ART. XIX.—*On the* Mollusca *of the Vicinity of Auckland.*

By T. F. CHEESEMAN, F.L.S., Curator of the Auckland Museum.

[*Read before the Auckland Institute, 20th September*, 1886.]

SOME years ago, I prepared a catalogue of the Mollusca of Auckland Harbour, which was printed in vol. viii. of the "Transactions of the N.Z. Institute."* Although as complete as the materials at my command would permit, it contained many faults, both of omission and commission. I now propose to correct these mistakes: to give a complete list of the species observed in the harbour, with notes on their habitats, etc.; and to add thereto a similar catalogue of the land and fresh-water species inhabiting the Auckland Isthmus and its vicinity. I am in hopes that the paper may be useful in two ways. First, in giving to the local collector a catalogue of the species which can be obtained near Auckland, together with some information as to where to look for them. Secondly, as a contribution to a knowledge of the distribution within the Colony of the New Zealand Mollusca, a matter which it is important should be worked out, for it will give some assistance in solving many questions connected with the geology and physical history of the country.

For the purposes of this paper, I shall consider Auckland Harbour to extend in a northerly direction as far as Lake Takapuna and Rangitoto Reef; and to the eastwards, to the Tamaki Heads and Motutapu Island. Its western boundary would be formed by a line drawn from Kauri Point to the mouth of the Whau River. By the term Auckland Isthmus and its vicinity, I mean not only the isthmus proper, extending from the Whau portage to Penrose, but also that portion of the North Shore to the south of a line drawn from the head of Lucas' Creek to a point on the sea-coast a little to the north of Lake Takapuna. The whole district would have a greatest length of about ten miles, with a greatest breadth of nine. The land area is probably over 60 square miles.

In my previous paper I have given a sketch of the chief physical features of the harbour, and some general remarks on the local distribution of the Mollusca found therein. It would be useless repeating this here; more especially as in the appended catalogue I have attempted to give some information as to the special localities and relative frequency of each species.

* "Trans. N.Z. Inst.," vol. viii., art. xxxvii.

The total number of species observed in the district is 242. Of these, 37 are land Mollusca; 12 fluviatile; and the remaining 193 marine. They fall in the following classes :—Cephalopoda, 3; Gastropoda, 177; Lamellibranchiata, 61; Brachiopoda, 1. Further search will probably add materially to the number of land-shells, for they have not been collected with the same care as the other families. Our land Mollusca are so small and inconspicuous, and so many of the species closely resemble one another, that it is no easy matter to exhaust a small district like the Auckland Isthmus. I do not anticipate that any additions of numerical importance will be made to the marine or fluviatile species, although discoveries will doubtless be made from time to time.

If the necessary material had been collected, it would have been interesting to have compared the molluscan fauna of the Auckland District with that of similar areas in other portions of the Colony, and to have worked out some general results as to the range of the species. But this cannot be done at present. Wellington is the only other locality for which a tolerably complete list has been prepared, and even there the marine species are alone catalogued. When carefully compiled lists have been published for at least a dozen stations on the coast line of both Islands, then the distribution of our Mollusca will be better understood, and some advance may be made towards determining the range and relative frequency of the species.

Catalogue of the Species of Mollusca observed in the Vicinity of Auckland.

Class I.—CEPHALOPODA.

Order I.—DEBRANCHIATA.

Octopodidæ.

1. *Octopus maorum*, Hutton. Hiding in crevices of rocks at or below low water-mark. North Shore, and Rangitoto Island.

Loliginidæ.

2. *Sepioteuthis bilineata*, Quoy et Gaim. An occasional summer visitant.

Spirulidæ.

3. *Spirula perouii*, Lam. Dead shells are occasionally cast up on the sandy beaches, although never so plentifully as on the exposed coasts.

CLASS II.—GASTROPODA.

ORDER I.—PECTINIBRANCHIATA.

Sub-Order 1. TOXOGLOSSA.

Pleurotomidæ.

