Nat. Hist. for 1842, p. 212. (Solander, Pisc. Austr., p. 21.)
   Inhabits Tolaga Bay.
- Scorpæna cruenta.—Richardson, Ann. ut supra. (Solander, Pisc. Austr., p. 5.)
   Taken off Cape Kidnappers.
- 17. Sebastes percoides. Richardson, Ann. Nat. Hist. for July, 1842, p. 384. (Solander, Pisc. Austr., p. 4. Banks, fig. pict. 2, t. 16.)

Taken at Motuaro, in Queen Charlotte's Sound.

# Family Scienoidee.

- 18. Cheilodactylus carponemus.—Richardson, Zool. Tr. 3, p. 99. (Sparus carponemus, G. Forster, fig. pict. 2, t. 206.) Sciænoides abdominalis, Banks, fig. pict. 2, t. 206.)
- Inhabits Matarruhow and Dusky Bay; and also King George's Sound in New Holland, and Port Arthur in Van Diemen's Land.
  - 19. Cheilodactylus macropterus. Richardson, Zool. Trans. 3, p. 101. (Sciæna et Sciænoides abdominalis, Solander, Pisc. Austr., p. 11 et 27. Banks, fig. pict. 2, t. 40. Sciæna macroptera, G. Forster, fig. pict. 2, t. 206. J. R. Forster, MS. II. 54, apud Bl. Schn., p. 342.)

Taken off Cape Kidnappers, in Queen Charlotte's Sound, and in Dusky Bay.

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- 20. Latris? salmonea. Richardson, Zool. Trans. 3, p. 114. (Sciæna salmonea, Banks, fig. pict. 2, t. 66.) Inhabits Totæranue Cove, Queen Charlotte's Sound.
- 21. Latris lineata.—Richardson, Zool. Trans. 3, p. 108. (Sciæna lineata, G. Forster, fig. pict. 2, t. 204. J. R. Forster, MS. II. 52, apud Bl. Schn., p. 342.)

This fish was taken by Cook's crew in Dusky Bay, and named by them "Yellow Tail." It is very like the much-prized Trumpeter of Van Diemen's Land.

Latris ciliaris. — Richardson, Zool. Trans. 3, p. 115.
 (Sciæna ciliaris, G. Forster, 2, t. 205, and 2, t. 209.
 J. R. Forster, II. 55, apud Bl. Schn., p. 311.)

This fish is named "Moghee" by the natives of Dusky Bay. It is also an inhabitant of Queen Charlotte's Sound.

#### Fam. SPAROIDÆ.

- 23. Pagrus guttulatus.—C. and V. 6, p. 160.

  An inhabitant of the mouths of rivers.
- 24. Pagrus micropterus.—C. and V. 6, p. 163. Inhabits the estuary of the River Thames, N. Zealand.
- Pagrus latus. Richardson, Ann. Nat. Hist. for 1842, p. 392. (Sciæna lata, Solander, Pisc. Austr., p. 25. Sciæna aurata, G. Forster, fig. pict. 2, t. 208. J. R. Forster, MS., apud Bl. Schn., p. 266.)

Taken in the sea between Owhooragi and Opooragi, and also in Queen Charlotte's Sound. In the latter locality its native name is "Ghooparee."

# Fam. Scomberoideæ.

26. Scomber loo.—C. and V. S., p. 52.? (Scomber scombrus, Solander, Pisc. Austr., p. 31.)

Solander observed this mackerel in Queen Charlotte's Sound. Its identity with the Scomber loo is not perfectly established.

Thyrsites atun, var. altivelis. — Richardson, Zool. Tr., 3, p. 119. (Scomber splendens, Solander, Pisc. Austr., p. 37. Scomber dentex, G. Forster, fig. pict. 2, t. 216. Scomber dentatus, J. R. Forster, MS. II. 58, apud Bl. Schneid.)

This fish is named "Maga" by the natives of Queen Charlotte's Sound, where it was seen by the Forsters. Solander first saw it in Murderer's Bay.

28. Gempylus Solandri, C. and V. 8, p. 216. (Scomber macropthalmus, Solander, Pisc. Austr., p. 40.
Banks, fig. pict. 2, t. 91.)

Frequents the coasts of Eaheenomauwee.

- 29. Histiophorus ——?
- "Sword fish" are mentioned in Polack's account of New Zealand. The species is not ascertained, but it is perhaps the indicus.
  - 30. Naucrates ---?
    - "Pilot-fish" are also mentioned by the same writer.
  - 31. Chorinemus forsteri.—(Scomber maculatus, G. Forster, fig. pict. 2, t. 228. J. R. Forster, MS. II. 120, apud Bl. Schn., p. 26.)

This fish is named "Milinjidne" by the natives of Port Essington on the north coast of New Holland. It is probably the same species with the *Chorinemus commersonianus* of the "Histoire des Poissons."

- 32. Trachurus novæ-zelandiæ, C. and V. 9, p. 26.
  An inhabitant of the seas of New Zealand and of Shark
  Bay, New Holland.
- 33. Trachurus? clupeoides.—(Scomber clupeoides, Solander, Pisc. Austr., p. 31.)
  Inhabits Dusky Bay.
- 34. Caranx lutescens. (Scomber lutescens, Solander, Pisc. Austr., p. 38.)
  Inhabits Queen Charlotte's Sound.
- 35. Caranx sinus-obscuri.—(Scomber trachurus, varietas, G. Forster, fig. pict. 2, t. 223. C. and V. 9, p. 20.) Frequents Dusky Bay.
- 36. Caranx platinoides.—(Scomber platinoides, Solander, Pisc. Austr., p. 13.)
  Frequents Tolaga Bay.
- 37. Seriola cultrata.—(Sciæna cultrata, G. Forster, fig.

pict. 2, 212. J. R. Forster, MS. IV. 9, apud Bl. Schn., p. 344.)

Discovered at Norfolk Island by the Forsters.

38. Capros australis.—Richardson, Zool. Tr., 3.

This is probably the Dory mentioned by Polack.

#### Fam. SIGANOIDEÆ.

39. Acanthurus triostegus.—Bl. Schn. p. 215. (Harpurus fasciatus, J. R. Forster, apud Schn. Teuthis australis. Gray. King's Voy. Austral. Append, 435.) Inhabits the seas of the Mauritius, New Zealand, New Holland, and Polynesia.

#### Fam. MUGILOIDEÆ.

40. Mugil forsteri.—C. and V. xi. p. 141. (Mugil albula? G. Forster, fig. pict. 2, t. 239.)

Polack says that mullets are named by the natives "Kanai," but we do not know whether this be the species he means or not.

#### Fam. GOBIODEÆ.

41. Clinus littoreus, C. and V. xi. p. 389. (Blennius littoreus, G. Forster, fig. pict. 2, t. 184. J. R. Forster, MS. II. 42, apud Bl. Schn., p. 177.)

Named "Kogop" by the natives of Queen Charlotte's

Sound.

42. Acanthoclinus fuscus.—Jenyns, Zool. of Beagle, pl. 18, f. 2.

Found by Mr. Darwin in the Bay of Islands. The preceding species is thought by Mr. Jenyns to be probably likewise a member of this group.

- Christiceps australis.—C. and V. xi. p. 102.
   Inhabits the rivers of New Zealand and Van Diemen's Land.
- Tripterygion nigripinne.—C. and V. xi. p. 413.
   Inhabits rivers.
- 45. Tripterygion varium.—C. and V. xi. p. 414. (Blennius varius, G. Forster, fig. pict. 2, t. 185. J. R. Forster, MS. II. 43, apud Bl. Schn., p. 178.)

- Named "Kekogop" by the natives of Queen Charlotte's Sound.
- Tripterygion forsteri.—C. and V. xi. p. 415. (Blennius tripinnis, J. R. Forster, MS. II. 41, apud Bl. Schn. p. 174.)
- 47. Tripterygion fenestratum. C. and V. xi. p. 416. (Blennius fenestratus, G. Forster, fig. pict. 2, t. 186. J. R. Forster, MS. II. 39, apud Bl. Schn., p. 173.) Inhabits the fresh-water rivulets of Dusky Bay, and is named by the natives "Hetarooa."
- 48. Tripterygion capito.—Jenyns, Zool. of the Beagle, pl. 19, f. 1.
  Crawls over the tidal rocks in the Bay of Islands.
- 49. Eleotris gobioides .- C. and V. xii. p. 247.
- 50. Eleotris radiata.—C. and V. xii. p. 250. Taken in the mouth of the river Thames.
- 50\*. Electris basalis.—Gray, Zool. Misc., 73. Inhabits the River Thames, New Zealand.—Dr. Dieffenbach.
- "Brown, in spirits, minutely darker speckled; fins darker, blackish; the pectoral fin with a broad yellow basal band; head blackish; tail rounded; first dorsal 7, hinder 10 rayed; ventral 5 rayed."—Gray.
  - Hæmerocætes acanthorhynchus. C. and V. xii.
     p. 311. (Callionymus acanthorhynchus, G. Forster, fig. pict. 2, t. 175. J. R. Forster, II. 30, apud Bl. Schn., p. 41. C. monopterygius, Bl. Schn. l. c. L'Hémérocet acanthorhynque, C. and V., 12, p. 311.)

The Forsters, father and son, described and figured a specimen of this fish, which was thrown up in a storm on the beach of Queen Charlotte's Sound. It had not come in the way of collectors since that time, until Dr. Dieffenbach procured a specimen in Wangaroa Bay, Chatham Island, which he sent to the College of Surgeons, and he also possesses a coloured sketch of the recent fish. Through the kindness of Professor Owen, I have had an opportunity of examining the specimen, and of drawing up the subjoined

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description. Though Cuvier knew the fish only from the drawing and notes of the Forsters, and there are some important omissions and obscure passages in the latter, as published by Schneider, he appears to have assigned a correct place to it in the system; for it seems to be most nearly allied to *Callionymus*, which is the genus to which it was assigned by Forster. The New Zealand name of this fish is written "Kogohooe" by G. Forster, and "Kohikoi" by Dr. Dieffenbach.

Form elongated, with the width at the gill-covers, where it is greatest, exceeding the height; from thence the head is depressed, and slopes gradually to the snout, which shows a widely lanceolate tip when seen from above, and a thin edge when viewed in profile. The top of the head is flatly convex laterally, and the same depressed-rounded form extends on the upper surface, from the occiput to the dorsal, but with an acute though not elevated mesial line. At the beginning of the dorsal the height and thickness of the body are nearly equal, and from thence it diminishes gradually in both dimensions to the slender base of the caudal fin. The sides are quite flat, and the back and belly are rounded, with a groove for the reception of the dorsal and anal. The head forms somewhat less than a fifth part of the total length, caudal included, and its height at the eyes is about equal to one-third of its own length. The large oval orbits, being placed very near to each other on the lateral slope of the head, have a vertical and slightly outward aspect. A thickening of the integument on the upper half of the eveball forms what Forster calls "a semilunar nictitating membrane." The upper margins of the orbits are smooth and slightly raised, and flank a narrow linear mesial depression. The preorbitar large and triangular, with its apex, pointing forward, has a smooth even edge, with some low smooth ridges radiating forward on its surface. An exterior membrane, free beneath, stretches across the snout from one preorbitar to the other, as in Callionymus, and is the part to which Forster alludes when he says "labium superius duplex, apice semilunato spinis duabus." The fore edge of the membrane is slightly lunate, the tips of the crescent being formed by the acute subulate points of the maxillaries, which are the spines of Forster. The limb of the maxillary widens to its end, which is truncated, and can be retracted entirely beneath the edge of the preorbitar and of the scaly margin of the cheek at the angle of the mouth : its end shows when the jaws are extended. The intermaxillaries form the entire upper lip, and their limbs, covered by the ordinary integument, play beneath the preorbitar membrane, and are protractile, though in a less degree than in Callionymus, and without giving a downward inclination to the mouth. Indeed, the structure of the jaws generally is much like that which exists in the genus just mentioned. The gape is pretty large, and extends nearly as far back as the anterior edge of the orbit. The underjaw is rather more acute than the upper one, and a very little shorter; it is bordered by a thin membranous lip, which widens towards the angle of the mouth, and folds back when the orifice is shut. The nostrils are situated a short way before the eye, and just above the upper edge of the preorbitar. The posterior opening is small and oval, and may be easily mistaken for one of the pores which are scattered over the neighbouring scaleless parts: the anterior opening is contiguous to it, and scarcely to be discerned, being almost hidden by a minute membranous point. A small cluster of pores between the anterior angles of the orbits may have been mistaken by Forster for the nostrils. His expression is, "nares inter oculos, contiquæ." The upper and lower jaws, branchiostegous membranes, preorbitars, disks of the preopercula, and narrow space between the eyes, are covered with scaleless membrane, dotted irregularly with minute pores. A double row of these pores exists on the middle of each limb of the lower jaw; moderately large scales cover the cheek close to the orbits, and run forward even a little farther than the angle of the mouth. The scales of the operculum and suboperculum are somewhat larger, and completely conceal the junction of the two bones. The interoperculum is equally scaly, but being slightly narrower its extent is readily perceived. The disk of the preoperculum has a deeply lunate form, and is augmented by a very thin scaleless membranous border. No vestige of any spinous process exists on its rounded edge. The whole gill-cover has an obtuse semi-oval form : and its thin, flexible, rounded edge projects far over the gillopening, and fits so closely to the pectoral region as to conceal the opening, though it is very large, and runs forward to the root of the tongue. The gill-covers, being scaly to their extreme edges, blend imperceptibly with the scales at the base of the pectoral fins. giving no indication of the existence of the aperture till the flap is raised; but on each side of the nape the opening, which runs forward there, gapes somewhat like the valve of a mya. All this is faithfully represented in George Forster's figure; but there is an ambiguity in J. R. Forster's notes, which has led Cuvier to think that the branchial aperture was restricted to a tubular opening, as in Callionymus. The passage is "opercula squamosa, calcari FISHES. 215

simplice: apertura branchialis, supera subovata, tubulosa." The spur to which he alludes can only be the projecting rounded gill-flap, which, from the opening running along its upper edge on the side of the nape, shows in profile like the obtuse spur of a violet. The latter clause of the passage is also intelligible if the adverb superà be the word that was written by Forster. The branchiostegous membrane is not broad, but when expanded it assumes, from the tightness of its margin, somewhat of the swelling form common among the gobioids and cottoids. When the mouth is closed, the acute inner edges of the limbs of the lower jaw, coming in contact with each other, overlie and completely conceal the gill-membrane, and its attachment to the isthmus.

The intermaxillaries are furnished round the entire border of the mouth with a narrow band of short recurved teeth. The rounded articular heads of the maxillaries project into the roof of the mouth, and are lined by soft unarmed integuments. The chevron of the vomer, lying contiguous to them behind, is smooth and depressed on the mesial line, but forms a small minutelytoothed button on each side, close to the anterior points of the palate-bones. Forster describes this part of the structure by the phrase "palatum papillosum, denticulatum." He also says of the jaws "dentes minuti," which must have been overlooked by the authors of the 'Histoire des Poissons' when they wrote-"Mais sur les dents des mâchoires Forster garde le silence." The tongue is narrow and strap-shaped, free beneath for a great part of its length, and smooth on the surface. The pharyngeals are armed with short hair-like teeth; and the long, slender branchial arches are set with round tubercles, which are fringed with a few minute teeth.

The scales are moderately large, of a semi-oval form, and truncated at the base by a waving line, which produces a very shallow middle lobe. There are about 13 nearly parallel furrows on the base, and the outer edge of the scale is thin and membranous: its structure is cycloid. The lateral line is straight, and is composed of 48 scales, which are rather smaller and more lobed than the others. A short mucous tube perforates the disk of each of these scales, and rises above its surface. Behind the pectorals there are three rows of scales above the lateral line, and five below it. The scales terminate at the base of the caudal in a lanceolate point on each side of the fin.

Rays: Br. 7-7; D. 41; A. 39; C. 12%; P. 20; V. 1/5. The pectorals have an oval form, their central rays being the

longest, and the others diminishing gradually to the uppermost and undermost, which are short. All the rays are forked at the tips: and a triangular patch of small scales covers the base of the central ones. The elliptical and rather acute ventrals are attached nearly half their own length before the pectorals. Their short, slender spine has a flexible tip. The other five rays are forked, the fourth being the most so, as well as the stoutest and longest. The flat, scaly space between the bases of the ventrals exceeds them in breadth. The tips of these fins when laid back go a little beyond the middle of the pectorals, and just touch the first anal ray. The dorsal, commencing over the first third of the pectorals, extends to near the caudal fin: its fourth ray stands over the anus. Two or three of the anterior rays are graduated, the next portion of the fin is nearly even, and about one-quarter higher than the depth of the body. The posterior quarter of the fin is also graduated, and the last ray has only one-third of the length of the tallest one. All the rays are jointed, tapering, and flexible; and, with the exception of two thin middle ones, which are faintly forked, they are all simple. The membrane of this, as of all the other fins, is transparent and delicate, and disappears so readily when handled, that its original extent cannot be ascertained in the specimen. The figures represent it as being nearly as deep as the rays, and showing a notch behind each of their tips. The anal is similar to the dorsal in shape and structure, but is one-third less in height. Its first spine stands on the verge of the anus, and is distinctly jointed. The central rays are rather more evidently forked at the tips than the corresponding dorsal ones. Both fins, when laid back in their respective furrows, lie with all their rays turned to the same side, as is usual with the blennies, and not alternately to right and left, like the spinous rays of most acanthopterygii. The caudal fin is composed of 8 forked rays, 2 simple graduated ones above and below, and 2 short incumbent basal ones. The first upper-forked one is the largest, and forms an acute projecting tip to the otherwise rounded fin. Dr. Dieffenbach's figure corresponds, in this respect, with the specimen, so that the fin has not been mutilated since the drawing was made. But Forster gives a slightly crescentic terminal edge to the caudal. The length of the part of the tail which is intercepted between the caudal and the two other vertical fins is about equal to its height. The anal papilla is small, and does not project beyond the orifice.

In Dr. Dieffenbach's sketch the general colour of the head,

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body, and caudal fin is wax-yellow or siskin-green, becoming brighter towards the under surface. Four flaxflower-blue streaks descend from behind forward, obliquely over the nape, gill-covers, and cheek: there are some blue tints about the jaws, and two rows of blotches of the same colour run along the sides to the tail. The tip of the caudal is blackish. The base and upper edge of the dorsal have the greenish tint of the body; the middle part is alternately bluish and rose-coloured, with a row of irregular darker red spots. The anal is rose-coloured, with a purple margin, and the pectorals and ventrals are entirely rose-coloured.

### DIMENSIONS.

Abell Tabustor				In	Lin.
Length from tip	of upp	er	lip, when retracted, to ex-		
tremity of caud	lal-fin .	1	Starter and the Alexander	8	2
Do.	do.	to	base of caudal-fin	7	0
Do.	do.	to	beginning of anal	2	$3\frac{1}{3}$
Do. ngmoss	do.	to	beginning of dorsal .	1	$11\frac{1}{3}$
Do.	do.	to	pectorals	1	91
Do.	do.	to	ventrals	1	5
Do.	do.	to	edge of gill-flap	1	9
Do.	do.		anterior angle of eye.	0	$7\frac{1}{2}$
Diameter of the e	ye, lengt			0	$4\frac{1}{2}$
			(11th to 15th ray)	0	$10\frac{\tilde{1}}{2}$
Height of first do			的。少多的2.9—第初第4号5·6	0	7~
Do. of last do.	With This		C. Poster Agrant E. C.	0	$3\frac{1}{2}$
Do. of middle	anal ray	78	17. 17. 17. 18. 20 May 18. 21. 24.	0	7
Length of dorsal f				4	$6\frac{1}{4}$
Do. of anal fin	BINIE A			4	5
Do. of space b	etween	dor	sal or anal and caudal .	0	$2\frac{1}{2}$
Do. of ventrals			undersolff nitrica emp	0	11
Do. of pectora	ls .	9	a aggregated water is sound	1	2
Do. of caudal			Marie of the spile of the latest	1	2
Height of body at	anus .		and the second subset	0	9
Thickness of do.	14513 FE C			0	8
Width at gill-cove	ers .		Satural county	0	$9\frac{1}{2}$
Do. of space be		he	orbits	0	2
THE RESIDENCE OF THE PERSON OF			enecimen are nearly the ear	ne i	with

The dimensions of Forster's specimen are nearly the same with the above.

Thrown up by a storm in Queen Charlotte's Sound, and termed by the natives "Kogohooee." At Wangaroa

Bay, Chatham Island, called "Kohikoi."—Dr. Dieffenbach, whose specimen is now in the British Museum.

### Fam. LABROIDEÆ.

- 52. Labrus pæcilopleura.—C. and V. xiii. p. 95.
- M. Lesson ascertained that the native name of this fish is "Parè quiriquri."
  - 53. Julis? rubiginosus.—(Sparus rubiginosus, Banks, fig. pict. 2, t. 38. Solander, Pisc. Austr., p. 7.)
    Taken off Cape Kidnappers.
- 54. Julis notatus. (Sparus notatus, Solander, Pisc. Austr., p. 16. Banks, fig. pict. 2, t. 37.)
  - 55. Julis miles.—(Labrus coccineus, J. R. Forster, apud Schn. Labrus miles, Bl. Schn., p. 264.)

Named the "Soldier" by the seamen who accompanied Cook on his second voyage.

- 56. Julis celidotus.—(Labrus celidotus, J. R. Forster, apud Bl. Schn., p. 265.)
- 57. Julis? prasiophthalmus.—(Sparus prasiophthalmus, Solander, Pisc. Austr., p. 5.)
- 58. Odax pullus.—C. and V. 14, p. 304. (Scarus pullus, G. Forster, fig. pict. 2, t. 202. J. R. Forster, MS. IV. 17, apud Bl. Schn., p. 208.)
  - Named "Mararee" by the inhabitants of Queen Charlotte's Sound.
- 59. Odax vittatus.—(Coregonoides vittatus, Solander, Pisc. Austr., pp. 1-39. Callyodon coregonoides, Banks, fig. pict. 2, t. 44.)
  Inhabits the sea at Mataruhow.

# Fam. CYPRINOIDEÆ.

Leuciscus (Ptycholepis) salmoneus.—(Mugil lavaretoides, Solander, p. 15.? Mugil salmoneus, G. Forster, fig. pict. 2, t. 237. J. R. Forster, MS. II. iv. 14, apud Bl. Schn., p. 121.)
 Inhabits Tolaga.

#### Fam. EsocidÆ.

61. Galaxias alepidotus.—Cuv., Reg. An. 2, p. 283. (Esox alepidotus, G. Forster, fig. pict. 2, t. 235. J. R. Forster, MS. II. 62, apud Bl. Schn., p. 395.)

Named by the natives of Dusky Bay "He-para," and by Cook's sailors "Rock-trout."

62. Hemiramphus marginatus. Lacépède. (Cuv., Règ. An., ii., p. 286.)

One of the fish sent by Dr. Dieffenbach to the College of Surgeons (now in the British Museum) is a hemiramphus. Its scales have in a great measure perished, as very often occurs when fish of this genus are put up in weak spirit, but the specimen is otherwise in pretty good condition. I have referred it to the marginatus of Lacépède (v.vii., 2), though, in the absence of good figures or authentic examples, I do so with doubt. I had received two specimens of the same fish from Port Arthur, Van Diemen's Land, before I saw Dr. Dieffenbach's collection. The table of dimensions will suffice to give an idea of the proportions of the fish.

Its form is the usual one of the elongated hemiramphi: the depth of the body is almost uniform from the nape to the anus, which is remote from the head. The thickness is but little less than the height, but the form becomes more compressed at the origin of the dorsal and anal fins, which are opposite to each other. The height also slopes rapidly down there into the trunk of the tail, which is short and rather slender. The back is broadish and rounded, and, the scales having dropped off, shows longitudinal lines, marking the course of the large muscles of the back. There is a bright silvery band along the side, and the lateral line following the curve of the belly near its edge can still be traced. The scaly triangular upper jaw, as usual in the genus, is capable of being elevated by a hinge-like joint, without the slightest power of extension. The lower jaw, resembling the bill of snipe, is bordered by a thin lip, whose width is equal to half that of the lower jaw itself. This lip folds back, and when raised permits a row of 15 or 16 round pores to be seen on the basal half of the jaw. The orifice of the mouth corresponds exactly with the semi-lanceolate form of the upper jaw, and it is armed entirely round its border by a narrow, crowded band of short linear, tricuspid teeth. The cusps are slightly divergent, and the central one of each tooth is rather the largest. In a second species from Port Arthur, which has a

more slender and scarcely bordered lower jaw, the lateral cusps of the teeth are very minute; and in a nearly similar species from the China seas the teeth are more thinly set, and the lateral cusps are so indistinctly seen through a common lens, that the teeth appear simply subulate. The tongue is fixed nearly to the top, and is fleshy, with a concave smooth disk and slightly raised membranous margin.

## Rays: Br.; D. 16; A. 18; C. 164; P. 12; V. 7.

The pectoral is acute, the rays lengthening gradually from the lowest to the uppermost, which is simple but articulated. The others are forked at the tops. The articulations in the first rays of the dorsal and anal are obscure. The fork of the caudal scarcely extends to half its depth; the lower lobe, as usual in the genus, is the largest. The ventrals, small and approximate, are placed behind the middle of the total length of the fish.

#### DIMENSIONS.

			New Z				
Length from point of lower jaw to							
tip of caudal			11	0	12	2	
Projection of lower jaw beyond							
upper one	41	11	and,	8	2	0	
Length from point of upper jaw to		MIT IN					
tip of caudal	8	9	9	3	10	2	
Do. do. to base of caudal .	7	6	7	81	8	6	
Do. do. to anus	5	8	5	11	6	6	
Do. do. to ventrals			4	8	5	31	
Do. do. to pectoral				81	1	91	
Do. do. to edge of gill-cover			1	7	1	8	
Length of lower lobe of caudal .			1	2	1	5	
Do. of pectorals			-1	0	1 145	3	
Do. of ventrals			0	6	0	61	
Do. of dorsal, or anal			1	2	1	5	
Do. of trunk of tail between ver-						W.	
tical fins		6	0	6	0	6	
Height at the nape			0	91		94	
Do. of body		8	0	- 2	0	91	
Thickness of body		6	0	$6\frac{1}{3}$	0	8	
Diameter of circular orbit .		4	0	4	0	43	
Length of upper jaw		4	0	4	0	- *	
Lichgen of upper Jaw	U	4	U	4	0	41/2	

63. Galaxias fasciatus.—Gray, Zool. Misc., 73. Inhabits the River Thames, New Zealand.—Dr. Dieffenbach.

"The body brown, with nearly regular narrow cross bands on each side."

- "This species resembles, in its form and proportions, Esox alepidotus, Forster, Icon. ined., Brit. Mus., No. 235: but that figure represents his species as olive-green; the back, head, bases of the dorsal fins, and the side of the body marked with unequal, moderate-sized, irregular-shaped, yellow spots: some of the spots are lunate, and one on each side, over the pectoral fin, is ringshaped, with a central eye; while all the specimens brought home by Dr. Dieffenbach, both the adult and young, are marked with similar cross bands."—Gray.
- 64. Sairis scombroides. (Esox scombroides, Solander, Pisc. Austr., p. 40. Esox saurus, G. Forster, fig. pict. 2, t. 233. J. R. Forster, MS. II. 65, apud Bl. Schn., p. 394.)

Inhabits Dusky Bay and the sea between New Zealand and New Holland. It is named "He-eeya" by the aborigines.

65. Exocetus subpellucens.—(Esox subpellucens, Solander, Pisc. Austr., p. 14.)

This is a bearded species.

66, 67. Exocetus exiliens et volitans.—Auct.

Both these forms of flying-fish are stated by voyagers to be inhabitants of the Australian and New Zealand seas, but we have seen neither specimens nor figures of them from New Zealand.

## Fam. CLUPEODIEÆ.

68. Clupea lata.—Solander, Pisc. Austr., p. 17. Inhabits Tolaga Bay.

We do not know to which of the subdivisions of the Linnæan genus Clupea it properly belongs. Megalops is an Australian form.

# Fam. GADOIDEÆ.

69. Lota baccha.—Cuv., Reg. An. 2, p. 334. (Gadus rubiginosus, Solander, Pisc. Austr., p. 49. Gadus

bacchus, G. Forster, 2, t. 180. J. R. Forster, MS. II. 34, apud Bl. Schn., p. 53.)

Inhabits Murderer's Bay. It is probably the "had-dock" of the settlers: its native name in Queen Charlotte's Sound is "Ehogoa."

Lota rhacina. — (Gadus rhacinus, G. Forster, fig. pict. 2, t. 179. J. R. Forster, MS. IV. 16, apud Bl. Schn., p. 56.)

Bears the name of "Ahdoroo" among the natives of Queen Charlotte's Sound.

71. Brosmius venustus.—(Blennius venustus, Parkinson, fig. pict. 2, t. 5.)

An inhabitant of Totæranue, or Shipcove in Queen Charlotte's Sound. It is most probably the "hake" of the settlers.

Polack mentions "cod-fish," bearing the native name of "Wa-puka," but we do not know the fish he alludes to The "polach" he speaks of are, perhaps, the young of the *Percis colias*, the adult of which are known to the settlers as the "cole-fish."

## Fam. PLATESSOIDEÆ.

72. Platessa? (Rhombus?) scapha.—(Pleuronectes scapha, G. Forster, fig. pict. 2, t. 193. J. R. Forster, MS. II. 46, apud Bl. Schn., p. 163.)

Named by the natives of Queen Charlotte's Sound "Mahoa."

73. Rhombus plebeius.—Solander, Pisc. Austr., p. 12. Glib bonnet-fleuk.

Rh. plebeius, olivaceus, immaculatus; dentibus Solearum scopulæ-formibus, unilateralibus; squamis parvis lævibus, lineâ laterali rectâ; pinnâ caudæ truncatâ sub-rhomboidali: pinnis aliis esquamosis.

Rad. Br. 7—7; D. 60; A. 45; C. 125; P. 11—11; V. 6.

A single specimen of this fish was sent by Dr. Dieffenbach to the College of Surgeons (now in the British Museum). Solander has the following brief notice of a fish of this family in his 'Pisces Australiæ:'—" Pleuronectes plebeius, sæpe pedalis. Latus dextrum e cinereo pallide olivaceum: latus sinistrum albicans. Iris e cinereo, argentea: pupilla nigra. Habitat Tolaga." As this passage

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agrees with Dr. Dieffenbach's specimen, and no figure was executed of Solander's fish, no mistake can arise from appropriating, as we have done, the specific appellation plebeius to the fish described below. The Pleuronectes scapha (G. Forster, t. 193; J. R. Forster apud Schn., p. 163) of Queen Charlotte's Sound has larger scales, the lateral line arched over the pectoral, a rounded caudal fin, and

twice as many rays in the dorsal and anal as plebeius.

The form of plebeius, excluding the vertical fins, is an oval whose smaller axis rather exceeds half the longitudinal one; but the entire fish has a somewhat rhomboidal form, owing to the dorsal and anal rays increasing in length towards the middles of the fins. The naked trunk of the tail forms one-ninth of the length of the fish, caudal excluded. This fin is truncated by two lines meeting in an exceedingly obtuse angle at the tip of the central ray. The head forms a sixth of the entire length, candal included. The mouth is rather small, and its sides are but slightly The right or coloured side is flatter, and rather smaller, and is quite toothless, as in the soles. The other, or under side, is convex, and is armed on both jaws with a band of short, dense, brush-like teeth; those on the lower jaw being somewhat taller than the intermaxillary ones. There are no teeth on the roof of the mouth. The knob of the vomer and the articular heads of the maxillaries form smooth rounded projections within the mouth. The tips of the maxillaries project, as is usual, under the integuments of the snout. The jaws form the apex of the head, the under one ascending when the mouth is shut, but projecting farther than the upper one when it is depressed. The eyes, placed on the right side, are near each other, their orbits being separated merely by a smooth, rounded, narrow, and slightly curved ridge, which may be traced by the finger through inequalities in the bone over the hind part of the head, nearly to the angle of the gill-opening. The upper eye is about one-third part of the length of its orbit farther back than the under one. posterior opening of the nostrils is a small hole with thin edges: the anterior one is still more minute, with tubular lips. The nostrils are smaller and more approximated on the under side than on the upper one. All the parts before the eye, the under jaw, isthmus, gill-membranes, and ridge between the orbits, are scaleless; there are a few scattered deeply-imbedded scales on the disk of the preoperculum; the rest of the head is scaly, the scales on the under side being smaller and softer, but distributed as on the coloured side. The disk of the preoperculum alone is more con-

spicuously smooth on the inferior side, which is destitute of the downiness exhibited by many of the soles. The lateral line is quite straight, and runs to the extreme end of the caudal. The scales are deeply imbedded in the skin of the body, adhere strongly, and are smooth to the touch, whether the finger be drawn backwards or forwards; their form varies with their position, being oval, obliquely rounded, or partially truncated; all have a narrow rhomboidal tip covered with a thick spotted epidermis. Under a microscope of high power many clear lines or furrows can be seen radiating from behind the rhomboidal tip to the posterior edge of the scale, separated by fine ridges, which appear transversely jointed or corrugated, and as if composed of minute oblong crowded or tiled plates. A few of the same kind of plates can be perceived irregularly scattered on the tip of the scale when deprived of its epidermis. Neither teeth nor crenatures can be detected on the edge of the scale. Scaly fillets exist between the caudal rays. The other fins are scaleless.

The branchiostegous membrane is supported by seven rays on each side, the lower ray being very small and turned from the others towards the mesial line. The pectorals are rounded, and contain eleven rays. The under fin is rather smaller than the upper one, but has as many rays. The dorsal commences a little before the nostrils, and almost at the end of the snout; but the jaws project beyond it. Its rays, sixty in number, gradually increase in height towards the middle of the fin, and decrease again towards its end, the last rays being very short. The three first rays have free, tapering, thread-like tips, with the membrane between them deeply notched. The anal is shaped like the dorsal, except that the tips of its first rays do not project so far beyond the membrane. It contains forty-five rays. The ventral is situated in the same plane with the anal, and their membranes are continuous, the position of the anus alone showing where the one terminates and the other begins. If the fin be regarded as two ventrals combined, there are but three rays in each, and the three first resemble the corresponding dorsal rays, and have deeply-notched membranes. The pelvis forms a projecting horn, three-quarters of an inch long, separated from the os hyoides by a notch.

### DIMENSIONS.

						In.	Lin.
Length	from end	of snout	to	extremity of caudal fin	o Links	10	81
Do.	do.	la city busy	to	beginning of ditto	and the	8	9

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	In.	Lin.
Greatest vertical height of body	4	$9\frac{1}{2}$
Do. do. of body and fins	6	11
Length from end of snout to gill-opening	1	9
Ditto do. to angle of upper orbit .	0	8
Distance between the orbits	0	2
Height of tail between the vertical fins	1	0
Length of ditto	0	6
Thickness of body	0	7
Axis of orbits	0	$6\frac{1}{2}$
Small diameter of do	0	5
Height of central dorsal or anal rays	1	2
Length of caudal	1	$11\frac{1}{2}$
Inhahits Tolaga Ray		87

Inhabits Tolaga Bay.

Polack mentions flat-fish, which are intermediate between the flounder and the sole, and are named "pitiki" by the natives.

## Fam. DISCOBOLI.

Lepadogaster pinnulatus.—J. R. Forster, MS. IV.,
 15, apud Bl. Schn., p. 2. (Cyclopterus pinnulatus,
 G. Forster, fig. pict, 2, t. 248.)

Haunts stony beaches and the mouths of rivulets in Queen Charlotte's Sound. It is named "moyeadoo" by the natives.

