

XVII. *Notes on the Reptiles, Amphibia, Fishes, Mollusca, and Crustacea obtained during the voyage of H. M. S. 'Nassau' in the years 1866-69.* By ROBERT O. CUNNINGHAM, M.D., F.L.S., C.M.Z.S., Professor of Natural History, Queen's College, Belfast.

(Plates LVIII., LIX.)

Read June 16th, 1870.

SINCE my return to this country in the end of July 1869, I have been more or less occupied in the examination of the collections made by me in the course of the three preceding years, and I now venture to lay before the Linnean Society a first instalment of my results, which, although for unavoidable reasons much more limited than I could have wished, are yet, I hope, not without a certain amount of value. My collection of *Mammalia* chiefly consisted of a series of human crania (including those of the aborigines of Peru, Chili, the Chonos archipelago, Patagonia, and Fuegia), of which the greater number are now in the Museum of the Royal College of Surgeons, and of a few skins and skulls of quadrupeds obtained in Brazil, Patagonia, and the island of Chiloe. The Ornithological collection amounted to between one hundred and twenty and one hundred and thirty specimens, for the most part obtained in the Strait of Magellan and on the west coast of Patagonia, and now deposited in the University Museum at Cambridge, while the remaining Vertebrates, together with the entire collection of Invertebrata, were sent to the British Museum.

The Reptiles, Amphibia, Fishes, Mollusca, and Crustacea I have carefully gone over within the last few months; and as I find that a certain number of the species are apparently altogether undescribed, and that many others are new to the national collection, I have drawn up the following brief account of them. I wish, at the outset of these remarks, to express my deep sense of the obligations which I lie under to the gentlemen of the Zoological Department of the British Museum for the facilities which they have afforded me in the examination of specimens and the consultation of books; and I may here state that my thanks are especially due to Dr. Günther for much valuable advice and assistance in the naming of the Vertebrata, and to Dr. Baird for various suggestions in connexion with the Mollusca. The collection was but a small one, as will be gathered from the sequel; but every naturalist who has had the opportunity of undertaking a long sea-voyage will appreciate the difficulties arising from confined space and a variety of other circumstances inseparable from life on board a small ship, and will therefore, I trust, make due allowance accordingly.

## REPTILES.

### I. AMPHISBÆNIANS.

#### 1. CEPHALOPELTIS SCUTIGERA, Hempr.

A single specimen of this curious worm-like species was obtained at Rio de Janeiro in August 1867.

## II. SAURIA.

## 2. CNEMIDOPHORUS LACERTINOIDES, Dum. et Bib.

This beautiful lizard is very plentiful in the neighbourhood of Monte Video, but runs with such extreme swiftness as to render its capture a matter of great difficulty. My specimens, which are much larger than those collected by Mr. Darwin in the same locality, were killed with stones. When the animal is alive the ground-colour is a very vivid green, which soon fades in spirit.

## SCINCIDÆ.

## 3. EUPREPIS STANGERI, Gray.

A specimen of this species was taken at St. Vincent, in the Cape-Verde Islands, in October 1866.

## GECKOTIDÆ.

## 4. TARENTOLA DELALANDII, Dum. et Bib.

Two specimens were taken at St. Vincent. This and the preceding species are, I believe, the only two Reptiles to be met with on the island.

## IGUANIDÆ.

## 5. LEIODERA CHILENSIS, Lesson.

Common in the neighbourhood of Valparaiso, where it burrows in the sand with great agility.

## 6. LEIODERA GRAVENHORSTII, Gray.

Common about Coquimbo, where *L. chilensis* does not appear to be abundant.

## 7. LEIODERA GRACILIS, Bell.

Taken at Coquimbo.

## 8. LEIOLÆMUS NIGRO-MACULATUS, Wiegmann.

Common at Coquimbo.

## 9. LEIOLÆMUS CYANOASTER, Dum. et Bib.

Common about San Carlos de Ancud, Chiloe, where it was the only Lizard observed. It varies much in colour, the ground-tint on the back of some individuals being brown, and in others green. The anterior part of the belly in most of the specimens was greenish blue, while the posterior was bright orange.

## 10. LEIOLÆMUS PICTUS, Dum. et Bib.

This elegant little species was taken at Lota in Araucania. One of the specimens was killed with the lash of a riding-whip.

## 11. PTYGODERUS PECTINATUS, Dum. et Bib.

This Lizard appears to extend furthest south of all the South-American species. Mr.

Darwin obtained it in Patagonia; and I met with many specimens of it in the eastern part of the Strait of Magellan, alike on the coast of Patagonia and that of Tierra del Fuego. Nearly all the specimens were taken on open ground; but one occurred in a wood in the neighbourhood of the Chilian settlement of Punta Arenas or Sandy Point.

12. *TARAGUIRA TORQUATA*, Wied.

This species is common about Rio Janeiro, but, like most of its tribe, not easy to capture.

III. *OPHIDIA*.

*CORONELLIDÆ*.