4. *Pleurotoma zealandica*, E. A. Smith. Sandy bays between the North Head and Lake Takapuna, at or below low water-mark.
5. *P. albula*, Hutton. A few worn specimens, doubtfully referred to this, have been dredged in Rangitoto Channel.
6. *Drillia maorum*, E. A. Smith (*P. buchanani*, Hutton). Dredged in Rangitoto Channel.
7. *D. novæ-zealandiæ*, Reeve. Rare. Two specimens obtained on the sandy beach near Lake Takapuna.
8. *D. protensa*, Hutton. Rare. Sandy beach near Lake Takapuna.
9. *Clathurella sinclairii*, E. A. Smith. Dead shells are cast up in great abundance on all the sandy beaches in Auckland Harbour, but I have never been able to obtain a living specimen.
10. *Daphnella lymneiformis*. Living specimens are occasionally thrown up after storms.

Terebridæ.

11. *Terebra tristis*, Desh. Muddy and sandy places below half-tide, not uncommon.

Sub-Order 2. RHACHIGLOSSA.

Marginellidæ.

12. *Marginella muscaria*, Lam. Common. Living specimens can often be obtained crawling about near low water-mark in sandy places.

Volutidæ.

13. *Voluta* (*Alcithoe*) *pacifica*, Lam. Rare in Auckland Harbour, although common enough in many other places.

Fasciolaridæ.

14. *Fusus australis*, Quoy et Gaim. Rare.
15. *Taron dubius*, Hutton. An abundant shell between tide marks, in rocky places, under stones, etc.

Mitridæ.

16. *Turricula* (*Pusio*) *rubiginosa*, Hutton. Not uncommon under stones near low water-mark.

Buccinidæ.

17. *Siphonalia dilatata*, Quoy et Gaim. Not uncommon on rocky ground, usually concealing itself under ledges when the tide recedes.
18. *S. nodosa*, Martyn. Worn specimens are occasionally washed up.
19. *Pisania lineata*, Martyn. Common on rocky ground between tide-marks. A very variable shell.
20. *P. vittata*, Quoy et Gaim. Most abundant on rocky ground. The coloured bands are often quite absent, and the shell varies much in shape.
21. *Cominella maculata*, Martyn. Common between tide-marks. Appears to feed on *Paphia* and *Venus*.
22. *C. maculosa*, Martyn. Not uncommon.
23. *C. testudinea*, Chemn. Very plentiful, especially on rocky ground between tide marks.
24. *C. virgata*, Adams. The same remarks apply.
25. *C. huttoni*, Kobelt. Can be dredged plentifully in any part of the harbour, but is seldom seen in a living state above low water-mark.
26. *C. lurida*, Phil. A most plentiful shell on mud-flats, *Zostera* beds, etc.

Olividæ.

27. *Ancillaria australis*, Sow. Sandy bays near low water-mark. Covers itself with sand when the tide recedes.

Muricidæ.

28. *Murex octogonus*, Quoy. Under stones near low water-mark. Not common.
29. *Trophon ambiguus*, Phil. Dredged in Rangitoto Channel. Apparently not common.
30. *T. stangeri*, Gray. Not uncommon on rocky ground. I am not sure that Prof. Hutton is correct in referring his *T. retiaria* to this species.
31. *Kalydon plebeius*, Hutton. Most abundant.
32. *Purpura succincta*, Martyn. In crevices of rocks between tide-marks. Rare.
33. *P. textiliosa*, Lam. In crevices of rocks. Abundant.
34. *Polytropa scobina*, Quoy et Gaim. Faces of rocks between tide-marks. Abundant.
35. *P. albo-marginata*, Desh. In similar situations as the preceding, but not quite so abundant.
36. *P. (Lepsia) haustrum*, Martyn. Clefts of rocks between tide-marks. Not common in Auckland Harbour.

Columbellidæ.

37. *Columbella choava*, Reeve. Under stones and on seaweeds near low water-mark. A variety, nearly or altogether black, is almost as common as the type.

Sub-Order 3. TÆNIOGLOSSA.

Pomatiidæ.

38. *Realia egea*, Gray. Sheltering under decaying leaves of *Brachyglottis*, etc. Mt. Wellington and Mt. Eden lava streams; gullies near St. John's College; Rangitoto. Fast becoming scarce.
39. *R. turriculata*, Pfeiffer. With the preceding, but much rarer.

Cyclophoridæ.

40. *Cyclophorus cytora*, Gray. On fronds of ferns, but apparently very rare.

Rissoidæ.