75. Gobièsox littoreus.—Cuv. Reg. An. 2, p. 345. (Cyclopterus littoreus, J. R. Forster, MS. II. 27, apud Bl. Schn., p. 199.)

Inhabits stony beaches.

## Fam. ECHENEIDEÆ.

76. Echeneis naucrates, L.

## Fam. ANGUILLIFORMES.

77. Anguilla Dieffenbachii.—Gray, Zool. Misc., 73. Inhabits the River Thames, New Zealand.—Dr. Dieffenbach.

"Upper jaw shortest; teeth small, in several series, velvet like; head short, conical; upper jaw rather the shortest: brown, in spirits, with small, differently placed, short black lines: face with 3 pores on each side just above the upper lip, and 4 pores in a short arched line just above the tubular nostrils; chin with a

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series of 7 pores on each side near the edge, becoming wider apart behind; lateral line formed of rather distant tubular pores, the line is slightly bent upon the pectoral; the dorsal commencing a little distance before the vent. Length 15, head to pectoral  $1\frac{3}{4}$ , length of dorsal 10, of anal  $8\frac{3}{4}$  inches."—Gray.

78. Ophidium blacodes.—G. Forster, fig. pict. 2, t. 174. (Bl. Schn., p. 285. Cuv. Reg. An. 2, p. 359.)

Named "ekokh" by the natives. Lurks at the bottom of the sea in stony places. The natives spear it and prize it as an article of food.

### Fam. LOPHOBRANCHII.

79. Hippocampus abdominalis. — Lesson, Mem. de la Soc. d'Hist. Nat. iv. p. 411, Septr., 1818. (Voy. du Duperrey, Zool., p. 125.)

There are several other members of this genus in those seas.

### Fam. PLECTOGNATHI.

80. Tetraodon hamiltoni, sp. nov.

There is a specimen in the Museum at Haslar.

81. Monacanthus scaber. — J. R. Forster, MS. II. 72, apud Bl. Schn., 477. (G. Forster, fig. pict. 2, t. 247.)

Known among the aborigines of Queen Charlotte's Sound by the name of "baddeek."

## Fam. CHIMÆRIDÆ.

82. Callorhynchus antarcticus.—Lacépède, I, xii. (Chimæra callorhynchus, Solander, Pisc. Austr., p. 18.) Inhabits Murderer's Bay, and other parts of the coast. It is the "erhe-perhepe" of the natives, and the "elephant-fish" of the English settlers.

## Fam. SCYLLIA.

83. Scyllium? lima.—Müller und Henlè, Plagiostomen, p. 26. (Squalus lima, Banks, fig. pict. 1, pl. 53. Sq. Isabelle, Lac. i. 225.)

Frequents the coast of Æaheenomauwee.

### Fam. CARCHARIÆ.

84. Carcharias (Prionodon) melanopterus.—Müller und Henlè, Plagiostomen, p. 43. (Carcharias melanopterus, Quoy and Gaimard, Freyc., pl. 43.)

Common in the New Zealand and Australian seas.

85. Carcharias (Prionodon) maoo.—Müller und Henlè, Plagiostomen, p. 44. (Squalus Carcharias, Banks, fig. pict. 1, t. 51.)

Inhabits the seas of Polynesia, and coasts of Æahee-

nomauwee.

#### Fam. SPINACES.

86. Acanthias maculatus.—(Squalus maculatus, Parkinson, fig. pict. 1, t. 52.)

Frequents the coast of Æaheenomauwee.

### Fam. SQUATINORAJÆ.

- 87. Rhinobatus (Syrrhina) Banksii.—Müller und Henlè, p. 150 et 123. (Raia rostrata, Banks, fig. pict. 1, p. 45.)
- 88. Trygonorhina fasciata.—Müller und Henlè, Plag. p. 124. (Raia fasciata, Banks, fig. pict. 1, t. 47.)

## Family RAIÆ.

89. Raia nasuta.—Banks, fig. pict. 1, t. 44. Inhabits Totæranue.

# Fam. TRYGONES.

90. Tæniura lymma.—Müller und Henlè, Plagiostomen, p. 171. (Trygon halgani, Lesson, Duper. Voy. t. Trygon ornata, Gray, Illustr. Ind. Zool., t.

Inhabits the Red Sea, Indian Ocean, and Polynesian

and Australian seas.

# Fam. MYLIOBATIDES.

91. Myliobatis nieuhofii.—Müller und Henlè, Plagiostomen, p. 177. (Raia macrocephala, Banks, fig. pict. 1, t. 48.)

#### Fam. CYCLOSTOMI.

92. Heptatrema dombeyii.—Lacépède, Cuv. Reg. An. 2, p. 405. (Petromyzon cirrhatus, G. Forster, fig. pict. 2, t. 251, Bl. Schn. 532.)

Inhabits Dusky Bay.

The preceding list is extracted from a Report on the Ichthyology of New Zealand, read at the Manchester Meeting of the British Association, and which will appear in the annual volume of that Body. To this has been added the description of the new species brought home by Dr. Dieffenbach.

IV.—CATALOGUE of the SPECIES of MOLLUSCA and their Shells, which have hitherto been recorded as found at New Zealand, with the Description of some lately discovered Species, by J. E. Gray, F.R.S., &c.

Like the shells found in the other parts of the southern ocean, many of them are of a larger size and brighter colour than the species found in the same latitude in the seas of the northern hemisphere, and this is particularly the case with the terrestrial groups; some of them belong to genera which are only found in the warmer part of the northern half of the world. The genus Struthiolaria is peculiar to New Zealand. It is probable that some of the species which are inserted in this list, on the authority of Favanne, Chemnitz, and other of the older authors, may be found to have been placed in it erroneously; for before attention was paid to the geographical distribution of animals, persons were not so attentive to the particular habitats of the species, and many of these shells must have passed through several dealers' hands before they reached their describers. I have marked the more doubtful with an asterisk.

### Fam. STROMBIDÆ.

1. Strombus Troglodytes.
Inhabits New Zealand. Dr. Sinclair.

### Fam. Muricidæ.

- Ranella Argus. Lam.—Var., whorls transversely plicated, sub-nodose.
  - Inhabits New Zealand; Manukao, and Cook's Straits. Dr. Dieffenbach.
- 3. Triton variegatum, Lam. Murex Tritonis, Linn. Inhabits New Zealand; W. Coast of N. Island, near Cape Maria Van Diemen. Dr. Dieffenbach.
- Triton leucostomum.
   Inhabits New Zealand; Cook's Straits. Dr. Dieffenbach.
- Triton Spengleri. Murex Spengleri. Chemn., xi. 117, t. 191, f. 1839-40.
   Inhabits New Zealand. Dr. Stanger.
  - Murex Zelandicus. Quoy et Gaim., Voy. Astrol., ii. 529, t. 36, f. 5-7.
     Inhabits Cook's Straits. Quoy. B. M.
  - 7. Murex octogonus. Quoy et Gaim., Voy. Astrol., ii. 531, t. 36, f. 8, 9.
    Inhabits Bay of Islands. Quoy.
- 8. Murex foliatus. Gmelin, 3329. M. purpura alata.

  Chemn. x., t. 169, f. 1538-39. Wood, Cat., f. 13.

  Purpura foliata. Martyn, U. C., ii. 66.

  Inhabits New Zealand. Humphreys. King George's Sound. Martyn.
  - 9. Murex Lyratus. Gmelin, 3531. M. Glomus cereus. Chemn. x., t. 169, f, 1634. Buccinum lyratum. Martyn, U. C., ii., t. 43.

Inhabits New Zealand, King George's Bay.—Martyn.

Pollia linea.—Buccinum linea. Martyn, U. C., t. 48.
 Murex lineatus. Chemn., x., 278, t. 164, f. 1572.
 Murex lineatus. Dilwyn, Cat., 105.

Inhabits New Zealand. Martyn.

Fusus lineatus, Quoy et Gaim., t. 34, f. 78,—is perhaps only a slender variety of this species.

11. Pollia lineolata. Bucc. lineolatum, Quoy et Gaim. Voy., Astrol., ii. 419, t. 30, f, 14-16.

Inhabits New Zealand. Dr. Stanger. B. M.

The throat is grooved. Called Onareroa.

12. Pleurotoma rosea. Quoy et Gaim. Voy. Astrol., ii. 314, t. 35, f, 10, 11.

Inhabits

13. Fusus nodosus.—Bucc. nodosum. Martyn, U. C. t. 5.
Murex raphanus. Chemn. x., f. 1558. Fusus raphanus. Lam. viii. 128; Encycl. Method., t. 435, f. 1. Bucc. raphanus. Quoy et Gaim. Voy. Astrol. ii., 428, t. 31, f. 5, 6.

Inhabits New Zealand. Quoy et Gaim. Cook's Straits.

14. Fusus dilatatus. Quoy et Gaim. Voy. Astrol. ii. 498, t. 34, f. 15, 16.

Inhabits Bay of Islands. Quoy.

15. Fusus Zealandicus. Quoy et Gaim. Voy. Astrol. ii. 500, t. 34, f. 4, 5.

Inhabits Tasman's Bay.

16. Fusus Stangeri.

Inhabits New Zealand. Dr. Stanger.

Shell small, ovate, fusiform; brown, regularly and closely centrically striated; spire acute, rather shorter than the body whorls; the upper whorl with 2, and the body whorl 1; with 8 continued distant spiral ribs,—the hinder ones farthest apart, and most raised; the mouth dark brown; the canal short, open; axis  $\frac{3}{4}$  of an inch.

Like Murex Lyratus in miniature.

17. Fusus caudatus. Quoy et Gaim. Voy. Astrol. ii. 503, t. 34, f. 20, 21.

Inhabits New Zealand.

18. Fusus vittatus. Quoy et Gaim. Voy. Astrol. ii. 504, t. 34, f. 18, 19.

Inhabits Bay of Islands.

19. Fusus duodecimus.

Shell ovate, fusiform, pale yellow, longitudinal, costate, spire conical, acute, whorle rather rounded, last whorle about half the length of the shell, with twelve concentric rounded ribs, and a

central white band, with some spiral ridges in front, crossing the varices, and closer over the short open canal.

Inhabits New Zealand. Dr. Sinclair.

- \*20. Conus fuscatus. Born. Mus. 147; Chemn. ii. t. 62, f. 692-3; Encyc. Meth., t. 319, f. 3. Conus imperialis, β, Gmelin.
  - Inhabits New Zealand. Favanne. Other authors say this species comes from India and Madagascar.
- \*21. Conus hyæna, Brug. Chemn., xi., t. 181, f. 1750-51. Enc. Meth., t. 327, f. 5 and 7. Inhabits New Zealand. Favanne.
- \*22. Conus fulmineus. Gmelin, Martini, ii., t. 58, f. 644. Conus fulgurans. Lam., H. N., Brug., E. M., t. 3376. Conus Spectrum. 2. Gmelin. Inhabits New Zealand. Favanne.
- \*23. Conus distans. Solander's MSS., Brug., E. M., 634, t. 321, f. 11. Conus mennonitarum. Chemn., x., 24, t. 138, f. 1281.
  - Inhabits New Zealand. Brug. South Sea and Nicobar. Chemn.
- \*24. Conus informis. Brug., E. M., t. 337, f. 8. Conus spectrum Sumatræ. Chemn., x., 91, t. 144, a, f. g, and h. Var. β. Conus rudis. Chemn., x., t. 144, a, f, e, f. Inhabits New Zealand. Favanne. American Ocean. Brug.
  - 25. Conus eques. Brug. Enc. Meth. t. 335, p. 9. Inhabits New Zealand. Favanne.
  - 26. Struthiolaria vermis. Bucc. vermis. Martyn, U. C., t. 53. Struth. crenulata. Lam. viii. 148. Quoy et Gaim. Voy. Astrol. ii., 430, t. 31, f. 7 and 9. Murex australis. Gmelin, Spengler, Naturfoscher, xvii., t. 2, f, c, and d.
    - Inhabits New Zealand. Martyn, 1784. Tasman's Bay; called Takai. Quoy.
  - 27. Struthiolaria papillosa. Bucc. papillosum. Martyn, U. C., t. 54. Murex stramineus. Gmel. 3542.

Wood's Cat., f. 62. M. Pes. struthio—Cameli. Chemnitz, x., t. 160, f. 1520-21. Spengler, Naturf., xvii., 24, t. 2, f. A and B. S. Nodulosa. Lam. S. Straminea. Sow., Gen.

Inhabits New Zealand. Martyn, 1784. West coast N. Island. Dieffenbach.

They live in the sand like the olives, and have an exceedingly small operculum. The shell, before the mouth is formed, is very brittle; they are then usually longitudinally banded with purple.

28. Struthiolaria scutulata. Bucc. scutulatum. Martyn, U. C., t. 55. Wood's Cat., f. 81. Struth. oblita. Sow., Chemn., and Vig. 21, f. C. and D.

Inhabits New Zealand. Martyn.

### Fam. Buccinidæ.

- 29. Buccinum melo. Lesson. Rev. Zool., 1840, 355. Inhabits New Zealand. Lesson.
- 30. Buccinum Triton. Lesson. Rev. Zool., 1841, 37. Inhabits New Zealand. Lesson.

Is this distinct from Fusus Nodosus?

31. Purpura. Bucc. striatum. Martyn, U. C., t. 41. Inhabits New Zealand. Martyn.

Perhaps only a young specimen of the next species.

32. Purpura succincta. Lam. Bucc. succinctum. Martyn, U. C., t. 45. Bucc. orbita. Chemn., x., 199, t. 154, f. 1471-72. Wood's Cat., f. 75.

Inhabits New Zealand. Martyn.

Purpura emarginata, Desh., Mag. Zool., 1841, t. 25, appears to be only a monstrosity of this species, with a notch in the outer lip.

Grows to a large size; the axis  $4\frac{1}{2}$  inches long, and  $1\frac{1}{2}$  in diameter. Dr. Stang r.

33. Purpura textilosa. Lam. viii., 242. Enc. Meth., t. 398, f. 4-6. Quoy et Gaim., Voy. Astrol., ii., 552, t. 37, f. 1, 3.

Inhabits New Zealand. Passe des Français. Quoy. A variety of the former, most probably.

- Purpura scobina. Quoy et Gaim., Voy. Astrol., ii., 567, t. 38, f. 12, 13.
   Inhabits New Zealand. Passe des Français. Quoy.
- \*35. Purpura crassilabrum. Lesson, Rev. Zool., 1842, 103.

Inhabits New Zealand? Lesson.

36. Purpura Novæ Zelandiæ. Lesson, Rev. Zool., 1841, 355.

Inhabits New Zealand.

- 37. Purpura tesselata. Lesson. Rev. Zool., 1840, 356. Inhabits New Zealand.
- 38. Purpura rugosa. Quoy et Gaim., Voy. Astrol., ii., 569, t. 38, f. 19-21.

Inhabits New Zealand. Quoy.

39. Purpura lacunosa. Bucc. striatum. Martyn, U. C., t. 7. Bucc. orbita. Var. Dillw., ii. 618. Bucc. orbita lacunosa. Chemn., x., 200, t. 154, f. 1473. Bucc. lacunosum. Brug.

Inhabits New Zealand. Martyn.

Perhaps only a slender variety of B. succincta.

- Purpura maculosa. Bucc. maculosum. Martyn, U. C.,
   t. 8. Bucc. testudineum. Chemn., x., f. 1454. Lam.
   265. Quoy et Gaim., 415, t. 30, f. 8-13.
   Inhabits New Zealand. Martyn.
- 41, Purpura albo marginata. Desh., Mag. Zool., 1841, t. 44.

Inhabits New Zealand. M. Deshayes.

Purpura haustrum. Lam. Quoy et Gaim., Voy. Astrol., t. 37, f. 4-8. Bucc. haustrum. Martyn, U. C., t. 9. Bucc. hauritorium. Chemn., x., f. 1449-50. Bucc. haustorium. Gmel.

Inhabits New Zealand. Martyn.

 Purpura lamellosa. Bucc. lamellosum. Gmel. Wood's Cat., f. 60. Bucc. plicatum. Martyn, U. C., ii. t. 44. Bucc. compositum. Chemn., x., 179. Vign., 21, f. A, B. Bucc. crispatum. *Chemn.*, xi., 84, t. 187, f. 1802-3. Murex crispatum. *Lam.* 174.

Inhabits New Zealand, King George's Sound. Chemn. Martyn. Coast of Columbia.

44. Purpura turgida. Bucc. turgidum. Gmel., 3490. Chemn., x., t. 154, f. 1475-76. Bucc. turgitum. Gmel., Dillwyn, ii. 621. Bucc. maculatum. Martyn, U. C., ii. t. 49. Bucc. auspersum. Brug., E. M. 265. Chemn., x., 201, t. 154, f. 1475-76.

Inhabits New Zealand. Martyn.

We have three distinct varieties:-

Var. 1. Whorls regular, spire acute.

- 2. The hinder part of the body whorl swollen, ventricose.
- 3. The hinder part of the body whorl impressed, and rather irregular.
- 45. Purpura catarracta. Bucc. catarracta. Chemn., x., 188, t. 152, f. 1455,

Inhabits New Zealand. Chemn. Cape of Good Hope. Humphreys.

- Purpura (ricinula) rodostoma. Lesson, Rev. Zool., 1840, 355.
   Inhabits New Zealand. Lesson.
- 47. Monoceros calcar. Bucc. calcar. Martyn, U. C., t. 90. Monoc. imbricatus. Lam. Inhabits New Zealand.
- 48. Monoceros tessellata. Lesson, Rev. Zool., 1840, 356. Inhabits New Zealand. Lesson.
- 49. Dolium variegatum. Lam.?
  Inhabits New Zealand; Cape Maria Van Diemen.
  Dr. Dieffenbach.
- Terebra spicatus. Limax spicatus. Martyn, U. C.,
   t. 121, f.
   Inhabits New Zealand. Martyn.
- 51. Bullia Martinii. Limax fuscus. Martyn, U. C., t. 121, f. 2.
  Inhabits

- 52. Bullia? fuscus. Limax fuscus. Martyn, U. C., t. 121, f. 3.

  Inhabits
- 53. Oliva erythrostoma. Lam.
  Inhabits New Zealand. Dr. Stanger.
- Ancillaria albisulcata. Sow. Spec. Conch. 1, t. 1,
   f. 14-19. Quoy et Gaim., Voy. Astrol. iii. 19, t. 49,
   f. 5-12.

Inhabits New Zealand; Cook's Straits. Quoy.

55. Ancillaria Australis. Sow. Spec. Conch. 1, f. 44, 47. Quoy et Gaim., Voy. Astrol. iii. 20, t. 49, f. 13-17. Inhabits River Thames.

#### Fam. VOLUTIDÆ.

Voluta arabica. Gmelin. Bucc. arabicum. Martyn,
 U. C., t. 52. Vol. pacifica. Solander. Lam. viii.
 344. Quoy et Gaim., Voy. Astrol. ii. 625, t. 44, f. 6.
 Vol. insularis. Solander.

Variety small, slender, Voluta gracilis. Swainson.

Inhabits New Zealand. Martyn, 1784. Cook's Straits, and Harbour of Manukao. Dieffenbach.

These shells are often eroded, green, and worm-eaten while on the living animal. The variety is very small and slender.

- \*57. Voluta magnifica. Chemn., xi. t. 174, 175.
  Inhabits New Zealand. Chemn. New Holland, New Caledonia.
  - Voluta fusus. Quoy et Gaim., Voy. Astrol. ii. 627,
     t. 44, f. 7, 8.
     Inhabits Tasman's Bay.
- \*59. Mitra aurantiaca. Lam., Desh., Mag. Zool., 1832. t. 6.

Inhabits New Zealand. Desh.

## Fam. CYPRÆADÆ.

\*60. Cypræa aurora. Solander. Portl. Cat. 10. Chem. xi. 34, t. 180, f. 1737-38. C. aurantium. Martyn, U. C. ii. t. 59. Lam.

Inhabits New Zealand. Chemn. Otaheite. Solander. Friendly Islands. Martyn.

I believe that Chemnitz is wrong in his habitat.

- 61. Cypræa Caput. serpentis. Linn.' Inhabits New Zealand. Dr. Sinclair.
- 62. Cypræa Arabica, var. maculata. C. maculata. Barnes.

Inhabits New Zealand. Dr. Sinclair.

### Fam. TURBINIDÆ.

63. Imperator heliotropium. Trochus heliotropium. Martyn, U. C. t. 30. Tr. Imperialis. Lam. viii. 10. Quoy et Gaim., Voy. Astrol. iii. 224, t. 61, f. 1-4. Tr. Solaris imperialis. Chemn., v. t. 173, f. 1714-15. Wood, Cat. f. 68. Imp. aureolatus. De Montf. ii. 199. Turbo echinatus, var. Gmel.

Inhabits New Zealand. Martyn.

64. Imperator Cookii. Trochus Cookii. Gmel., 3582.

Wood's Cat., f. 42. Lam., vii. 17. Tr. Cooksianus.

Chemn., v., f. 1540-51. Quoy et Gaim., Voy. Astrol.,

iii., 224, t. 60, f. 19-23. Tr. sulcatus. Martyn, U.

C., t. —. Turbo sulcatus. Gmel., 3592.

Inhabits New Zealand, Tasman's Bay. Chemn.

\*65. Imperator inequalis. Trochus inequalis. Gmel., 3582.

Martyn, U. C., t. 31. Tr. gibberosus. Dillw., Chemn.,
x., 287. Vig., 23, f. A, B.

Inhabits New Zealand. Favanne. Friendly Islands. Martyn.

- 66. Turbo granosus. Trochus granosus. Martyn, U. C., t. 37.
  - Inhabits New Zealand. Martyn. Cook's Straits. Dr. Dieffenbach.
- Turbo stramineus. Helix stramineus. Martyn, U. C.,
   t. 71. Turbo torquatus. Gmel., Chemn., x., 293.
   Vig., 24, f. A. A. Lam., 40.

Inhabits New Zealand. Martyn.

- 68. Turbo smaragdus. Lam., viii., 45. Quoy et Gaim., Voy. Astrol., iii., 219, t. 60, f. 6-8. Wood's Cat., f. 22. Helix smaragdus. Martyn, U. C., t. 73, 74. Inhabits New Zealand, Tory Channel, in Cook's Straits. Dieffenbach.
- 69. Turbo argyrostomus. Gmel., Chemn., v., t. 165, f. 156263. Trochus atramentarius. Callone.
  Inhabits New Zealand. Favanne.
- Turbo Lagonkairii. Delphinula Lagonkairii. Desh., Mag. Zool., 1839, t. 6.
   Inhabits New Zealand. M. Deshayes.
- \* Phasianella bulimoides. Buccinum Australe, Gmel., was formerly said to be a fresh-water shell from New Zealand.

#### Fam. TROCHIDÆ.

- \*71. Ziziphinus canaliculatus. Trochus canaliculatus. Martyn, U. C., t. 32. Trochus dolarius. Chemn., x., f. 1579-80. Wood's Cat., f. 96.
  - Inhabits New Zealand. Martyn. California. Capt. Belcher, R.N.
- \*72. Ziziphinus annulatus. Trochus annulatus. Martyn, U. C., t. 33. Troch. virgineus. Chemn., x., f. 1581-82. Wood's Cat., f. 98. Troch. cælatus, β. Gmel.
  - Inhabits New Zealand. Martyn. California. Capt. Belcher, R.N.
  - 73. Ziziphinus Cunninghami. Gray, Griffith, A. K. t. Inhab. New Zealand. Allan Cunningham, F.L.S. &c.
  - 74. Ziziphinus tigris. Trochus tigris. Martyn, U. C., t. 75. Troch. diaphanus. Lam. vii., 45. Quoy et Guim., iii., 255, t. 64, f. 1-5. Troch. granatum. Gmel., 3584. Chemn., v., t. 170, f. 1654-55.
    - Inhabits New Zealand. Martyn.
  - Ziziphinus selectus. Trochus selectus. Chemn., xi.,
     f. 1896-97. Wood's Cat., f. 101.
     Inhabits New Zealand. Chemn.

May be the young of the former.

76. Ziziphinus punctulatus. Trochus punctulatus. Mar-

tyn, U. C., t. 36. Troch. punctulatus. Gmel. Troch. diaphanus. Gmel. Troch. asper. Chemn., v. 26, t. 161, f. 1520-21. Spengler, Naturf., ix., 152, t. 5, f. 2.

Inhabits New Zealand. B. M.

77. Troch. (gibbium) sanguineus, n. s. Inhabits New Zealand. Dr. Stanger.

Shell top-shaped; white, with rows of numerous blood-red spots; whorls flattened, the last obscurely keeled; the front rather convex, with sharp-edged, low, spiral ridges.

- 78. Rotella lineolata.
  Inhabits New Zealand, Kawia, W. Coast of N. Island.
  Dr. Dieffenbach.
- 79. Monodonta angulatum. Trochus angulatus. Quoy et Gaim., Voy. Astrol., iii., 259, t. 64, f. 16-20. Inhabits Bay of Islands.
- 80. Monodonta reticularis. Gray. Yate's New Zealand, App. Trochus reticularis. Gray; Wood. Cat., Sup. f. 21. Troch. Zelandicus. Quoy et Gaim., Voy. Astrol. iii. 257, t. 64, f. 12-15.

Inhabits Race of the Astrolabe; Cook's Straits. Dr. Dieffenbach.

81. Monodonta tricarinata. Lam. Trochus asper. Chemn. v., t. 166, f. 1582.

Inhabits New Zealand. Favanne.

82. Monodonta subrostrata. Gray; Yate's New Zealand, App.

Inhabits East Coast. Yate.

Shell conical, suborbicular, solid, black, with close wavy longitudinal yellow lines; spire short, whorls 5; last large, rounded, hinder part with 3 to 6 spiral keels; axis imperforated, throat smooth and silvery.

83. Polyodonta elegans. Gray; Yate's New Zealand, App. Trochus tiaratus. Quoy et Gaim., Voy. Astrol., iii., 256, t. 64, f. 6, 11.

Inhabits East Coast. Yate. Race of the Astrolabe. Quoy. Cook's Straits. Dr. Dieffenbach.

Shell conical, white, purple dotted; whorls flat, with an elevated upper edge, and 6 or 7 spiral rows of beads; base flat, closely beaded, and purple dotted; umbilicus conical, deep, smooth, opake, white.

84. Polydonta tuberculata. n. s.
Inhabits New Zealand. Dr. Dieffenbach.

Shell conical, rather produced, whitish; whorls flat, with 4 series of large rounded tubercles; the front of the last whorl flat, with rather close spiral ridges, the inner ones the largest, and the outer ones very small; umbilicus conical, with three spiral ridges; opake, white.

85. Elenchus Iris. Humph. Cal. Cat. 25, n. 434. Limacon opalus. Martyn, U. C., t. 24. Trochus Iris. Gmel. 3580; Chemn., v., f. 1522-23. Turbo smaragdus. Gmel., 112. Cantharidus Iris. Montf., ii.

Inhabits New Zealand. *Martyn*. Cook's Straits. *Dr*. *Dieffenbach*.

86. Elenchus purpuratus. Limax purpuratus. Martyn, U. C., t. 68, f. 2.

Inhabits New Zealand. Martyn. Bay of Islands. Dieffenbach.

87. Elenchus elegans. Trochus elegans. Gmel., 3581.

Zorn. Naturf., vii., 167, t. 2, f. D I and D 2.

Inhabits New Zealand. Chemn.

## Fam. HALIOTIDÆ.

88. Haliotis Iris. Martyn, U. C., t. 61. Wood, Cat., f. 13; Chemn., x., f. 1612-13.

Inhabits New Zealand. Martyn. Cook's Straits. Dieffenbach. East coast, abundant. Dr. Sinclair.

"The foot black when alive. The 'mutton-fish' of the colonists; eaten boiled, but very tough. Pieces of the shell are used as bait to fish-hooks."—Dr. Sinclair.

- 89. Haliotis Virginia. Chemn. x., 314, t. 166, f. 1607-8. Inhabits New Zealand. Chemn.
- \*90. Haliotis Australis. Gmelin. H. rugosoplicata.

  Chemn., x., f. 1604-5.

Inhabits New Zealand, New Holland. Chemn.

#### Fam. FISSURELLIDÆ.

91. Emarginula striatula. Quoy et Gaim., Voy. Astrol., iii., 332, t. 68, f. 21, 22.

Inhabits New Zealand.

92. Emarginula fissurata. Patella fissurata. Humph. Conch. 20, t. 4, f. 3. Chemn., xi., 188, t. 197, f. 19. 29, 30.

Inhabits New Zealand. Favanne.

93. Tugali elegans.

Inhab. New Zealand, Great Barrier Island. Dr. Sinclair. Shell oblong, white with close radiating stria, and cancellated

by a concentric ridge, which forms arched ribs across the striæ.

Nearly allied to *Emarginula Parmaphoroides* of Quoy, 342, t. 68, f. 15, 16, from New Holland, which appears also to belong to this genus.

In this genus the shell is oblong, narrower in front, and radiately striated, the apex conical, subposterior recurved, the margin of the shell deeply crenulated with a broad sinuosity in front, and no notch. It appears to be intermediable between Parmaphorius and Emarginula; it has the front lobe of former, and the conical shape and radiated subcancellated surface of the latter.

# Fam. LOTTIADÆ.

94. Lottia fragilis. Patelloida fragilis. Quoy et Gaim., Voy. Astrol., iii., 351, t. 71, f. 28-30; Chemn., t. 197, f. 1921.

Inhabits New Zealand. Quoy.

95. Lottia pileopsis. Patelloida pileopsis. Quoy et Gaim., Voy. Astrol., iii., 359, t. 71, f. 25-27. Inhabits New Zealand. Quoy.

# Fam. NERITIDÆ.

Nerita nigra. Quoy et Gaim.
 Inhabits New Zealand. Quoy. Manukao, N. Island,
 W. coast. Dr. Dieffenbach.

Nerita bidens (from Favanne, t. 10, f. R. lower) is said to be found in New Zealand.

#### Fam. JANTHINIDÆ.

97. Janthina exigua. Lam. Sow. Gen. f.
Inhabits New Zealand. Coast of Taranaki N. Island.
Dr. Dieffenbach.

### Fam. NATICIDÆ.

98. Natica Zelandica. Quoy et Gaim., Voy. Astrol., ii. 237, t. 66, f. 11, 12.

Inhabits New Zealand, E. coast, N. Island. Dr. Dieffenbach.

The operculum is shelly, rather concave externally. Mr. Bidwell.

### Fam. LITTORINIDÆ.

99. Cerithium bicarinata.

Inhabits New Zealand. Dr. Stanger. Bay of Islands. Dr. Sinclair.

Shell turreted, brown; whorls rather convex, strongly spirally striated, and indistinctly transversely plicated; the body whorl, with two ridges on its outer edge, separated by a concave groove; mouth ovate, with a short canal in front.

## 100. Cerithium australis.

Inhab. New Zealand, Bay of Islands. Dr. Sinclair.

Shell ovate, rather turreted, black, slightly longitudinal plicated, whorles nearly flat, with two distant spiral grooves on the hinder half. The front of the last one with two distinct prominent spiral ridges, the hinder rather in front of the back edge of the inner lip, and the anterior one round the canal; mouth ovate, inner lip with a distinct ridge behind; canal short, open.

## 101. Amnicola antipodanum.

Inhabits New Zealand, in fresh water.

Shell ovate, acute, subperforated (generally covered with a brown earthy coat); whorls rather rounded, mouth ovate, axis 3 lines; operculum horny and subspiral: variety, spire rather longer, whorls more rounded.

This species is like *Paludina nigra* of Quoy and Gaimard, but the operculum is more spiral. Quoy described the operculum as concentric, but figured it subspiral. *Paludina ventricosa* of Quoy is evidently a *Nematura*.

102. Amnicola? Zelandiæ.

Inhabits New Zealand, in fresh-water ditches.

Shell ovate, turreted, imperforated, pellucid greenish, generally covered with a brown earthy coat; whorls convex; mouth roundish ovate, rather reflexed; operculum horny, subspiral; axis  $\frac{1}{4}$  of an inch. Like the former, but smaller and more tapering.

103. Littorina coccinea. — Limax coccinea. Martyn, U. C., t. 68, f. 1.

Inhabits New Zealand. Martyn.

104. Littorina Diemenensis. Quoy et Gaim., Voy. Astrol., ii. 479, t. 33, f. 8-11.

Inhabits New Zealand. Quoy. Dr. Sinclair.

With a white band in front of the mouth.

105. Littorina cincta. Quoy et Gaim., Voy. Astrol., ii., 481, t. 30, f. 20, 21.

Inhabits New Zealand.

106. Turritella rosea. Quoy et Gaim., Voy. Astrol., ii., 136, t. 55, f. 24-26.

Inhabits New Zealand. Dr. Stanger. Mangonui, E. coast, N. Island. Dr. Dieffenbach.

## Fam. VERMETIDÆ.

107. Vermetus cariniferus. Gray.

Inhabits New Zealand, Parengarenga, N. Cape, N. Island. Dr. Dieffenbach.

Shell thick, irregularly twisted, opake white, with a high compressed wavy-keel along the upper edge; mouth orbicular, with a tooth above it, formed by the keel. Operculum orbicular, horny.

108. Vermetus Zelandicus. Quoy et Gaim., Voy. Astrol., iii., 293, t. 67, f. 16. 17.

Inhabits Bay of Islands.

109. Vermetus roseus. Quoy et Gaim., Voy. Astrol., iii., 300, t. 67, f. 20-24.

Inhabits River Thames.

# Fam. CREPIDULIDÆ.

110. Crepidula costata. Sow., , f. 3. Deshayes. Quoy et Gaim., Voy. Astrol., t. 72, f. 10-12.

Inhabits Bay of Islands, East coast of the N. Island. Dr. Dieffenbach. Great Barrier Island. Dr. Sinclair.

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Are very difficult to be taken from the stones entire. They are found on stones in deep water. Bidwell.

This species is very variable in its shape, according to the form of the body to which it is attached. It is usually convex, with a deep cavity beneath, but it is often quite flat above, and the septum is raised above the margin of the cavity beneath; and lastly, the two ends of the shell are often bent towards each other below. The ribs are almost always present, as is also the dark colour, but sometimes the shell is quite white.

111. Crepidula contorta. Quoy et Gaim., Voy. Astrol., iii. 418, t. 72, f. 15, 16.

Inhabits Bay of Islands.

Always white and smooth; differs greatly in external form and the depth of the cavity.

112. Calyptræa dilatata. Sow., Gen., f. . Crepidula maculata. Quoy et Gaim., Voy. Astrol., iii., 422, t. 72, f. 6-9.

Inhabits New Zealand. Yate. Bay of Islands. Dieffenbach. Great Barrier Island. Dr. Sinclair.

The normal form of the shell is to have a round outline beneath, but in the smaller specimens, which have grown in a confined space, the front of the aperture is often produced, and the right side so contracted that the shell assumes an elongated shape like a Crepidula, from which it is chiefly to be distinguished by a small cavity on the axis, near the angle of the inner lip, and its more acute spire.

# Fam. Bullidæ.

113. Bulla Quoyii. Gray, n. s. Bulla striata. Quoy et Gaim., Voy. Astrol., ii., 354, t. 26, f. 8, 9.

Inhabits New Zealand. Quoy. Stanger.

Shell ovate, smooth, marbled with purplish-grey and white dots; spire perforated.

Like Bulla striata, Lam., but quite distinct.

114. Bulla Australis. Gray. King's Voy. N. H. Quoy et Gaim., t. 26, f. 38, 39.

Inhabits New Zealand. Yate.

115. Bulla Zelandiæ. Gray, n. s.

Inhabits New Zealand. Dr. Dieffenbach.