13. *TACHYMENIS CHILENSIS*, Schleg.

One four-banded specimen of this species was taken at Talcahuano, the sea-port of Concepcion, and another, with only two bands, at Coquimbo.

*DRYADIDÆ*.

14. *DROMICUS PLEII*, Dum. et Bib.

Taken at Rio Janeiro.

15. *DROMICUS TEMMINCKII*, Schleg.

Taken on the coast of Luco Bay, in Araucania.

AMPHIBIA.

1. *CYSTIGNATHUS OCELLATUS*, Linn.

Taken at Rio de Janeiro in November 1866.

2. *CYSTIGNATHUS TÆNIATUS*, Girard.

A specimen of this species, previously obtained in the neighbourhood of Santiago, Chili, was taken in the neighbourhood of Ancud, Chiloe, in November 1868.

3. *PLEURODEMA BIBRONII*, Tschudi.

Taken in numbers at Talcahuano, Chili.

4. *CACOTUS*, sp.

A single example of a Batrachian referred by Dr. Günther to this genus, but pronounced by him as in an unfit condition for being made the type of a distinct species, was taken on a tree at Huite, Chiloe.

5. *NANNOPHYRNE VARIEGATA*, Günther, g. et sp. n., Proc. Zool. Soc. June 1870.

This pretty little Batrachian, regarded by Dr. Günther as the type of a new genus, was taken in three localities in the wooded region of the west coast of Patagonia, where the climate and vegetation are alike Fuegian. The localities were as follows:—Eden Harbour, March, 1868; Port Grappler, December 1869; Puerto Bueno, December 1869.

## 6. RHINODERMA DARWINII, Dum. et Bib.

A specimen of this curious little species was taken in a wood in the island of Quehuuy off the coast of Chiloe.

## 7. BUFO AGUA, Latr.

Specimens were obtained on the Mount, Monte Video, in February 1866.

## 8. BUFO ORNATUS, Spix.

Taken at Rio de Janeiro in May 1869.

## 9. HYLODES LEPTOPUS, Bell.

A specimen of this species, previously obtained by Mr. Darwin at Valdivia, was captured at Puerto Bueno, west coast of Patagonia, in December 1869. The occurrence of this *Hylodes* and of *Nannophryne variegata* in localities so much further south on the western side of the American continent than *Batrachia* have been hitherto procured, is a fact of considerable interest.

## 10. PHYLLOMEDUSA BICOLOR, Bodd.

A specimen of this elegant little creature was taken at Rio de Janeiro in May 1869. The colour of the upper surface, at first bright green, changed to purple some time after the specimen had been consigned to spirits.

## 11. HYLALBOMARGINATA, Spix.

A specimen of this species was found perched on one of the large leaves of an *Agave* at Rio de Janeiro in July 1867. While it was alive the colour of the upper surface was bright emerald-green, and that of the under surface and feet pale yellow, the suckers being tinged with pale vermilion.

## 12. HYLALBOMARGINATA, Bell.

I took several examples of this pretty little species, on the surface of rocks exposed to the full glare of the sun, on the Mount at Monte Video, in February 1869. The colours when the animal was alive were as follows:—Upper surface grass-green; beneath yellowish white; back of the thigh with black and white spots. A white streak along the edge of the upper lip, and one along the outer side of the leg between the knee and ankle.

## FISHES.

## TRIGLIDÆ.

## 1. SEBASTES OCULATUS, Cuv. et Val.

A fine specimen of this species, previously known from Valparaiso, was taken on a line in Fortune Bay, on the west coast of Patagonia, in December 1868. The ground-colour when the fish was obtained was a vivid scarlet.

2. *AGRIOPUS HISPIDUS*, Jenyns.

A specimen was dredged in April 1868, at Port Otway, Cape Tres Montes, where Mr. Darwin's specimen, the type of the species, was also procured.

3. *PRIONOTUS PUNCTATUS*, Cuv. et Val.

A specimen was taken in Rio harbour, swimming close to the surface of the water, in September 1867.

4. *AGONUS CHILOENSIS*, Jenyns.

A specimen was dredged at Port Otway, Cape Tres Montes, in April 1868.

## TRACHINIDÆ.

5. *APHRITIS GOBIO*, Günth.

This species, described by Dr. Günther in 1861, in the 'Annals and Magazine of Natural History' (ser. iii. vol. vii. p. 88), from a skin and an old stuffed specimen brought by that assiduous collector Captain P. P. King, from Port Famine, I met with several times in the Strait of Magellan and channels on the west coast of Patagonia. It has a most forbidding and ferocious appearance when caught, opening its wide mouth and erecting its fins and orbital tentacles. The colours, when fresh, are as follows:—Above, dusky brown, sides paler, blotched with brown and orange-yellow. Under surface of head, breast, and belly orange-yellow. Two points worth mentioning, and which were not observable in the specimens from which Dr. Günther drew up his description, are the existence, on the skin of the posterior part of each orbit, of a well-developed tentacle, more or less fringed at the extremity in different individuals, and of a row of branched cutaneous appendages attached to the under surface of the posterior margin of the scales on the sides below the lateral line, and resembling at first sight parasitic Lernæidæ.