41. *Rissoina annulata*, Hutton. On corallines and other seaweeds in tide-pools.
42. *Rissoa rugulosa*, Hutton. Under stones near low water-mark. Abundant.
43. *R. nana*, Hutton. With the preceding, and also on seaweeds.
44. *R. flammulata*, Hutton. Dead shells are not uncommon on the sandy beaches near Lake Takapuna.
45. *R. limbata*, Hutton. On seaweeds.

Hydrobiidæ.

46. *Potamopyrgus cumingiana*, Fischer. Lake Takapuna, Onehunga Springs, etc. Abundant.
47. *P. corolla*, Gould. With the preceding, but not quite so plentiful.
48. *P. antipodum*, Gray. Abundant in both fresh and brackish water.
49. *P. pupoides*, Hutton. Brackish water. Not uncommon, but easily overlooked.

Littorinidæ.

50. *Littorina cincta*, Quoy et Gaim. Very scarce near Auckland. Faces of tidal rocks on the coast near Lake Takapuna.
51. *L. mauritiana*, Lam. Abundant everywhere on the faces of rocks and cliffs near high water-mark.

52. *Fossarina varius*, Hutton. In similar situations to the preceding, but much less abundant.

Pyramidellidæ.

53. *Turbonilla zealandica*, Hutton. Dead specimens can be occasionally picked from shell-sand near high water-mark.
54. *Odostomia lactea*, Angas. A few specimens have been dredged in Rangitoto Channel.

Cerithiidæ.

55. *Bittium terrebelloides*, Martens. Can be dredged in considerable numbers in the deeper parts of the harbour.
56. *B. exilis*, Hutton. In tide-pools, on seaweeds, etc.
57. *Cerithidea bicarinata*, Gray. On mud-flats and *Zostera* beds; plentiful.
58. *C. subcarinata*, Sow. Rocks and tide-pools; common.

Vermetidæ.

59. *Siliquaria australis*, Quoy et Gaim. At the roots of seaweeds in deep water; not common.

Turritellidæ.

60. *Turritella rosea*, Quoy et Gaim. Not uncommon on rocks near low water-mark.
61. *T. fulminata*, Hutton. With the preceding.
62. *Eglisia plicata*, Hutton. Under stones near low water-mark; rare.

Trichotropidæ.

63. *Trichotropis inornata*, Hutton. Dredged in Rangitoto Channel; and specimens are occasionally washed up after storms.

Calyptræidæ.

64. *Galerus novæ-zealandiæ*, Less. Common under loose stones between tide-marks.
65. *G. scutum*, Less. With the above, but much less plentiful.
66. *Crepidula costata*, Sow. Under stones, at and below low water-mark, near the roots of seaweeds, etc.
67. *C. monoxyla*, Less. Commonly affixed to *Turbo smaragdus*.
68. *C. unguiformis*, Lam. Affixed within the aperture of *Turbo smaragdus*; rare.

Aporrhaidæ.

69. *Struthiolaria papulosa*, Martyn. } Not common within the
70. *S. vermis*, Martyn. } harbour.

Lamellariidæ.

71. *Coriocella ophione*, Gray. Under loose stones at low water-mark; not common.

Naticidæ.

72. *Natica zealandica*, Quoy. A few worn specimens have been picked up near Lake Takapuna.
73. *N. australis*, Hutton. Dredged in Rangitoto Channel.

Tritonidæ.

74. *Triton nodiferus*, Lam. One specimen obtained on Rangitoto Reef.
75. *T. spengleri*, Lam. Under rocky ledges near low water-mark; not common.

Sub-Order 4. PTENOGLOSSA.

Ianthinidæ.

76. *Ianthina communis*, Lam.
77. *I. iricolor*, Reeve.
78. *I. exigua*, Lam.

Dead shells of all these species are often drifted into Auckland Harbour after a succession of north-easterly gales. The last species is much more abundant than the others.

Scalaridæ.

79. *Scalaria zelebori*, Frauenf.
80. *S. jukesiana*, Forbes.
81. *S. tenella*, Hutton.

Among shell-sand, near high water-mark. I have not seen living specimens within the harbour, but they can be obtained by dredging at Waiwera and other places to the north.

ORDER II.—RHIPIDOGLOSSA.