Shell ovate, subglobose, imperforated, thin, pellucid, very slightly

concentrically striated, covered with a very thin greenish periostraca, the inner lip rather spread over the pillar in front, smooth.

Very like B. hydates of England in size, but rather more ventricose.

### Fam. PTEROTRACHEIDÆ.

116. Carinaria Australis. Quoy et Gaim., Voy. Astrol., ii., 394, t. 29, f. 9-16.

Inhabits sea between New Holland and New Zealand.

#### Fam. ARGONAUTIDÆ.

117. Argonauta nodosa. Solander. A. tuberculata. Shaw. A. oryzata. Musgrave.

Inhabits Great Barrier Island. Dr. Dieffenbach.

#### Fam. DORIDÆ.

118. Doris carinata. Quoy et Gaim., Voy. Astrol., ii., 254, t. 16, f. 10-14.

Inhabits New Zealand. River Thames.

### Fam. TRITONIADÆ.

119. Eolidia longicauda. Quoy et Gaim., Voy. Astrol.,ii., 288, t. 21, f. 19, 20.Inhabits New Zealand, Cook's Straits.

# Fam. PATELLIDÆ.

- 120. Patella denticulata. Martyn, U. C., t. 65. Inhabits New Zealand. Martyn.
- 121. Patella radians. Gmel., 3720. Chemn., x., 329, t.
   168, f. 1618. Patella argentea. Quoy et Gaim, Voy.
   Astrol., iii., 345, t. 70, f. 16, 17.
   Inhabits New Zealand.
- 122. Patella stellularia. Quoy et Gaim. Voy. Astrol., iii., 347, t. 70, f. 18-21. Inhabits New Zealand. B. M.
- 123. Patella inconspicua. Gray, n. s. Inhab. New Zealand.

Shell conical, oblong, with about 20 radiating ribs, the apex erect, disk white, rather greenish under the tip, length  $1\frac{1}{2}$  inch.

124. P. stellifera. Gmel. P. stellata seu stellifera. Chemn. x. 329, t. 168, f. 1607.

Inhab. New Zealand and Friendly Islands.

125. P. margaritaria. Chemn. xi., t. 197, f. 1914-15.P. ornata. Delwyn, 1029.

Inhab. New Zealand. Chemn.

126. Patella Cochlear. Born Mus. 420, t. 18, f. 3. P. caudata. Mus. Lever. 242.

Inhab. New Zealand, Favanne. Cape of Good Hope.

127. Patella nodosa. Hombrom et Jacquenot, Comp. Rend., 1841, 221.

Inhab. New Zealand.

128. Patella stermus. Hombrom, l. c. Inhab. New Zealand.

129. Patella radiatilis. Hombrom, l. c. Inhab. New Zealand.

These three species are only indicated, and not described.

## Fam. CHITONIDÆ.

130. Acanthopleura nobilis.
Inhab. New Zealand.

Mantle rugose, rough, with scattered long tapering brown bristles; valves brown, convex, evenly rounded, with very minute dots like shagreen, the lateral area slightly marked with 3 or 4 indistinct rays; inside white; length 3 inches.

- 131. Acanthopleura aculeatus. Chiton aculeatus. Gmel.?

  Quoy et Gaim. Voy. Astrol. iii. 373, t.74, f. 1-5.
  Inhab. New Zealand.
  - 32. Acanthopleura longicymba. Chiton longicymba. Blainv. Quoy et Gaim. Voy. Astrol. iii. 390, t. 75, f. 1-6.
    - Inhab. New Zealand, Bay of Islands, and Great Barrier Island. Dr. Sinclair.
- 133. Acanthopleura undulatus. Chiton undulatus. Quoy et Gaim. Voy. Astrol. iii. 393, t. 75, f. 19-24.

Inhab. Bay of Islands, Great Barrier Island, and Van Diemen's Land. Dr. Sinclair.

134. Chiton canaliculatus. Quoy et Gaim. Voy. Astrol. iii. 394, t. 75, f. 37-42.

Inhab. Tasman's Bay, New Zealand. Dr. Stanger.

135. Chiton pellis-serpentis. Quoy et Gaim., iii. 381, t. 74, f. 17-22.

Inhab. New Zealand, Bay of Islands, and Great Barrier Island. Dr. Sinclair.

136. Chiton viridis. Quoy et Gaim. Voy. Astrol. iii. 383, t. 74, f. 23-28.

Inhab. New Zealand. Quoy. Bay of Islands and Great Barrier Island, on shells, &c. Dr. Sinclair.

Variety pale reddish brown. Variety green brown, rayed.

137. Amicula monticularis. Chiton monticularis. Quoy et Gaim. Voy. Astrol., iii., 406, t. 73, f. 30-36.

Inhabits New Zealand, Bay of Tasman; called Karimon. Quoy.

138. Acanthochætes biramosus. Chiton biramosus. Quoy et Gaim. Voy. Astrol. iii. 378, t. 74, f. 12-16. Inhab. New Zealand.

139. Acanthochætes violaceus. Chiton violaceus. Quoy et Gaim., Voy. Astrol., iii., 403, t. 73, f. 15-20.

Inhab. New Zealand, Bay of Islands, and Great Barrier Island. Dr. Sinclair.

140. Chitonellus Zelandicus. Chiton Zelandicus. Quoy et Gaim., Voy. Astrol., iii., 400, t. 73, f. 5-8.
Inhab. New Zealand.

# Fam. HELICIDÆ.

141. Limax bitentaculatus. Quoy et Gaim., Voy. Astrol. ii., 149, t. 13, f. 1-3.

Inhabits New Zealand, Tasman's Bay.

142. Helix Busbyi. Gray, Ann. Nat. Hist., vi., 1841, 317.

Inhabits New Zealand. Mr. Busby.

Shell depressed, subdiscoidal, largely umbilicated, opake white, covered with a very thick dark-green smooth periostraca, which is inflexed over the lips. The spire flattened, rather rugose, outer whorl smooth, depressed, rounded; the mouth large, bent down towards the axis.

It is much like H. Cunninghami, of New Holland, in form and

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size, but is very peculiar, on account of the thickness and colour of the periostraca.

143. Helix Dunnia. Gray, Ann. Nat. Hist., vi., 1841, 317. Inhabits New Zealand. Mr. Busby.

Shell depressed, large, umbilicated, pale-brown, outer whorl rather angular, smooth.

144. Helix (carocolla) Zelandiæ.

Inhab. New Zealand.

Shell rather depressed, top-shaped, perforated, pale horn-coloured, pellucid, varied with reddish-brown dots, and finely concentrically striated; spire convex, whorl scarcely raised, the outer one with a short ridge-like keel, front rounded, convex, umbilicus deep, narrow perstome, thin.

\*145. Helix cornu. Chemn. xi., f. 2051-52. Helix vesicalis. Lam.

Of the Cape; has been said to come from New Zealand.

\*146. Achatina sultana. Helix sultana. Wood, Cat. f. 75.

Of S. America; has been said to come from New Zealand.

147. Bulimus antipodarum

Inhab. Kaitaia, New Zealand. Dr. Dieffenbach.

Shell oblong, imperforated, smooth, pale-brown, covered with a pale-brown, rather opake periostraca, varied with darker streaks, especially near the suture; apex reddish, bluntly rounded, whorls slightly convex, mouth

Described from a young specimen with only four whorls, and an unformed mouth, which has an axis 1 inch long, and the last whorl is 1 inch in diameter. It is very like in character to the Bulimus fulgetans, Brod., from the Philippine Islands.

148. Bulimus fibratus. Helix aurantia. Ferusac, Prod. 47. Perry, t. 29, f. 1. Bulimus bovinus. Brug. Limax fibratus. Martyn, Chemn. ix. t. 121, f. 1039-40. Voluta australis. Diellwyn. Auricula aurisbovina. Lam. Inhab. Cape Maria Van Dieman. New Zealand. Dr. Dieffenbach.

Two dead washed specimens, with the outer lip thickened internally, and broadly sinuated.

# FAM. ONCHIDIADÆ.

149. Onchidium patelloide. Quoy et Gaim. Voy. Astrol. ii. 212, t. 15, f. 21-23.

Inhab. New Zealand, Tasman's Bay.

150. Onchidium nigricans. Quoy et Gaim. Voy. Astrol. ii. 214, t. 15, f. 24-26.

Inhab. New Zealand, "Anse de l'Astrolabe."

#### Fam. AMPHIBOLIDÆ.

151. Amphibola avellana. Helix avellana. Gmel. 3640.
Wood, Cat. f. 46. Chemn. v. f. 1919-20. Ampullaria avellana. Lam. vi. Ampullacera avellana.
Quoy et Gaim. Voy. Astrol. ii. 176, t. 15, f. 1-8.
Inhab. New Zealand. Sunk in the sand.

Eaten by the natives. Quoy, ii., 199.

They live on mud-flats where mangroves grow, and in such-like places. One specimen had the whorls nearly on a plane, and the ridges very much raised.

## Fam. SIPHONARIADÆ.

152. Siphonaria australis. Quoy et Gaim. Voy. Astrol. ii. 329, t. 25, f. 32-34.

Inhab. New Zealand, Cook's Straits.

Siphonaria Zelandica. Quoy et Gaim. Voy. Astrol.
 344, t. 25, f. 17, 18.

Inhab. New Zealand. Quoy.

154. Siphonaria scutellum. Desh. Mag. Zool., 1841, t. 35.

Inhab. Chatham Island. M. Desh.

# Fam. LYMNEADÆ.

155. Physa variabilis. Gray.

Inhab. rivers with Amnicola antipodarum.

Shell ovate, spire conical, apex often eroded, whorls ventricose, swollen, and often flattened and keeled behind. The young shells have an acute spire.

These shells vary so much in appearance, that if I had not received them all in one parcel, as if from the same locality, I should be inclined to have regarded them as different species. They vary not only in size from \(\frac{3}{4}\) to \(\frac{1}{4}\) of an inch, with the same number of whorls, but also in the hinder part of the last whorl being rounded and in others flattened and edged with a distinct keel; in the height of the spire, which is generally about two-thirds the length of the mouth, and in others scarcely raised half that height; and, lastly, some, instead of being short and swollen, as is their general character, are elongated and tapering.

# Fam. VENERIDÆ.

156. Arthemis subrosea, Gray. Yate's New Zealand, App. Inhab. New Zealand, East Coast. Yate.

Shell orbicular, rather convex, opake-white, rosy-purple on the umbones, with close, regular, minute, concentric grooves, crossed by a few very obscure radiating striæ, lunule short, cordate, inside white, disk opake. Var. Lunule rather smaller.

Live sunk 9 inches in the sand, and are only to be got at springtides. They are not common, and only to be procured by industry.

157. Arthemis Australis. Venus Australis. Quoy et Gaim. Voy. Astrol. iii. 528, t. 84, f. 11-12. Inhabits New Zealand. Quoy.

158. Dosina Zelandica. Gray. Yate's New Zealand, App.

Inhab. East Coast. Yate.

Shell ovate-cordate, ventricose, solid, brown, with close, regular, slightly elevated concentric laminæ, which are higher at each end; lunule large, ovate-cordate, inside dead-white; hinge margin moderate; hinder slope simple, without any flat shelving space on the left valve.

Very like D. rugosa, but the ridges are thinner, closer, the shell more oblong, the hinge margin thinner, and the lunule much longer and narrower in proportion.

The Dosinæ have a small anterior additional tooth on the hinge margin. Lamarck refers them to Venus; they are intermediate between Venus and Cytherea.

159. Dosina oblonga.

Inhabits New Zealand; between stones in mud, or rather gravel.

Shell oblong, cordate, white with a few red rays near the umbo; very slightly radiantly striated, with numerous narrow, close, rather regular, high rounded edged concentric ridges, which are rather more laminar at each end; lunule cordate.

The edge is very finely crenulated, and the folds on the front side of the shell are rather crenulated by the radiated striæ, but all the rest of the shell is nearly smooth; the inside is white; the anterior lateral tooth is distinct but small. Varies in being rather more attenuated and produced behind.

160. Venus Yateii. Gray. Yate's New Zealand, App-Inhab. East Coast. Yate.

Shell ovate, rather truncated behind, solid, brown, with rather distant, thin, concentric laminæ, which are higher behind and before, and waved; hinder slope depressed, lozenge-shaped; lunule laminar. Like *V. plicata*, but rather shorter; concentric plates higher, waved, and torn on the edge.

161. Venus Dieffenbachii. Gray. Inhabits New Zealand.

Shell trigonal, cordate, solid, thick, white; umbones brown, with broad radiating ribs and distinct, erect, sharp-edged concentric ridges; the front side with close concentric sharp-edged ridges; the hinder side smooth, with indistinct broad radiating ribs; the hinder slide flattened; the lunule cordate; the disk of young shell and the hinder edge and hinge of the adult shells purple.

The younger shell is sometimes more oblong, being produced behind.

162. Venus Stutchburii. Gray. Wood's Cat. Supp. f. . Venus Costata. Quoy et Gaim. Voy. Astrol. iii. 521, t. 84, f. 1-2.

Inhabits New Zealand. Quoy. B.M.

163. Venus Zelandica. Quoy et Gaim. Voy. Astrol. iii. 522, t. 84, f. 5-6.

Inhabits New Zealand. Quoy. B.M.

164. Venus crassa. Quoy et Gaim. Voy. Astrol. iii. 523, t. 84, f. 7-8.

Inhabits New Zealand. Quoy. B.M.

165. Venus intermedia. Quoy et Gaim. Voy. Astrol. iii. 526, t. 84, f. 9-10.

Inhabits New Zealand. Quoy. B.M.

166. Venerupis reflexa.

Inhab. Rocks, New Zealand.

Shell oblong, very irregular; rounded in front and truncated behind; surface with thin sharp-edged, reflexed, concentric ridges, which are highest and most bent over and back at the hinder edge, and they generally have two or three lower concentric ridges between them; hinge teeth, 3.3.; inside yellowish, hinder half blackish purple, with a yellow edge.

Are sometimes oblong, elongate, and regular, but are generally distorted; the regular ones are rarely white within, and their teeth are always more oblique and less prominent than in the distorted specimens.

167. Venus Mesodesma. Quoy et Gaim. Voy. Astrol. iii., 532, t. 84, f. 17-18.

Inhabits New Zealand.

This shell varies in the degrees of its convexity, and the regularity and height of the concentric ridges.

168. Venus violacea. Quoy et Gaim. Voy. Astrol. iii., 533, t. 84, f. 19-20.
Inhabits New Zealand.

\*169. Venus plumbea. Gmel., 3280. Crassatella incrassata, Lam.

A Paris fossil; was figured by Chemnitz as coming from New Zealand.

### Fam. MACTRIDÆ.

170. Mactra discors. Gray, Mag. N.H., i., 371.
Inhabits New Zealand, West Coast, N. Island. Dr.
Dieffenbach.

171. Spisula ovata. Gray, n. s. Inhabits New Zealand, West Coast, N. Island. Dr. Dieffenbach.

Shell ovate, ventricose, inequilateral, thin, slightly concentrically wrinkled; rounded in front, rather attenuated, and produced behind; white, covered with a thin pale brown periostraca, much produced beyond the edge behind; inside yellow; lateral teeth short, very high and subtriangular.

172. Spisula elongata. Gray. Mag. N. H., i., 271. Mactra elongata. Quoy et Gaim. Voy. Astrol. iii., 518, t. 83, f. 1-2.

Inhabits New Zealand. Quoy.

173. Lutraria acinaces. Quoy et Gaim. Voy. Astrol. iii., 545, t. 83, f. 5-6.

Inhabits New Zealand. Quoy.

#### Fam. MESODESMIDÆ.

174. Mesodesma Chemnitzii. Desh., Enc. Méth. ii., 443. Quoy et Gaim. Voy. Astrol. iii., 504, t. 82, f. 9-11. Mya Novæ Zelandiæ. Chemn. vi., t. 3, f. 19-20. Paphies roissyana. Lesson, Voy. Coq. ii., 424, t. 15, f. 4. Mya Australis. Gmel., 3221. Mactra Australis. Wood's Cat., f. 24. Machæna ovata, and M. subtriangulata. Leach, MSS., Brit. Mus.

Inhabits New Zealand. Chemn. Tasman's Bay. Quoy. Called Pipæ by the natives, who eat them as food. They are very abundant at the Bay of Islands, in brackish water. Dr. Sinclair.—Everywhere. Dr. Dieffenbach.

175. Mesodesma ventricosa. Gray, n. s.

Inhabits New Zealand, North Shore, Cook's Straits. Dr. Dieffenbach.

Shell ovate, wedge-shaped, truncated behind, thin, ventricose, opake-white, smooth, slightly concentrically striated; covered with a thin, nearly transparent, horn-coloured periostraca, edge thin. The lateral teeth short, smooth, compressed, close to the cartilage pit, the front one of the left valve the largest. The syphonal inflection does not reach to quite the centre of the disk.

Like the American cuneiform species, but shorter, higher, thinner, and more ventricose, and the teeth different.

176. Mesodesma subtriangulata. Erycina subtriangulata. Gray. Ann. Phil.

Inhabits New Zealand, West Coast, N. Island. Dr. Dieffenbach.

### SAXICAVIDÆ.

177. Hiatella Minuta. Solen minutus. Linn. Lam. Hiatella arctica. Lam. Donax rhomboides. Poli. Saxicava rhomboides. Desh.

Inhabits New Zealand.

I can see no character by which I can separate the two New Zealand specimens I have seen from the English specimens. It appears to differ from S. Australis, Lam.

## Fam. CARDIADÆ.

178. Cardium pulchellum. Gray, n. s.

Inhabits New Zealand, East Coast, N. Island. Dr. Dieffenbach.

Shell subcordate, rather ventricose, thin, rosy white, varied with red; hinge, margin, and two centrical rays bright, with numerous, 60 or 65 narrow, rather nodulose ribs, hinder slope slightly flattened; inside white, varied with bright red.

Described from a single valve; probably young.

### Fam. TELLINIDÆ.

179. Psamnobia Stangeri. Gray, n. s. Inhab. New Zealand.

Shell oblong, solid, rounded in front, and rather obliquely truncated behind; greyish, with purple rays, slightly concentrically striated, more deeply in front, inner surface and fulcrum of hinge purple; teeth large.

Very like *P. vespestina* in appearance; the hinder slope of both valves are equally smooth, the syphonal inflection reaches to some distance before the umbo.

The younger shells are covered with a smooth brown periostraca and are generally deeper purple within, and redder externally; some are orange, and others whitish within.

Named in honour of my friend Dr. Stanger, who kindly presented these and other New Zealand specimens to the Museum, and who is well known for the arduous duties that devolved on him during the return of the expedition of the African Society.

I have seen this shell named B. Tongana, Quoy, but it is much higher than his figure.

180. Psammotia nitida.

Inhab. New Zealand.

Shell oval, oblong, thin, pellucid, porous, rounded in front and rather tapering behind, covered with a hard polished horn-coloured periostraca; inner surface purplish white, or purple; hinge teeth small.

This shell is allied to *Psammotia flavicans*, Lam. (which is also *Sanguinolaria livida* and *P. alba*, Lam.), but is not so high nor produced below, and is thinner, and the syphonal inflection is not quite so much produced towards the front edge.

181. Psammobia lineolata. Gray. Yate's New Zealand, App. P. livida. Lam. 17?

Inhab. East Coast. Yate.

Shell oblong, transverse, compressed, obliquely truncated be-

hind, purplish rosy, with rather darker concentric belts, and very thin anastomosing, radiating lines.

182. Tellina alba. Quoy et Gaim. Voy. Astrol. iii. 500, t. 81, f. 1-3.

Inhab. Tasman's Bay.

183. Tellina lactea. Quoy et Gaim. Voy. Astrol. iii. 501, t. 81, f. 14-16.

Inhab. Tasman's Bay. Quoy. Waingaroa, N. Island. Dr. Dieffenbach.

This shell, often rosy externally and yellow within, and covered with a pale brown periostraca; it differs considerably in the height, width, and convexity of the specimens.

There are two distinct varieties from different parts of the island: one short, high, and swollen in front, like Quoy's figure; the other comparatively longer, and more compressed.

"They live among stones about low-water mark, and at least as far as three fathoms deep.

"The animal is very small, and has a small foot. The tubes are 6 or 8 inches long, reaching to the surface of the sand. They lie horizontally in the sand with the left or flattest valves beneath."—

Dr. Stanger.

### Fam. PHOLADÆ.

184. Barnia similis. Gray. Pholas similis, Gray. Yate's New Zealand, App.

Inhab. East Coast. Yate.

Shell oblong, rather elongate, acute in front, tapering behind, with rather close concentric laminæ; the anterior part with rather close and radiating grooves; hinge margin reflexed, simple beneath; dorsal plate single, elongate, acute in front, truncated behind; very like *Pholas parvus*, but larger, broader, and more acute in front.

185. Talona tridens. Gray.

Inhab. New Zealand, in limestone. Bidwell.

Shell ovate, with a deep central groove; the front half with closed, waved, concentric ridges; the hinder half with distant regular concentric grooves. The front gape large, broad, ovate, at length closed up; the two hinder processes forming together a cup about as long as broad, each furnished with a submarginal and central rib.

This genus, which is characterized by having the abductor muscles enclosed in a shelly case formed by the reflexed edge of the valve, furnished at its hinder end with two small additional valves, has the faculty of closing its anterior opening, and of forming a cup-shape process for the protection of its tubes at its hinder end when it arrived at its full growth. Other species are found in England, as Talona papyracea; in Africa, as T. clausa; and I have seen another from South America.

186. Teredo

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Inhab. New Zealand. Dr. Stanger.

This species forms, at distances in its tube, close imperfect septa, pierced with a large central, simple, oblong hole, surrounded by a reflexed edge; the tube is thin, of a prismatic crystalline texture. I have not seen the valves or pallettes.

## Fam. SOLENIDÆ.

187. Panopea Zelandica. Quoy et Gaim. Voy. Astrol. iii. 547, t. 83, f. 7-9.Inhab. New Zealand. Quoy. Yate.

## Fam. ANATINIDE.

188. Panopea Solandri. Gray, n. s.

Inhab. New Zealand, Turanga. Dr. Dieffenbach.

Shell oblong, ventricose, rounded in front, rather narrower and truncated behind, smooth, white.

Very like the European P. Aldrovandi, but smaller and more contracted behind; much more ventricose than the P. Zelandiæ.

Named in honour of Dr. Solander, who accompanied Captain James Cook in his expedition, and who did much to illustrate the natural history of New Zealand and other parts of the world.

189. Myadora striata. Pandora striata. Quoy et Gaim. Voy. Astrol. iii. 537, t. 83, f. 10.

Inhab. New Zealand.

The periostraca is beautifully marked, thin, transparent, and covered with many series of small oblong scales, divided into groups by the radiating lines; it is reflexed into the edge of the mautles within the edge of the valves.

"It is extremely difficult to separate the valves of these shells. The foot is small and square when contracted."—Bidwell.

#### Fam. CORBULIDÆ.

190. Corbula Zelandica. Quoy et Gaim. Voy. Astrol. iii. 511, t. 85, f. 12-14.
Inhab. River Thames.

### Fam. SOLENOMYADÆ.

191. Solenomya australis. Lam.? Inhab. New Zealand, Tauranga, Bay of Plenty. Dr. Dieffenbach. Common. Bidwell.

Shell oblong, brown, paler rayed, rounded in front, and rather more truncated behind; periostraca dark brown, much produced.

This species is very like the one found in the Mediterranean; but it appears rather shorter, higher, and more ventricose.

Length  $1_{\frac{7}{2}}$  in., height  $\frac{7}{1}$  in.; periostraca extends beyond the margin of the shell for 3 or 4 lines.

"The foot is very curious: it is divided at the end and fringed; when the animal puts it forth, which it can do to full two-thirds of its own length, it opens and turns back like an umbrella or mushroom anchor; it serves for the purpose of taking a greater hold than would be permitted to the common sort of foot.

"They live at the verge of the extreme low-water, and below, in greasy mud about 6 inches beneath the surface, and are in all sorts of positions." *Bidwell*.

## Fam. CARDITIDÆ.

192. Venericardia. Quoy. Venericardia australis. Quoy et Gaim.; ii. 480, t. 78, f. 11-14.

Inhab. New Zealand. Quoy. Turanga, Dr. Dieffenbach. B. M.

Ovate, with 22 rounded nodulose ribs; inside rosy, the hinder part brown.

## Fam. Lucinidæ.

193. Lucina Zelandica. Gray. Yate's New Zealand, App.

Inhab. East Coast. Yate.

Shell suborbicular, rather compressed, rather solid, opake white, smooth, very slightly concentrically striated, and covered with a thin, smooth periostraca. Like L lactea, but more compressed and opake. Ligament linear, external, marginal.

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194. Lucina divaricata, Lam. 27. Tellina divaricata. Linn.

Inhab. New Zealand.

"They live about a spade deep (10 inches) in the sand on the coast, and are not common." Bidwell.

This is one of the generally-spread species of Mollusca, being found on the shores of Europe, India, Africa, America, and Australia.

### Fam. UNIONIDÆ.

195. Unio Menziesii. Gray, n. s.

Inhab. New Zealand. Rivers in the N. Island and Lake Taupo. Dr. Dieffenbach.

Shell oblong, high, compressed, thin, obliquely truncated behind; covered with a thin olive periostraca, and much excoriated near the umbo. The hinder lateral teeth elongated, only elevated on their hinder extremity, where they are crowded; the inner anterior tooth of the right valve large, thick, ovate, rugose; the rest small, compressed; the disk of the shell brown, varied.

Var.—Shell elongate, lower, rather produced, and rounder behind; the hinder part of the posterior lateral teeth straight.

Named in honour of the late Mr. Archibald Menzies, F.L.S., who accompanied Captain Vancouver, as surgeon, in his expedition.

196. Unio Aucklandica.

Inhab. New Zealand, Bay of Islands, and Auckland, in the Bay of Amabrusa. Dr. Sinclair.

Shell oblong and rather thick, rounded in front, and rather obliquely truncated behind, covered with a thick olive periostraca; umbo black, decorticated, cardinal teeth low, blunt, oblique, hinder lateral teeth laminar, far off; the inner surface pearly, purplish near the umbo, greenish on the hinder edge.

The inner surface of the shell (dead ones?) is often so exfoliated that scarcely any thing but the periostraca remains, so that the shells can be bent about in any direction when wet.

### Fam. ARCADÆ.

197. Pectunculus laticostatus. Quoy et Gaim. Voy. Astrol. iii. 466, t. 77, f. 4-6. Pectunculus ovatus. Quoy et Gaim. Voy. Astrol. iii. 467, t. 77, f. 1-3. Inhab. New Zealand.

Regular when young, becoming thicker, higher, and more or less VOL. II.

truncated on the hinder side. Hence they have been considered as two species by Quoy and Gaimard.

198. Pectunculus.

Dr. Sinclair has brought me a series of specimens of another species of this genus, found in a fossil state near East Cape, in company with a *Cardium?* a *Nucula*, an *Ostrea*, and three species of Univalves: two of them are probably *Fusi*, and the other is quite a new form to any I have hitherto seen.

"It has been stated that fossil shells are not found in the

islands." Dr. Sinclair.

199. Nucula australis. Quoy et Gaim. Voy. Astrol. iii. 471, t. 78, f. 5-10. Inhab. New Zealand.

### Fam. MYTILIDÆ.

200. Mytilus canaliculatus. Martyn, U. C. t. 78. Wood, Cat. f. 47. Mytilus latus. Chemn. viii. 167, t. 84, f. 747. Dillwyn, R. S., 311. M. durus. Solander.

Inhab. New Zealand. Martyn. Cook's Straits. Dr. Dieffenbach.

This species, like the common Mytilus of the English sea, appears to vary in size, form, and thickness of the shell, according to the locality in which it happens to be placed.

The one variety is elongated, white within, with a purplish tint on the submarginal muscular impression; and the younger specimens are thin, and covered with a thin periostraca: but this variety sometimes grows to a large size, as, for example, to 7 inches in length, and 3 inches in width. The periostraca of these specimens is blackish, and bright verditer green on the edge.

The second variety is thicker, more solid, much broader, and rounded. The valves are covered with a dark-olive periostraca, paler on the ventral side, purplish brown, and pearly near the hinder muscular scar. Some specimens of this variety have the hinder edge of the valves purplish black.

Inhab. the North of the Thames and East Cape, New Zealand. Dr. Sinclair.

It differs from M. smaragdus of China in the young shells being more ventricose, thinner, and rayed with brown.

201. Mytilus polyodontes. Quoy et Gaim. Voy. Astrol. iii. 462, t. 78, f. 15, 16.

Inhabits New Zealand.

202. Modiola albicosta. Lam. ? Inhab. New Zealand, Cook's Straits. Dr. Dieffenbach; and Van Diemen's Land. R. Gunn, Esq.

203. Modiola securis. Lam.?Inhab. New Zealand. Dr. Dieffenbach.Only a single small valve has yet been sent.

204. Lithodomus truncatus.

Inhab. New Zealand, in stones. Dr. Stanger.

Shell oblong, subcylindrical, thin, short, and roundly truncated in front, contracted in the middle, and rather produced and tapering behind, covered with a dark brown periostraca; umbones rather prominent, inflexed; inner side purplish, rather pearly.

Easily known by the truncated appearance of the front end and the prominence of the umbo. The hinder half of the shell is covered with a coat formed of green regular laminæ, perhaps algæ. Common in the Greywakke rocks on the East Coast. Dieffenbach.

205. Modiolarca impacta. Mytilus cor. Martyn, U. C. t. 77. Myt. impactus. Hermann, Naturf. xviii. 147, t. 3, f. 5-8, xix. 183. Wood, Cat. 59, f. 40. M. discors. Australis. Chemn. viii. f. 768. Modiola discor, Lam. vi. p. 16. Myt. lanatus. Calonne. Cat. 43. Inhab. New Zealand. Dr. Solander. Bay of Islands. Dr. Sinclair. East Cape. Dr. Dieffenbach.

## Fam. PINNIDÆ.

206. Pinna Zelandica. Gray. Yate's New Zealand, App. Gmel. 3166. Wood, Cat. 60, f. 10. P. adusta. Gmel.?

Inhab. East Coast. Yate. Bay of Islands. Dr. Dieffenbach.

Shell triangular, elongate, blackish; inside purplish pearly; valves convex, with rather close longitudinal ribs, armed with close, short, semi-cylindrical, hollow spines. Differs from P. squamosa, in being smaller, black, and in the end being more truncate.

It may be Pinna adusta, Chemn. viii. 237, t. 91, f. 782. P. exusta, Gmelin, said to come from New Zealand, by Humphreys, and Manilla, by Chemnitz.

The gigantic mussels, Cook, Third Voy. ii., Polack, i. 324, are probably Pinnæ, as they have the habit he describes.

Fam. PECTINIDÆ.

207. Pecten Zelandia. Gray, n. s.

Inhab. New Zealand.

Shell with numerous (about 40) close unequal sharp-edged squamose ribs; purplish; the ears unequal, with radiate scaly ribs. The valves subequal; the right most convex.

Like P. varius, but the ribs are more numerous.

208. Pecten laticostatus. Gray. Yate's New Zealand, App.

Inhab. East Coast. Yate. Bay of Islands. Dieffenbach.

Shell inequivalve, with 16-18 radiating ribs, purplish white; right valve convex, ribs smooth, the larger one depressed with one or two interrupted longitudinal grooves; left valve rather concave, smoothish, purple brown, and purple near the umbo; the ribs distant, narrow.

"Taken with a landing-net from the bottom of the bays. flavour is very excellent, and the oculiform tentacles are extremely like eyes.

"It is impossible to get the scallops perfect; the edges are so

thin, that they generally break." Bidwell.

209. Lima linguatula. Lam. vi. 157. Quoy et Gaim. Voy. Astrol. iii. 453, t. 76, f. 11, 12.

Inhab. New Zealand. Quoy et Gaim.

Fam. OSTREIDÆ.

210. Ostræa

Inhab. New Zealand, Waitamata, East Coast of N. Island. Dr. Dieffenbach. B. M.

A solid plicated species; not in sufficiently good state to describe.

211. Ostræa

Inhab. New Zealand. Dr. Sinclair.

A small species, much like O. edulis, scarcely to be distinguished. The two species are most abundant; they cover the shores everywhere from East Cape northward. "The one like O. Edulis are better flavoured than the cock-combs." Dr. Sinclair.

### Fam. ANOMIADÆ.

212. Anomia Zelandica. Gray, n. s.

Inhab. New Zealand, on the inside of mussel-shells.

The shell suborbicular, whitish, smooth, with distant radiating ridges near the edge; internally dark green; the notch in the lower valve large, ovate, triangular; the plug thin, shelly, near the apex, and formed of parallel horny lamellæ for the greater part of its length.

The animal has the power of absorbing the surface of the shell to which it is attached before it enlarges the size of the plug. The plug is evidently only a modification of the kind of laminal beard formed by the end of the foot of the arcs, for, like it, it is formed of numerous parallel, erect, longitudinal, horny laminæ, placed side by side, extending from the apex to the margin, and it is on these plates that the calcareous matter is deposited when the attachment assumes its shelly substance. The same structure is to be observed in the plugs of the European Anomia Ephippium.

"The specimen was taken up with the dredges affixed to a piece of Mytilus. While alive the animal kept opening and shutting its upper valves, with a snap just like the Pectens. Rare." Bidwell.

### Fam. TEREBRATULIDÆ.

- 213. Terebratula recurva. Quoy et Guim. Voy. Astrol. iii. 554, t. 85, f. 10, 11.
- 214. Terebratula sanguinea. Leach. Zool. Miscel. 76, t. 33. Lam. vi. 247. Quoy et Gaim. Voy. Astrol. iii. 556, t. 85, f. 6, 7. T. Zelandica, Desh. Mag. Zool. 1841, t. 42. Anomia sanguinea. Solander's MS. Calonne, Cat. 45; not Chemn. A cruenta. Dillwyn, R. S., 295.

Inhab. New Zealand. Humphreys. Tasman's Bay. Quoy. Turanga, East Coast of N. Island. Dieffenbach.

215. Terebratula lenticularis. Desh. Mag. Zool., 1841, t. 41.

Inhab. New Zealand. Desh.

Perhaps only a smaller variety of the former.

## Fam. OCTOPODIDÆ.

216. Octopus cordiformis. Quoy et Gaim. Voy. Astrol. ii. 87, t. 6, f. 3.

Inhab. New Zealand, Bay of Tasman. Quoy.

### Fam. SEPIADÆ.

217. The Sepia, or Cuttlefish, forms an article of native food. Polack, i. 326.

#### Fam. SPIRULIDÆ.

218. Spirula fragilis. Lam. Syst. Nautilus spirula. Linn.

Inhab. New Zealand, West Coast of N. Island. Dr. Dieffenbach.

219. Venus intermedia.

"Called 'Pepa' by the natives; they are extremely abundant, and are eaten as food by the natives. The name appears generic for this edible bivalve." Dr. Sinclair.

"East Coast; much eaten by the natives; called Pipi." Dr. Dieffenbach.

220. Nanina? Kivi.

Inhab. New Zealand. Dr. Sinclair.

Shell top-shaped, imperforate, thin, white; spire subconic, blunt, whorls slightly raised, strongly concentrically striated with short, irregular, oblique, purple brown cross streaks; last whorl rounded; front rounded, white, smooth; mouth broad, lunate, with the outer lip slightly reflected over the axis. Diameter 15 of an inch, axis 14 of an inch.

221. Nanina Mariæ.

Inhab. New Zealand. Dr. Sinclair.

Shell trochiform, slightly perforated, pale brown, with oblique, close, transverse bands; spire short, conic; whorls nearly flat, sharply keeled, front convex.

The brown bands are sometimes crossed, leaving small square,

pale spots, especially on the front side of the last whorl.