6. *ELEGINUS MACLOVINUS*, Cuv. et Val.

This fish was taken in considerable numbers, in the seine, at Punta Arenas, Port Famine, and Port Gallant, in the Strait of Magellan, and formed an agreeable variety to the monotonous diet of preserved meat to which we were subjected.

7. *CHÆNICHTHYS ESOX*, Günth.

This species was described by Dr. Günther in the same paper with *Aphritis gobio*, from an old stuffed specimen also collected by Captain King at Port Famine. Several specimens were taken on fishing-lines by us at Port Grappler, on the west coast of Patagonia, and proved rather good eating. It was beautifully coloured when first taken, the sides being barred with greyish black and fine iridescent purple. Several specimens of a *Caligus*, apparently undescribed, were found adhering to the skin. These I propose naming *Caligus chænichthyis*.

8. *NOTOTHENIA TESSELLATA*, Rich.

Specimens of this species, previously obtained from the Falkland Islands, were met with

at Punta Arenas, in the Strait of Magellan, and in Fortune Bay, on the west coast of Patagonia.

9. *NOTOTHENIA CORNUCOLA*, Rich.

This species, from which *N. virgata* does not appear to be truly separable, is very common in the Strait of Magellan and channels on the west coast of Patagonia; and I also met with it at Chiloe.

10. *NOTOTHENIA MACROCEPHALUS*, Günth.

This species, readily distinguishable from all the other *Nototheniæ*, I only obtained in Fortune Bay, in the channels. There it appeared to be abundant, a good many specimens having been taken on fishing-lines. The colour of the back is a rich golden-brown, becoming golden-yellow on the sides and belly. The largest specimen taken was considerably upwards of a foot long.

11. *HARPAGIFER BISPINIS*, Forst.

This odd-looking little fish is not uncommon in the Strait of Magellan and western channels. Many specimens were taken in Tilly Bay, Fuegia.

SCIENIDÆ.

12. *UMBRINA OPHICEPHALUS*, Jenyns.

This species is rather abundant on the Chilian coast. The small specimen preserved was obtained in Herradura Bay.

SCOMBRIDÆ.

13. *ECHENEIS LINEATA*, Menzies.

A small specimen of this species was taken in the towing-net between the Cape Verdes and Rio de Janeiro

BLENNIIDÆ.

14. *BLENNIUS GENTILIS*, Girard.

A number of specimens apparently referable to this species, previously recorded from California, were taken on the screw of the 'Nassau,' at Rio de Janeiro, in August 1867.

15. *BLENNIUS SORDIDUS*, Benn.

A specimen of this species, founded on a Blenny from the Sandwich Islands, was obtained in the Bay of Coquimbo.

16. *CLINUS NUCHIPINNIS*, Quoy et Gaim.

Many specimens of this species were observed at St. Vincent, darting actively about the rocky pools; and several were preserved.

17. *TRIPTERYGIUM*, sp.

A minute specimen of a species of this genus was obtained in the dredge at Port Otway, Cape Tres Montes, in April 1868; but it does not admit of identification.

## TRACHYPTERIDÆ.

## 18. TRACHYPTERUS ALTIVELIS, Kner.

A specimen of this species was taken, in the seine, at Luco Bay, Araucania.

## ATHERINIDÆ.

## 19. ATHERINICHTHYS LATICLAVIA, Cuv. et Val.

This species, from which the *A. microlepidotus* appears to be very doubtfully distinct, was frequently taken in the seine in the Strait of Magellan, at Punta Arenas, Port Famine, and Port Gallant, often occurring along with *Eleginus maclovinus*. It possesses an extremely delicate flavour.

## 20. ATHERINICHTHYS ALBURNUS, Günth.

Specimens of this species were taken at Punta Arenas. In common with some of the other species of the genus, it is generally met with where there is a considerable admixture of fresh with salt water.

## 21. ATHERINICHTHYS ARGENTINENSIS, Cuv. et Val.

Many specimens, I believe, referable to this species were taken in the seine at Maldonado; and one was sent home, preserved in spirit; but I have not come across it at the British Museum.

## GOBIESOCIDÆ.

## 22. GOBIESOX, sp.

Many specimens of a small species of this genus, but in an immature condition, were taken, along with *Blennius gentilis*, on the screw of the 'Nassau,' at Rio de Janeiro, in August 1867.

## CENTRISCIDÆ.

## 23. CENTRISCUS GRACILIS, Lowe.

A small specimen of this species was taken in the towing-net, between Monte Video and the Strait of Magellan, in November 1867.

## LYCODIDÆ.

## 24. LYCODES LATITANS, Jenyns.

This species was not uncommonly met with in the Strait of Magellan and western channels, lurking under stones. It is difficult to catch, from its eel-like motions and the slipperiness of its scaleless skin.