Sub-Order 1. PODOPTHALMA.

Neritidæ.

82. *Nerita saturata*, Hutton. Under stones and in clefts of rocks between tide-marks.

Rotellidæ.

83. *Rotella zealandica*, Homb. and Jacq. A few worn specimens only.

Turbinidæ.

84. *Turbo smaragdus*, Martyn. Very abundant. Tide-pools, mud-flats, mangrove swamps, etc.
85. *Cookia sulcata*, Martyn. Outlying reefs at the North Shore and Rangitoto; not common.

Trochidæ.

86. *Euchelus bellus*, Hutton; var. *iricolor*. Under stones at low water-mark.
87. *Trochus viridis*, Gmel. On rocky ground near low water-mark; not common.
88. *T.* (*Cœlotrochus*) *tiaratus*, Quoy et Gaim. On *Zostera* beds; moderately plentiful.
80. *Zizyphinus selectus*, Chemn. Rocky ground near low water-mark; scarce.
90. *Cantharidus purpuratus*, Martyn. Coast near Lake Takapuna; on seaweeds at low water-mark.
91. *C. tenebrosus*, Adams. A most abundant shell on *Zostera* beds.
92. *C. rufozona*, Adams. A few specimens dredged in Rangitoto channel.
93. *C. simulatus*, Hutton. On seaweeds near low water-mark; scarce.
94. *Gibbula oppressa*, Hutton. Under stones near low water-mark; scarce.
95. *Monilea egena*, Gould. In sandy places below low water-mark; not common.
96. *Monodonta* (*Diloma*) *æthiops*, Gmel. Under stones, etc., near high water-mark; plentiful.
97. *M.* (*Diloma*) *subrostrata*, Gray. Abundant on *Zostera* beds.
98. *M.* (*Diloma*) *sulcata*, Wood. Reefs near Lake Takapuna.
99. *M.* (*Latona*) *mimetica*, Hutton. On *Zostera*; scarce.

Pleurotomariidæ.

100. *Minos rimata*, Hutton. A few dead specimens only.

Italiotidæ.

101. *Haliotis iris*, Martyn. Reefs off Rangitoto, and near Lake Takapuna.

Sub-Order 2. Edriopthalma.

Emarginulidæ.

102. *Parmophorus unguis*, L. Under stones between tide-marks; not common.
103. *P.* (*Tugalia*) *intermedia*, Reeve. In similar situations as the preceding.

Order III.—DOCOGLOSSA.

Acmæidæ.

104. *Acmæa pileopsis*, Quoy et Gaim. Faces of tidal rocks; not common.
105. *A. flammea*, Quoy et Gaim. Faces of tidal rocks, and under stones; plentiful.

Patellidæ.

106. *Patinella denticulata*, Martyn. Rocky places between tide-marks; scarce.
107. *P. radians*, Gmel. On rocks between tide-marks; plentiful.

Order IV.—POLYPLACOPHORA.

Chitonidæ.

108. *Chiton pellis-serpentis*, Quoy. Rocks between tide-marks; abundant.
109. *C. sinclairii*, Gray. Faces of exposed rocks; not common.
110. *C. sulcatus*, Quoy. Under stones between tide-marks; abundant.
111. *C. glaucus*, Gray. Under stones; plentiful.
112. *Lepidopleurus longicymbus*, De Blain. Under stones between tide-marks; very abundant.
113. *Tonicia undulata*, Quoy. Under stones in tide-pools; rare.
114. *Acanthopleura cœlatus*, Reeve. On tidal rocks, Rangitoto Island.
115. *Chætopleura nobilis*, Gray. On rocks near low water-mark, Rangitoto Island; not common.
116. *Acanthochites zealandicus*, Quoy et Gaim. Tide-pools; plentiful.
117. *A. porphyreticus*, Reeve. A few specimens, dredged in Rangitoto Channel.
118. *A. violacea*, Quoy et Gaim. Under stones in tide-pools; rare.
119. *Cryptoconchus porosus*, Burrow. On rocks, roots of sea-weed, etc., at and below low water-mark.

Order V.—PULMONATA.

Sub-Order Geophila.

Section Agnatha.

Streptaxidæ.