Differs from N. Zelandiæ in being more depressed and strongly keeled, and in the axis being very narrow.

N. Zelandiæ is pale brown, the whorls have opake white, wavy, cross bands near the suture.

222. Acanthochætes Hookeri.

Inhab. New Zealand, Great Barrier Island, Bay of Islands; and Van Diemen's Land. Dr. Sinclair.

Valves half ovate, covered with crowded flat-topped granules, gray and green striped; the central ridge olive, smoother. The interior valve evenly granulated, without any ridges. The mantales hirsute, the tufts of spines large and green.

This species is most like Acanthochaetes fasciculatus of the English coast; it differs from A. violaceus in the size of the tuft, and

the front valve not being rayed. I have dedicated this to my young friend Dr. Joseph Hooker, the assistant-surgeon to H.M.S. Erebus, in whose company Dr. Sinclair collected it.

223. Chiton Sinclairi.

Inhabits New Zealand, Great Barrier Island. Dr. Sinclair.

Pale brown, polished, the terminal valves with many, and the lateral area with few indistinct broad nodulose ridges, the central area polished, with pale longitudinal streaks, and with a few short, deep, irregular longitudinal grooves on the hinder edge of the sides.

This species is very like *C. pellis serpentis*, but is polished, and the central plates are smooth, except at the outer angles.

I have dedicated it to my friend Dr. Sinclair, of the Royal Navy, who, during the passing of the list through the press, has presented to the British Museum a series of shells from New Zealand, which were collected during his stay in those islands in company with Capt. James Ross, of the Antarctic expedition.

224. Zonites coma.

Inhabits New Zealand. Dr. Sinclair.

Shell depressed, largely umbilicated, pale brown, whorls rounded, with close, sharp-edged, elevated, concentric ridges; spire nearly flat, with broad brown, concentric bands, umbilicus conical, showing the whorls; mouth rather small, peristoma thin; diameter 3 lines.

225. Melanopsis trifasciatus.

Inhab. New Zealand, Bay of Islands, Waitanga Falls.
Shell ovate, thin, dark olive; spire short, conical, about oneyird the length of the body whorl; the last whorl with three

third the length of the body whorl; the last whorl with three equidistant chestnut bands; the callosity of the inner lip yellow.

## TUNICATA.

226. Salpa costata. Quoy et Gaim. Voy. Uranie, 504, t. 73, f. 2. Voy. Astrol. iii. 570, t. 86, f. 1-5. Inhab.

227. Salpa infundibuliformis. Quoy et Gaim. Voy. Uranie, 508, t. 7, f. 13. Voy. Astrol. iii. 587, t. 89, 6, 7.

Inhab.

228. Ascidia erythrostoma. Quoy et Gaim. Voy. Astrol. iii. 609, t. 91, f. 4, 5.
Inhab. River Thames.

229. Ascidia janthinoctoma. Quoy et Gaim. Voy. Astrol. iii. 610, t. 91, f. 6, 7.

Inhab. River Thames.

230. Ascidia cœrulea. Quoy et Gaim.. Voy. Astrol. iii. 611, t. 91, f. 8, 9.

Inhab. Bay of Islands.

231. Botryllus racemosus. Quoy et Gaim. Voy. Astrol. iii. 620, t. 92, f. 7, 8.

Inhab. River Thames.

#### RADIATA.

- "Medusæ, or marine gelatine, is thrown in animated masses on the rocky shores."—Polack, i. 309-325.
  - 232. Stephanomia imbricata. Quoy et Gaim. Voy. Astrol. iv. 71, t. 3, f. 13-15.

Inhab. New Zealand.

233. Actinia viridula. Quoy et Gaim. Voy. Astrol. iv. 161, t. 13, f. 15-21.

Inhab. Sea between New Zealand and Friendly Islands.

234. Actinia striata. Quoy et Gaim. Voy. Astrol. iv. 164.

Inhab. Bay of Islands.

235. Turbinolia rubra. Quoy et Gaim. Voy. Astrol. iv. 188, t. 14, f. 5-9.

Inhab. Cook's Straits.

236. Dendrophyllia rubeola. Quoy et Gaim. Voy. Astrol. iv. 197, t. 15, f. 12-15.

nhab. River Thames.

237. Alcyonium aurantium. Quoy et Gaim. Voy. Astrol. iv. 277, t. 22, f. 16-18.

Inhab. River Thames.

238. Pennatulæ, or Sea Pen. Polack, i. 327.

239. Echini, or Sea Hedge-hogs. Polack, i. 326.

240. Echinarachnius Zelandiæ. Gray, n. s.

Inhab. Western Coast, Northern Island, New Zealand. Dr. Dieffenbach.

Body depressed, with a slightly elevated centre, with the interambulacral area rather more depressed, the ambulacral and interambulacral 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.
- 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 10½ 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 strize 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 sexdentutus. M. Edw., l. c. ii., p. 79. Inhabits New Zealand. M. Edw.
- 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.

- 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 moderatesized 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. Polack, 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.
- 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. 8456. Balanus circulus. Mus. Genev.
  Inhabits New Zealand. Dr. Dieffenbach.
- 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" cen-

tipede 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 1½ to 2 inches." G. Newport.

# Class Arachnida.

A spider in New Zealand (at Mawi) is named ponwerewere. 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.
  - 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).
- Oopterus clivinoides. Guerin, Rev. Zool. Cuv., 1841,
   p. 123.
   Inhabita Anakland Islands (Guerin)

Inhabits Auckland Islands (Guerin).

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.

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 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.
- 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. Schænh. 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. nhabits 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. El. 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.
- 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 Scheenherr (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.
- 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 61 lines.

This Prionus forms a section or subgenus distinct from Sceleocantha and Toxeutes 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 Cerambicidæ with the Lepturidæ, a family by no means abundant out of America, Europe, and Africa.

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 vellow: head punctured on the vertex: antennæ at least 21 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 12½ 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 Miscellanv, 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 21 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 extreme 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 Waiheké, 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 Maouries, 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 tibiæ 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 plage 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 solicitorius. Fabr. 1. 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 Zcaland. 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, waved, 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. Aspilates? 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, fuscescent at the base; this portion bounded by a waved fuscous striga. Before the middle is a waved 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 brownishash, 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 silverywhite. 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 Endcavour, 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. Bibio 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. Beschr. Europ.; Zweif., 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 Eudeavour, iii., p. 439.

### APHANIPTERA.

137. Pulex. Keha, or flea. Polack, 1. c. i., p. 321. Tuiau. 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.

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m U}$  2

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.

Frond 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. CRISSIADÆ.

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: vesicule 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; vesicules large, oblong ovate, with a long process on each side near the mouth.

Like D. abietina, but the vesicule 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; vesicules 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 Parenga-renga 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 Terebratula, a Pecten like P. Japonica, and a Spatangus. They are in a limestone matrix.

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.

ON THE LANGUAGE OF THE NEW ZEALANDERS.

# 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 fertile source from which they have all originally sprung. The Malayan can, perhaps, only claim the relation of a sister dialect to the other Polynesian languages: in consequence of the commercial intercourse of the people speaking it with many other nations, with the Chinese, the Hindoos, and the Arabians, they have adopted many foreign elements into their language, which has obtained in that manner quite a mixed character. It is evident that the nations speaking these languages, which are the same as regards their root, must have been separated in very ancient times; but where their true birth-place was, and where the true cradle of their dialects is to be found, we do not as yet know.

The idioms in the languages of the islanders whom I have called the true Polynesians, and to whom the New Zealanders belong, have a closer connection with each other than the general one just mentioned; and this closer connection more than anything else proves them to be one grand subdivision of the Oceanic race. This is especially the case between the Tahitian, the Sandwich Islands, and the New Zealand languages, with which we are most intimately acquainted. Although living at such an immense distance from each other, there is certainly not more difference between their dialects than between the Dutch and the German. The language of the Friendly Islands, of which Mariner has given such an excellent account, possesses more foreign elements, as do the people themselves. Almost the only difference between the dialects of New Zealand and Tahiti consists in the use of softer or harder consonants; for instance, the k of New Zealand is exchanged for t, the r for l. In the Sandwich Islands, consonants at the beginning of the words are often thrown out: olelo, to speak, is korero in New Zealand, and so on. should say, indeed, that the difference is less than between the Dutch and the German; at least, a native of Tahiti who was along with me understood the New Zealanders immediately on arriving amongst them, which is not the case with German and Dutch. The differences existing form a good instance of the influence of physical circumstances in altering a dialect to a certain degree, without any admixture from without, and this alteration has kept pace with the variations which climate and the geographical features of their respective countries have effected in the people themselves.

The Polynesian language is in its whole formation and construction by far more primitive than the Malayan and the rest of the Javano-tagalo languages. Its whole cast is ancient: it belongs to a primitive state of society. The roots are monosyllables, which, however, is also the principle of the Indo-Germanic languages, and the words are often an imitation of the natural sound or voice, especially the names of animate objects. The polysyllabic words are often formed as children form words, by reduplication of the root, and repetition often

strengthens the root, as in Italian, and forms a superlative. The root is a sort of infinitive, and is inflexible, including indifferently the senses of noun, adjective, adverb, participle, or verb. Flexion is obtained by prefixes and affixes: thus the passive of verbs is formed by the addition of certain syllables to the root. To form abstract substantives a composition of words takes place, which thus become single words: some, however, of this kind, which are found in the vocabulary, are not compatible with the original simplicity of the New Zealand language, and seem to have been formed as the ideas of the natives began to expand by their contact with people who had modes of thinking quite different from their own, especially with the Christian missionaries. This compounding of words is, however, a remarkable feature in the language, and renders it very flexible, as the adding certain syllables to the root gives it the power of expressing various meanings. By the same licence, Greek and German have become such rich languages, as they could increase their stock of words without borrowing from any other. If the New Zealander has adopted a root from a foreign language, he does not adopt all the derived words, but forms the latter according to the genius of his own tongue. The New Zealand language is therefore capable of being further developed, and is already a decidedly rich language. is not necessary to substitute another language for their own. If we consider over what an immense

space one language, differing only in dialect, is spoken, and what a field is opened amongst the various people for European intercourse, and for the light of Christian civilization, we should rather seek to create one Polynesian language, than to introduce another tongue entirely different in its root. Of all languages, the English is perhaps the one they are least capable of learning, and for this reason—that they have not sufficient sounds in their own language to pronounce the English words, and they want also some of the consonants. Judging from my own experience, I am of opinion that all attempts to teach the natives the English language can only end in their acquiring an unintelligible jargon.

The New Zealand language abounds in prefixes and affixes. Both must be regarded as corrupted words, the sense of which has been lost. It is well known that they are common in the more western dialects, especially in Hebrew. It appears that euphony often forms the only rule by which in certain phrases one particle is used and not the other, and it is evident that their use is sometimes quite arbitrary.

There is nothing to lead to the belief that the New Zealanders ever possessed the art of writing, nor even that more simple mode of communicating events to posterity by figures of animals and objects, which has been lately discovered to be in use amongst the most barbarous tribes of Northern America, and

which might properly be termed picture-writing. I have, however, already observed that certain carvings represent historical, and especially genealogical facts; and the spiral lines of their tattooing, and the arabesques painted on their houses, are perhaps the remains of an ancient art of that description, although they certainly are not used for that purpose at the present time. Tui, or tuhi, means to paint or to carve; and the same word has been adopted to express writing, with which art many of the natives are now acquainted.

It may appear superfluous that I should have troubled myself to give a vocabulary and some grammatical notes on the language, as it could not be expected that I should have acquired a sufficient knowledge of the language in the short time of eighteen months. I disclaim any pretensions to the character of a linguist, as I am too well aware how perfectly a man must be acquainted with a language before he can enter into the niceties of its component parts, and of its grammatical structure; as William von Humboldt has done with the Kawi language of the island of Java, and its sisterlanguages the Polynesian dialects, in his book, at which I could, unfortunately, only glance after I had written my grammatical notes. What has determined me not to keep back the few observations I had made on the language, and my collection of words, is, that in the only vocabulary of the New Zealand language which has been published, that

by Professor Lee, at Cambridge, in 1820, the style of orthography is certainly not correct. The native who was had recourse to when that dictionary was compiled must have pronounced certain sounds differently from most of his countrymen, or errors must have been committed in catching the sounds. The missionaries, whose translations were of great help to me in compiling the dictionary, have adopted the orthography as I have given it. I also thought that my dictionary and grammar would be of service to the emigrants, as Professor Lee's work, which is meritorious in every other respect, is now out of print.

We are still very deficient in our knowledge of the Polynesian languages. No one of the missionaries has shown himself to be a good linguist; no one of them has succeeded in deciphering the native traditionary poetry, which undoubtedly would recompense the labour of the historian and ethnologist.

The importance of a more exact study of languages, as the means of understanding the mind of these nations, is not yet sufficiently acknowledged amongst those who could contribute most largely to increase our stock of knowledge. "To search into the difference of the structure of human languages, to elucidate their essential condition, to arrange their apparently infinite variety in a more simple manner, to trace the sources of that variety, as well as its influence on the thoughts, feelings, and sensations of men, to follow the intellectual development of

mankind through all revolutions of history, led on by language, which in deep and intimate connection accompanies it, is the important and comprehensive object of general philology."\*

If a man competent to the task were to trace the Polynesian dialects from island to island, and decipher the ancient traditions, which are contained in the songs and in the mystic invocations of the priests, we should soon have a more correct idea of the connections of these languages, and of the migrations of the people themselves. But the dialects are now rapidly altering, in consequence of the more frequent intercourse with foreign nations; and the traditions in some places, as in Tahiti, the Sandwich Islands, and New Zealand, are, for the most part, already forgotten.

In consequence of the general circulation of the translation of the Scriptures, the language has also been greatly remodelled: new conceptions, new ideas, are pouring in upon these simple and interesting islanders, which importantly affect their language. Every day diminishes, therefore, the chance of recording the different dialects in their purity, as the possibility of obtaining original pieces of composition, and still more of obtaining a correct explanation of them, decreases. In New Zealand, for instance, it is only the old who can give any account of the meaning of certain songs, incantations,

<sup>\*</sup> Wilhelm von Humboldt, 'Ueber die Kawi Sprache auf der Insel Java,' vol. iii., Introd.

and invocations. It is, therefore, very important that the study of the Polynesian languages should be carried on by travellers amongst the people themselves, and that this should be done at as early a period as possible.

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# CHAPTER II.

SPECIMENS OF THE NEW ZEALAND LANGUAGE.

I could have wished to have given more copious specimens of the New Zealand language—a greater number of original pieces of composition—than I have done. There exist numerous songs, of various character, in the mouths of the people; and I have no doubt that a large collection of Indian lore could be formed. I have myself made such a collection of about eighty pieces, principally of a lyric, erotic, or mystic character, which were written down on the spot from the mouths of the natives, and often by the natives themselves who had acquired the art of writing. But in attempting to translate them I have found difficulties which to me were almost insurmountable, although I had the aid of intelligent natives. One of the chief of these difficulties was, that many of their songs, especially those of a religious character, contain numerous words which would seem to be now lost, or, at least, their meaning is no longer understood. They are, perhaps, the ruins of an ancient tongue, which was either the

foundation of the different dialects which we now find dispersed over so great a space, or it was the language of the priests. Of this class is the pihe, or celebrated funeral ode, already communicated, of which I can indeed translate many words and phrases, yet its meaning is at parts all but unintelligible. It embodies, no doubt, a portion of the mysterious creed of Maui, and of a legislation, the traces of which are found spread over so many of the Polynesian islands, and of which we can give so little account. The religious idea, an opposition of life and death, and of this and another world, seems evident. In other songs the aphoristical and unconnected character, the occurrence of names and local allusions, the entirely novel mode of expression, present obstacles to their translation. A mere superficial knowledge of the language is here insufficient: we must enter deeply into the native's way of thinking, must associate with him during many years, and must comprehend his feelings and emotions by participating in them, in order to obtain from a collection of poetry a history of the Indian mind. I will here, however, give one or two specimens in confirmation of my view.

To begin with their proverbs, which afford a fair specimen of the difficulty attending the translation of New Zealand compositions into our language, and their figurative manner of expression. I subjoin a literal translation under each word:—

1.—No te uri o te Arawa koe.
Of the family of the Arawa thou.

According to the tradition, one of the canoes in which the first settlers arrived in New Zealand was called "Arawa." In that boat, whilst the husband was at the head, a man in the middle of the boat seduced his wife, upon which the boat, highly indignant, immediately stopped, and refused to move on until the guilty person had been punished. It is clear thence that " to be of the family of the Arawa" means to be a person that breaks a trust, and the proverb is accordingly used in speaking of a cheat and a liar.

2.—Tou kai waewae he tuku mai ki ahau kia a bringing hither that Thy life feet kuwaru atu e árotau ana think I shall a love being hither.

The sense is :- What is real (life) are only his feet: he brings them to me: may I delude myself that this is continued love?—evidently an antithesis, the first part: the reality, the lover's presence, arrival (feet), and opposed to that a mere thought, imagination, untruth; his continued love.

- 3.-He takapau pokai nga uri o paheke. son of hardness. mat rolled the
- "Son of hardness" is here, as in Hebrew, used adjectively; hard, like a rolled-up mat. applied to unfeeling avarice.
  - 4.-Na huhu na wera to kai e mangere na. of fire thy food a lazy (affix).

This is applied to a lazy fellow that eats much. The sense is less clear. The first words, "of the grub," answer to the French genitive partitive, meaning thy portion ought to be grubs; grubs being eaten by the New Zealanders when in want of food produced by their industry. These grubs they roast, so that the general sense will be: Take grubs from the fire; that is thy food, lazy fellow.

5.—Ta te tangata kai he kai titongi kaki mahi
The man's food a food a waste full work
(genit. possess.)

E tona ringa tino kai tino makona. His hand plenty food plenty filling.

The proverb is applied to a man that, having been invited by another, leaves his house with an empty belly. The sense is: This man's food is a full waste, a mere nothing; but if a man is laborious himself, he will always have plenty of food and plenty of filling for his belly.

6.—Hohonu kaki papaku uaua to kakawai ngako nui
Deep gizzard thin sinews thy salmon fat much
To aroaro tahuri ke.
Thy face turn away.

This also alludes to a man desirous of eating much and doing little. The original contains a kind of parallel much in the manner of Hebrew poetry. In the first part there is an antithesis, namely, an ample stomach and puny sinews, that is to say, much voracity and little strength or little inclination for work: in the second part there is another antithesis; first, a fat salmon, and then the impossibility of eating it by turning away the face;

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as if it had been, There is a fat salmon for you: but you turn away your back; how can you eat it?

7.—Ki tata ki tau ke. To approach in a year.

This is another of their favourite antitheses: You say you will come *soon*—yes, in a year.

8.—Ta raua he kaka kau akitahaki tena titiro For them the fibres only throw down that Iho ka puehuehu tana waiaro ma Down it is mealy before himself put that.

This saying is used by a free man who discovers his slaves eating the best (i.e. the mealy) fern-root, and leaving for their master that which is stringy. The sense is easy, if we bear in mind that only the mealy fern-root is eatable, and the stringy and fibrous unfit for food. The master, therefore, says: For fellows like you, the fibrous; well, the stringy parts (unfit for eating) fling down, slave, to the ground (ironically): they are mealy; pick them up, and put them before your mouth and eat them."

The following He Waiata Aroha, or Love-Song, expresses loneliness and despair. A woman complains in it of the faithlessness and desertion of her lover. It is sung, without action, in a low, plaintive, and not unpleasing tune:—

He Waiata Aroha.

Tera te wetu tutaki ata
There (at a distance) the star meeting morning

Ka moiri kirunga, tuku iho kiraro.

Has risen above, descends down below.

He mea nei Hapai ka

thing (person) there, Hapai (a name of a man), will approach

ki tawiti at a distance:

E te ngakau hoki e wawatai i te ahi-ahi The heart is broken in the evening:

Ko wai kia hoki me wakatitahatia ra Who truly will return and (if) leaning

Hei Waihoura, hei a te Ripera,

Here Waihoura (a woman's name), here to

> te moenga takakau here the bed friendless,

He moenga takakau. The bed of a virgin.

E kore e tahuri mai ka taiakotikotia nga mea Not turn to me worn out things (person)

i ahau nei mine. but

au ki tawiti Kati to a distance. Enough sail I

Taihoa ahau e hoki ki taku moenga tupu

Soon I return to my bed born (birth-place), Kia poutu te marama, kia hina. pouri

When dark the moon, when threatens darkness comes.

The division of the song is in the following manner:-

Tera te marama tutaki ata Ka moiri kirunga, tuku iho ki raro He mea nei Hapai ka tatata ki tawiti E te ngakau hoki e wawatai i te ahi ahi Ko wai ra kia hoki me wakatitahatia Hei Waihoura hei ate Ripera, hei te moenga takakau E kore e tahuri mai, ka taiakoti Kotitia nga mea i ahau nei

Kati hoe au ki tawiti Taihoa e hoki ki taku moenga tupu Kia poutu te marama, kia hina pouri mai.

Yonder is the star, meeting the morning,
Which has risen on high, and will descend below.
Hapai must soon approach from afar.
Alas! Love broke my heart in the evening;
But will he return to me, if he loves Waihoura?
If he leans over the bed of Ripera
He will never turn his eyes to me;
I am old and worn out.
But I will sail far away,
And will return to my birth-place,
When night comes on, and hides in darkness.

# The following is a modern nursery-song:—

e tangi kati ra E Hohepa te tangi truly Joseph crying enough the Me aha taua i te po For what the night we at i po kauwau te night preaching, Praying at the te kokiri koe ki wai Me Horana, For thou in the water Jordan, Kia murua te kino, kia That be washed off the bad that may be taken away te hara. the fault. E tama, 0 child,-Me kawe ake koe ki ia te ware te Tana, And carried thou in the house of Turner, that Kia tohutohungia puka puka ki te rata That you may be shown the letters book Te upoko tuatahi te upoko i a Kenehi The book first the book in the Genesis

Te rongo pai o Matui The message good of Matthew

Kia wakamatau ai That may understand

Kia kite te kanohi o te tinana That see the light of the body

E tama, e o son,—

### Translation.

Joseph, you cry; but dry your tears.

What shall we do on the night of the prayers,
On the night of the preaching?
You must be dipped in Jordan's stream,
That your sins may be washed, that your faults may be taken away,

My son, my-

You must be carried to Turner's house,
That you may be shown the letters of the book,
That you may read
The first chapter of Genesis,
The gospel of St. Matthew,
That you may understand,
That your eyes may see the light of the body,
My son, my—

### He Waiata Aroha.

Ka waia te kanohi ki te putanga mai Nga taumata ra o wakapau mahara He manu koa nga au e taea te rere atu E taea te hoka hoka hari rau mohoku Kino ai tatou ki te noho tahi mai Ka motu au ki tawiti ka rau aku Mahara no te roimata ra e paheke i aku kamo.

(Translation.)

A Love-Song.

My tearful eyes are overflowing;
The bridal-day takes away my thoughts;
A joyful bird comes to me in quick flight,

In his claw (hoka hoka, fork, beak?) he brings
To me a salutation (hari ray perhaps equivalent to the

To me a salutation (hari rau, perhaps equivalent to the English "How do you do?")

I have finished: my thoughts are at a Distance: tears are under my eyelids.

As a specimen of native epistolary style I will give the following letter from the chief E Reweti, at Waitemata:—

E hoa E Paki,-

Kia ronga mai koe! Kua mate taku wahine eonu nga ra kahore ano i kai kotou aroha kiau kia homai e rongoa motaku hoa kei tona matenga te mate kei tona tinana i penei te kapura e hoa ki aroha koe ki toku hoa kia mai e koe he rongoa.

Heoi ano,

NA TE REWETI.

(Translation.)

Friend Dieffenbach,-

Listen to me! My wife is ill six days; she does not eat at all; you all love me, and give me therefore medicine for my companion; her head aches, and in her body she has the fire (fever). Friend! have love to your friend, and give medicine to me.

That is enough from

TE REWETI.

The following (the fifty-second chapter of Isaiah) may serve as good specimens of translations into the New Zealand language:—

# Upoko 52.

Maranga, maranga; kakahuria to kaha, e Hiona; kakahuria o kahu wakapaipai, e Hiruharama, e te pa tapu! Heoti ano hoki te haerenga mai ki a koe o te mea kokoti kore, o te mea poke.

- 2 Ruperupea atu te puehu i a koe, wakatika ake, noho iho, e Hiruharama: wetekina atu te mekameka i tou kaki, e te tamahine herehere o Hiona.
- 3 E penei mai ana hoki te kupu a Ihowa, Kua hokona kautia atu koutou e koutou ano; na, ehara i te moni mana koutou e wakahoki mai.
  - 4 Ta te mea hoki e penei mai ana te kupu a te Ariki, a Ihowa,

I haere atu toku iwi ki Ihipa i mua, ki reira noho ai; na, ka wakatupuria kinotia noatia ratou e te Ahiriana.

- 5 Na, he aha ra taku i konei, e ai ta Ihowa; ka kawakina kautia atu nei hoki toku iwi, tangiaue ana ratou i o ratou rangatira, e ai ta Ihowa, a, wakahaweatia tonutia ana toku ingoa, i tenei ra i tenei ra.
- 6 Mo konei ka mohio ai toku iwi i toku ingoa: mo konei ka mohio ai ratou, i taua ra, ko a hau te korero nei, rere, ko au nei.
- 7 Ano te ahuareka o nga waewae, i runga i nga maunga, o te kai kawe i te rongo pai, e kauwau ana i te maunga rongo; e kawe mai ana i te rongo wakahari o te pai, e kauwa ana i te oranga; e mea ana ki a Hiona, Ka kingi tou Atua.
- 8 Ka wakanuia te reo o o tutei; ki te reo e waiata ngatahi ai ratou; ta te mea hoki, ka kite atu ratou he kanohi, he kanohi, ua wakahoki a Ihowa i a Hiona.
- 9 Kia rere ngatahi koutou ki te hari, ki te waiata, e nga wahi o Hiruharama kua ururuatia; kua wakamarie hoki a Ihowa i tona iwi, kua hoko i Hiruharama.
- 10 Kua huhu a Ihowa i tona ringa tapu ki te aroaro o nga tauiwi katoa, a, ka kite nga pito katoa o te ao i te wakaoranga a to tatou Atua.
- 11 Maunu, maunu, haere atu i reira; kaua e wakapa atu ki te mea poke: haere atu i roto i a ia; kia ma koutou e mau ana i nga oko a Ihowa.
- 12 Ta te mea hoki, ekore koutou e haere potatutatu atu, ekore ano hoki e tuawati ta koutou haere; no te mea ka haere a Ihowa i to koutou aroaro; ko te Atua hoki o Iharaira hei hiku mo koutou.
- 13 Rere, ka mahi tupato taku tangata, ka wakatiketikea, ka wakanuia, ka wakakakea rawatia.
- 14 Me te tini i miharo ki a koe, (no te mea i kino iho tona kanohi i to te tangata, tona ahua hoki i to nga tamariki a te tangata;)
- 15 Waihoki, ka tauhiuhia e ia nga iwi maha; kopi tonu te waha o nga kingi ki a ia; ta te mea hoki, ko nga mea, kahore ano i korerotia ki a ratou, ka kitea, ko nga mea hoki kihai i rangona ka wakaaroaroa.

# The Lord's Prayer.

E to matou matua i te rangi, kia tapu tou ingoa tukua mai tou rangatiratanga.

Kia meatia tou hiahia ki te wenua me tou hiahia i te rangi. Homai ki a matou aianei ta matou kai mo tenei ra.

Murua mo matou o matou hara, me matou hoki e muru ana mo ratou e hara ana ki a matou.

Kaua matou e kawea atu ki te wakawainga, otiia wakaorangia matou i te kino: Nau hoki te rangatiratanga, me te kaha, me te kororia, ake ake ake. Amine.

### SENTENCES.

What is your name?
Where do you come from?
When do you go back?
How many days do you stay in

that place?
You stay here till I come back,
and mind what I say to you.

Do not let any one come into the house.

Who gave you this thing?

Where was it? Where from?
We have not seen.
Where are you all?
Well, what do you all say?
It is not good for us.
The things I have to do keep
me from coming to see you.

Do not be confusing me with your questions. Speak straight, and do not talk so fast.

Tell me your wants, and perhaps I can give you something.

Tell me your mind on this subject.

How long have you left that place?

I am going a long way off.

Kowai tou ingoa? I haere mai koe ihea? Mo ahea koe hoki ai?

Kiahia nga ra enoho ai koe i tenei kainga?

Enoho koe kikonei ki hoki mai ahau kia mahara koe ki taku kupu.

Kaua tukua mai tetahi tangata ki roto i te ware.

Na wai ho atu tenei mea kia koutou?

Nohea koia?

E kore e kitea a matou.

Kei hea koutou?

Na, he aha tou koutou korero?

E kore e pai kia taua.

E pohehe ana ahau i aku mahi no reira ahau te haere mai aha te titiro i a koe.

Kaua ahau e wakapohehetia kiau kupu, kia tika toe korero kaua wakahohorotia toe korero.

Korero mai koe ki au e hiahia ai koe, maku pea e oatu tetahi mea kia koe.

Au mai toe wakaro ki tenei mea.

Nonahea koe i wakarire ai tera kainga?

Haere atu ana ahau ki tawiti.

Go in peace, farewell.

Friends, where are you going?

What is it to us?

I will not give it.

We are going a-fishing.

Why do you make me speak so angrily to you?

I am surprised you have no shame.

You are as lonely as a shag upon a rock.

Here is thy load.

Soften thy anger towards me.

I told him to give the dog food.

My son is asleep; make no noise.

Ask thy friend.

And he said to me.

Show me how much land you have here; where it begins, and where it ends; and how many chiefs are there that own it.

And tell me all their names.

Friend, do not be angry with me.

Who is this? Who is that?
Who is that woman?

Give me some food.

I am sick for want of a draught of water.

I am coming ashore.

A great deal of anger.

It is very true; he will not come.

Whose vessel is that in the harbour?

You have sold yourselves for nothing.

Do not tell anybody of this.

Haere marie, hei koe ra.

Emarama, haere koutou keihea?

Heaha tenei kia taua?

E kore ra ahau ho atu.

Ka haere e matou ki te mahi ika.

Mo te aha koe i mea iau kia kupu riri ai ahau ki a koe?

E miharo ana hau ki a koe e kore wakama nou.

E moke moke ana koe me te kauwau irunga i te toka.

Tenei ano tou pikau.

Wakarangimarie to riri kiau.

Ka meatu ahau kia ia oatu tetahi kai ma te kuri.

He moe ana taku tamaiti; kaua he tutu.

Ui atu ki tou hoa.

A ka mea ia kia au.

Tohu tohungia mai to kainga i te nuinga i te timatanga, i te mutunga, ehia hoki nga rangatira e tutana tenei kainga.

A korero tui mai o katou ingoa. Emara kati tou riri ki ahau.

Kowai tenei? Kowai tera? Kowai tera wahine?

Ho mai tetahi kai ki ahau.

Ka mate ahau ki te inumia te wai.

Ka haere mai ahau ki uta.

E nui rawa te riri.

He pono ra hoki; e kore ia e taea.

Ko wai koia tera kaipuke ki te kokororuitanga?

Kua hokona kautia atu koutou e koutou ano.

Kaua e korero kia ratou o tenei mea.

Why do you make me speak so angrily to you? I am surprised; you have no shame.

I tell you the straight way of talking to these strangers, for you do not understand their ways.

Look for the thing, and don't come here till you find it, or I shall be angry with you.

We have no persons to show us the road; we will give payment if one man will show us the road, for we have lost it.

Don't tease me, but let me sleep.

I am angry with these fleas; they make me itch.

Run like a rat up a patuka.

Your legs are too weak to carry your body.

Your breath smells.

A brave man fights, and looks his enemy in the face; but a coward runs away.

A coward will kill his enemy treacherously; but a brave man would die of shame if he did so.

Does your eldest son have your land when you die?

Or your daughter, or the husband of your daughter?

We came to Kareka, and gave the people four heads of toMo te aha koe i mea iau kai kupu riri ai ahau ki a koe, e miharo ana hau ki a koe e kore wakama nou.

E korero atu ana ahau kia koe i te kupu tika, e korero mo ki enei tou hoe, mo te mea kahore koe i matou ki nga ritenga o enei tau hoe.

Ki mira ki te mea kaua koe haere mai kia kite ana te mea me mea kahore ka eriri aha kia koe.

Kahore kou e tangata e tohu tohu i te ara a me oatu tetahi utu ki tetahi tangata me a mea ka haere ia ki te tohu tohu i te ara, kua ngaro poki a matou.

Kaua wakatoia ahau, otiira me tukua ki a moe ahau.

E riri ana ahau ki enei purui e mungea noku.

Me oma koe me te kiore irunga i te patuka.

Engoi kore au ou wae wae ki te hapai toe tinana.

Ka pirau toe maniwa.

Ko te tangata e tou ana e riri ana ka tiro ia tona hoa riri ki te eanou otira ko te koau eoma ana, e waka rire ana ona hoa.

Ko te koau e kohuru ana tona hoa riri tena ko te tangata toua, e mate ana ia i te wakama mo tera kohuru.

Ka mate koe ka houri eriro toe wenua i toe tamaiti mata mua?

Toe tamahine ranei te tane ranei o toe tamahine ranei?

Hae mai matou ki Kareka, a oatu ana ki nga tangata ewa bacco for carrying some things from Terawera, and they were bad enough to steal two shoes.

We shot a pig, and left an iron pot as payment for it; we had no potatoes, but lost our road, and came to a plantation where we found plenty.

I told him to give the dog food.

He told me he would do so.

It was good for me to stay, for I should have lost my things if I had left them.

Shake the blanket.

Here is thy load.

The ship's bread is hard.

A scenting thing.
Go thou away.
Ask thy friend.
Walking naked.
I am waiting for thee.
The wind blows.
A cold wind.
A scorched face.
The water boils.
A bowsprit.
The man is come near.
And he said to me.
Put some water into the pot.

Put some of both in.
Don't give it to him.
Don't be in a hurry.
You are joking.
Don't bother me.
Be careful with that thing.
Don't be angry.
Which is the road?
Is this a bad road?

toa nga wire te tupeka e utu mau ratou hoki kouwi tetahi ra matou mea a tahae ana ratou ia mato e hu.

Puhia ana tetahi porka e matou a waihua iho ana tetahi kohua e utu, kahore kou e rewai o matou kua mahue tou matou ara a tai mai ana matou tetahi kainga hua kai.

Ka meatu ahau ki aia oatu tetahi kai ma te kuri.

Nana i mea mai maua i mea.

E mca tika ki enoho a au, me mea e mahua ana ana aku mea ka mahue.

Rui ruiha te paraketi.

Tenei ano tou pikau.

He mea pakeke te taro kaipuke.

He mea kakara.

Haere atu koe.

Ui atu ki tou hoa.

He haere kau ana.

He tatari ana ahau ki a koe.

He pupui ana te hau.

He hau makariri.

He mata wera.

He korupupu ana te wai.

He rakau mo te ihu.

Ka puta mai te tangata.

A ka mea ia ki a au.

Panga tetahi wai ki roto ki te

Panga tetahi o tetahi ki roto.

Kaua e oatu kia ia.

Kaua ehohoro.

Ehanga reka ana koe.

Porearea tahi ahau.

Kia mahara koe ki tera mea.

Kaua koe te riri.

Ko tehea te ara?

E huarahi kino tenci?

Is there much wood there? Are there many people there? When will you go? What do you come for? What are you so unkind to me

You have a bad heart. Why did you steal from me? Don't stop here. Let us get there before night. Can we get there by night.

Let us travel at daylight. Call me at daylight. Wake me at sunrise.