## MAYNEA, g. n.

*Body* elongated, compressed. *Skin* with small spherical imbedded scales, with interspaces between them. *Dorsal, caudal, and anal* united. *Ventrals* absent. *Jaws* equally armed anteriorly with minute teeth placed rather far apart. A few minute teeth anteriorly on the vomer and anteriorly on the palatine bones. A row of large open pores along upper and lower jaws, and a few rather smaller ones on the cheeks. Six *branchiostegals*; gill-opening narrow, the gill-membranes being attached to the isthmus; *pseudo-branchiæ* present. No pyloric appendages.

25. *MAYNEA PATAGONICA*, sp. n.

D. 115. A. 85.

Diameter of interorbital space a little less than that of orbit. Head less than  $\frac{1}{7}$  of the total length. Dorsal commencing a little in front of the base of the pectoral. Colour reddish purple, with minute white dots produced by the imbedded scales.

*Hab.* The Otter Islands, in Smythe's Channel.

This fish, which I have Dr. Günther's authority for regarding as the type of a new genus, I have named after my friend Captain R. C. Mayne, the head of the Magellan Survey, as a slight acknowledgment of the ready kindness which he ever displayed in affording me opportunities for prosecuting my investigations during the three years in which I was associated with him.

## GADIDÆ.

26. *MERLUCCIUS GAYI*, Guich.D. 12 | 36. A. 37 ( $\frac{22}{15}$ ).

Eyes large, their long diameter nearly a third of the space between the orbits. Teeth in upper and lower jaws smaller and placed more widely apart than in *M. vulgaris*. Second dorsal deeply notched in the middle, the rays of the posterior third the largest. Anal deeply notched, appearing at first sight as if composed of two distinct fins.

A good many specimens of this fish (which there seems little reason to doubt is the *Merluccius Gayi*, Guich., described at p. 328 of the second volume of the *Zoologia*, and figured in the *Atlas Ictiol.* lam. 8. fig. 2 of Gay's *Historia Fisica y politica de Chili*) were taken, with fishing-lines, at the eastern entrance of the Strait of Magellan; and the above diagnostic description is drawn up from a small specimen which I preserved. The figure in the *Atlas* to Gay's *History of Chili* does not correctly represent the form of the dorsal and anal fins, there being no indication given of the marked manner in which they are cleft. It is probable that this was the "*Gadus*" taken by Captain King off Cape Fairweather in 1826\*, by Skyring in the Messier Channel in February 1830†, and by Fitzroy in Good-Success Bay in February 1833‡.

## PLEURONECTIDÆ.

27. *PLEURONECTES*, sp.

A very young specimen of a *Pleuronectes*, which possibly may be *P. umbrosus*, Girard, was taken in Coquimbo Bay.

## SILURIDÆ.

28. *LORICARIA VETULA*, Val.

A good specimen of this species, taken in the River Plate, which previously did not exist in the British-Museum collection, was given to me in August 1867.

## STOMIATIDÆ.

29. *ASTRONESTHES NIGER*, Rich.

A specimen of this species was taken, in the towing-net, between St. Vincent and Rio de Janeiro.

\* Voyage of 'Adventure' and 'Beagle,' vol. i. p. 8.

† Ibid. p. 335.

‡ *Op. cit.* vol. ii. p. 225.

## SCOMBRESOCIDÆ.

## 30. EXOCÆTUS OBTUSIROSTRIS, Gthr.

A specimen was obtained at St. Vincent, Cape-Verdes.

## CLUPEIDÆ.

## 31. CLUPEA NOTACANTHUS, Gthr.

A small specimen was taken in Herradura Bay, Chili.

## SYNGNATHIDÆ.

## 32. SYNGNATHUS ACICULARIS, Jenyns.

A specimen taken in the Bay of Coquimbo.

## 33. SYNGNATHUS (NEROPHIS) ÆQUOREUS, Linn.

Specimens were taken in the towing-net to the north of the Azores; and many were seen swimming about on the surface of the water.

## 34. HIPPOCAMPUS GUTTULATUS, Cuv.

A specimen of this species was taken at Rio de Janeiro in July 1867.

## SPINACIDÆ.

## 35. ACANTHIAS VULGARIS, Risso.

Specimens of this species, the common "dogfish" of the British seas, were taken in Falkland Sound and at Punta Arenas, Strait of Magellan.

## CARCHARIDÆ.

## 36. ZYGÆNA MALLEUS, Risso.

A specimen of the common Hammer-headed Shark was captured at Madeira in September 1866.

## CHIMÆRIDÆ.

## 37. CALLORHYNCHUS ANTARCTICUS, Lacépède.

Taken at Chiloe and in the Bay of Arauco.

## RAJIDÆ.

## 38. PSAMMOBATIS RUDIS, Günther, g. et sp. n.

A small Ray, described under the above name by Dr. Günther, in the eighth volume of his Catalogue of the Fishes of the British Museum, was taken at Punta Arenas, Strait of Magellan, in May 1867.