120. *Elæa coresia*, Gray. Under bark, rotten logs, etc.
121. *E. jeffreysiana*, Pfeiff. With the preceding.

122. *Rhytida greenwoodii*, Gray. Formerly existed on the Mount Eden lava streams, and dead shells may still be occasionally found.

123. *Testacella vagans*, Hutton. Gardens in the vicinity of Auckland; rare. I cannot help thinking that this will prove to be the European *H. mangei*, and that it is only naturalized in New Zealand.

Section Elasmognatha.

Janellidæ.

124. *Janella bitentaculata*, Quoy et Gaim. Plentiful. It can usually be found in some quantity at the bases of the leaves of *Phormium tenax*.

Section Goniognatha.

Orthalicidæ.

125. *Carthæa kiwi*. Gullies at Northcote, and near Lake Takapuna; rare. The leaf-sheaths of the nikau palm (*Areca*) are a favourite hiding-place for this species.

Section HologNatha.

Helicidæ.

126. *Tornatellina novo-zeelandica*, Pfeiffer. Crawling on ferns and shrubs. Not uncommon, but very easily overlooked.

127. *Patula coma*, Gray. Shelters under bark or logs, or under decaying leaves of *Brachyglottis*. Common.

128. *P. buccinella*, Reeve. Not uncommon. Often frequents the leaf-sheaths of *Astelia* and *Freycinetia*, etc.

129. *P. corniculum*, Reeve.
130. *P. bianca*, Hutton.
131. *P. anguicula*, Reeve.

} Under bark, or amongst decaying leaves, etc.

132. *P. timandra*, Hutton. Not uncommon, especially among decaying *Brachyglottis* leaves.

133. *P. tapirina*, Hutton. Rare.

134. *P. egesta*, Gray. Among decaying leaves in dark and gloomy places.

135. *Fruticicola pilula*, Reeve. Common in shady gullies.

136. *Microphysa caput-spinulæ*, Reeve. Under stones, etc.

137. *Endodonta leimonias*, Gray.
138. *E. pœcilosticta*, Pfeiff.
139. *E. marina*, Hutton.
140. *E. nerissa*, Hutton.

} Under bark or decaying leaves, or crawling on ferns or shrubs.

141. *Phrixgnathus maria*, Gray. Not uncommon.
142. *P. erigone*, Gray. Under decaying leaves.
143. *Amphidoxa cornea*, Hutton. } Under bark, logs, etc., or
144. *A. chiron*, Gray. } among dead leaves.
145. *Otoconcha dimidiata*, Pfeiff. Rare. Hiding in the leaf-sheaths of *Astelia*, or in similar situations.

Charopidæ.

146. *Charopa ida*, Gray. Common under bark, logs, etc.
147. *Psyra dimorpha*, Pfeiff. Rare. Usually found under bark, or in sheaths of *Areca* or *Astelia* leaves.
148. *Therasia celinda*, Gray. Among decaying leaves, etc.
149. *T. tamora*, Hutton. With the preceding.
150. *T. thaisa*, Hutton. Under stones on the cone of Rangitoto.
151. *Thalassia portia*, Gray. Common.
152. *T. zealandica*, Gray. Common.

Vitrinidæ.

153. *Vitrina kermadecensis*, Pfeiff. Formerly existed in several gullies near Auckland, but I think has now died out.

Section DITREMATA.

Onchidiidæ.

154. *Onchadella nigricans*, Quoy et Gaim. Crawling over tidal rocks. Very plentiful.

Sub-Order 2. BASOMMATOPHORA.

Limnæidæ.

155. *Limnea arguta*, Hutton. Lake Takapuna. Rare.
156. *Bulinus variabilis*, Gray. Lake Takapuna; streams and ditches at Panmure. Rare.
157. *Planorbis corinna*, Gray. On *Azolla*, Onehunga Springs.

Ancylidæ.

158. *Latia neritoides*, Gray. Lake Takapuna. Abundant.

Auriculidæ.

159. *Ophicardelus costellaris*, Adams. Brackish-water swamps, mangrove swamps, etc. Common.
160. *Marinula filholi*, Hutton. Dead shells are occasionally picked up on the beaches, but up to the present time I have not been able to ascertain its habitat when living.
161. *Leuconopsis obsoleta*, Hutton. Under stones, near high water-mark; local.