Let us get to the end of our journey by sunset.

sunset?

How many days will it take us to Turanga?

Where can we buy food on the road?

Make a fire and cook some food.

Give me that first. Their village, or place. This is for you. I gave it to him. I will give it you. Did I give it you? When will you get it me? When will he come? Tell him to come directly.

By and by you will see. Drive them out. Is it a short road? Always lying down. Will he not leave it? You are lazy.

E nui ana ra nei te wahi? E tini ra nei nga tangata i reira? A hea koe haere ai? E haere aha mai? Eha tou i atua mai kia hau?

E ngakau pakeke tou. E haha koe i tahae ai? Kaua e noho ki konei. Kia hohoro tatou te tae rewa po. Ko tae ranei tatou ki reira i mua o te po.

Me haere tatou i te atatu. Karangatia a hau i te atatu. Waka arangia ahau i te witinga

mai o te ra. Kia hohoro ta tatou haere kei

wato te ra. Shall we get to Roto-rua by Ka tae ranei tatou ki Rotorua

ki te tonga o te ra? Ehia o nga ra ka tae tatou ki Turanga?

Ki hea tatou hoko tami ai?

Hanga tetahi ahi ai tunu kai mo tatou.

Matua au mai tera. Ko te tangata nana te kainga. Mau tenei.

Naku e hoatu ki aia.

Maku e oatu. Naku ranei i hoatu ki a koe? Ahea koe tiki ai te mea maku? Ahea ia tae mai ai ia?

Karangatu kia ia ki ho horo mai.

Ka kite koe amua. Wiu oatu. E huarahi poto tenei? Tokata tono. Ekore i anei waiho? Mangeri ana koe.

My head is greasy. A thin pig—funny. Why do you stop? I can't stop. It will be spoilt. I have lost it. Coming for nothing. Don't wet it. Why don't you listen? A dry thing. A wet thing. An old man. An old woman. What of it? Who said it? I am idle. Stand it up. Drive it down. For you. The flies are gathering round. Five days ago. Four days ago. Three days ago. The day before yesterday. The day after to-morrow. Two days after to-morrow. Three days after to-morrow When did he do it? Why does he do it?

Does he think I am a fool?
I will not give it.
Has he no shame?
You talk nonsense.
Whom did he give it to?
He gave it to me.
Who did it?
It does not belong to him.
I will give it to you by and by.

Why did he tell me?

E inu tako mahunga. Poaka iwi kau-hangareka. Eaha koe inoho ai? Ekore hau inoho. Ka kino hoki. Kua ngaro iahau. Mau mau haere noa mau. Kei wakamakuku rea. I te aha te rongo ai? E mea maroke. E mea maku. Koroheki. Kuruhi. Eha rua? Na wai ki? E weto. Wakaturia. Patua ihu. Mau ano. Meui meui e ngaro. Ina waki nui atu. Ina waki. Ina tetahi ra. Ina tai ra. A te tahi ra. A waki. A waki nui atu. No nahea iai mea ai? Mo te aha ia i mea ai? Mo te aha ia i korero mai ki ahau i mua? E mea pea ana ia e kuare ahau? Ekore ahau e hoatu. Kahore ona wakama? E korero hangareka ana koe.

I hoatu eia kia wai?

Naku i hoatu ki aia.

Maku e hoatu kia koe a mua

Na wai i mea?

mua ake.

Nana i hoatu kia hau.

Why does he not do it? Do not stop there. It is good to suck. It will bite your finger. It is as dry as a stick. It smells like fish. It has long teeth in its mouth. He cries very often. That's wrong. You tell a story. Do not do it. Why don't you listen to me? He said to me. She said to me. Have you eaten? I doubt it. Is it true? You will be drowned in rain. Are you his slave? Do that first, and don't be lazv.

How many men went to that fight?
You are always grumbling.
How many days have you been sick?

Is it yours or your friend's?
What did you give for it?
When did you get it?
I will get it for you.
Don't be suspicious.
Let us two keep together.
If I say I will do it, it is true.
Let us keep close together.
Don't run away from it.
It will not hurt you.
Is the road like this one all the way to your place?
How do you cross the rivers?

Kaua enoho kireira. E mea pai ki te momi. Ka ngaua toe ringa ringa. E mea maroke me te rakau. E mea haunga me te ngohe. E niho roa ki roto i tona mangai. E tangi tonu iaia. Ka hae tera. Ka hae koe. Kou waka e mea tia. Mo teaha koe tae hirongo? Ai ki au. Eki ki au. Ko kai koe? E kore i ahau wakapono. E pono ana? Ka mate koe te ahu. E taureka reka koe nona? Meatia tenei kia tuatai kaua mangeri. Toko hia e haere ki tera taua nga tangata? E amu amu tonu ana koe.

Mo te aha ra te mea ai?

Nau ra nei, na toe hoa ra nei?
Eaha te utu i oatu akoe?
No nehea e riro ma ia koe?
Maku e tiki mau.
Kaua koe e tupato.
Ki ara tahi taua.
E pono ana tako ki.
Ki haere tahi tatou.
Kua ua eoma no tera mea.
Ekore koe mate ki tera.
E rite tenei ara ki tera haere noa ki toe kainga?
Me pewea te wakawitinga ki te

awa?

E hia nga ra mate ana koe?

Give me that thing first, for you are deceitful.

Will you go, if I go?

I am surprised at you!

When did you wash your clothes?

You are lonely.

Keep close to me.

Dont stay behind.

Let us make haste.

Is the food done?

Empty it out.

Tie that up.

Untie that.

Wait till evening.
Middle of the night.

Did they come here to fight?

How many did they kill?

Did they take many slaves?

Where are all the people gone to from this place?

What is the name of the tribe?

You have no shame.

Do you recollect?

Cause yourselves to recollect.

I have lost it.

You find it.

I left it behind.

Look this way.

Fix this tent.

We say that we shall return.

They are all gone.

Are the things fixed or arranged?

A decoy, as stratagem.

I went in twice.

I went in.

Ask him.

Matua au mai tera, e tangata tenihanga koe.

Ka haere koe, me mea ka haere

E tino!

Nona hea koe i orohia i eo ka

E moke moke ana ki akoe.

Ki a pu mau koe ki ahau.

Kaua e tatari ko ki muri.

Kia hohoro tatou.

Kua mawa ra nei te kai?

Ringitia.

Herehia tera mea.

Wetekine tera.

Tarie ki ahiahi.

Wanganui po.

I haere mai ra nei ratou ki te

E hia nga tangata patua e ratou?

Hangohia ranei e tini o nga taureka reka?

Kua riro nga tangata a tenei kainga kihea?

Kowai te ingoa o tenei hapu?

Kahore ou wakama.

Ekore koe mahara?

Wakamaharatia koe. I ngaro i a hau.

Rukea.

Kua waihu e ahau ki muri.

Kia kite mai koe.

Wakaritea the ware.

E meana matou ki a hoki.

Poto rawa.

Ko mini mai te mea?

Wakahawa.

Wakapokokoko.

Wakapoko ahau.

Hui atu iaia.

To be saucy.

The things are ready.

I am the person guarding.

Listen quietly.

To lie down.

A dead person.

Who is going?

I will not leave you comfortless; I will come to you.

If you love me, keep my commandments: and if I go and prepare a place for you, I will come again and receive you unto myself, that where I am, there you may be also.

And Thomas saith unto him, Show us the Father, and it sufficeth us.

You are my friends, if you do whatsoever I command you.

Leave me here and go on to the village.

Do that first,

Tell me your mind on this subject.

When do you go back?

You like blankets and the white man's trade.

I shall come and see you soon, and will bring you some presents.

Don't let any one come into the house.

The things I have to do keep me from coming to see you.

If you want your payment, recollect what you have to do for it. Wakatoi.

Kua rite.

Ko ahau ano te kaitiaki.

Ki ata herongo.

Takato.

Tupapaku.

Ko ai nga tangata haere ana?

E kore koutou e waiho pani eahau; e haere mai ana ahau kia koutou.

Me he mea e aroha ana koutou ki ahau: a ki te haere ahau ki te taka i te wahi mo koutou, ka hoki mai ana ahau ka tangohia koutou ki ahau kia noho, ai hoki koutou ki te wahi e noho ai ahau.

Ka mea atu a Tamati kia ia Wakakitea mai te matua kia matou aka tatu o matou ngakau.

Ka koutou aku hoa ki te meatia e koutou aku e mea ai ki a koutou.

Waihu ahau ki konei me haere tonu koe ki te pa.

Meatia tera i ta tuitahi.

Au mai toe wakaro ki tenei mea.

Mo ahea koe hoki ai?

E pai ana ra koe ki te paraketi me nga taonga o te pakea.

Me ki haere mai ai ahau te titiro ia koe a maku e au mai etahi mea oatu noa.

Kaua tukua mai tetahi tangata ki roto i te ware.

E pohehe ana ahau i aku mahi no reira ahau te haere mai aha te titiro i a koe.

Me a mea e mea nakoe ki tetahi utu mau kia mahara koe, toe mahi e utu. Speak on, and so that I can understand you.

I went to Mokau, and there I saw some people from Kapiti.

Show me the road to Taupo.

Look for the holes in the road.

Must I go the right road, or the one to the left?

Mind you don't lose anything.

You are a covetous man, and do not deserve anything.

Has the chief of this place no liberality to his visitors?

I have seen many great chiefs in their villages, and they have been ashamed to show any stinginess to me.

Show me a chief that is born of a great father, and tell me who are slaves, that I may not speak angry to the chiefs.

My things are gone, and how can I give you any? I have paid them away to people on the road I came. Korero tonu, kia mohio ai ahau ki ou kupu.

I haere au ki Mokau, kite ana ahau e tetahi tangata no Kapiti.

Tohungia mai te arahi ki Taupo. Tiroia ki nga rua i te ara.

Me haere ra nei ahau, ki tera

Ki a mahara kia mahue tetahi mea.

E tangata apo koe, e kore e pai ki oatu tetahi mea ki a koe.

Kahore ra nei e atamai o tenei rangatira ki ona manuwiri?

Ka tini nga rangatira o era pa kua kite ahau e wakama ana ratou ki te kai pune ki ahau.

Tou tohungia mai tetahi rangatira tona popa e rangatira nui tohu tohu mai ina taureka reka, kaua korero wakatuka riri au ki nga rangatira.

Kua riro oku mea, a me pehea toku hoatu ki akoe ku au utua e ahau ki nga tangata i te ara i haere mai ai.

## GRAMMAR

OF THE

#### NEW ZEALAND LANGUAGE.

### PART III.

### CHAPTER I.

#### ON PRONUNCIATION.

It may be said that there exists but one language in the whole of New Zealand, with slight differences in pronunciation, and with the occasional use of different words by particular tribes for one and the same object. This arises partly from the singular custom of discontinuing (making tapu) the use of one word, and adopting another instead, which is, however, less the case in the New Zealand than in other Polynesian languages. The variations, however, are not sufficiently great to constitute different dialects.

The written alphabet of the New Zealand language comprehends only fourteen letters. The vowels retain their pure sounds, as in most languages, and the alphabet is as follows:—

```
is pronounced as a in after.
                      e in bend.
                      i in fish.
i
                      o in fort.
u
                      oo in foot.
ng
                      g, with a strong nasal sound.
h
k
m
11
    retaining their simple sounds.
p
r
t
```

#### OBSERVATIONS.

These letters express exactly the sounds as the language is spoken in most parts of the island, and especially in those where, from the slight intercourse between the natives and Europeans, it must be regarded as most pure. These letters are also used by the natives in writing, from having been adopted by the missionaries in their translations of some parts of the sacred writings.

In Cook's Straits the l often appears very distinctly instead of the r, which forms a dialectic difference between the New Zealand language and that of the Sandwich Islands, and is also very common in Greek; the b instead of the p, or the b for the w, or the d for the r. The h, as aspiration before vowels at the beginning and in the middle of words, is more frequently used in the northern than in the southern parts, which is of no importance, as it is also very often the case in other languages.

The w is not the English w, but the German: in some words it is the French v, or even the f; for instance in wenua, the land, it is in the southern parts of the island fenua, in other parts venua.

There exists a letter which cannot be expressed correctly by any of the English letters: it most nearly approaches to the th, and is formed by the tongue, but not to the same extent as the th. It is the Anglo-Saxon dh, as in that. In the alphabet the r and the d are used for it, as in the pronunciation of some natives the sound really is an r or a d; for instance—

riri . . . angry,

might also be written

ridi, or rithi.

Tongariro (name of a mountain) could also be spelled

Tongarido, and Tongaritho.

It is not essential for this difference of pronunciation that the number of letters should be increased.

The s is also an occasional dialectical difference, especially if the word begins with a vowel and an aspiration: for in-

instance, Hokianga sounds sometimes like Shokianga, hongi like shongi, and also pushi instead of puhi.

Th and dh, as difficult letters, were also dropped in Ger-

man, but were retained in English.

As regards the accent, it is, in words of two syllables, generally on the first; in polysyllabic words, generally on the penultima.

### CHAPTER II.

OF THE ARTICLE.

The definite article is e, corresponding to the. The indefinite article is e or he, or hei (probably dialectic differences), corresponding to our a or an; thus:—

te manu . . . the bird. he manu . . . a bird.

Sometimes the indefinite article is expressed by e tahi or tetahi, which means one or some.

The plural of both articles is expressed by the word nga; thus:—

nga manu . . . the birds, or birds.

In like manner, if *tetahi* is used, it is preceded in the plural by the word nga:—

nga tetahi manu . . . birds, or some birds.

It will be seen in the following chapter how the different cases of the article are formed.

### CHAPTER III.

OF THE NOUN SUBSTANTIVE.

Noun substantives are indeclinable; but the singular and plural numbers, and the different cases, are distinguished by the changes of the article.

#### SINGULAR.

			SIN	GUL	AK.			
Nom.	Te manu							the bird.
Gen.	No (or na	or o	, or	a)	te n	ianu	1	of the bird.
Dat.	Ki te man	u						to the bird.
Acc.	Te manu							the bird.
Voc.	E te manu							O bird.
Abl.	I (or e) te	man	u					from the bird.
			PL	UR	AL.			
Nom.	Nga manu							the birds.
Gen.	No (or na,	or o	, or	a) 1	nga	mai	nu	of the birds.
								of the birds. to the birds.
Dat.		nu						to the birds.
Dat. Acc. Voc.	Ki nga ma Nga manu E nga man	nu						to the birds.

The change of the vowels o and a in the article depends upon euphony, i. e., upon the vowel that precedes or follows the article. Perhaps o or a is originally the singular form and nga the plural.

If the indefinite article is expressed by tetahi, it is declined

in the same manner.

Nom. Tetahi ika .

#### SINGULAR.

some fish.

Gen.	No (or o, or a) teta	hi	ika			of some fish.
	Ki tetahi ika					
Acc.	Tetahi ika	. ,				some fish.
Voc.	E tetahi ika					O fish.
Abl.	I (or e) tetahi ika .					from some fish.
	PI	UR	AL.			
Nom.	Nga tetahi ika .					some fishes.
Gen.	No (or na, or o, or	a)	teta	hi i	ka	of some fishes.
Dat.	Ki nga tetahi ika					to some fishes.
Acc.	Nga tetahi ika					some fishes.
Voc.	E nga tetahi ika .					O fishes.
Abl.	I (or e) nga tetahi i	ka				from some fishes.

#### OBSERVATIONS.

1. No or o of the genitive case is generally used for denoting possession; thus:—

Etako's house . . . te ware o Etako.

Also to denote the place of birth, or the dwelling:

Te Pakea o Uropi . . . the stranger from Europe. E nga iwi o tawiti . . you tribes from afar.

A and na are used in expressing relationship; as:—

Te Tama a Warepouri. the son of Warepouri. Te Tuwahine na Erangi. Erangi's sister.

Or to denote an action; as:-

Te korero na Kauwau . the speech of Kauwau.

2. Very frequently, instead of these different expressions of the genitive case, to or ta is used; and in that case the construction is in the following peculiar manner:—

The village of Epuni . ta Epuni kainga. The custom of the natives to maori ritenga.

Proper names are declined in the following manner:-

Nom. Ko Etako, or Etako.

Gen. Na or no, a or o Etako.

Dat. Ki Etako.

Acc. Etako.

Voc. Etako.

Abl. I a Etako.

If the word begins with a vowel, the e of the vocative is omitted; if with a consonant, the article is e, or e te: for instance,—e Paki, oh Paki, or e te Paki.

### CHAPTER III.

#### OF GENDER.

THE gender is expressed in man, animals, and some plants by adding the word signifying male or female to the noun. It is remarkable that the natives early observed the difference of the organs of fructification in different individuals of the same tree or plant, and expressed it in their language. The words used are tane for the male, and wahine for the female; thus:—

He matua tane . . , . . a father.

He matua wahine . . . . a mother.

He pononga tane . . . a male servant. He pononga wahine . . . a female servant. He tane manu . . . . a cock-bird. He wahine manu . . a hen-bird. It is, however, more general in speaking of animals to use the words touarawa for the male, and huwha for the female sex; as:-He touarawa ika . . . . . a male fish. . a female fish. He huwha ika. . Particular words serve for expressing different relationships :-. . a younger brother. Tuakana . . . . . . . an elder brother. Tungane . . . a brother. . a sister. Tamahine. . . . . . . . daughter. Tamariki . . . . In other cases the words tane and wahine are added; as:-Hungawai tane . . . father in-law. Hungawai wahine. . . . mother-in-law. In other cases no distinction is made:--

### CHAPTER IV.

Mokopuna. . . . . niece and nephew.

. . uncle and aunt.

#### OF ADJECTIVES.

ADJECTIVES, if used without a substantive, have generally the prefix ka; for instance:

Pai . . . . . . . good. . . . . good.

When they are joined to a substantive this prefix is omitted: thus:-

Te taro pai . . . . . the good bread.

In this case the adjective follows immediately after the substantive.

If we wish to express the quality of an object, by interposing in our language the auxiliary verb to be, the latter is often omitted in the New Zealand language, and the adjective, with the prefix, is placed before the substantive; or if the prefix is given, the indefinite article e or he is placed before the adjective; for instance:—

Kapai te taro . . . . . the bread is good.

#### GRADATIONS.

A gradation, without comparison, is often expressed by a repetition of the root, as in Italian; thus:—

Pai . . . . . . . . good. Paipai . . . . . . very good.

Or by adding to one of these forms the auxiliary verb waka:—

Wakapai . . . . . good.
Wakapaipai . . . . very good.

Or by adding the word tino, much:

E paki te ra . . . . the day is calm.
E tino paki te ra . . . the day is very calm.

A gradation is also very commonly formed by the words nui (large) or nuinui, contracted nunui; or by the words nohi or nohinohi, contracted nonohi; thus:—

He puke nui . . . . a high hill.

He puke nunui, or nuinui . . a very high hill.

He waka nohinohi . . . a very small canoe.

Sometimes it is expressed by the word rawa:

Ka riri rawa ia . . . he became very angry.

#### COMPARATIVE DEGREE.

### 1. Comparative of Equality.

This is formed with the adverbs penei (like this) or me (a conjunction meaning and); thus:—

He Rangatira nui ko Heu Heu me (or penei) Rauparaha. Heu Heu is as great a chief as Rauparaha.

### 2. Comparative of Superiority.

It is formed with the word ake:-

Nui . . . . . . great.

E nui ake . . . . . greater.

With the word atu:-

Rahi . . . . . . . great.
Rahi atu . . . . . . greater.

Or it is expressed by the word nui (great) on one side, and the word iti (little) on the other, which is the most simple way.

In the first and second cases the conjunction i, which may be regarded as the ablative of the article, or me (and), follows

the comparative.

Thus the sentence, "this boat is larger than the other," may be expressed in the following different ways:—

He nui ake tenei waka i (or me) tenei.

He nui atu tenei waka i tenei.

He nui tenei waka, he iti tenei.

Or :-

He waka nui ake tenei i tena.

He waka nui atu tenei i tena.

He waka nui tenei, he iti tena.

### 3. Comparative of Inferiority.

It is expressed negatively in the following manner:-

The tribe of the Nga te Awa is smaller than the tribe of Wai-kato.

E kore hoki ko te iwi Nga te Awa e nui i te iwi na Waikato.

The tribe of the Nga te Awa is not so large as that of the Wai-kato.

It may also be given by the word nui (large) on one side and iti (small) on the other:—

E nui ko te hapu Waikato, e iti ko te hapu Nga te Awa.

#### SUPERLATIVE DEGREE.

The superlative is formed—

1. By the word rawa being added to the adjective.

2. By the word rahi; for instance:-

Te kaipuka nui rawa . . . .

Te kaipuke nui rahi . . . the greatest ship.

#### CHAPTER V.

#### OF THE VERBS.

THE conjugation of verbs in the New Zealand language is attended with little difficulty, on account of the noun substantive serving also to express the verb; or rather, the verb is the principal word of the language, the infinitive being the root from which the noun is derived; thus:—

E karanga . . . . . a call. E karanga ahau . . . . . I call.

But there are certain particles in the language, which, although often omitted, appear to be of use in the formation of the verbs, and may be regarded as auxiliary.

These particles are ana, ano, hoki, ra, or ra hoki. In adding one or several of these and the personal pronoun to the substantive, the latter is at once transformed into a verb; for instance:

E mohio . . . . a knowledge, or I know.

E mohio ana ahau . . . I know. E mohio ana ano hoki ahau . . I know.

E mohio ano . . . . . I know.

It seems to depend greatly upon euphony which one of these particles is chosen, or how many of them; and such is the simplicity of the language, that they, together with the personal pronoun, may be omitted; and the mere root serves in this case as a verb.

### Auxiliary Verbs.

Not less simple are the auxiliary verbs to be and to hure, both of which are generally omitted; for instance:—

Kei hea koutou? Where you all? Where are you all? He aha tenei kia taua?
A what that to us?
What is that to us?

He wakapaipai tou kakahu.
A very beautiful thy mat.
Thy mat is very beautiful.

Ka nui taku aroha kia koe.
(It is) great my love to you.
I love you much.

He ware pai ki ahau.

A house good to me.

I have a good house.

Sometimes, especially in giving an answer, the particle ano or ra may be regarded as the auxiliary verb, and may be translated by "it is," or "truly;" for instance:—

Emarama apopo e matou ki te mahi ?
Friends to-morrow you to the work?
Friends, will you work to-morrow?

Kahore, e ra tapu ano apopo. No, to-morrow is a sacred day.

### Of Active and Passive Verbs.

A distinction is not always made between passive and active verbs; the passive, however, is in most cases formed by adding a syllable to the infinitive of the active verb.

1. The syllable most commonly used for forming the passive is tia; for instance:—

2. In other cases it is the syllable hina:-

Aroha . . . . loving.
Arohahina . . . . beloved.
(Also arohatia.)

0	*			
'4	In	others	ma	•
U.	717	Officia	1000	

Arahi.				guide.
Arahina				guided.
Aki .				tossing.
Akina				tossed.
Rongo			6.	hear.
Rongona				heared.

#### 4. In others hia:-

Wakatangi .		•		sounding.
Wakatangihia.		T.V.		sounded.

#### 5. In others a:

Wakapoto.				shorten.
Wakapotoa			1.	shortened

### 6. In others mia, or ngia.

I have not been able to determine upon what depends the choice of any one of these affixes: often one is taken arbitrarily for the other, and custom and euphony seem to decide it.

In the Vocabulary I have endeavoured to give the passive forms most commonly used.

### Of Impersonal Verbs.

They are infinitives or roots, with the particle ana, which is again the auxiliary; thus:—

E ua ana . . . . a rain it is, or it rains.

### Of Causative Verbs.

It is a peculiarity of the New Zealand language that, by prefixing the particle waka, a causative verb can be formed from any verb; thus:—

Rongo .				hear.
Wakarongo				cause to hear or listen.
Matau				to know.
Wakamatau .	30			cause to know or teach.

In most cases waka corresponds to the French "faire." This peculiarity enriches the language without complicating its acquisition, as, from knowing a simple root, which is substantive, adjective, and adverb, the verb can be formed

by merely adding a particle; and from the verbs not only its abstract substantive, but also the causative verb and its abstract substantive can be formed. Although not strictly belonging to this place, it will not be amiss to mention that the abstract substantive is formed from the verb and causative verb by the words nga, tanga, or ranga, or kanga. An example will illustrate this etymology in the shortest manner:—

Marama . . Subst. . . moon, light. . . Adj. . . light, clear. . . Adv. . . peacefully, clearly. Marama ana . Verb . . . to be light. Maramatanga . Abstr. sub. . light. Wakamarama . Caus. verb . to enlighten. Wakamaramatanga Abstr. caus. sub. enlightening. Matau . . Adv. . . knowing, knowingly. Matau . . . Verb . to know. Matauranga. . Subst. . . understanding. Wakamatau . Caus. verb . teach. Wakamatauranga Abst. caus. sub. doctrine.

In the formation of abstract substantives the New Zealand language is not of an inferior order, and at the same time its derivations from one root are characterised by great simplicity. Which of the three affixes is used depends upon custom, perhaps upon a dialectic difference. The abstract substantive very often signifies the time or the occasion when an act is done.

To return to the conjugation of verbs.

### Active Verb.

#### MOODS AND TENSES.

The present tense of the infinitive mood is nothing else than the substantive; thus:—

Kakino te tahae . . . . it is bad to steal, or bad is the theft.

The past infinitive is formed by changing the construction:

Ka korero ia i kai ai tangata. . he acknowledged to have eaten human flesh.

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The participle is formed with the particle ana:—

E korero ana . . . . . speaking.

Also with the syllable ka; for instance:—

Ka korero ia . . . . him speaking.

The present indicative is formed from the participle with the personal pronoun; thus:—

E aroha ana ahau . . . I love.

But ana may be omitted, or it may be used with another of the customary particles—ano, ra, ra hoki; or the latter may be used alone, as already observed.

The past tense is formed by prefixing the syllable *kua*; for instance:—

Kua kite ahau . . . . I saw, or have seen.

The past tense can also be formed by the syllables i and ai, or one of them alone; thus:—

Taku matua ahau i karanga . . my father has called me. Taku matua i karanga ai ahau.

I rongo ai matou . . . . we have heard.

The future tense is formed by the syllable ka, or the syllable ai, or by both together; for instance:—

Kai ai ahau
Ka kai ahau
Ka kai ai ahau

The imperative either is merely the root of the verb, or is formed by the syllable ka or kia being prefixed to it:—

Kia tu ngatahi taua . . . let us stand together. Kia tata mai kira au . . . let him come near to me.

The subjunctive mood is formed by prefixing the syllable kia, and affixing the syllable ai to the verb:—

Kia hoatu ai ia . . . . that he may give.

The conjugation of the causative verbs is the same as that of the active verbs.

I will now give an example of the conjugation of verbs.

### CHAPTER VI.

### EXAMPLES OF THE CONJUGATION OF VERBS.

#### EXAMPLE.

Te kai . . . To eat.

### INDICATIVE MOOD.

#### PRESENT TENSE.

					SING C BRIE.
E	kai ana	ahau			. I eat.
		koe .			. Thou eatest.
		ia .			. He eats.
			FIR	ST	OR ABSOLUTE DUAL.
		taua .			. We (two only) eat.
					. You —
					. They ——
			SECO	OND	OR RELATIVE DUAL.
E	kai ana	maua			. We (two on our side) eat.
			FIRS	то	R ABSOLUTE PLURAL.
		tatou			. We (all together, more than two) eat.
		koutou			
		ratou			. They
					OR RELATIVE PLURAL.
	2	matou			. We (all on our side) eat.
				P	PAST TENSES.
					SINGULAR.
K	ua or ka	kai aha	ıu		I have eaten, or I was eating, or I had eaten, or when I was eating.
		koe			. Thou hast eaten.
		ia	(00)		. He has eaten.
			FIR	ST	OR ABSOLUTE DUAL.
		tau	a.		. We (two only) have eaten
					· You —
					. They

#### SECOND OR RELATIVE DUAL.

Kua or ka kai maua	We (two	on our side)	have eaten.
--------------------	---------	--------------	-------------

#### FIRST OR ABSOLUTE PLURAL.

tatou .	We (all toge have eaten.	ther, more tha	an two)
 koutou .	. You		
ratou	They	of the	

#### SECOND OR RELATIVE PLURAL.

Kua or ka kai matou . . . We (all on our side) have eaten.

#### ANOTHER FORM OF THE PAST TENSES.

I kai ai	au . koe		I have eaten. Thou hast eaten.
			He has eaten.
		And	so on.

### FUTURE TENSE.

### SINGULAR.

Ka kai au (ahau), or kai ai ahau, or ka kai ai ahau . I shall eat.	
koe . Thou shalt eat.	
ia . He shall eat.	
FIRST OR ABSOLUTE DUAL.	
taua . We (two only) sha	ill eat.
korua . You	nolam
raua . They ——	
SECOND OR RELATIVE DUAL.	
maua . We (two on our si	de) shall eat.
TO STATE OF A PROCESSION OF THE PROCESSION OF TH	
FIRST OR ABSOLUTE PLURAL.	
tatou . We (all together)	shall eat.
koutou You	
ratou . They	

SECOND OR RELATIVE PLURAL.

matou We (all on our side) shall cat.

### IMPERATIVE MOOD.

SI	N	G	IJ	I.	A	R.

Kai koe, or kai ra koe Eat thou. Kia kai ia, or kia kai ra ia . Let him or her eat.
Kia kai (ra) taua Let us (two only) eat.  Ka or kia kai (ra) korua . Do you ——  raua . Let them ——
second or relative dual.  maua . Let us (two on our side) eat.
Ka or kia kai tatou Let us (all together) eat.  ———————————————————————————————————
matou . Let us (all on our side) eat.
SUBJUNCTIVE MOOD.  PRESENT TENSE.
Kia kai ai ahau I may eat.  — koe Thou mayest eat. — ia He may eat.
FIRST OR ABSOLUTE DUAL.
Kia kai ai taua
SECOND OR RELATIVE DUAL.
Kia kai ai maua We (two on our side) my eat.
tatou
SECOND OR RELATIVE PLURAL.
matou We (all on our side) may eat.
The other tenses seem to be deficient in the language

### Example of a Passive Verb.

### INDICATIVE MOOD.

#### PRESENT TENSE.

E aroha ana ahau . . . I love.

E arohahina ana ahau . . I am loved.

koe . . Thou art loved.

#### PAST TENSES.

Kua arohahina ahau . . I was or I have been loved.

#### FUTURE TENSE.

Ahau e arohahina ai . . I shall be loved.

#### IMPERATIVE MOOD.

#### FIRST OR ABSOLUTE DUAL.

Kia arohahina ra taua . . Let us (two only) be loved.

-- korua . You

raua . . They

The other persons and numbers are expressed by the change of the personal pronouns.

The other tenses can be easily formed by changing the active root aroha into the passive arohina.

# Example of a Causative Verb.

#### INDICATIVE MOOD.

ACTIVE FORM.

E matau ana ahau . . . I know.

#### CAUSATIVE FORM.

SINGULAR.

E waka matau ana ahau . I cause to know or teach.

koe . You teach.

#### PAST TENSE.

Kua or ka waka matau ahau I have teached.

#### FUTURE TENSE.

Ahau e waka matau ai . I shall teach.

#### IMPERATIVE MOOD.

Waka matau koe . . . Teach thou.

#### SUBJUNCTIVE MOOD.

#### PRESENT TENSE.

Kia waka matau ahau . . I may teach.

#### PAST TENSE.

ai ahau . I should have teached.

### Examples of Impersonal Verbs.

He ua ana . . . It rains. He hau papa ana . . . It snows. He watitiri ana . . . It thunders.

He wira ana . . . It lightens. He witi mai ana . . . It appears.

He hau auru ana . . . It blows from the west.

### Formation of the Passive Verbs from their Active Form.

1	ACT	IVE	FORM	PASSIVE FORM.						
Aroha			To love.	Arohahina		To be beloved.				
Arahi			guide.	Arahina .		guided.				
Aru			follow.	Arumia .		followed.				
Akiri			throw.	Akiritia .		thrown.				
Aki .			toss.	Akina .		tossed.				
Ti .			put out.	Tinia .		put out.				
Urunga			repose.	Urungatia		{brought to repose.				
Huti			weed.	Hutia		weeded.				
Karanga	ı		call.	Karangatia		called.				
Kino			hate.	Kinotia .		hated.				

#### ACTIVE FORM.

#### PASSIVE FORM.

Koropupu .	To boil.	Koropuputia . To b	e boiled.
Korero	speak.	Korerotia	spoken.
Mahara .	consider.	Maharatia .	considered.
Mea	do.	Meatia	done.
Motu ke .	separate.	Motuhia ketia	separated.
Patu	kill.	Patukia	killed.
Ringi	fill.	Ringihia	filled.
Rupe rupe .	shake.	Rupe rupea .	shaked.
Takahi	thread.	Takahia	threaded.
Rongo	hear.	Rongona .	heard.
Tata	bruise.	Tatahia	bruised.
Mahanga .	offend.	Mahangatia .	offended.
Tahuri	turn.	Tahuritia .	turned.
Wakatangi .	sound.	Wakatangihia	sounded.
Wakakino .	corrupt.	Wakakinongia	corrupted.
Wakaora .	deliver.	Wakaorangia	delivered.
Weteki	loosen.	Wetekina .	loosened.
Wakakakahu	clothe.	Wakakahuria	clothed.
Wakama .	clean.	Wakamakia .	cleaned.
Hua	call.	Huaina	called.
Wakakororia	glorify.	Wakakororiatia	glorified.
Wakahawea	despise.	Wakahaweatia	despised.
Wakarihariha	abhor.	Wakariharihangia	abhorred.
Tuhea	desert.	Tuheatia .	deserted.
Tango	take off.	Tangohia .	taken off.
Wakateitei .	exalt.	Wakateiteitia	exalted.
Wakamatara	remove.	Wakamataratia	removed.
Wakapoto .	shorten.	Wakapotoa .	shortened.
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#### CHAPTER VII.

#### OF PRONOUNS.

#### Personal Pronouns.

SINGULAR.					FIF	DUAL.				
Ahau,	or	au			I	Taua .			we (t	wo only)
Koe					thou	Korua			you	
Ia					_	Raua .				
					SECOND	DUAL				

Maua . . . we (we two on our side).

FIRST PLURAL (more than two). SECOND PLURAL.

Tatou . . we (all together). Matou . . we (we all on Koutou . you (all together). our side)
Ratou . . they (all together).

1. The nominative of the first person of the personal pronoun is generally preceded by the prefix *ko*:

Ko ahau te kai tiaki . . . I am the guardian.

In this case it begins the phrase: in the conjugation of verbs it follows the verb, thus:—

E aroha ana ahau . . . I love.

- 2. The use of two duals and two plurals in the first person is common to all the Polynesian languages, and is found also in some of the American dialects.
- a. The first is used if one speaks for himself and another with him, no one else being present; for instance:—

Kia haere taua . . . let us go (you and I).

b. The second is used, when, in the presence of others, one addresses himself to another; for instance:—

Kia haere maua . . . let us go (you and I), and the others stay behind.

The second and third persons are alike for both duals; for instance: one meets two on the road; he salutes them-

Tena ra korua? . . . how do you do? Or,

. where do those two come Nahea raua? . . .

c. The first plural is used with the same distinctions: it speaks for all present; for instance:-

Kia haere tatou ki te atata . let us all travel at daylight.

The second plural speaks to a number of persons with reference to another party; for instance:-

Kia haere matou . . . let us go.

### Declension of the Personal Pronouns.

The personal pronouns are thus declined :-

	SINC		FIRST DUAL.						
Nom.	Ahau .	. I.		Taua		we (two	only).		
Gen.	Naku .	. of	me.	No, or o taua	40	of us	Hudsh Hankli		
Dat.	Ki ahau	. to	me.	Kia taua .		to us			
	Ahau .					us			
Abl.	I ahau	. fr	om me.	Ia taua .		from us	_		
			SECONI	D DUAL.					