## MYXINIDÆ.

## 39. MYXINE AUSTRALIS, Jenyns.

Many specimens of this species were taken in Falkland Sound and at Punta Arenas, Strait of Magellan.

## MOLLUSCA.

## CEPHALOPODA.

## OCTOPODIDÆ.

## 1. OCTOPUS, sp.

A species of this genus was observed at St. Vincent and the Cape-Verde Islands; but as the specimens then preserved are not now in good condition, I have judged it more prudent not to attach any specific name to them. The animal is evidently the same with that whose habits were described by Mr. Darwin at St. Jago, in the Cape-Verdes. The specimens met with at St. Vincent were of small size, of a dirty mottled grey colour, and exhibited great activity of movement, swimming about the rock-pools with great rapidity, tail foremost, and occasionally discharging the contents of the ink-bag, to screen themselves from observation, and, when placed on the surface of the rock, scrambling along on their arms with wonderful agility.

## 2. OCTOPUS MEGALOCYATHUS, Phil. (?).

A species of Octopus which is not uncommon in the Strait of Magellan, and was the only Cephalopod which I encountered in that region, is, I believe, referable to the above species. A number of specimens were procured, most of them taken in the eastern part of the Strait; and a cluster of ova apparently belonging to the species were found on the beach at Punta Arenas. The animal attains a very considerable size; and many large mutilated specimens were met with, thrown up on the sandy beach at Punta Arenas after violent westerly gales. Like most other Cephalopods, the skin exhibits very remarkable changes of colour when the animal is alive.

## 3. OCTOPUS FONTANIANUS, D'Orb.

I obtained two specimens of this species, which is, I believe, common on the coast of Chili, in a rock-pool in the Bay of Coquimbo, on August 17th, 1868. One of them was discovered under a large stone which I had turned over in search of marine animals. Its colour, at first dirty greyish-white, changed almost instantaneously to a rich dark purplish red, as it swam off with great rapidity and the directness of an arrow, propelled by the rapid movements of its arms.

## TEUTHIDÆ.

## 4. LOLIGO GAHL, D'Orb.

Small specimens of this species were obtained in our seine at Luco Bay (Araucania) in November 1868, and at San Carlos de Ancud (Chiloe) in April 1868.

## 5. OMMASTREPES, sp.

Large fragments of a species of the genus were found in the œsophagus and stomach of an albatros (*Diomedea exulans*) caught near the southern extremity of the Chonos archipelago in March 1868.

## SPIRULIDÆ.

## 6. SPIRULA, sp.

A fragment of a shell was taken in the towing-net, to the south of the Cape-Verdes, in October 1866.

## GASTEROPODA.

## MURICIDÆ.

## 7. MUREX LABROSUS, Gray.

Specimens were dredged at Lota, in the Bay of Arauco, in November 1868.

## 8. MUREX BREVICULUS, Sow. ?

Dead shells, apparently referable to this species, were found at St. Vincent, in October 1866.

## 9. PISANIA ANTARCTICA, Reeve.

This species is common in the Strait of Magellan, and was frequently obtained in the dredge at depths of from 12 to 15 fathoms.

## 10. PISANIA FUSCATA, Brug.

Also common in the Strait of Magellan.

## 11. TRITON SCABER, King.

Specimens of this species were dredged in Herradura Bay, coast of Chili.

## 12. TRITON CANCELLATUS, Lam.

Many specimens of this species were obtained on one or two occasions at Punta Arenas, in the Strait of Magellan, cast up on the beach by strong easterly gales.

## 13. TRITON BRASILIANUS, Gould.

This species is not uncommon on the rocks in the bay of Rio de Janeiro, a few feet below high-water mark.

## 14. CANCELLARIA (ADMETE) AUSTRALIS, Phil.

Several specimens of this small *Cancellaria* were dredged in the eastern part of the Strait of Magellan.

## 15. CHORUS GIGANTEUS, Lam.

This large and handsome shell was only obtained at Lota and Luco Bay in the Bay of Arauco.

## 16. CHORUS XANTHOSTOMA, Brod.

Many specimens were dredged in the Bay of Coquimbo.

17. *FUSUS GEVERSIANUS*, Pall.

This species is one of the commonest mollusks in the Strait of Magellan, abounding from the eastern entrance to Port Famine. To the west of Port Famine it is not so abundant, being partially replaced by the following species. It also occurs at the Falkland Islands.

18. *FUSUS LACINIATUS*, Mart.

This elegant species is abundant in the western part of the Strait, and also occurs in the channels on the west coast of Patagonia. I never met with it to the east of Punta Arenas. It inhabits rather shallow water; and specimens were taken in Tilly Bay, Carlos III. Island, feeding on *Mytilus chilensis*. Like the common *Purpura lapillus* of our shores, the animal bores a small circular hole in the valve of the mussel, and then sucks out the soft parts of the body.

19. *FUSUS MURICIFORMIS*, King.

This small species is very common in the Strait of Magellan.

20. *FUSUS LIRATUS*, Couth.