Siphonariidæ.

162. *Siphonaria australis*, Quoy et Gaim. Faces of tidal rocks; not uncommon.
163. *S. zealandica*, Quoy et Gaim. With the preceding.

Amphibolidæ.

164. *Amphibola avellana*, Chemn. Mud-flats and sheltered tidal inlets; abundant.

Order VI.—OPISTHOBRANCHIATA.

Sub-Order 1. Tectibranchiata.

Philinidæ.

165. *Philine angasi*, Crosse. Occasionally dredged on sandy flats in Rangitoto Channel.
166. *Melanochlamys cylindrica*, Cheeseman. Tide pools at the Tamaki Heads; rare.

Actæonidæ.

167. *Buccinulus albus*, Hutton. A few worn specimens have been dredged in the harbour.

Cylichnidæ.

168. *Cylichna striata*, Hutton. Dredged in Rangitoto Channel.

Bullidæ.

169. *Bulla quoyi*, Reeve. On corallines near low water-mark.
170. *Haminea zealandica*, Kirk. On *Zostera* beds; very abundant in some localities.

Aphysiidæ.

171. *Aclesia glauca*, Cheeseman. Sandy flats; not uncommon.

Pleurobranchidæ.

172. *Pleurobranchus ornatus*, Cheeseman. Under stones in rock-pools; scarce.
173. *Pleurobranchæa novo-zealandica*, Cheeseman. On sandy flats; not uncommon.

Sub-Order 2. Nudibranchiata.

Doridídæ.

174. *Doris wellingtonensis*, Abr. Occasionally seen in sheltered places on rocky ground, but far from being common.
175. *D. rubicunda*, Cheeseman. On seaweeds near low water-mark; common.

176. *D. flabellifera*, Cheeseman. On corallines near low water-mark; scarce.
177. *D. luctuosa*, Cheeseman. On seaweeds; two or three specimens only.
178. *Chromodoris aureo-marginata*, Cheeseman. On seaweeds near low water-mark; a few specimens only.

Doridopsidæ.

179. *Doridopsis citrina*, Cheeseman. On seaweeds and corallines; the most abundant Nudibranch in Auckland Harbour.
180. *D. mammosa*, Abr. *Zostera* beds, but not common.

CLASS III.—LAMELLIBRANCHIATA.

ORDER I.—DIMYARIA.

Teredinidæ.

181. *Teredo antarctica*, Hutton. Boring in piles, etc.; much too abundant.

Pholadidæ.

182. *Barnea similis*, Gray.
183. *Pholadidea tridens*, Gray. } Boring in sandstone rocks; plentiful.

Saxicavidæ.

184. *Saxicava australis*, Lam. At the roots of *Ecklonia radiata* and other sea-weeds; not common.

Corbulidæ.

185. *Corbula zealandica*, Quoy et Gaim. Can be dredged in great abundance in the deeper parts of the harbour.

Anatinidæ.

186. *Myodora striata*, Quoy et Gaim. Sandy places below low water-mark.
187. *Anatina angasi*, Sow. Muddy places below low water-mark; rare.

Mactridæ.

188. *Mactra discors*, Gray. Not common.
189. *Hemimactra ovata*, Gray. Deep mud by the side of tidal channels.
190. *H. notata*, Hutton. A few specimens picked up on the beach near Lake Takapuna.
191. *Zenatia acinaces*, Quoy et Gaim. Mud-flats below low water-mark; not uncommon.

Paphiidæ.

192. *Paphia novæ-zealandiæ*, Chemn. Sandy flats between tide marks; common.
193. *P. spissa*, Reeve. Sandy flats near Lake Takapuna.

Tellinidæ.

194. *Psammobia stangeri*, Gray.
195. *P. lineolata*, Gray.
196. *Hiatula nitida*, Gray.

Sandy or muddy banks below low water-mark, but often washed up by gales.

197. *Tellina alba*, Quoy et Gaim. Very rare near Auckland,
198. *T. glabrella*, Desh. Near and below low water-mark; not uncommon.
199. *T. subovata*, Sow. Frequently dredged in the deeper parts of the harbour.

Petricolidæ.

200. *Venerupis reflexa*, Gray.
201. *V. elegans*, Desh.