Nom.	Maua	•		we (two	on our side).
Gen.	No, or o maua			of us	
Dat.	Kia maua .		1	to us	to our entit
Acc.	Maua			us	) Hologop el
Abl.	Ia maua .	.13		from us	18 and m

#### FIRST PLURAL.

		we (all to	gether).
Gen.	No, or o Na, or a tatou	of us	ins stand
Dat.	Kia tatou	to us	+
Acc.	Tatou	us	-
121	T. A.A	C	

#### SECOND PLURAL.

Nom. Matou . . . we (all on our side).

Gen.  $\begin{cases} No, or o \\ Na, or a \end{cases}$  matou . of us

Dat. Kia matou . . to us

Acc. Matou . . . . us Abl. Ia matou . . . from us -

Note.—The first person ahau is often abbreviated into au.

### Declension of the Second Person.

#### SINGULAR.

Nom. Koe . . . thou.

Gen. Nau, or nou . of thee.

Dat. Kia koe . . to thee.

Acc. Koe . . . thee.

Voc. E koe . . O thou.

Abl. Ia koe . . from thee, or with thee.

#### DUAL.

Nom. Korua . . you (two only).

#### PLURAL.

Nom. Koutou . . you.

The other cases as above, the pronoun not being altered.

### Declension of the Third Person.

. he or she. Nom. Ia

Gen. Nana, or nona . of him or her.

Dat. Kia ia . to him or her.

Acc. Ia . . him or her. Abl. Ia ia . . . . from him or her.

#### DUAL.

Nom. Raua . . . . they (two only).

#### PLURAL.

Nom. Ratou . . . . . they (all together).

### Possessive Pronouns.

Taku, or toku . . . my or mine.

Tau, or tou . . . thy or thine.

. his or her. Tana, or tona . . .

### Declension of the Possessive Pronouns of the First Person.

#### SINGULAR.

Nom.	Toku or	taku,	aku o	roku	. 68	K	my	or mine.
~	37		. 7	1 .	1		C	

Gen. No or o, na or a, toku or taku . . of mine.

Dat. Ki toku or taku, or maku or moku . to mine.

Acc. Toku or taku . . . . . mine.

Voc. E toku or taku . . . . O mine.

Abl. I a toku or taku . . . from mine.

#### FIRST DUAL.

Nom. To or ta taua. . . . our (belonging to us two only).

The other cases are formed by changing the article, as usual.

#### SECOND DUAL.

Nom. To or ta maua . . . our (belonging to us two on our side).

The other cases by changing the article.

#### FIRST PLURAL.

Nom. To or ta, o or a tatou our (belonging to us all together).

The other cases by changing the article.

#### SECOND PLURAL.

Nom. To or ta, o or a matou. our (belonging to us all on our side).

The other cases by changing the article.

### Declension of the Possessive Pronouns of the Second Person.

#### SINGULAR.

Nom. Tau or tou, or to, ou or au . . . thy or thine.

Gen. Nou or nau . . . . . of thine.

Dat. Ki tou . . . . . . . to thine.

Acc. As the nominative - thine.

Voc. E tou . . . . . . . O thine

Abl. Ia tou . . . . . . from thine.

#### DUAL.

Nom. To or ta korua . . yours.

The other cases with the usual particles.

#### FIRST PLURAL.

Nom To or ta, o or a koutou . your (to you all together) -

#### THIRD PERSON.

Nom. Tona or tana, ona or ana . . his or her.

DUAL.

Nom. To or ta, o or a raua . .

PLURAL.

Nom. To or ta, o or a ratou . . . their.

The other cases are exactly the same as the personal pronouns.

#### Observations on the Possessive Pronouns:—

1. The possessive pronoun precedes the substantive; for instance:-

Taku matau tenei . . this is my fish-hook.

2. Generally the prefix ko is used, and precedes the possessive pronoun, as-ko taku matau tenei.

### Interrogative Pronouns.

Wai or ko wai who. . for whom. Ma or mo wai . . whose. Na or no wai Tehea or kotehea . . . who. He aha or aha . . . . what or which.

No or na, or mo te aha . . . of which? why? Ki te aha . . . . . for which or what.

The personal interrogative pronouns precede the object. The rest are used for things, and are often placed at the end of the phrase.

E korero ana koe kia ratou ki Why do you speak to them in nga kupu wakarite ki te aha? parables?

Literally:-

A speaking to them in a likening speech for what?

E aha koe e noho ai? What do you stop for? E haere aha mai? What do you come for? Which is the road? Ko tehea te ara?

Observations on the use of the Interrogative Pronouns:—

Wai or ko wai
Na or no wai
Ma or mo wai
for instance:

Mo wai tenei pikau . . Whose or for whom is this load?

(who has to carry it?)

Na, or no wai tenei pikau . To whom does this load belong as property?

Kowai to ingoa . . . What is thy name?

Kotehea tangata o koutou. Who or what man of you? Kotehea is also used for things.

#### Demonstrative Pronouns.

#### SINGULAR.

This or that . . tenei, if very near.

tena, if in sight.
tera, if at a distance.

#### PLURAL.

Those . . enei, if very near.

ena, if in sight.
era, if at a distance.

That . . taua.

### For instance:-

i taua ra . . . at that day.

Those . . ana.

### Relative Pronouns.

These are wanting in the New Zealand, and must be expressed by the use of the participle of the passive, for instance:—

The word which you have heard.

Te kupu i rongona e koutou.

The word heard by you.

Or by the perfect tense of the active :-

Te kupu kua rongo koutou. The word you have heard.

Or by the genitive case of the personal pronoun nana:

The man who showed us.

Te tangata nana i wakakite mai ki a matou.

The man of him has shown to us.

#### CHAPTER VIII.

#### NUMERALS.

THE decimal system is that in use among the New Zealanders.

#### CARDINAL NUMBERS.

Tahi		1	Ono			6
Rua		2	Witu			7
Toru		3	Waru			8
Wa		4	Iwa			9
Rima		5	Ngahur	ru,	or te kau	10

In this single form, however, the numerals are only used when joined by the conjunctive particle to others; for instance, te kau ma wa, fourteen; etoru ma toru, three and three. In all other cases a prefix is used, and euphony alone seems to decide to which prefix the preference is given.

- 1 Etahi, or kotahi, or tokotahi.
- 2 Erua, korua, tokorua.
- 3 Etoru, kotoru, tokotoru.
- 4 Ewa, kowa, tokowa.
- 5 Erima, korima, tokorima.
- 6 Eono, koono, tokoono.
- 7 Ewitu, kowitu, tokowitu.
- 8 Ewaru, kowaru, tokowaru.
- 9 Eiwa, koiwa, tokoiwa.
- 10 Ngahuru, kongahuru, tokongahuru, or kotahi te kau.
- 11 Kotahi te kau ma tahi.
- 12 Kotahi te kau ma rua.
- 13 Kotahi te kau ma toru.
- 14 Kotahi te kau ma wa.
- 15 Kotahi te kau ma rima.
- 16 Kotahi te kau ma ono.
- 17 Kotahi te kau ma witu.

- 18 Kotahi te kau ma waru.
- 19 Kotahi te kau ma iwa.
- 20 Erua te kau.
- 21 Erua te kau ma tahi.
- 30 Etoru te kau.
- 40 Ewa te kau.
- 50 Erima te kau.
- 60 Eono te kau.
- 70 Ewitu te kau.
- 80 Ewaru te kau.
- 90 Eiwa te kau. 100 Kotahi te rau.
- 101 Kotahi te rau ma tahi.
- 110 Kotahi te rau ma te kau.
- 200 Erua te rau.
- 300 Etoru te rau.
- 1000 Kotahi mano.
- 2000 Erua mano, and so on.

Note.—In numerals the syllable ma is always used as the conjunctive particle, never the syllable me; for instance: Kotahi te kau ma toru, thirteen. To express an indefinite number, the word tini, or  $tini\ tini$ , is generally used.

#### ORDINAL NUMBERS.

The first Te tuatahi, or Ko tetahi. The second Te tuarua, or Ko terua. The third . Te tuatoru, or Ko tetoru. Te tuawa, or Ko tewa. The fourth The fifth Te tuarima, or Ko terima. Te tuaono, or Ko teono. The sixth . Te tuawitu, or Ko tewitu. The seventh The eighth Te tuawaru, or Ko tewaru. The ninth . Te tuaiwa, or Ko teiwa.

The tenth . . . Te te kau, or Ko te tekau, or Te ngahuru.

The eleventh . . Te te kau ma tahi.

The twentieth . . Te tuarua te kau.

Note.—The ordinal numbers, when joined to substantives, are thus formed:—

The first day . . . Te ra tuatahi, Ko te ra tetahi.

The first woman . . Te tuatahi wahine.

Takitahi . . . Counting by single numbers.

### Adverbs relating to Place.

Nahea, Nohea, whence. Ihea, Keihea, where, whither. Kohea, which wav. Konei, here. Kikonei, Nokonei, of this place. Koneimai, this way. Koina, there. Koinatu, that way. Tenei taha, this side. Tera taha, that side. Tawiti, far. Tawititawiti, very far. A --- tawiti,\* a great distance. Ki, into, in, to, upon, of. Kirunga, upon; with the Dative, kirunga ki te maunga, upon the mountain. Kiraro, down, below. O mua, before; with the Abla-

tive, nga tangata o mua atu i a koutou, men who were before you.

Ki mua, before.

Kiwaho, out.

Aroaro, before, in the presence of; used with the Genitive case, ki te aroaro o nga tangata, in the presence of men.

I roto, within; used with the Ablative case, i roto i te ware, within the house.

I, in.
No roto, out of.
Ki muri, behind.
Tetahi wahi, partly.
Mai, hither, here.

Ki matau ki maui, right and left.

I te reinga, in the other world. Kikoina, there.

Heikonei, here.

<sup>\*</sup> The sound of the A is drawn out.

### Adverbs relating to Time.

### These are particularly numerous.

Ahea, when? used for the future. Mahia, when? used for the past. I te timatanga, at the beginning. I te mutunga, at the end. I reira, then, at that time. Aianei, to-day. Inaianei, to-day. Inanahi, yesterday. Apopo, to-morrow. Atetahi ra, the day after tomorrow. Awaki, two days after to-mor-Awaki nui atu, three days after to-morrow. Ina tahira, the day before yesterday. Ina tetahi ra, three days ago. Ina waki, four days ago. Ina waki nui atu, five days ago.

I na mate, anciently. O na mata, in the days of old. I mua, formerly. O mua, formerly. A muri, hereafter. Muri, hereafter, afterwards. I muri, idem. A te ahi ahi, in the evening. I te witinga o te ra, at sunrise. I te toenetanga o te ra, at sunset. I tenei ra i tenei ra, continually. Ina po, last night. I te ata, in the morning. I te atata, idem. A i waenganui po, at midnight. Kawatea, noon. I te awatea, at daybreak. Akuanei, directly. Akenoi, until. Atawatea, midday, noon. Tetahi wahi, a moment. Wawe, suddenly.

## Adverbs of Affirmation.

Ae, yes. Ae ra yea, no doubt. Koia, yes.

I te ao, by day.

I te po, by night.

Koia ra, certainly. Ara, truly.

### Adverbs of Negation.

Aua, no, I don't know.
Kaua, do not.
Ekore, no, not.
Ekore rawa, by no means.
Kihai, not.
Hore, no.
Hore rawa, never.

Ehara, not.
Ahore, not.
Ana raia, but not.
Kauaka, neither.
Kei, not.
Kahore, not.
Kore, no.

### Adverbs of Interrogation.

Ke ihea, where, whither? Kohea, which way? Nohea, whence? Ihea, whence? Mo te aha? why? Ahea, when?

E aha, what?

E hia, how many?

Mahia, when?

### Adverbs of Doubt.

Pe, or pea, perhaps.
Ana pea, perhaps (ironically).

Koia pea, probably.

### Prepositions.

Mo, for, from. I, in.

No, for, of, from. Ki, to.

### Conjunctions.

Me, and.
Ma, and, used only with numerals.

Me, or.
Me, like.

### Interjections.

A! interjection of surprise. Aue! woe! interjection of grief. E! behold. Hi! interjection of anger. Aha! interjection of contempt. Na! behold.

### CHAPTER IX.

### DICTIONARY OF THE NEW ZEALAND LANGUAGE.

#### A.

A-of the (genitive of the arti-

A!—interjection of surprise

A—if the sound is prolonged, it denotes a continuation of the thing spoken of. It has this signification from being a meaning existence, light, action, continued action, eternity. In this sense it enters into the composition of many of the following words

A-and

Ae ra!—yea, yes, truly!

Ae-yes

Ai-speak, say, speech

Ai—a particle, used for forming the conjugation of verbs

Aianei-to-day, now

A i waenganui po—at midnight Ao-world, light, earth, gather Ao o te rangi—the light of hea-

Aoatea, i. g., awatea, daybreak

Aonga-daybreak

Aonga o te ra-sunrise

Au—abbreviation of ahau—I Au—abbreviation of tau—thy

Aua—those

Aua-no, I do not know

Aua hoki-I do not know

Aue!-woe!

Aue - the lamentation, the woe

Auetanga—groaning, groans Ahaha?-What do you say?

Aha?—what? which? aha—for what or why

Aha rau—a hundred whats or questions

Ahea?—when?

Ahau-I

Ahakoa-nevertheless, whether

Aha koia?—what is it?

Ahi, contracted ai-fire, light, fiery, to beget, copulation, generation. Ai,—to speak, is no doubt the same root

Ahi na Maui—the begotten of Maui (native name of New Zealand). By others Ika na Maui, the fish of Maui

Ahinga—time of copulation

Ahinga tapu--a house or sleeping-room for a man and his wife

Ahi ahi—evening

Ahinei, i. q. aianei—to-day Aho-a fishing line, string, the

woof of a cloth, or mat Ahu—heap together

Ahu ahu—name of a place

Ahua-image, likeness, form, shape

Ahuatanga—appearance

Ahunga-entrance

Ahuareka-form

Ahuareka o nga wae wae-steps of the feet, footmarks

Aka, i. q., haka

Aka—angular, the knee of a ship's beam; he pou aka—a box

Akau—a cliff, sea-coast, sea-side Akari, i. g., hakari

Akataina!—an expression of wonder

Ake-up; for instance, Wakatika ake, stand up

Ake-in future

Ake ake ake signifies continuance of existence, eternal, for ever

Akenei-until

Aki-to push along, close to, against

Aki—a rambling shrub (Metrosideros buxifolia)

Akina-stoned, tossed

Aki aki-a sea-bird

Akiri or Akiritia—cast off Ako—doctrine, teach, instruct;

part. pass., akona

Ako ana—teaching

Akonga—disciple Aku—mine or my

Akuanei-now, presently

Amata-formerly

Amu amu-murmur, grumble

Amama—gaping Amo—to bear, a litter

Amowia—carry thou

Amai—tempestuous

Amaitanga-tempest

Amani-a cartridge-box

Amu-eating by morsels

Amua tonu—everlasting

Amua—time to come, future, in future

Ana-his, hers

Ana-den, cave

Ana-corresponding to our do-

ing or being
Ana koa—indeed, it is so

Anake—only; also nake nake Anamata—some time hence

Anei-these

Aniwaniwa-rainbow

Ano—corresponding to being, doing, remain, rest; also used like an adv., like. Often it can be translated with truly

Anoho—to sit, settle Anuanua—the rainbow

Anga-work; also hanga-engage, work

Anga atu-turn

Anganga—to meddle, the skull Anga anga—coalition, cohesion,

agree

Angareka, i. g., hangareka Angi angi—thin as a board or a

blanket

Apa, i.g., hapa

Api—clubfeet Apiti—to curse

Apo-hard dealing, bad, wicked,

Apopo—to-morrow

Apu, i. g., hapu

Ara!—right! true! Ara—street, road, arise

Ara ake !- arise !

Arahi — part. pass., arahina; also araerahi — guide, conduct, lead

Aranga — resurrection, re-appearance

Arara—a fish

Aratakiu-conducted

Arawata — a ladder, bridge, stairs

Arckeke—undressed flax

Arenga—calling, a mat so called Arero—tongue

Ari, i. g., hari and its compounds

Ariki—a lord, a chief; the eldest son or daughter being the heir

Aro—skin, fat of the belly, to flay or skin

Aroaro—in the presence of, front. Ki te aroaro o nga tangata katoa—in the presence of all men

Aroha-love, to love Arohahina—beloved Arohatia—beloved Aropaua-a double net for small fish Arotau-true, faithful Aru-follow, pursue, drive, woo, courtship, wooing Aruaru-to woo, pursue, also a short fishing-net Aruhe, also aroi, arohi, and arue-fernroot Arukanga, also arunga, aruaruarunga, arumanga stract of aru)-persecution, wooing, following Arumia, i. g., aru Aruru—name of a place Atapai-well disposed Ata-shadow Ata-prosper Ata—the morning, sunrise Ata po—daybreak Atawatea, or atewatea—midday, noon Atatu—early in the morning Atawai—attachment, good will, grace. Matua atawai-foster-father Atawaitia-to have mercy Atawaitanga, i. q., atawai Ataahua-favour Atamarietanga—humiliation Atata-daylight Atamira-bed, coffin, tomb, house for the dead Ateahiahi—in the evening Atarangi-shadow Atetahi ra-the day after tomorrow Ate-liver Ati ati-drive out Atuwaana—to distribute Atua-God, gods. The Supreme Being Atuahua—fair, beautiful, lovely Atu-motion from; haere atu -be off! thither, forth

parative degree of adjectives
Awa—river
Awa awa—valley
Awaki—two days after tomorrow
Awaki nui atu—three days after
to-morrow
Awangawanga—hope; to hope
Awaroa—name of a river
Awatea—light, daybreak
Awi—draw near, entwining,

Atu-used in forming the com-

entangling
Awinatia—drawing near, helping

# $\mathbf{E}.$

E, or He-indefinite article a or an E-used for forming the vocative case: it is either used alone, or with the nom. of the definite article te. E is also used with verbs, and is in that case only the article, the substantive being nothing else but the participle or infinitive; for instance, E noho ki raro-sit down. Literal. a sitting down. The infinitive stands in this case for the imperative E!—exclam. Behold! Alas! E-verb. See He Eaha?—which? Eaoia?—wherefore?

Eono—six
Ehara—negation. No, not
Ehea?—which?
Ehia?—how many?
E hoa—friend, form of address
Ehore—negation. Not
Ekara—sir!
E'ko—to a little girl!
E'mara—friend!

E'marama—friends! Engari—that is good

Engaringari—that is better Ena-those Enei-these Era-those, others Erangi-a female name Erangi – it is better, rather Erangirangi, idem Erima-five Erua-two Erua erua—both Etahi—one Eta ta—little boy Etoru-three Eke-go, walk Ekenga-fare, conveyance Ekore-no Ekore rawa-by no means Ewa-four Ewaru—eight Ewitu-seven

### I.

I—in (see Grammar) I—ablative of the article I-sign of the past tense I-than, following a comparative I-a central point, a centre of motion, pressure Ina te hau-piercing of the wind Ia-he, she, it Ia—direction, course Iaha-why, what for Iai-beget, to lust after, lustful; the root ahi or ai Ia ia-cross veins Iinu-thirsty, drink Iheko-skin of a person, bark of a tree Iho-down, tradition Ihu-nose, head of a canoe Ika-fish, to fish Ike ike - height, high; also with an aspiration Iki-nursing, lifting up in the arms; imperat. ikitia Iko na ra-farewell I konei—here

Iku-tail Iku rangi-name of a mountain Imua—formerly Ina-affirm, surely Ina-an old man, grey-headed, hoary, growing hoary Inahia-when Inaianei-to-day Ina mata-anciently, a long time ago Inau. See Hinau Inanahi—yesterday Inapo-last night Ina tahi ra—the day before yesterday Ina tetahi ra—three days ago Ina waki-four days ago Ina waki nui atu—five days ago Ine a maru—a bare-headed woman Ine ono—a scolding woman Inengaro. See Hinengaro Inoi; also Hinoi-ask, pray, beg, importune Inoinga—prayer Inonoti-painful Inu-oil, drinkable, to drink, greasy, oily; often with aspiration Inumia—drink thou Inu inu-marrow Inga. See Hinga Ingoa-name Ipu—bottle Ipunamu—bottles Ira—a mole on the skin Ira mutu-nephew, niece Ireira—then, at that time Iri—hanging, suspending Iringa-a hanging up, suspension Iri iri—baptize, sprinkle Iri iringa-baptism, sprinkling Iro-grieve Iroto—within; iroto i te ware -in the house, amongst; i

roto i a koutou - amongst

you

Irunga—upon Ite ao—by day Itenei ra, i te tenei ra-continually Ite ata—in the morning Ite atata—in the morning Ite awatea—at day-break Ite tahi ra—the day before yesterday Ite wahinga nui po-the midnight past Ite watea—the noon past Ite witinga o te ra—at sunrise Ite toenetanga o te ra—at sunset Iti-little, small; iti rawaleast; causative, wakaiti-to diminish Iti iti—small, little, very small Itinga—smallness Iwa-nine Iwi—people, tribe, nation, bone Iwi kau-bones only, lean, thin Iwi rau—a shell-fish Iwi tuararo-back-bone

0. O-genitive of the article, denoting possession O-thy O-move, convey, give. O e aki-give up, be quiet O mai-give; properly, move hither Oi - sufficiently; more frequently heoi Oioia-wagging Ou-a feather Ou-oh! Ou-thy Ouma-absconding Oho—answer, to answer Ohokai—jump Ohiohi, to rinse Ohu ohu—trouble Oka; also Hoka — a sharp-

pointed instrument, a bayonet, a fork, a spear Oka oka—id. Okahi—stepping or skipping over the ground Okahinga—stretching out the Okahu—name of a place Okaka—name of a river Oke oke—a fish Oki, or Hoki—to be, return Oki—trust Oki oki—refresh Okinga-return, time of returning Okiokinga - rest, repose, return, time of refreshment Okiokiana—rested Oma-fly, run Oko. See Hoko—to buy, exchange Oko—a vessel to hold a fluid in Oku-my Okura—name of a place Omanga—course Ona—his Onamata—of old, formerly One-earth, soil, sandy shore, ground One one—id. One—smelling, lusting as a dog One pu-sand, sandy soil Ono. See Hono. He rakau ono-a spliced piece of wood; onoa-unite Ono-six Ono te kau-sixty Ono te rau—six hundred Ono-woof of a mat Ono—quarrelsome Onu—spring water Ongi-salute by touching noses, saluting, smelling Ora — life, health, healthy, healing, well Oraoraia—dry Ora—spread; orangia—spread! Oranoatanga—peril

Oranga—recovery, renewal, preservation, life, preserved Orangatanga—id. Ore, or Hore-no Ore rawa—not at all Ore—the boring of a hole Orokohanganga — foundation, creation; o te ao-creation of the world Orokomeatanga—the beginning Oro. See Horo—polish, gargle the throat Ota-raw Ota ota—all wild herbs, plants, weeds Oti-is it? Otiia-but Otinga—the finishing Otira—but, on the contrary Otiraia—but, yet Owa-salute, to salute Owanga-nest Owatanga—greeting, salutation

### U.

U-bird's egg, the breast, nipple, the paps; wai u-milk; kai u-suckle; he tamariki kai u-a babe, motion, junction, trust, strengthen E ua ana—it rains; also bringing forth or maturing fruit; he po ua—a rainy night Ua-rain, rainy, to rain Ua watu-hair wrought into a mat Uaua—a vein, sinews Uaua-hard work, travail Uaki-open; uakina-open! Uarahi. See Huarahi Ue te wenua—a fertile spot Ue. See Hue Ueo. See Hueho Ui ui-beg Ui-inquire, ask, solicit Uia—a bird (Neomorpha) Ui tanga roa—a long solicitation

Uinga—a consultation, question Uira-lightning Uoro—a kind of eel Uhi-a covering, curtain Uka—snow, sugar, froth of the sea, tassels on a mat, foam Uka uka—hair woven with the tassels of mats Uma-breast, bosom, arms Umu-oven Unga-order, command Unu—pincers, a blacksmith's vice. Upu-seize; upu kia-seize thou Uke umu—draw the oven Upoko-head Unu-draw a sword Unuhanga-removal Uri-generation, seed, geny; penis, child, son, revolution, succession, posterity. See Huri Uri papa—the posts or props of a bier Urongi-helm, or rudder; to steer Urunga—a pillow

Urupa—sepulchre
Ururuatia—deserted
Ururua — deserted, laying
waste, choke. Wahi ururua
—ruins
Uru—life, light, beams, fel-

lowship, partake, glory; kia uru—let there be glory Uru uru wenua—name of a

Uru uru wenua—name of a certain shrub

Uru pua puai—name of a certain wind

Uru wawahi waka—name of a wind

Uta—shore, coast Utongatia—branded Utu—reward, pay, fi

Utu—reward, pay, fine, price; he utu ano—there is the price Utu—draw; utuhia—draw

Utua-pay

Utunga—wares, goods
Uwa—used to express the feminine gender in animals
Uwa uwa—tough, veins or
main arteries
Uwata—a spear

### H.

Ha-breadth, savour, odour Ha-what! Hae-rent, tear, dispute, envy Hae hae—id. Haere-go; also airc or aere Haere mai-come Haere atu-go out, leave Haerenga-a walk, arrival Haerengatanga—a journey Hao-catch Haerere-walking about Haere marie-go in peace Hau-abbrev. for ahau, I Hau-strike, hew, chip with an Hau-wind, air, whirl, blow Hauhake -labourers in the harvest, gather, take up Hauhakinga—harvest Haumi-joints at the head and stern of a canoe Haumumu—a silent person Hau auru - west, west wind, blowing from the west Haue-sooth Haueunga-ice Haukomingo—a whirlpool Hauraro - north-west, northwest wind, blowing from the north-west Hauhautanga-coolness, cool Haurahi—dew Hauru—name of a shellfish Hau nui—a tempest Haupa—a beating wind Hau papa—snow, ice Hauparo—a long beating wind Hauraki—name of a place Haurake-a steady pace, moving steadily

Haururutanga—blowing of the Haunga ano, haunga-with exception, because, besides Haurangi — a fool, drunkard, foolish, drunk, mad Haurangitia - foolish Haurorangi - to hang up, to suspend Hauroro-a long wind Hauna—a piece of wood joined to the stern of a canoe Haute—a play so called Hautoke-winter Hauwenua-a land wind Hahare-sealing-wax Hahi-church, Anglic. Haka-a dance, a song, a wardance. He tangata haka—a dancer Hakari—a feast of peace where presents of fish are brought by the visitors; also birds' eggs, roe of a fish, seed of anything Haki—neck Hamama — yawning, gaping; also Amama and Hamumu Hana—a vault for the dead Hanahana-lustre, brightness, bright, glorious, shining, to shine Hanc—a war instrument Hani-water Hanga -work, labour, to work, make Hangarau—deceitfulness Hangareka-funny, joking, a joke Hanganga — buildings, work, creation Hangi—a native oven Hapa—crooked, indirect, unfair, neglected Hapainga-lifting up, raising Hapu-tribe, family Hapu-pregnant, be pregnant

Haputanga-pregnancy Hara-crime, debt, sin, trans-

gression

Harakoretanga-innocence Hari, sometimes without the

aspiration; ari-dance, joy, happy, blessed, joyful, enjoy, leap, rejoice, joyfully

Hari ana, waka hari-causing a joy

Haringa-joy

Hari hari - transported with joy, leaping with joy

Haro—dressing flax

Haronga—the dressing of the

He—the indefinite article aspirated

He-a fault, unjust, mistaken, erring, erroneously

He hunga he-bad men

He!-exclamation of surprise

Heaha-what

Heanga—a mistake

Hei-here

Hei-like; the indefinite article

Hei-necklace, keepsake

Heoi ano-it is enough, that will do

Heoti-henceforth

Heu-a razor

Heke - come down, destroy, vanish

Heke-a wreck, a slip, change of a place, descend

Hemo-slip, change the place, faint

Hera—gaping

Herakiaki-green dried flax

Here—a spear for pigeons

Herehere—captive, slave Herenga-cord, string

Heru—a comb, combing

Hewa-snecze

Hi!-exclam. of anger

Hi—threaten

Hi-fishing

Hia—an affix to verbs for form-

ing the imperative mood and passive form

Hia-how many; po hia-how many days

Hianga—lying, offence

Hia hia-wish, desire, will; construct with ki

Hiahiatia — desire

Hiainu—thirsty

Hiakai-hungry

Hiako-skin, leather, made of skin or leather, thongs, a vine

Hiamoe-sleepy

Hiawero—tail of a dog

Hihi-beams of the sun, hair tied like horns on each side of the forehead

Hihi karu—the whiskers of a

Hihi o te tote—sparkling of the

Hikaro—pluck out

Hiku-reward

Hiko—tail

Hikorangi—name of a moun-

Hinamoki—a seahorse

Hinau — a tree, the bark of which is used as black dye

Hinengaro-kidney, desire, desirous, mind, conscience Hinu—drink, drinkable

Hinu-oil

Hinu hinu-marrow

Hinga—a fall, falling

Hinganga-fall Hipoki-cover, a cover, lid

Ho-to give; also homai Hoa-friend, neighbour, gene-

Hoa riri-enemy; e hoa ma,

friends Hoa wawai-enemy

Homaitanga-gift

Hoari-sword

Hoatunoa—a gift

Hoatutautanga—an offering

Hoatutanga-gift

Hoe-an oar, paddle; row, paddle; he waka hoe-a rowing-boat; he waiata hoe -a boat-song Hoe hia-sail, or paddle: let us paddle Hoe hoe-side fins of a fish Hoenga—sailing, pulling, time of sailing Hou-spade Hou-new, sweet, strange Houtanga—newness, new Houhia he rongo—to forgive Hohou—making peace Hohou rongo—peacemaker Hohonu—deep, the deep, depth Hohonutanga - depth, deepness, deep Hohoro-run, to be in a hurry, quick, quickly, swift Hohuro, also Hohuro anga-a mill Hoki-particle, used in forming verbs as a kind of auxiliary Hoki mai-come back Hoki and oki—return, contrary; for instance, the wind Hokinga—time of returning Hokianga — name of a river, name of a place Hoko—buy; he tangata hoko a trader Hokonga--an exchange, a bar-Honoanga, also Hononga - a union, a splice Hono-a joint, a splice, join, splice; he rakau hono - a spliced piece of wood Hori hori—a lie Hopuatanga—a place Hopukina-to perceive Hope-loins, abdomen, body of an army

Hopenga-refuse of an army,

rejected party

Hopua—a river, to drain

Horahi, also Hora—spread

Hore—not Hore rawa rawa—not at all Horo mia—swallow Horongia—to swallow Horohi—soap, wash Horohia-washed Hotete — a caterpillar, the socalled vegetable caterpillar Hotoke, also Hautoke-winter Hoko hoko-exchange, to buy Hokoko-to sell Hokonga—a bargain Hongia-to salute Hua — fruit; te po hua—the time of fruit; e hua ana—be fruitful Hua kore—unfruitful, barren Hua — call, name; huaina called, named Huanga—kindred, relations Huanui—high road Huarahi-way, road Hue, or ue—a gourd, calabash, cucumber Huehue—side by side Hueho-the navel-string Huere-saliva Hui-gather, knit, unite Hui huia—id. Hui huinga-gathering Hui huitia—together Huhi-affliction, afflict Huhu-moth, grub Huhu—strip, lay bare Huhuti, i. q., huti Huhuatanga—beauty Huka, i.g., uka-snow, frost, sugar Hukarere—snow, frost, hoar Hukerikeri-work, toss; used of the sea Hu, or Huna — concealment, hide, concealed, privately Huna hunanga—a concealment Hunaonga-daughter-in-law Hunga-people, an appendage Hunga mate—patients Hunga ora—healthy people

Hunga noho—guest Hunga wai, or Hunga wai wahine-mother-in-law Hunga rawa nui-rich people Hunga rawa kore—poor people Hunga tapu—a priest Hunga onga wahine — daughter-in-law Hupe—smell, secretion of the nose Hura-revealed, opened Huri-grind, incline, overthrow Hurihia-overthrown, turn it round Huri huri-revolve Huringa-a turn round Hurianga—id. Huru (see Uru) - hair, light, beams, a mat so called Huru huru-hair; huru huru hipi-sheep wool Huru rua-choke Huru tara—feather of a gannet Huti-weed, root up, turn Huti huti-id. Hutia-weeded, plucked Hutinga-a turn, a place cleared of weeds Huwa-thigh Huware—spittle

Ka-a prefix used in forming the participle, the perfect and future tenses of verbs; also a mere prefix at the beginning of phrases, when it serves as an auxiliary verbit is, or this is Ka-a rising flame, animation, vigorous, burn Kaahatia—it cannot be helped Kaeo taiepa—rail for a fence Kai-food, victuals, eatable, to eat, taste, live, men, people; also a kind of kumera Kai aho-biting the fishingline

Kaia—stump of a tree to hang tabooed things on Kai kawe—messenger Kai iriiri—people that baptize or sprinkle Kai hauhake—labourers in the harvest Kai wakaatu-witness Kai tara-food for gannets Kai tiaki-guardian Kai toke—food for worms Kai tohe—a man who tempts Kai tuku-fisherman Kai tangi-mourner, mourners' food Kai mahi—labourer Kai mahi o te kaipuke—sailor Kai mata—raw food Kai tuku-traitor Kai rawa—a greasy mouth after a meal, the remains of victuals Kai rui—a sower Kai wakaako-teacher Kai poka—witness Kai waki-witness Kai ora—wholesome victuals Kai para—name of a place Kai puke—a ship Kai taka-name of a fine ornamental mat Kai atua—name of a tree Kai ahi ahi-supper Kai po-night's meals Kai ponuhia-spare Kainga hoko—a market Kainga-village, country, place, a home, a meal Kaihu—name of a place Kai hune!-an oath Kai manu-bird's food Kaiwaka—name of a place Kai wakahau-a leader Kai wakato te ture-teachers of the law

Kai we—food for caterpillars Kai kaha-wholesome victuals

Kaokao—side

Kaore -no, not Kauaka-do not Kaua-not, do not, reject it Kauae—beam of a house, the crossbeam or joist of a house Kau ote kanohi—pupil of the Kau-only, purely, without ad. dition, naked Kau-dried sweet potatoes Kaua kaua (kawa) - a shrub of the pepper kind (Piper excelsum), bitter, strong, natural alum Kauhoehoe-swim Kau—swim; kau te awa swimming in the river Kau matua—forefathers, elders, ancestors Kauri—a pine-tree (Dammara Australis); also its resin Kauta-cooking-house, kitchen Kautia-empty, for nothing Kaukau-wash, to anoint; kaukauria-wash thou Kau uri—a stick which, by friction upon another, produces fire Kauweti-the stick on which fire is produced by friction Kauwau—a shag, preaching Kauwautia-preach Kauwautanga—preaching Kauwitiwiti-a grasshopper Kaha-power, strength, strong, strongly Kahaka—a cup, calabash Kahawai—a favourite and common fish Kaheru—spade, hoe Kahi—a stamp with the foot,

a treading upon, a pressing

Kahi katea-name of a tree

Kahi katoa—(Leptospermum)

Kahi-a comb made of the

(Dacrydium excelsum)

upon, or binding

bones of a fish

Kahu ara—a walking garment Kahu wairo-name of a gar. ment with dog's hairs Kahu kiwi—name of a garment with the feathers of the apte-Kahu kura, kahu kupenganames of garments Kahu—name of the hawk Kahore—no, refusal Kahui—a herd Kaka-burn; see Ka Kaka—a parrot (Nestor Australis) Kaka - fibres in vegetables, fernroot Kakai - gluttonous; he tangata kakai—a glutton Kakau—the handle of a knife, fork, axe, spade Kakahi—name of a fish Kakaho—reeds Kakahu — a garment, a mat, wear; kakahuria—put on Kakamo-winking of the eye Kakanapa—a green Kake—to go, to ascend Kakenga—an ascent Kaki-neck, back part of the neck Kaki-full; kia kaki-fill it Kamate—very ill Kakano-seed of a tree, stone of a fruit Kanae-the mullet Kanapa-bright, green, shining Kanapatanga-brightness Kakariki—a green parroquet, a green lizard, green Kakara -- sweet odour, sweetscenting Kako—planting Kakou-the constellation Orion Kakawa-perspiration, perspire Kakawariki, i. g., kakariki—a small lizard Kakuku—a doubled fist

Kahu-mat, garment, clothing

Kamaka—a rock, stone, stony

Kanawa—an eye

Kanga-corn, maize

Kanga - an oath, swearing, blasphemous, a curse

Kane—a file, saw, filing, sawing; kanehia-saw, sawing the timber

Kane kane, id.