Specimens of this species were procured at Port Stanley, Falkland Islands.

21. *FUSUS PHILIPPIANUS*, D'Orb.

This species was obtained in one or two localities on the Fuegian coast, in the eastern part of the Strait of Magellan.

22. *FUSUS (CHRYSODOMUS) ALTERNATUS*, Phil.

Specimens were dredged in Herradura Bay, in November 1868.

## BUCCINIDÆ.

23. *APOLLON KINGII*, D'Orb.

Dead shells of this species were dredged in Sholl Bay, at the southern extremity of Smyth's Channel.

24. *BULLIA SQUALIDA*, King.

Numbers of dead shells of this species were met with in Gregory Bay and other localities in the eastern part of the Strait of Magellan; but I never succeeded in obtaining live specimens.

25. *NASSA GAYI*, Hien.

Two rather distinct varieties of this species were obtained, one of an elongated form, at Port Otway (Cape Tres Montes), and the other of the ordinary shape, in rock-pools in the Bay of Coquimbo.

## 26. CONCHOLEPAS PERUVIANA, Blainv.

This curious species is abundant on the Chilian coast, adhering with great tenacity to the rocks in the Laminarian zone. It is regarded as a delicacy by the Chilians, by whom it is termed "Loco." I never met with live specimens to the south of Chiloe, but was a good deal puzzled by picking up two worn, dead shells close to Fuegian encampments in the channels on the west coast of Patagonia. One of these occurred at Port Grappler, opposite the south-east corner of Saumarez Island, and the other at Puerto Bueno, at the northern part of the Sarmiento Channel. I find it stated in the 'Voyage of the Adventure and Beagle,' vol. i. p. 167 (Captain Stokes's narrative), that at Port Santa Barbara, at the northern extremity of the Island de Campanha, situated outside Wellington Island, to the south of the Gulf of Peñas, "the shells (*Concholepas peruviana*) used by the Magalhaenic tribes as drinking-cups were found adhering to the rocks in great numbers." This refers to one of the habits of the Fuegian Indians never observed by us during our sojourn in the Strait and channels, though we had frequent opportunities of holding intercourse with them; and it is the only reference to such a custom with which I am acquainted. Did the mollusk still exist in the Strait and channels, I think it is hardly conceivable that it should have escaped my observation, as I carefully examined all the Fuegian encampments and wigwams which we came across; but never, save in the two instances I have mentioned, did I meet with a fragment of the shell. It is possible that at one time the animal may have existed in these regions, and have been extirpated in consequence of being a favourite article of diet, and that the drinking-cups alluded to by Captain Stokes may have been heir-looms handed down through several generations.

## 27. MONOCEROS GLABRATUM, Lam.

This species was met with plentifully at Lota, Bay of Arauco, and also at Chiloe. Dead specimens were also found in the Strait of Magellan.

## 28. MONOCEROS IMBRICATUM, Lam.

This species was found at Columbine Cove, the Otter Islands, and various other localities in the western channels of Patagonia.

## 29. PURPURA NERITOIDES, Lam.

This species was found in abundance on the rocks at St. Vincent, Cape-Verdes.

## 30. PURPURA HEMASTOMA, Lam.

Fine specimens of this species were taken on the rocks at St Vincent and at Rio de Janeiro.

## 31. OLIVA PERUVIANA, Lam.

This species is very abundant in the Bay of Coquimbo; and many varieties of form and colouring occur, among which the var. *coniformis*, Phil., is not uncommon. I dredged

a great number of specimens, and found others burrowing in the sand at low-water mark. One animal, on being handled, discharged a pale yellowish fluid (like that secreted by *Purpura lapillus*), which changed after a time, on exposure to the air, to a beautiful purple tint which stained my fingers.

## CONIDÆ.

## 32. CONUS, sp.

A live specimen of a small species of the genus was taken at St. Vincent.

## VOLUTIDÆ.

## 33. VOLUTA (SCAPHA) COLOCYNTHIS, Sw.

I picked up a dead shell of this species on the sandy beach at Maldonado, on the north bank of the river Plate; and many live specimens were subsequently obtained by the officers of H. M. S. 'Narcissus.'

## 34. VOLUTA (SCAPHA) MAGELLANICA, Gm.

This Volute occurs very plentifully in the Strait of Magellan; but I never succeeded in dredging a live specimen, which greatly perplexed me for a time. I, however, found two live individuals at low-water mark, and subsequently obtained numbers on the beach at Sandy Point, after a severe easterly gale; and this led me to the conclusion that the species lives in the sand just below low-water mark.

## 35. VOLUTA (SCAPHA) FERUSSACII, Donovan.

I met with the dead shells of this species in hundreds on the gravelly beaches at the eastern entrance of the Strait, but only once succeeded in procuring live specimens. These were found burrowing in the sand at low water at Cape Possession, on the Patagonian shore of the Strait. A few also were met with apparently feeding on the clusters of the *Mytili* attached to the rounded boulders on the beach. The foot of the animal is very large, and of a beautiful purple tint. Several of the specimens, which were kept tied up in a pocket-handkerchief for two days and a half, while I was detained on shore by a gale, were alive when I got on board.