Either hiding in the old burrows of *Pholas*, or burrowing for themselves in the softer rocks.

Veneridæ.

202. *Venus oblonga*, Hanley. Not common.
203. *V. yatei*, Gray. Not common, but sometimes washed up by gales.
204. *V. stutchburyi*, Gray. Sandy and muddy banks, between tide-marks. Abundant.
205. *V. costata*, Quoy et Gaim. Occasionally washed up after storms.
206. *V. mesodesma*, Quoy et Gaim. Banks below low water-mark. Not rare.
207. *Dosinia australis*, Gray.
208. *D. subrosea*, Gray.
209. *D. lumbata*, Gould.

All occasionally thrown up after gales.

210. *Tapes intermedia*, Quoy et Gaim. Near low water-mark. Not rare.

Pisidiidæ.

211. *Pisidium lenticula*, Dunker. Among *Chara* and *Nitella*, Lake Takapuna, but not common.

Cardiidæ.

212. *Cardium striatulum*, Sow. A few odd valves have been picked up after gales.

Chamidæ.

213. *Chamostrea albida*, Lam. Affixed to rocks near low water-mark. Scarce.

Lucinidæ.

214. *Lucina dentata*, Wood. Sometimes picked up after gales.

Ungulinidæ.

215. *Mysia zealandica*, Gray.
216. *M. striata*, Hutton. } Mud-banks at or below low water-mark.

Erycinidæ.

217. *Kellia citrina*, Hutton. In crevices of rocks between tide-marks. Tamaki Heads.
218. *Pythina stowei*, Hutton. Dredged in Rangitoto Channel.

Solemyidæ.

219. *Solemya parkinsonii*, Sm. Often washed up after easterly gales, and a few living specimens have been found buried in mud near low water-mark.

Carditidæ.

220. *Cardita australis*, Lam. Not common.
221. *C. compressa*, Reeve. Can be dredged in abundance in the deeper parts of the harbour.

Unionidæ.

222. *Unio menziesii*, Gray. Lake Takapuna and St. John's Lake; abundant.
223. *U. depauperatus*, Hutton. Lake Takapuna, *Hutton.* I am not acquainted with this species.

Nuculidæ.

224. *Nucula nitidula*, Adams. Muddy places below low water-mark; plentiful.
225. *N. lacunosa*, Hutton. With the preceding, and equally plentiful.
226. *Solenella australis*, Quoy et Gaim. A single living specimen dredged in Rangitoto Channel.

Arcidæ.

227. *Arca decussata*, Sow. Rangitoto Reef, near low water-mark.
228. *Pectunculus laticostatus*, Quoy et Gaim. Reef off Lake Takapuna, near low water-mark.
229. *P. striatularis*, Lam. Dead shells are occasionally washed up.

Order II.—HETEROMYARIA.

Mytilidæ.

230. *Mytilus magellanicus*, Lam. A few dead shells picked up near Lake Takapuna.
231. *M. latus*, Ch. Abundant on exposed rocks, and on the piles of wharves.
232. *M. ater*, Frauen. Rocks near high water-mark; plentiful.
233. *Modiola australis*, Gray. Not common.
234. *M. fluviatilis*, Hutton. Brackish water near Lake Takapuna.
235. *Lithodomus truncatus*, Gray. Boring in rocks between tide-marks. Abundant.
336. *Crenella impacta*, Hermn. Under overhanging ledges near low water-mark, spinning a nest for itself among Tunicata and seaweeds.

Order III.—MONOMYARIA.

Pinnidæ.

237. *Pinna zealandica*, Gray. Muddy bays near low water-mark; not uncommon.

Pectinidæ.

238. *Pecten zealandica*, Gray. Near low water-mark, under stones, or at the roots of seaweeds.
239. *P. laticostatus*. Sand-banks, at and below low water-mark.

Anomiidæ.

240. *Placunanomia zealandica*, Gray. Under stones near low water-mark, Rangitoto Reef; rare.

Ostreidæ.

241. *Ostrea glomerata*, Sow. On rocks between tide-marks; common.

Class IV.—BRACHIOPODA.

242. *Terebratella rubicunda*, Sol. Rangitoto Island; under stones near low water-mark; not uncommon.