Kani kani—a dance, to dance, a game so called

Kanoe-chin

Kanohi-eye, face

Kanga kapura—a fire-hearth Kanohi paua—name of a sweet

potato

Kapana—a potato

Kape—transgress, pull Kapia-resin, gum

Kapi-to furnish

Kapiti-Entry Island

Kapu—an adze, tail of a crayfish

Kapua—cloud, air

Kapu na ringa ringa—palms of the hands

Kapura-a burning fire, burning coal

Kara—name of a certain stone Kara-to an elder person; e kara!-an affectionate address to an elder person

Kara ma—an affectionate term for father

Karahu-name of a shellfish Karaka-a fruit-tree (Corynocarpus lævigatus), general

name for fruit

Karakia—a prayer, praying Karakiatanga—a time of prayer Karama roa—a flaming torch Karanga—call, shout, bell, call-

ing; karangatia-called, call

Karangahape—name of a place Karangatanga-call

Kara ngau ngau—name of a shellfish

Karangu—name of a tree Karapa—squint, squinting Karapepe—fermenting

Karapoi noa-open, lift Karapoti—besiege, close in

Karapa—a square, parallelogram

Kararehe—a beast, animal Kararehe wa tangata—a horse,

or beast that carries a man Kararehe wa wahia-a bullock,

or beast with horns

Karatete-proud, angry

Karawa, i. g., karawa kiko—a stripe on the flesh

Karawarawa—stripes

Karawa—a dissolution, dissolving

Karawaka—name of a shellfish

Kare—reflecting

Karenga—reflection Kareao—a wild vine (Smilax)

Karere—messenger, a signal

Karetu—name of a plant

Karipi—cutting

Karu-the head of an animal, fish, beast, &c.

Karuru—operating in a close

Kati-shut, sufficiently, enough, be quiet, let it alone

Katipa—walking upright

Katoa—all

Kata—laughter, laughing, jocular, merry

Katakatangia-scorch

Katipo-a black spider on the seashore, regarded as poisonous

Katoatia-all

Kawai-name of a fish

Kawaka — pine-tree (Dacrydium plumosum)

Kawaki-carry off; kawakina

-carried off

Kawana—governor (Angl.)

Kawanatanga — government (Angl.)

Kaware—a shellfish Kawe—a yoke Kawea-to lead; he hunga kawe riri-a quarrelsome man Kaweka—a ridge on the ascent of a hill Kawenga-leading Kawia—name of a place Ke-different, foreign, differently, change; he mea kea different thing; he tangata ke—a different man, a foreigner Keha—a turnip Ke, or kei-stern of a canoe, the point or place where a distant or different object is stationed Kei-with Kei-not Keihea-where? kei hea ionei -where? Keihei-where? Kei konei—here Keka—the end of a bone Keokeonga-pinnacle, summit, corner Kekerehu—a beetle Kekeno-a seal Keke—the cramp, armpits Keretu-clay Keri-boisterous, being bois-Keri — digging; keria — dig Keri Keri—name of a river Keriu—the bottom, as for instance, of a boat Kete—basket Ketu—the act of displacing a Kewai-fresh-water crawfish Ki—speak; na wai ki? who

said it?

Ki—conversation Ki—fulness, full, filling

Kinga—fulness

Ki-into, in, to, upon, of

Kianga — a covenant, conversation Kiano-fulfil, fill Kia—a prefix used in forming the imperative and subjunctive of verbs Kia hari—be joyful Kiore—a rat Kihai—not Kiki-straight, narrow, adhesion, adhering, conversing, cleave together Kikiwa—a winking, pressing the eyelids close together Kikino-bad Kiko kiko, also kiko—flesh Ki koina-there, pointing to the place Ki konei—here, in this place Kiraro—down, below Kirunga—upon Ki matau—to the right Ki mua—before Ki muri—behind Kiwaho-out Ki maui—to the left Kinonga—badness Kino-bad Kinotia—hate, oppress Kina-a sea-egg Kiri—a pinch with the finger Kiritia-point with my finger Kiri – fever, skin Kiri e hau-naked skin, skin exposed to the wind Kiri piro—a stinking skin Kiri kiri—gravel Kiri paka—a flint Kita, or kitea—see, discern, understand, perceive Kitenga—a sight Kiwi—name of a bird (Apterix Australis) Kiwi kiwi, id. Koau—a coward Ko-a tool with which the natives plant their sweet potatoes; perforating

Ko-a young girl

Ko—a particle used very commonly before substantives, adjectives, pronouns, and verbs, and in the beginning of sentences

Koa-joy, content, satisfied, joyful

Koa koa, id.

Koara-rending, tearing

Koahea-how long

Koe-thou

Koe koe-a shrub

Koewetewete—murmured Koi—a point, sharp, sharpen-

Koi koi—point of a spear, a bayonet

Koia-yes, truly

Koihe-departed, dead

Koinga — the edge, a sharp edge, a station formed by a point

Koingo-mourn

Koiripi-a looseness

Koiuru—a putting together of heads, as into a basket

Koiwe—collecting caterpillars

Koiwi—a skeleton, a corpse Koura—the crayfish

Koutou-you

Koututu—a small fishing-net

Koha-fog, mist

Kohi kohia—gather, collect

Kohu-a mist, fog

Kohuru — murder, murderer,

murderous, murdering, slaying; e hunga kohuru — a murderer

Kohurutia — to lay wait and slay

Kokako-name of a bird

Koki-limping

Kokiri—dipping, darting, appearing, springing up, launching, a dart or short spear

Kokiri tia-cast or dart

Kokiritanga—a time of casting away or darting anything

Koko—a spoon, a working tool Koko—lean

Kokonga-a corner

Kokopu — a small fresh-water fish

Kokorutanga—an harbour Kokota—a cockle so called, a joiner's plane

Kokoti-cut off, reap, circum-cise

Kokoto-name of a fish

Kokowai-red ochre for painting the skin

Koma—a tool so called Komaru—sail of a canoe

Komata mata—the toe

Koma tora—an open fist Komimi—name of a river

Komiri—cleaning

Komo komo—a blinking with the eye

Komotia—casting into, putting into

Komukumuku—rubbing Konanunanu — mix; he mea

konanunanu—a mixture Konake—a slip with the foot

Kone—a slip with the buttocks Kongangi—chewing

Konewatanga—twinkling Konga konga—crumbs

Kopa—lame, shot, maimed Kopa—lock of a gun

Kopanga—a place for a parti-

Kopapa—a sort of canoe Kopaki—husks

Koparu paru-miry

Kope-a pistol Kopere-a bow

Kopi-shut

Kopiko—a curvature, a cripple,

turning, bending

Kopiri—lameness of the feet Kopipi—gathering of cockles,

also a sort of cockles

Kopiro—falling into the water Kopu—the belly, womb Kopu—the morning star Kopua—the bed or deepest part of a river, the double teeth Kopuku—name of a garment Kopu pungawa-reed, bulrush Koputa puta—a shellfish Kora kora—a spark of fire Koramo-a shellfish Korau—an esculent fern-tree (Cyathea medullaris) Koraha—desert, wilderness, deserted Korari-flax Kore-no, not, broken, the rent Korenga—renting Korero kino—swearing Korero-speaking Korerotia—spoken Korewatanga—twinkling Korerotanga—a speech, time of speaking Koro—address; E Koro—friend Koroeke-an old man Koroha—a bush Koroke—a stranger, fellow (in contempt) Koro koro-throat, toes Koroi-berries of the Kahikatea pine Koro iti—little finger Koro matua—thumb, great toe, a teacher Koropiha—a pool Koropiko-bend down, bend, worship, kneel Koro punga punga-pumicestone Koroputa—neck of a bottle Koropupu—boil; Koropuputia -boil thou Kororareka - sweet penguin, -name of a place Korora—a penguin Kororerohia—stir up Kororia - glory Kororiatanga-splendour, glory

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Korotu—the lower border of a garment Korua—two, to be engaged in something Kota—a plane iron, a shell for scraping Kotaha—a war instrument Kotahi-one Kotahitanga—unity Koti-divide, cut Koti koti—a cutting instrument, scissars, cutting Kotinga-a piece, time of reaping, harvest, boundary, circumcision Kotiro - a young girl Koto koto—a rope so called, made use of in a canoe Kotore—the straight gut Kotore—pipe-clay Kotuwanga—a sort of stone Konai—the chin Kowai or K'wai-who? Kowao—a hole Kowara rito—bud of a tree Kowatu - stone, hail, rock, rocky Kowera—yawning Kowiuwiu—fan, broom, to fan Kowete wete-disputing, whispering; He hunga Kowetewete-slanderer Kowititanga o te marama—the new moon Ku—a peg for a mat Kua-prefix for forming the perfect tense of verbs Kua po te ra—the sun is gone down Kua pau—it is done! Kuao-a young male beast, a pig, a colt Kuangahuru—the tenth, tithe Kuia – an old woman, an affectionate term for mother Kuihi-speech Kueti-straight Kuhu—a game so called

Kuhua-hide

Kuku—anything that holds fast, as a vice, pincers, tongs, also name of a shellfish

Kuku—a pigeon, a term used for birds generally

Kukumi—protracted, extended, dilated

Kukupa—a pigeon

Kumara—sweet potato

Kumea — pulling, drawing, pushing, hauling (the seine)

Kumete—a vessel to hold victuals, water-trough

Kumi-ten fathoms

Kumu—the anus

Kumu kumu—name of a fish, beard

Kupako—a sound as of anything approaching

Kupanga—a corner for a ship to anchor in

Kupenga—a seine, fish-net Kupu — agreement, promise, saying, answer, words

Kupu huna ana—speaking in a parable

Kura-red

Kura kura-very red

Kura tau—a year in which there is much battle, bloodshed

Kuri—a dog, a young dog Kuru—the fist

Kurua—strike with the fist

Kuru tou—the long feathers in

Kuru tou—the long feathers i a bird's tail, the tail

Kuru tongia—thin soil Kuruhi—an old woman

Kuta—a louse Kutu—id.

Kutu kutu—an insect, a worm

Kuwaha—a gate

Kuware—a fool, an ignorant man, ignorant, to believe Kuwaretanga—ignorance

Kuwaru—name of a shell-fish

M.

Ma-white, pure, clean, pale; kia ma koutou-be you clean

Ma, i.g., mo—for

Ma — conjunctive particle for numerals, and

Ma—giving

Maenene-soft

Mai—name of a tree, 'Dacry-dium'

Mai-i.g. matai

Maia—be joyful, forthcoming, apparent, exposing

Mai—here, hither; used as an affix to verbs; haere mai—come

Maiatanga—boldness, courage Mairitawaka—name of a tree,

'Eugenia Mairi'
Maieore—skinning, pulling off

the skin
Mairi—name of a tree

Maitiko-toes

Maiki—to nurse, pressing to the breast

Maori—indigenous, native, natural; haere maori—walking, as a native has no other chance; wai maori—fresh water

Maoritanga—native custom, natural use

Mau-of thine, for thee

Mau-take, fetch, bear; mauria mai-bring hither

Maua-we two

Maua-ripe, cooked

Mauahara — hate, malice, to hate, hatred

Maui-left (hand)

Maui-a person of tradition

Mauiuitia-suffer, labour

Maumaunia-wasting

Maumau — taking, waste, to waste, name of a fish, in vain Maumau uaua noa—labour in vain Mauria mai-bring

Maunu—bait for a fish-hook, baiting, biting, or being caught

Maunga rongo-peace

Maunga — a mountain, ripe, wholesome

Mahana — warmth, warm, warming

Mahanga-net

Mahanga-twins

Mahara—consider; maharatia, considered, wise, careful, good

Maharatanga—knowledge, prudence, thought

Maha-many, much

Maheau-verandah

Maheoro — an entrenchment, ditch

Mahi-work, industrious, working; Mahia-to work

Mahi wawe—work quickly done Mahinga—work, a job, worktime

Mahiri-naming a child

Mahitia-to work

Mahue—to loose, forsake, de-

Mahunga-head

Mahuri-plant

Maka-wild

Maka—casting off, throwing away, an eruption

Makamaka-cast

Makarii—repelling

Makariti—cold

Makawe—hair of the head

Maki—the last survivor of a tribe

Mako-name of a fish

Mako wakakai—an ear-drop made of the tooth of the fish called mako

Mako mako—name of a bird Makona—fill, satisfy, satiety

Makona tanga—filling Maku—me, I

Maku-wet

Makuku-wet, watered

Makuru—the premature falling of fruit

Makutu-witchcraft, bewitching, enchanting

Mama-light, not heavy

Mamae—pain, painful, sore, distressing, afflict, hurt

Mamai-mouth

Mamaha-exhalation, breath

Mamaru—rays of the sun

Maminga-a lie, a liar

Mana-for him

Mana — command, authority, power

Manako—worthy, acceptable, remembrance

Manakohanga — remembrance, savour, acceptable

Manakohia ana—to be acceptable

Manane-smooth

Manatunga-keepsake

Manawa — breath, courage, courageous, spirited

Manawa nui-good cheer

Manawa pa—an overflowing spirit, envious

Manawanuitanga-patience

Manawa tawi — the islands called the Three Kings

Manene-stranger

Maniia—a plain

Mano—a thousand, the multitude

Manuea—a shrub (Leptospermum ericoides)

Manu—a bird, a kite

Manuka—a shrub (Leptospermum scoparium)

Manukao-name of a place

Manuwiri—a stranger, a traveller

Manuhiri—id.

Manga—branch, twig, graining of a tree, name of a fish

Manga kahia—a mountain so called

Matai, i. q., mai

Mangai-mouth Mange mange—a fish-hook Mangere-idle, idling, loitering Mango—a shark Mango pare—a shell-fish so called Mangonui—name of a place Mangu—black, blacking, black Mangu mangu—id., blackness Mangungu-break Mapuna—enclosed in a stone Mara—a farm, field Mara-friend! e mara-friend! Marae—a yard, court Maraenui—name of a place Maraetahi—name of a place Marama-moon, month, light Marama-light, clear, pleasant Maramatanga—light Marangai-east, east wind Marangai hau raro -- north-east; Tonga marangai-south-east Marara ke—go astray Mare—cough, coughing Marere—falling down, dead Mari-it is good Marie-peaceful, simple, quiet, still, serene Mariu—spots upon the skin Marino - smooth, calm; for instance, the sea Maringi-running out, dropping Maringi-menstrua Maripi-knife, sword Maro—a mat so called, extend, a fathom Marohirohi-prosper Maroi-fern-root Maroke-dry, to dry Maru-extinguish, kill, break, bruise, tear, shadow, shade Maru maru—a shade Marunga - death, a murder, killing Mata—face, appearance

Mata-raw, uncooked

Mata-musket-ball Mataara-watch Mataaratanga-watch; o te po -night-watch Matao-cold Matakiri—evelids Matakitaki—look at, observe, notice Mataku, fear, fright, fearful, to Matauranga - wisdom, knowledge Matau-to know, to understand, to teach, skilful, wise Matau-right hand Matau-fishhook Matapo-blind Mata mata, also Mataue-name of a place Matamua-firstling, first-born, first Matanawe—scar, mark Matangerengere—hard Matangi—the air, the extension of the intestines after death Matapihi-window Matapiko-hiding the face by hanging down the head Matara—refuge Matarangi-horizon Matarehe-sort of fresh-water Matariki-the Pleiades Matatoua—looking earnestly at another Mate mate—die Mate-sick, desirous, needful, dead, dying Mate wai-thirsty Mate kai-hungry Mate ika-illness from eating fish Mate toru—thick Matemoe, also Materawa dead Matia—an arrow, a spear, dart Mate awa—severe illness, death

Matenga—head, time of death Mate huna-fretting, concealed affliction Matinga rawa—death Mati hau—nails of fingers Matikara—finger Matiki-a fish-hook Matikuku-nails, toes Mutikuku wae wae—toe-nails Mato mato—green Matoke-cold Matou-we Matu-flesh Matua—a parent Matua tane — father; matua wahine-mother One matua—primitive soil Matua keke-uncle Matuaranga o te po—the watch of the night Mawa-soft, done, cooked Mawera—open Mawete—untie the garment Mawiti-coming forth Mawi, i. g., Maui—a mythological personage Mawiti witi-locusts Me-and, or, a particle used in comparing, like Mea-a thing, gift, cause Mea-speaking, saying Meatia—give, done, become Meatu-speak Meanga-word, command Meinga—a word, a deed Meinga mai—tell, speak Meireira—then Meuimeui-gather Meka meka-chain, necklace, bands, halter Meke-a dwarf Mere—a war-club Merimeri—the evening star Merekara — great words, eloquence Memenge-withered, decayed Memeha-vanish, cut off Meme-muttering, enchanting

in the imperative mood and passive form Miharo-wonder, to be astonished Mihi—sigh, sighing Mihinga—sighing, moaning Mimi - urine, urinous, make water Mine-assemble Minamina—desire Mimiki—absorbing, drying up Mira—a tomb, place of repose Mire-minced meat Miri-rubbing Miro - name of a pine-tree (Podocarpus ferruginea) Miro-thread, spinning thread Miro miro, id. Miru—a bubble, a rill of water Miti-licking Miti miti—licking Mo—for Moa-fossil bones of a struthious bird of that name Moana—the sea, ocean Moaniani - flat Moe-sleep; to sleep, dream Moemoea---dream Moehewa--vision, dream Moe koroha—asleep in the bush Moenga-bedtime, bed, couch Moenaku--dream Moepuku—fornication Moe tahae—adultery, commit adultery Moe tuturu—placing the heads of enemies upon the pins used in making mats Mou—for thee Mou—take Moi moi-dog Mohio—to know, understand Mohiotanga-understanding Moiri he hau—a corpse exposed to the wind Moka-worm, maggot Moka—a shroud

Mia—a particle, affixed to verbs

Mokai—a labouring man Mokai kai—preserved human heads

Moke—desolate

Moke moke-alone, desolate

Moki-name of a fish

Moku—for me

Moko—the tattooing or marking of the face

Mokonei-therefore

Mokomokai — the preserved human heads

Mokomoko—a small lizard

Moko puna—a grandchild, nephew, niece

Moko taniwa—an ear-ornament Momi momi—kissing, saluting

Momo—seed, offspring

Momoe—sleeper, sleep Momona—fat, sweet, delicious

Momoto—a box with the fist

Mona-servant

Mona-for him

More-light

Morenga — club for beating fern-root

Morere—a swing for children

Morunga—head on the top of
a pole

Moriore—exclamation used in sneezing

Moti—last survivor of a family Moto—a blow with the fist

Motoi—a person neglected at meals

Motu—an island, alone, standing apart

Motuke—apart, separated Motuhia ketia—separated

Motumotu—divide Mowiti—a ring

Mu—a particle used with other words denoting the extremity

Mua-before; i mua, aforetime, formerly

Mua-the eldest (son)

Muhanga—working at the extremity of anything Muka—flax prepared Mumura—sparks of fire

Mungea—itch
Muna—the ringworm, a circular scar

Muna muna—id.

Muri-henceforth, in future, behind; a muri, after

Muri kokai—the back of the head

Muringi-scattering

Muri wenua—landsend, name of the most northern parts of the island

Muri motu — Endisland, an island off the North Cape

Muru — wiping, rubbing, polishing

Muru — forgive, spoil, rob, bruise; taonga muru, prey

Murunga—cleared land

Mutu—the end, ending, finishing

Mutunga-the end

Mutumutu—end, final; ekore a mutumutu—continual, without end

Mutunga kore—without end, everlasting, eternal

Mura—light, flame Muramura—id.

Mure—name of a fish

Muwaru—a grub, worm

N.

Na—now, behold; used in beginning a phrase, an argument

Na—of the

Nau—come; nau mai—come hither

Nahe nahe—separating
Naho—a species of potato

Nake—only Nakoa?—why not?

Naku—of me, of mine
Namu—a muskito

Nana — behold, because, for, listen

Nana-of him

Nanu-agony, groans, quarrel

Nanakia-terrible

Napo-last night

Nara—healthful

Nawake—three days ago

Nawake nui—four days ago Nawi—a rush, the scar of a

wound

Ne—a particle to signify a removal or change of place

Nei-hither

Nehu-dust

Neke—remove; neke mai come nearer; kia nekehia koe—remove thou; neke atu

-go away

Nekehia ketia—depart

Neko—a garment Nene—slipping easily

Nia—a particle affixed to the root of verbs for forming the imperative

Nihau—the gunnels of a canoe Niho—tooth; niho tunga—a

rotten tooth

Nikau—the cabbage palm (Areca sapida)

No-of, denoting possession

No-for

Noa-free, disengaged, common

Noatia-without cause

Nou—of thee or thine

Nohea koia?-where was it?

Nohea-whence from

Nohinohinga—smallness

Nohi nohi—little, small, light, easy

Nohoia-inherit

Noho—sit down, fix, not moving, stop, fast

Noho puku-fasting stomach

Nohopukutanga—fasting

Noho iho—sit down
Nohoanga—presence, seat, habitation

Nohowanga—id.

Nohu-sinking with pain

Noke—walking to a distance, change the situation

Nokona—then

Noku—of mine

No mua-in old times

Nona-of his

No naianei—the present time

Nonohi—little, small; nonohi rawa—the smallest

Nope-a gnawing pain

Nui-great, large

Nuinga — abundance, fulness, size

Nuinui-very great

Nuitia—openly

Nuku—squeezing, pressing Nuku mai—come close to me

Nukua mai—id.

Numi numi—afraid, confounded

# Ng.

Ng is pronounced like a g with a nasal sound

Nga-article for the plural number

Ngau-bite, gnaw

Ngaua—pains

Ngaue-tremble, quake

Ngaueue—id.

Ngaueuetia-shake it

Ngaueue wenua—earthquake

Ngahau—break forth, issue Ngohoro—fall

Ngakau—heart

Ngakihi—a button, a shell-fish

Ngaki—tilling the ground; to kai ngaki wenua—farmers

Ngakinga —a farm

Ngako-fat

Ngamu, i. g., namu

Ngamu ngamu—id.

Nga motu — the Sugarloaf Islands

Nganga—dregs, residue, a tumult

Nganga-a human skull Nganga rangi—a kind of po-Ngangatanga—a concourse Ngangare—contend, strife Ngangaretanga—dispute Ngarahu—the black soot of kauri resin, used in tattooing Ngarara—a creeping thing, a lizard Ngaro—a fly Ngaro-hide, secret, loose, invisible Ngaronga — secret, mystery, absence, absent Ngarautaua—name of a shell-

nsh
Ngaru—the wave, surf, covered
with waves, an uneven surface, uneven, rough
Nga rue—roots of fern

Ngaruru—an aching pain, aching

Ngata—name of an insect
Ngatahi—together; hui ngatahi
—to meet

Ngatahitia—together Ngatatatanga—a gulf, a wrinkle

Nga taro—roots of taro

Nga uia—tail feathers of the

bird called uia, used as an

ornament

Ngawari—soft, light, easy Ngenge—weary, to be weary, tired

Ngengeti—an insect Ngere—lazy Ngeri—name of a garment Ngeri komeke—id.

Ngeru—a cat
Ngiru ngiru—name of a bird
Ngokingoki—to creep

Ngoi-an old woman, general name for fish

Ngoikore—weak, faint Ngoikoretanga—weakness, infirmity Ngoiro—name of a fish Ngohe—loosen Ngongi—pure water Ngongoro—snoring noise, snoring Ngoto—deep, pierce

Ngu—squids, the tattoo upon the nose

Ngungu—walking in a sitting posture, stooping low
Ngutu—lips, brim of a vessel;
te hunga ngutu kau—people
talking with their lips only,
deceitful, hypocritical people

Ngutu riwa—hare-lips

# P.

Pa—a fortified village, affectionate term for father
Paiauku—gaudiness, finery
Pai—good, kind, well; e pai
ano—please, good
Paihau—beard
Paihia—name of a place
Painga—goodness, benevolence,
beauty
Paipai—finery, good, fine, beautiful, well-made
Pairau—proper name
Pai roa, (i. e. hau)—a south
wind middle island

wind, middle island
Pairoke—name of a place
Paitia — good; e koreroretia
paitia—of good report
Paopaongia—making slight of

Paopaongia—making slight of anything

Paopao—make slight, easy of anything

Paoa or Paowa—gall, smoke Paheke—stinginess

Pau—consumption, expenditure

Pau-consume

Pauka—a garment so called Pahu—a canoe-shaped piece of wood which was beaten like a drum; a trumpet, a drum

Pahia-bruise Pahi-a ship Pahunu-terror Pahuretia—to hold, to pull, to keep fast Pakaka—pale Pakaukau-a kite Paka—a garment, anything dried in the sun Paka kina kina—smite Pakau-wing of a bird, a kite Pakaru—breaking, bursting Pakarutanga — breaking issuing Pakarunga—bursting Pakarukarunga—ruins Pakanae—name of a place Pakati-waistcoat (Angl.) Pake pake no te ra—the ornament placed at the edge of the sail of a canoe Pakea—a stranger, foreigner Pakepakewai—a garment Pakeke—hard, difficult, proper name, hardly, bad, cruel Pakeko-a barren woman Paki - calm, quiet, as the weather Pakipaki - very quiet Pakia—covering for a man's back, boxing with the open hand Pakiaka-root of a tree, any Pakihi—a garment for a man, breeches Pakirikiri—a fish so called Pakirikiri-the lower incisors of a man Pakihi kura—red land, where fern-root has been collected Pakira—a bald head Pakitara—the corner, a wall Pakoa te tai-low water Pakoi koi—a fish so called Pakoko—barren, fruitless Pakurakura—a fish so called Pana—a fillip, filliping

Pane—tie up, catch Pani—an orphan Pani-besmearing, painting Panikau—name of a place Panga—a casting, or removing from one place to another Pangia—taste Pangiatia—taste it Pangore-name of a fresh-water Panguru—a mountain so called Papa—a thin board, a plank, a plain, a flat, a table, the but-Papa—exploding, bursting Papaka—a crab Papaki—smite; i nga ringaringa—clap the hands, palm of the hands Papaki—new Papaku—low, little Papare—cry Paparinga—cheek Papani—a fish so called Papapa—a cup for victuals Papanga—half of anything Papa pere—a quiver Papata—a cockroach Papatu—strike Papataura—a sponge Papaware—the floor of a house Para—a fish so called Paraharaha—an iron hoop Paraheka—semen Paraheka wahi awa-a blue paint Parahi—a game so called Paraparau—command Pararohi-juice of fern-root Pararau—wings Paratahi—the upper side boards at the head of a canoe Parawa—a sperm whale; also its jaw bone; the two upper incisors of a man

Parawea-noon

sitting in a circle

Parangi-a company of persons

Parare—cry

Parepare—the fringe of a garment

Pare—a ribbon for the head, the topknot of a bird

Parea—turning, turning round Pare—the resin of the kauri

Paremo-sinking Parera—a duck

Parewarewa—a fish so called Parewakataka-the knot of a ribbon, worn at the side of

the head Pari—a steep rock, a precipitous shore

Pari-rise, flow; for instance, the tide

Parirau, wing of a bird

Paro—the hollow part of the hand

Paro-a small basket, used as a plate

Paroa—name of a place Parore—a fish so called Paru-mud, dirt, dirty Pata—a garment

Patari kaihu—one of the Magellan clouds

Patahi—a garment for the waist of females

Patanga—a cause

Patata-surrounding

Pate—the wood which is used by the natives to produce fire by friction

Patete—a garment so called Pati—a lie

Pati pati—to tell lies

Patiki-a fish so called, also a

Patinga o te tai—flowing of the tide

Patiti—a tomahawk, a small

Patota—name of a place Patuka—a storehouse

Patu—a wall

Patu—a war-club, beating, killing; patua-smitten

Patukia-knock, a knock

Patunga—a slaughter; patunga tapu-slaughter for sacrifice Patuone-slaughter upon the

sand, name of a person Patu patu—a war-club

Pawara-wild

Pawa—a shell-fish (Haliotis)

Pawera—fear, a fever

Pawi-a club for beating fernroot

Pawi-beating Pe-perhaps

Pea-perhaps, I believe so; Pea

phoki - perhaps it is so Pea—the lobe of the ear

Pe-push, thrust, drive, throw

Pehia—push on

Pehea—how? what?

Pehi—a ship, a tossing ball

Pehoki—a dog-fish Peka peka—a bat, a game so

called

Peke-remove Pena-like that

Penei-like this, thus, in that manner

Pepe—a butterfly, trembling Pera-like that, the same

Pere—remove, removal

Pere—shaft, bow, arrow

Pere kura—a war station

Pero—a dog

Pero pero—ditto

Pi-close, near

Piu—cast; for instance, a fishhook

Piu—grass so called

Piha piha rau—a sort of freshwater eel

Pihe—the funeral ode, singing the pihe—the womb

Pihi-spring up, grow

Pihoi hoi—name of a little bird Pikau—a load, burden, a gar-

ment

Pikaua—carry a load upon the back

Piki—adhering, sticking very close, adhesion, adhesive, clinging, climbing, ascend

Piki-arero—the ligament of the tongue, a climbing plant

Pikinga—adhesion, climbing Piki rangi—a climbing to hea-

Piki kiki-troublesome

Piko—a curve, a bend, to bend, crooked, a humpbacked per-

Piko piko -ditto

Pikonga—a curve, or bending of a line, road

Pine-scowling

Pipi—cry of a bird, cry of a child

Pipi—cockle

Pipi—tremble Pipipi—a turkey

Pirangi-desire, smile, lust

Pirau—stench, stinking, spoilt,

Pirautia-rotting

Piri—cleaving, sticking, closeness, crowding

Piri kau—a sheep from the closeness of its wool

Piringa-closeness

Pirinoa—name of a place

Piro-stench

Pirounga—corruption, stench Pirongia—name of a mountain

Piwai—refuse of sweet potatoes

Pingau—a garment Pingore—tough

Pitao—the carved figure at the head of a canoe, a canoe so called, the tattooed face of a woman

Pitao waka—a carved canoe Pito—the end, the navel Pitone—end of the beach, name

of a place

Pitorehu—the navel-string Po—night, darkness, sea

journey

Po mate kai—season of famine

Poaka - pig, swine

Poeoi—a tuft of feathers worn as an ornament in the ear

Poi-a ball for play, to play ball

Poi poi, a ball, light

Pou—a post, pillar

Pouroto—the inside post of a house

Pouaka-a box

Poupou-stakes

Pou pou-boils on the skin

Pounamu—green jade

Pouri—dark, dull, sorry, sorrowful, darkness

Pouritanga-darkness

Poutou-cut off, chop

Poutoutoki—cut up

Poutoa noa-beheaded

Pouturi-deafness"

Pohewahewa-doubt

Pohewa-id.

Pohehe—hinder, prevent, con-

Pohe—dead

Poheua-doubt

Pohutukaua — a timber - tree (Metrosideros tomentosa)

Poka—besmeared

Pokaikaha—doubt

Pokaia—disembowel

Poka—alter, cover Poka—pit, hole, excremental

Pokapu-name of a place

Poka noa—idle

Poke-unclean

Pokai-fold, roll up

Pokerioa—wilful

Pokarakara-globular

Pokatupapaku-grave

Poke poke-to make

Poki—covered Pokihiwi—shoulder

Poto-short

Pokoura—name of a place Pokanga—cleft of a rock, a hole Pomare-night-cough, a name Ponapona - joints Ponaru-widow Penarutanga-widowhood Pona—a knot, making a knot Ponaanga—a knot Pona pona-wrist, ankle joint, knotty Pona kaua kaua-a game so called Pono-truth, true, truly, faithful, to speak the truth Pononga—servant, assistant Ponongatanga — servitude, assistance Ponga—a pithy wood so called Pongere-smoking Ponga ponga—nostrils Popo—cut into pieces Popoa—sacred victuals Popoto—very short Porae—a fish so called Porae nui—name of a place Porearea—bother, confound Porohuritia—to turn upside down Porahurahura—trouble Pororarui-confounded, doubted Poranga—a purple sweet po-Porangi—hasty, to be in a hurry Poropora—tobacco Poraporo—berry, fruit Porori-hip-bone Poroporo aki—taking leave Porotaka—annular Porotaitaka—closed all around, annular Porotutu kitanga — borders, limits Potatutatu—with haste Potai—a hat, cap, pot-lid Potaitupui—name of a place Potiki—the youngest child, brother or sister Poti poti—an insect so called

Poto poto-short Pu—a cylinder, musket, flute, a pregnant woman; fire a musket Pu-blow Pua—a sowthistle Pua iti—the small sowthistle Pua o te rakau—flower of a tree Puao—daybreak Puaotanga—dawning of the day Puare—open Puaki-make known Puchu-dust, uproar Puehuehu—mealy; used of the fernroot Puehoki-blunt Pui—the ornamented sternpost of a canoe Pui korokoro—name of a fish Pui—a hot spring Puhehe-erring Puhi—to shoot Puhi—name of a freshwater eel Puka—spade, cabbage Pukaha—a garment so called Pukanana—staring Pukapu—a place so called Pukapuka—book, paper, a tree so called, the lungs Puke-hill Puke puke—hill, low hill Puke hau papa—Snowy Mountain, Mount Egmont Pukeko—a bird (*Porphyrio*) Pukepoto—a mineral serving as a blue paint Puketaua—name of a hill Pukorotuna—a wickerwork basket for catching eels Puku-stomach, bulk of a ship; noho puku-a fasting stomach; moe puku, fornication

Puku—secret, concealed, se-

Pukutia—do a thing secretly

Pukuwaewac—the ankle

cretly

Pumau—close, confined for want of air, confident; pumau ana taku wakaro-I am confident

Pune-close, tight; ware pune, sleeping house

Puna—spring, root

Puna wai-a spring, a well; puna awa-the source of a

Pupu—a periwinkle, abundance Pupuhi-blowing Pupuru—a cartridge, hold Pupuri-close, near, receive, hold

Puputu—close

Pura pura—seeds, fruits Pura-film, mote

Puranga—heap, to heap Puranga paru—dunghill

Puri-seize, help Puripu—canon

Purehurehu-moth

Puremu-lascivious, adulterous, adulterer, whoring

Purepure—spotted Purewa—a muscle

Puritia—to hold, keep back

Puroku—a goat

Purorohu—a current in the sea Puna rua—a pulling match

Puru—a cork or stopper Puru-holding fast

Purui—a flea

Puta ake—come up, make its

appearance

Puta-pass through, leave, descend, appear, show; puta mai-koutou - show yourselves

Puta—an opprobrious term for a woman

Putake-root

Putahi—any persons or things derived from the same source or family

Putanga-egress-descend, appearance

Putangitangi—Paradise duck

Putanga matamua—the born

Pute-bag Putoto—a bird

Puwa—thistle

Puwenua—the poles on each side of the sail

Puwerewere—a spider

Punga—an anchor, an odd one

Pungaribu—ashes

Punga wera wera—brimstone Punga wera—pumice-stone

Punga he hawato — pumicestone

Pungorungoru—a sponge

# R.

Ra—a particle used in the present tense of verbs, which follows the verb, and is generally used if we want to express anything with force; for instance, haere mai racome here!