## 36. MITRA, sp.

A small species of this genus was procured at St. Vincent.

## NATICIDÆ.

## 37. NATICA, sp.

## 38. NATICA, sp.

Two species of this genus, one with a horny and the other with a shelly operculum, were dredged in the eastern part of the Strait of Magellan.

## TURRITELLIDÆ.

## 39. SCALARIA MAGELLANICA, Phil.

A single specimen of this species was procured in the Strait.

## CERITHIIDÆ.

## 40. CERITHIUM PULLUM, Phil.

Several specimens of a mollusk referable, I believe, to the above were dredged in the Strait.

## LITTORINIDÆ.

## 41. LITTORINA STRIATA, King.

This species was common in the rock-pools at St. Vincent.

## 42. LITTORINA FLAVA, Brod.

Common on the rocks above high-water mark at Rio de Janeiro.

## 43. LITTORINA ZEBRA, Wood.

This pretty little species was met with very plentifully on the rocks at high-water mark in Valparaiso and Coquimbo Bays.

## PALUDINIDÆ.

## 44. AMPULLARIA FASCIATA, Reeve.

I found a number of specimens of dead shells of this species floating in a marsh at Maldonado, as well as some clusters of its beautiful pink eggs attached to growing reeds.

## TURBINIDÆ.

## 45. MARGARITA VIOLACEA, King.

This pretty little species is very common alike in the eastern and western parts of the Strait of Magellan, and also in the channels. The Fuegians make necklaces of it by drilling holes through the shells and stringing them together with sinews. It is often to be found on *Macrocystis*.

## 46. MARGARITA CÆRULESCENS, King.

This species, much larger than the former (I have met with specimens nearly an inch in diameter), is also very common in the Strait, and apparently also on the Patagonian coast north of the Strait, as I procured it at the mouth of the Gallegos river.

## 47. MARGARITA TENIATA, Sw.

I procured this species at the Falkland Islands, and also in the Strait, where, however, it does not appear to be nearly so common as the two former.

## 48. CHLOROSTOMA BICARINATUM, Pat. &amp; Mich.

A specimen of this species was dredged in Herradura Bay.

49. *CHLOROSTOMA ATRUM*, Less.

This strong thick shell I procured abundantly on the rocks at Coquimbo, Lota, Luco Bay, and Port Otway. To the south of Port Otway I did not encounter it.

50. *AMYXA NIGRA*, Gray.

This species I found common on the rocks at Lota and at Ancud, Chiloe.

51. *OMPHALIUS VIRIDULUS*, Gmel.

Taken in rock-pools at St. Vincent.

52. *LABEO PUNCTULATUS*, Lam.

This species was also taken at St. Vincent.

## IANTHINIDÆ.

53. *IANTHINA FRAGILIS*, Lam.

Taken in the towing-net to the south of the Cape-Verdes.

54. *IANTHINA GLOBOSA*, Sw.

Seen in numbers to the south of the Cape-Verdes. One fine specimen, taken in the towing-net, had two specimens of a live Cirriped, of the genus *Lepas*, attached to the shell.

55. *IANTHINA EXIGUA*, Lam.

This species was taken in the towing-net on several occasions to the south of the river Plate.

## FISSURELLIDÆ.

56. *FISSURELLA DARWINII*, Reeve.

This species is not uncommon in the Strait of Magellan.

57. *FISSURELLA EXQUISITA*, Reeve.

I obtained this species at the Falkland Islands and in the Strait.

58. *FISSURELLA PICTA*, Gm.

This species occurs both at the Falkland Islands and in the Strait of Magellan, and attains a large size. Along with *Patellæ* and *Mytili*, it forms a staple article of diet among the Fuegian Indians.

59. *FISSURELLA NIGRA*, Less.

I found this species in abundance on the rocks at Ancud (Chiloe) and at Coquimbo.

60. *PUNCTURELLA FALKLANDICA*, A. Adams.

Several specimens of this species were dredged in the eastern part of the Strait.

## CALYPTRÆIDÆ.

## 61. CALYPTRÆA COSTELLATA, Ph.

I dredged numerous specimens of this species near the eastern entrance of the Strait.

## 62. CREPIDULA DECIPIENS, Ph.

I found many dead shells of this species on the beach at Philip Bay, in the eastern part of the Strait.

## 63. CREPIDULA DILATATA, Lam.

This species is very common at Ancud (Chiloe), and varies extremely in form.

## 64. TROCHITA RADIANS, Lam.

Many large dead shells of this species were found in a raised beach in Herradura Bay.

## 65. CRUCIBULUM FERRUGINEUM, Reeve.

Specimens were obtained on the rocks in Coquimbo Bay.

## PATELLIDÆ.

## 66. PATELLA MAGELLANICA, Gm.

Extremely common in the Strait of Magellan and at the Falkland Islands. In some parts of the western channels I did not meet with it at all.