Ra—sun, day, time Ra-health, strength

Ra—sail of a ship or a canoe

Ra—rise up

Ra—i tenei ra, i tenei ra—continually

Ra ia—that person, yet

Rae—point (of a coast), forehead

Raena—prominent, in sight, within view

Rai rai—thin

Rao rao—a plain

Rau—young tops of a

leaves, a grass so called

Rau—hundred

Raua—they (they two only) Rauhanga—wiles, temptation

Raukaua—name of a tribe

Raumati—summer

Rauparaha—name of a chie Raupaua—a net for small fish

Raupo—bulrushes (typha)

Raurau—a plain, a village situated on a plain
Raha—show
Rahi—length, great, long, tall,
enlarge, forehead
Rahu rahu—fern

Rahui—prohibition, prohibit Raka—firmament; he wetu raka—the starry firmament

Rakapika — shrub (Metrosideros florida)

Rakau-tree, general name for wood

Rakautia—becoming a tree Rakau mo te ihu—a bowsprit Raku—a scratch

Raku raku—a small hoe, or anything to scrape with, scrape, scratch

Rama-candle, light

Rama rama—name of a tree (Myrtus bullata)

Ranei—an adverb added to interrogative particles; for instance, Kowai ranei? who?

Raneatanga—riches

Ranu—mixture; ranu—gravy Ranga—make, fabricate

Rangai—a crowd, a shoal
Rangaunu—name of a place

Rangatira—a gentleman Rangatiratanga—chieftainship

Rangi—heavens, sky, light
Rangi—to be accustomed to
Rangiatea—clear atmosphere

Rangimarie—meek, still Rangiuru—the upper regions

of the atmosphere, heavens
Rangitetahi—a name

Rangitoto—red sky, name of a place

Rangitunoa—a day without employment

Rangona—spoken, heard, made known

Rapa—the upright board at the stern of a canoe, name of a place

Rapa rapa—sole of the foot, foot, shoe

Rape—a sort of gourd Rapu—search

Rapua—to search

Rara—rib

Raputia—seeking

Rarau—a plant so called Ra raku—time of scratching

Raramata—name of a place Rarata—flock, tame

Raratuna—a game so called

Rare—a sort of grass Raro—below, under

Raru raru—troubled, uneasy Rata—name of a timber tree

(Metrosideros robusta)

Ratou—they (all together)
Rawa—used to form the super-

lative degree of adj.

Rawa—a remainder

Rawa—to the utmost extent, to the last

Rawatia—very high Rawanga—a remainder

Raweke—use, treat badly

Rawengi—to like Rawiri—a shrub (*Lep* 

Rawiri—a shrub (Leptospermum ericoides)

Rea rea—depart
Rei—pit of the stomach

Reinga—the other world, its entrance at Cape Maria van Diemen; hell (of the mission-

Reira—there, therefore, thence Reo—voice, speech, dialect

Reo reo—a shell-fish so called Reua—oppressive heat

Rehu—chip or beat off, for instance, a flint

Rehu—a flute, pipe

Rehu rehu—depart, descend, set Reka—joking, sweet, agreeable to mind or taste; agree, sweet

Rekatanga—joy Rekereke—the heel Reko—a bird so called Repo-a swamp Reringa—flight Rere-fly Remo—fringe of a garment, hem, borders Rere—behold! look! Rewa—eyelid Renga—secretion of the eye Rewa rewa—a tree (Knightia excelsa) Rengarenga—a liliaceous plant Rereahi ahi-evening star Rere—break forth Rete-a snare, to snare Riu—the internal part of a person, canoe Rihi—dish, plate Rika—thin, small Rike rike—heel Rima-five Rimu—herbs, seaweed Rimu—a pine tree (Dacrydium cupressinum) Rino-iron, a bolt Ringatahi-handful Ringa ringa—the hand Ringihia—to empty Ringi-fill, pour ; pass. ringitia Rire—depth Riri-anger, angry; riririangry Riringa-resentment, wrath, ire Ripeka—cross Ripekatia—crucify Ripiro—name of a place Riri-native baptism Riro-go out, away Riro ke—depart Riro riro—name of a bird Rite-fulfil Rite-alike; rite tonu-exactly alike, according Ritenga-creed, custom, manner; Ki te ritenga-according Rito—bud of a tree Riwai—potato Ro-matter -Roa-long

Roatanga—durance Roanga-lengthening, length Roakatanga—riches Roimata—tears Rohe-borders Rohi-fern-root Roke-hard dung Rokohi — find ; rokohina found Roke roke—a kind of potato Roma—the wake of a ship, a wave Romi—squeeze Roromi-infanticide Rona—the lady in the moon Rope—throw away Rore kiore—a game so called Rori—scrape, gather Rorihi—turn over Roro—the brain Roroa—very long Roroi—a sort of pudding Roto—within Rotu—a lake Rotu rua—name of a lake Rotu mahana—id. Rotu makariri—id. Rongi-swallow Rongo—hear, feel, tidings, obey Rongo—an informer Rongo—peace Rongongo—hear Rongotia-hearken Rongoa-medical, medicine; he tangata ronga—a medical man Rongoatia—to heal Ru—a shrug, to shrug Rua-two Rua—a hole for potatoes, a Ruatera—an Iguana, a pit, i. g., tuatera Rua rua—a few Ruake-sickness, vomiting Ruanga—place for two Ruatahi-twice one Ruemata—tear

Ruinga-outpouring

Rui rui—scatter, shake Rui-sow, shake off Rurea—beset, in order to plunder Ruruhi—an old woman Ruri ruri—toss about, pitch Ruru ruru—an owl Ruru-close, hidden Rutu-strike, beat Ruha-weary, tired Ruku ruku—a basket loosely tied up Ruku-dive, diving Rumakina-bend Runga-above, upon Runanga—assembly, council Rupe-blow the nose Ruperupea—shake off

Ta—an instrument to mark the skin with, a file, mark, knit a fishing-net Ta-gen. poss.; for instance, the fruit of the tree-ta te rakau hua Taea-prosper Taemai-name of a place Tae mai-approach, come Taenga atu—appearance Taere—a snare for catching seafowls Tai—sea; wai tai, sea-water, a woman bearing children, an affectionate term for mother Taia—engrave, impress Taiapohia—carry Taieke-spring-tide Taiepa—enclosure, wall, fence Taiepatia—hedged, enclosed Taioa—by and by Taihou-stranger Taimaha—heavy, load heavy Taimahatia—heavenly, laden Taipa—name of a river Taipari—a flowing tide, flood Taipouri—the dark part or hold of a ship

Taitima—an ebbing tide, ebb Tairiki riki—neap tide Tairaki-a gentle current of the sea Tai tai-salt Taitamariki-young man; wahmi taitamariki-the first wife Tairua—the sea-sands Taiwaka pakoa—a very low tide Taiwaru—a fresh-water trout Tao-a long spear, stick, stave Taokete—a brother or sister in law, a relation Taonga — treasure, property, goods, rich; tangata taonga, rich people Taora po eoi - spear dressed with parrots' feathers Tau - one revolution of the earth round the sun, a year; a game, revolving, meeting Tau iho-lay down upon Tau—number; pass. tauia Tau-thy Tau-stranger Taua-war, meeting, battle, excursion; nga rongo tauawarriors; he tangata tauaa warrior Taua-we Taua-that Taua iti-a skirmish Taua tapu—a war with certain ceremonies Taua toto—a war excursion for the exercise of the lex talionis Taua rekareka—a slave Tauataua—name of a fish Tauhiuhia—sprinkle Tauhou—stranger Tauinu—name of a shrub Tauiwi—a strange tribe, tribes Tauhoe—a stranger Taumanu—the beams of a canoe Taumarumaru — shadow, shadow Taumarumarutanga—shadow Taumaro-a sweetheart

Taumatia—espoused Tauna or tahuna—a sandbank, shallow water, roast by the fire Taunutanga—reviling, slander Taunutia-to mock Taupiri-name of a place Taupoki-cover Taupuhipuhi-stand up, confide Taura—cord, rope Tau rau—a century Tauranga-a landing place, a wharf, name of a place and Tauri—a turn, turn over Taurite-ready Tautari—a tomb surrounded with wickerwork, name of a mountain Tautiti—guide Tautoru—three stars in the belt Tauwaru-sort of fishing-net Taha taha—the sides of anything Taha—id. Taha—calabash Taha taha ara—the wayside Taha taha wai-the waterside Taha wai-id. Tahae-steal, pilfer, covet, a thief Tahaetia—stolen Tahaetanga—theft, pilfer Tahaku—the sides and ends united as a parallelogram Tahi—one, together, or as one; for instance, E wakaro tahibe of the same mind Tahihuru—a dog's-skin Tahi tatou—we all together Tohoho-sob, pant Tahuri mai—turn to me Tahuri-turn, convert Tahu-husband Tahu-kindle Tahuhu—the joist of a floor Tahuna, part. pass. of tahulighted, burned

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Tahunga—sandbanks, flats Taka - fall, change; for instance, the wind; to fall, change Takanga—fall Takaro—play, playful Takaia—to wrap up Taka kau—lonely Takapau - a sleeping-mat, Takapu—the calf of the leg Takawaru—name of a fish Takawera—name of a star Take-bottom Takeke-name of a fish Takere—the bottom or keel of a ship Takiwa—the firmament Takiwa—a bay having no river Takitahi—by single numbers, each of them individually Taki rua-by pairs Takimahatia—abundantly Takoto kau—empty Takoto—lie down, place to lay anything Takototanga-place, treasure, a tomb Taku-my Tako taniwa—a shark's tooth, worn as ornament in the ear Tama—child, son, embryo Tama iti-son, child (male) Tamahine—daughter Tamahine tanga—youth Tamara—a full-grown man or woman Tamariki—son, children Tamariki tanga-youth Tami tami-craw or stomach of a bird or person Tamuri—the snapper fish Tana-his Tane-husband, male Tanekaha—a pine-tree (Phyllocladus trichomanoides) Tanihi-blind of one eye Taniwa-name of a sea-monster

Tanu-bury Tanumia—bury

Tanga—syllable joined to verbs in converting them into abstract substantives

Tangata-men

Tangata ke-foreigner, stranger Tangata muru—a robber

Tangi-cry, lamentation, grief, noise of man and animals and inanimate objects, report of a gun, cry

Tangiaue—howl, cry violently Tangihanga—crying, weeping Tango-take, unite; tangohia mai-receive

Tango katoa-altogether

Tangohanga—receiving, hand-

Tangotango-handle

Tapa—thin cloth, made of the bark or leaves of trees

Tapapa—a species of potatoes Tapeka—name of a place

Tapiri—help; tapiritia, helped

Tapoko-enter

Tapokopoko—a bog

Tapu-sacred, inviolable, forbidden

Taputia—made holy, made sa-

Taputanga—the act of making holy or sacred

Tara tara—palings, a rock with uneven stones, rough, a beard; kakahu tara tara—a coarse

Tara—a gannet, a war instrument

Taraiti-a tree

Tarakihi-locusts, name of a fish Tarakina kina—name of a mat Tarapo—a species of potatoes

Tarawa-name of a place, a joist or spar which extends from post to post

Taraware-storehouse for kumeras

Tarawera—shell-fish, name of a

Tarawahi—the other side of the water

Tare-groan

Tarenga—groaning

Tareureu—a game so called

Tarie-wait

Taringa-ear

Taringa pihi-a horn

Taro taro - a vegetable food, bread

Taro—id.

Tarona - suicide by hanging, hanged

Taru taru—grass, weeds

Tata-near, draw nigh

Tatau-door, gate, dispute

Tatau—account, count Tatahi-apart

Tatahi—kill by bruising

Tatahi-sea-beach

Tataramoa—thorns, blackberry

Tatari-delay, wait Tatari mai-wait

Tatata—mat so called

Tatera—a trumpet

Tatoka—a spear

Tatou-we all

Tawae wae-foot-mark

Tawai-name of a fish Tawai — revile, slander, re-

proach Tawainga--reproach

Tawahi—the other side of the

water, beyond Tawaka—name of a fish

Tawara—a sort of water-cress

Tawaru—name of a fish

Taweta—hang up

Tawi-succession of wave upon wave

Tawiri—name of a shellfish, beckon or hail

Tawiti—far, distant

Tawiti tawiti-very far

Tawito-grow old, old, original; pass. tawitotia

Te—the definite article

Te-empty, void, to empty, to clear, disperse

Teina—brothers, younger brothers or sisters

Teina ke—brother or sister-inlaw, cousin

Tehoa—which, where?

Tehia, id.

Teka—falsehood, lie, false, lying, to lie

Tena—that, in sight Tena—go on, proceed

Tena ra—be cheerful

Tena ra kokoe—how do you do? good morning, good day

Tenei—this

Tenji—the odd one of the three Tenjihanga—deceitful

Tera—that, at a distance

Tere — swift, quick, moving swift

Terepua—name of a star

Tere tere—a trading voyage, or a sailing excursion from one place to the other

Tero-the straight gut

Tetahi—one; tetahi tetahi—one, another or some

Teteatanga—gnashing; te teteatanga o nga ihu—the gnashing of the teeth

Tetere—trumpet, shell, a trembling, tremble, swell

Tete—a carved figure at the head of a canoe

Ti—the sweet root of the dragon-tree

Tiia, i. g., tihewa Tiaia—dip, bend

Tiahi—a lascivious person, lascivious

Tiaho—light

Tiaki-rule, govern, keep

Tiu-pierce

Tiharu—a baling vessel for a ship, a pump, to bale or pump Tiho kakoka—a shed Tihewa—sneezing, to sneeze

Tika—to lead

Tika-just, straight, even

Tika tika, id.

Tikanga — justness, evenness, meaning

Tikaokao—cock, poultry Tike tike—high, height

Tiki—part of the tattoo of wo-

Tiki tiki—to see (Angl.-Zel.) Tikina—fetch, bring close

Titoki—a tree, of the seeds of which a fine oil is made

(Aledryon excelsum)
Tiko—easing nature

Tikonga—the act of

Timata—begin, commence

Timatanga—beginning
Timo timo—bit after bit

Timoro—bare

Timu—ebbing of the tide

Tinana—trunk of the body or of a tree

Tinei—quench, bruise to death Tini—many, indefinite number Tini tini, id.

Tiniha-mock, hiss

Tinihanga—mocking, deceiving, deceit

Tino-plenty

Tino—diligently, the first, the chief

Tinopairawatanga—better instructed

Tierawaki-a bird

Tira—back-fin of a fish; a party falling in with another on the road

Tiratu—the halyards

Tìro tiro-look after, guardian

Tiro, id.

Titaha—an axe

Titari-strew about

Titi-rushes

Titi-the mutton-bird

Titi waka—a plain canoc

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Titiro—look
Titiro ra!—exclamation, lo!
Tito—invent; he kai tito—in-

ventor

Tito—fast Titohi—desert, waste; titohia,

wasted
Titore—a crack, fissure, chasm,

cracked, or splitting, to split Titorenga—act, or time of splitting

Tiwakawaka-a bird

Tiwai—a canoe without gunwales, bottom of a canoe

Tiwana—the lines of tattooing extending from the eyes to the temples

To-thy

To-life, motion, give life, move, be pregnant

Toa—a hero, courageous, valiant Toatoa, i. g. Tanekaha

Toanga—the act of pulling, forcing

Toangatanga-inheritance

Toe—a remainder, an importunate unreasonable person, importunate, importune, remain, mistake, tempt

Toenetanga o te ra—setting of the sun

Toenga—the rest, importunity, fragments

Toe toe—a long rushy grass—waver

Toia—immerse, dip, baptize
Toi toi—name of a bird

Toinga—immersion, baptism
Tou tou—dip
Tou—thy

Touarawa—the male of animals
Toupua—the dress of a dead

person

Tohatoha noa—break forth
Tohe teau--strife, tempt
Tohenga—purpose, end
Tohia—dragged or forced along,

pull, row

Tohi—drag, dip, force along Tohinga—time or act of baptizing

Tohora—sperm whale, whales Tohu—peace

Tohu tohu—merciful, to rub
Tohu—a sign, a mark, an idol,
signal

Tohutohungia-sign

Tohunga—a wise, skilful man; a priest; he wahine tohunga —a priestess

Tohungia—mercy Toka—a rock

Tokai—coitus, the crossbeams of a canoe

Toke—the uvula, name of a fish, worms

Toki—an axe
Tokirau—name of a place

Tokohia—how many Toko—how many

Tokomaha—many
Tokoruatanga—twice, twain

Tokotahi—one
Tokorima—five

Toko toko-stick, stave

Tokorua—two

Tokotoru—three Tokowitu—seven

Toku—my Tokowaru—eight

Tokoonu—six Toma atu—to go out

Toma mai—to enter

Tomo—enter Tomokanga—entrance

Tomokanga—entrance Tona—a wart

Tona-his

Tonoa—command, order Tononga—commandment

Tonga—south wind, south Tongariro—a mountain

Tonga mimi—the bladder Tonga nui—a game

Tonu—always, exactly, only Tonutanga—eternal, often

Tonutia—continually

Tuatu-a shark

Topa-baking Topito-end Tore-a passage Torea-a bird called oystercatcher Torengi-descend, disappear Torenga-sunset Torengitanga o te ra-sunset Toro-spread Toroa-an albatross Toroai—a war instrument Toronga—spreading of the fire Toropeku mai ana-to come privately Torotoro-the ant Toru te kau—thirty Toru toru-three, few in num-Totara — a pine (Podocarpus totara) Tote—salt, to salt Totitoki-to halt Totohu—sinking Toto-blood, menstruation Totohe—deceit, oppose Totoke—stick Toto rau rau-dew Totokea—a shell-fish Towai—a timber-tree Tu-stand, stand up, brought into a position, beat, carve; tuhi-paint, write Tua - distributable, transmissible, a tradition Tuangi-tradition, distribution Tuai-distribute Tuauriuri-multitudes Tuakana-brother, elder brother Tuaki-cut down; tuakinaprostrated, hewn down Tuakana ke-elder brother-inlaw, or cousin Tuanui-roof Tuara-back Tuatahi—the first Tuatara—a guana Tuatea-waves

Tuawati-a flight Tuawairoa-steam issuing out of the nostrils of a baked Tui tui-to sew Tui—a bird Tuiau—a flea Tuohu-bow, bend Tuhea—desert, deserted; tuheatia-deserted Tuhi tuhi-write, paint Tuhitanga—a writing Tuhonohonoa—tie, frame together Tuhonoa-join Tuhua—Mayor's Island Tu kau—to be naked, or stand Tuketuke-elbow Tukemata—the eyebrow Tuki - piece of wood at the head of a canoe Tukino-oppress Tukinotia—oppressed Tukituki—beat, slay, destruction; tukitukia-stricken Tuku-the pit of the stomach Tuku-give way, let go, deliver, descend Tuku peru-black whale Tukuwai—diving in the water Tuma-threatening, threaten Tumau-settled Tuma aki-the crown of a man's head, the upper part of the trunk of a tree Tumou—a slave Tumu tumu—stump of a tree Tuna-eel Tunumanga-burial Tunewa noa-slumber Tunu-bury Tunumia—buried Tunga-wounds; niho tunga —decayed tooth Tunga-place where a person stands

Tungane - a brother Tunguru—a turnip Tupakihi—a shrub Tupapaku-a corpse Tupato - a jealous, prudent, suspicious man, suspecting Tupe - a snare for birds Tupopo - a porpoise Tupu-bud Tuputupu—the mangrove Tupuna nui-ancestor, patriarch Tupuna tane - grandfather Tupuna wahine-grandmother Tupunga - grow, the ground where anything grows, ancestry Turaki-bring down Tura kina - brought Tura-wera - a hard blow Turanga — a stand, a place, spot, where to place something on it, a candlestick; turanga waewae — a footstool Ture-law, commandment Turi-knee Turi - deaf, confused, to be silent Turiteri-noise ngongengonge - lame, maimed Turoro - sick, suffering; te mate turoro-epidemic Turorotanga-sickness, suffering Turutu-reed for making baskets Tutahi-dung, excrements Tutaka moana—a place Tutaki-meet together Tutakiana-meet, appear Tutakinga—a meeting Tutata-stand by, near Tutata-coast; he kainga tutata-a coast place Tu tonu-stand still Tutei—guard, watchman Tutu—a wine made from the berries of the tupakihi

Tutu—perverse; mahi tutu—
violences, making noise
Tutukaka—name of a bay
Tutuki—dash, knock, stumble
Tutukinga—stumbling
Tuturu—kneeling
Tuwahine—sister
Tuwaina—spit
Tuwatia—spit
Tuwera—open
Tuwiri—afraid

### W

Wa—support, carry, also the number four Wae wae-feet, leg; nga mea waewa wa-four-footed animals Waea-mother Waenga-the middle of anything, centre of a canoe, midships, also a field Waenga kumera—a field of sweet potatoes Waenganui-middle Waenganui po—midnight Waeroa—long legs, muskito Wai-water; wai maori-fresh Wai tai—salt-water; who? a fish, so called Waianuanua — waters of the rainbow, waterfall Waiata—song, sing Waiatatia—to sing Waienga—a farm, a place cleared for a farm Waiu—water of the breast, i. e. milk Waiho-presently Waihoa taria—wait a little Waiheaua—a porpoise Waiho-make, form Waihepu—a river, so called Waihu—leave, desert Waikauau-water in a running state, a stream

Waikato—a river, a name Waikura-rust Waikare-clear reflecting water Waikeri—a rivulet or narrow drain, name of a place, a ditch, a swamp Waimonga monga-marrow Wainga-time or act of dispute Waipa—a river Waipapa—a place Waipoka—a well Waiporotaka—a circular pool Waipu—a pond Waipuke—a flood of water descending a hill Wairenga-a place cleared for a farm Wairere-waterfall Wairu—hair used in a mat as ornament Wairu-a file Wairua-spirit, the immortal part of man Waitaongatanga—inheritance Waitangi-noisy water, name of a place Waitemata—a place so called Waitohungia—remark, note Waiwatawata—a place so called Waiwawariki—a place so called Wao-nail, a hole Waha-bear, carry Waha-mouth Wahanga-burden Wahangu-dumb Wahi kai-pasture Wahi-firewood, place, part of the body, a spot Wahi iti—a moment Wahi tapu—burying-place, sacred ground Wahina—a virgin Wahinatanga-maidenhood, vir-

ginity

Wahine-wife, woman, female

Wahine moepuke—concubine

Waho—out, outside Waka—a canoe

sative verbs Wakaako—teach Wakaahua-form, mould, feign Wakaatu—canoe for carrying the dead Wakaara—rise, bring forth Wakaarangi-awake Wakaae-consent Wakaaenga-knowledge, surance Wakaaro — think, thinking, thoughtful, esteem Wakaaroaroa—consider Wakaati-clean, prepare Wakaangahia-lift up Wakaeke—rope Wakaereere—very great Wakaikeike-exalt Wakaiwa—garment for women, a name Wakairo—carve Wakaitia—diminish, debase, abuse Wakaititanga—humility Wakaahuru—cherish Wakaojoi-shake Wakaorangia—deliverance; to heal Wakaora—heal, save Wakaokioki-give, make, rest Wakaoranga-health, deliverance Wakau—grounded Wakau-serve, love Wakaua—cause to rain Wakaunga-bars Wakauaua—making pain Wakautu-pay Wakautunga—taxing Wakahauhautanga—exhortation Wakahangarere katia-to make light of anything Wakahereheretia-in bondage Wakahere-offering Wakahau—command; kai wakahau—commander

Waka-used to form the cau-

Wakaharahara—exceedingly great, deep Wakahaurangi-to enivrate Wakahawa—a decoy or stratagem Wakahawea — despise, blaspheme; pass. wakahaweatia Wakahemokanga—fainting Wakahe-deceive, offend, offending Wakahemo—devour Wakahengia-offended, despised Wakahoki-buy, redeem Wakahoki mai-redeem, bring back, buy Wakahoro-throw down, overthrow Wakahohoro-hurry Wakahoatia—partake, to befriend Wakahua-mention, name Wakahuihui-gather Wakaka—burn, lighten, a fire Wakakai-an ear-drop Wakakake-make high, elevate; he hunga wakakakea proud man Wakakahehaere—lift up Wakakakahu—clothe, dress Wakakakahuria—clothed Wakakakahuranga—clothing Wakakapi-fill; wakakapinga -fulness Wakakahore—annihilate, stroy; pass. wakakahoretia Wakakino—corrupt, despise Wakakororia-speak high, glorify; pass. wakakororiatia Wakakinongia—corrupted Wakakahangia-be strong, strengthened Wakakite-show Wakakitenga-foresight, phesy

Wakakiia-fill

Wakakorea—loose

Wakakoingo—to be sorry

Wakakorikori-move Wakakuware — become vain, foolish; pass. wakakuwaretia Wakama—to be ashamed, bash-Wakamaharatanga—remembrance Wakamahara-warn, cause to recollect Wakamahana—to warm Wakamahanga—offend Wakamahu—the porch Wakamaki—cleanse Wakamamae - cause sorrow, grieve Wakamakutu — bewitch; kai wakamakutu—sorcerer Wakamarama—enlighten, light Wakamaramatanga — lighten, light Wakamakuku—water, irrigate Wakamarakerake—desolation Wakamaru—bruise Wakamarie—comfort Wakamarietia—comforted Wakamaroke—dry Wakamaiengi-bear, hold up Wakamaiengitia-born Wakamaori-translate, inter-Wakamaoritia—translated Wakamaoritanga — interpretation Wakamatau—teach Wakamate—kill, destroy Wakamaro—stretch forth Wakamatautau—taste Wakamatara—remove far off Wakamea—cause Wakamine—assemble, demand Wakamoe—cause to sleep, lull into sleep Wakamoemititanga—pleasure Wakamomona—sweeten Wakamuri—turn back Wakamutunga — the last, the uttermost, the end

Wakananu- mix

Wakanuia-enlarge, magnify Wakanoa—cause to be free Wakanoho—cause to sit down. place, build, inhabit, fix Wakanehu—grind to powder Wakanohoia-fixed Wakapaea teka — to accuse falsely Wakapaea—accuse Wakapai-trim, make beautiful Wakapaipai-well made, fine, beautiful; he mea wakapaipai-an ornament Wakapaua—cause to be consumed, spend Wakapaparanga—generation Wakapakaru—cause to break Wakapakarukaru—break into pieces Wakapakeke-harden Wakapaki-lay upon Wakapehapeha - boast; he hunga wakapehapeha — a boaster Wakapeke-cause to remove Wakapenatia—to become like Wakapakipaki—to quiet Wakapapa—causing to explode Wakapati—please Wakapirau—put out, destroy; for instance, fire Wakapiri—put close together Wakapipi—cause to tremble Wakapouri—causing sorrow Wakapa—touch Wakapakari—harden Wakapono—causing to be true, believe Wakapakoko-image, a canoe so called Wakapononga—serve Wakaponongatanga—service Wakapoi—name of a place Wakapoto-shorten; pass. wakapotoa Wakapoti-persuade

Wakapokokoko—walk in twice

Wakapoko-go in

Wakapohehe—confuse Wakapuaki-show, let out, utter, spread abroad, cry Wakapuakanga—statute, law Wakapuaretia—open Wakapukupuku-inside, or the bottom of a canoe Wakapuranga—gathering Wakaputa—send, boast Wakara—satisfaction Wakaraka—step forward Wakara—cause to rise, to be erected Wakaranu—make gravy Wakarangimarie—soften Wakarau—making a hundred, collecting a number of slaves together Wakararata—tame Wakararurarua—care, be care-Wakarawa—fasten Wakarawa tatau—a lock, fastening for a door Wakarere - divorce, forsake, desert, cause to fly Wakarerenga—divorce Wakariharihangia—contempt Wakarihariha—despise, abhor; pass. wakariharihangia Wakarite — perform, fulfil, liken, fix Wakariki—making a priest Wakarikarika-horror Wakariterite-reckon Wakariro ke-change; wakariroia ketia—changed Wakaro — think, thoughtful, thought, purpose, end Wakaroa—delay Waka roa - north-east wind, south island Wakatakataka—cause to fall Wakaruru—to entangle Wakatatutu—to sound Wakarongo-listen Wakarongona — cause

heard

Wakata—spying or looking at, a spy-glass

Wakatakariri — disperse, provoke

Wakataka—cast, throw, roll Wakatapu—make sacred Wakatapunga—sanctification

Wakatakoto-to lay down

Wakatau—cause to meet

Wakatangi-sound

Wakataurekarekatanga —slavery; wakataurekareka—make slaves

Wakatahuritia—turn

Wakate—disperse quickly

Wakateka—lying Wakaruaki—vomit

Wakatakariri—displease

Wakatapoko-enter

Wakateitei—exalt; wakateiteitia—exalted

Wakato—sow; kai wakato—sower, give life, cause to be pregnant

Wakatokia-planted

Wakatorona—lift up, put forth, spread

Wakatu—lay the foundation

Wakaturi—to put, place Wakatupehupehu—rebuke

Wakatika—stand up, arise, resist

Wakatiketike—exalt, to stretch himself

Wakatitari—scatter, strew Wakatitore—to cause a fissure,

to crack Wakatuka—spread

Wakatuma—threaten

Wakatuwera-open

Wakatupato—cause suspicion

Wakatupu — bring forth, become, cause vegetation, bring

Wakatupuranga—birth, generation

Wakatorotoro—imitate, mimic

Wakatore torenga ki te rau the flowers of a tree, bud

Wakatere — a swift canoe, a place so called, move, push

Wakatohi, cause to be immersed Wakatoi—to be saucy, persecution

Wakatete—cause a quarrel; he tangata wakatete—a quarrelsome fellow

Wakawite—cross (a river)

Wakawitinga—crossing Wakawakanga—judgment

Wakawa—judgment, council, to judge

Wakawaki—judge, account for

Wakawainga—temptation Wakawairuatia—spiritual

Wakawai—enticing, beguiling

Wakawareware—making a pretence, simulate, cause to forget

Wakawateatia—give way, make place

Wakawerewere—to hang

Wakawetai—thank

Wakawawai—to make war Wakawiu—afflict; wakawiua—

afflicted
Wakawirinaki—rest, repose

Wakawiti — cause to shine, rise, to brighten

Wakawitinga o te awa—crossing of the river

Wakawiri—to roll, cylindrical Wakangiha—kindle; pass. wakangihaia

Wakangoromia — choke, kill, destroy

Wakangaue-shake

Wakanaugetia-shaken

Wakangungupa—fight in the

Wakangote—nurse, foster; kai wakangote—a nurse

Waki-confess

Wana—tender

Wana—a kick with the foot

Wanariki-brimstone

Wanau — bring forth, bear (children)

Wanautanga — birth, labour; ra wanautanga—birth-day

Wanaunga — family, relationship, as a cousin

Wanai-breadth

Wanake-yielding

Wapuku—the codfish

Wara—a blow, a garment so called

Warau—a sepulchre, a stone

Waraupo—a raupo swamp Warahi—wide, broad

Waraki—heal

Ware na haere—a house in the

Ware ware-forgetful

Warewarenga—forgetfulness

Ware—house; ware here here—prison

Ware pune—close house or bed-

Ware papa—a house made of boards

Wari—a servant, poor man, a free man

Wariki—a covering, as a blanket

Warikiriki-put on

Waro—coal

Waru-eight, scrape, shave

Warua-a fertile plain

Warunga — the hairs of the beard when shaved, shavings of wood

Waruhia—shorn or shaven

Wata—a platform, or scaffold for stoles, wickerwork seat in a canoe

Wata parete—scaffold for potatoes

Wata tao—name of a place
Ware kupenga — fishing-net
house

Ware poaka-pig-sty

Wati hu—a wind so called Wati manana—the heart, scat

of life Watitiri—thunder

Wati-broken, erring about

Watiia—bend

Wati toka-a door

Watinga—a broken piece

Watu—weave; for instance, a mat

Watu-hail, hailing

Watua-name of a place

Watunga—a garment in the state of weaving

Wawaitanga—quarrel, wrestling Wawai—adversary, a quarrel-

ling, quarrel; he hoa wawai
—an adversary

Wawahi—destroy; kai wawahi —destroyer

Wawaki-ear of corn

Wawao-intercede, interfere

Wawana—to feel

Wawara—scatter

Wawatia—turn, break

Wawe—shortly, short, near

Wanga—a chair Wangaia—feed

Wangainga—the act of feeding another, nursing

Wangaingatahi — one feeding; the mutton bird, Titi, is thus called

Wanganui—name of a place

Wanganui po—middle of the night

Wangapatiki—name of a place
Wangape—name of a place

Wangare—name of a place

Wangaroa—name of a place Wangarura—name of a place

Wango—a groan

We—a caterpillar, proper name.

of a person Weoke—name of a place

Weua-bone

Wehea-divide

Wehe wehe-divide Wehi-fear, to be afraid, danger, afraid Weka-a large bird (Rallus Australis) Wekau-bowels Weminga—sneezing Wenua-land, the placenta Wenu—the warp of a web cloth Werahia—to pierce, spear Wera-scalded, burnt, warm Wera wera—warm, heat Were were-hang up anything Wero-red Werohi-wound Werohia-wounded Weru—a garment Weta punga—a spider Weta—an insect so called Wetekina-loosen, free, untie Wetengi-worn out, exhausted, as ground tilled several times Weto-extinguish Wetoi-a person neglected or unasked Wetu—a star Weturaka — the starry firmament Wewe-a boil Weweti-loosen Wi-a rush

Wio-whistle Wiunga—the act of driving in, chastisement, flogging Wiu-to drive in, scourge, strike, a rod, a switch, the finishing border of a garment Wiura—lightning, lighten Wiua-to chase, to beat Wiri-gimlet, bore, shake Wiri wiri—choose Wiria—name of a place Wirikirikitia - to clothe, dress Wirinake—name of a place Wiringa—trembling Wiringa o te wenua - earthquake Wita—light Witi-rise; e witi ana te rathe sun is rising, appear Witinga mai o te ra—sunrise Witinga—rise, appearance Witiki-girdle, bag, purse Wito-a dwarf Witu-eight Wiwi-receive Wiwi-rushes Wiwia—a mixture Wiwia—a snare made of rushes, long grass

THE END.

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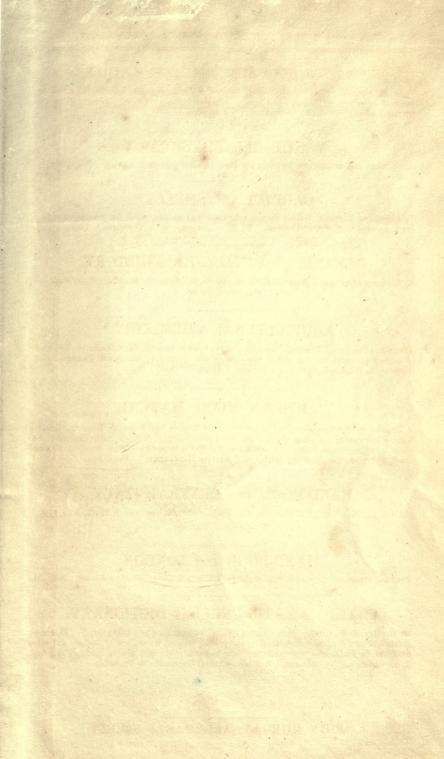
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