## 67. PATELLA ÆNEA, Mart.

Common in the Strait of Magellan.

## 68. PATELLA VENOSA, Reeve.

This species was met with at Port Laguna, in the Chonos archipelago.

## 69. PATELLA CLYPEASTER, Less.

Not uncommon on the rocks at Lota (Bay of Arauco).

## 70. NACELLA CYMBULARIA, Lam.

Very common in the Strait of Magellan and western channels, occurring on the kelp (*Macrocystis pyrifera*).

## 71. NACELLA VITREA, Ph.

Common in the Strait and channels, on the kelp. I am inclined to believe that it is merely a young stage of *N. cymbularia*.

## 72. TECTURA VARIABILIS, Sow.

Specimens of this shell, which is very common on the coast of Chili, were collected in Coquimbo Bay and at Lota.

73. *TECTURA ZEBRINA*, Less.

This species was met with abundantly at Lota and Luco Bay.

74. *SIPHONARIA VENOSA*, Reeve.

I found this specimen at St. Vincent.

75. *SIPHONARIA MAGELLANICA*, Ph.

This species is very common in the Strait, abounding on the rounded stones on the beaches.

## CHITONIDÆ.

76. *CHITON ACULEATUS*, Linn.

I procured some magnificent specimens of this species on the rocks at Coquimbo. It is almost invariably to be met with in very exposed situations, on rocks on which the surf breaks violently; so that to obtain it involves a considerable amount of danger and difficulty.

77. *CHITON MAGNIFICUS*, Desh.

Fine specimens of this handsome species were met with at Coquimbo, generally in similar situations with the preceding, the difference being that the *C. magnificus* appeared to prefer clefts in the rocks.

78. *CHITON GRANOSUS*, Reeve.

This species I found at Chiloe, and also in the channels on the west coast of Patagonia. It does not appear to extend as far south as the Strait of Magellan.

79. *CHITON CUMINGII*, Fremb.

This beautiful Chiton was found at Coquimbo.

80. *CHITON ELEGANS*, Fremb.

This species was also met with at Coquimbo.

81. *CHITON CHILOENSIS*, Sow.

\* This species is very common at Chiloe. It appears to me to come very near *C. elegans*.

82. *CHITON BOWENII*, King.

I found a number of specimens of this species at Chiloe; but I do not remember observing it in the Strait of Magellan, where King appears to have procured it.

83. *CHITON SETIGER*, King.

This is much the commonest *Chiton* in the Strait of Magellan and western channels, and sometimes attains a considerable size. I have met with specimens 3 inches long. In old individuals the sculpturing of the valves is frequently much obliterated, and the fasciculi of setæ are often worn off.

## 84. CHITON FASTIGIATUS, Gray.

This beautiful species I met with chiefly in the western part of the Strait. Many fine specimens were obtained in Borja Bay in January 1869.

## 85. CHITON ATRATUS, Sow.

This species I also encountered in the western part of the Strait.

## 86. CHITON ILLUMINATUS, Reeve?

I met with several small specimens, probably referable to this species, in the eastern part of the Strait.

## PULMONIFERA.

## 87. HELIX AUDOUINII, D'Orb.?

A single live specimen of a large *Helix*, perhaps referable to the above species, was found at Island Harbour, in the Mexican Channel, on the 18th of April 1868, and despatched, along with the rest of my collections, in spirit, to the British Museum; but I have not succeeded in lighting on it there, and therefore do not feel certain as to the species.

## 88. BULIMUS PAPYRACEUS, Mawe.

Specimens of this species were obtained at Rio de Janeiro in November 1866.

## 89. BULIMUS AURIS-MURIS, Brug.

This is a common species in the neighbourhood of Rio de Janeiro. Many specimens were taken in August 1867, in the Botanical Gardens and about Tynca.

## 90. BULIMUS OVATUS, Müller.

Two dead shells belonging to this species were found in the weeds on Tynca Peak in June 1869.

## 91. BULIMUS TAUNAISII, Fér.

Specimens of this species were procured at Rio in August 1867.

## 92. BULIMUS ROSACEUS, King.

Young specimens of this species were obtained at Valparaiso in July 1868.

## 93. SUCCINEA, sp.

I met with this abundantly in the neighbourhood of Punta Arenas, and also obtained it at Port Gallant.

## 94. LIMNÆA.

A species of this genus (perhaps the *L. viatrix*, which has been recorded from the Rio Negro) was taken in a small stream running into Oazy Harbour, in the eastern part of the Strait.

95. *CHILINIA FLUCTUOSA*, D'Orb.

A species of *Chilinia* which, I believe, is the *C. fluctuosa* was taken in numbers at Port Grappler, in the western channels. It occurred in brackish water, in some cases associated with living *Balani*. Many of the shells had the apex eroded.

96. *PERONIA*, sp. (Pl. LVIII. fig. 4: *a*, ventral; *b*, dorsal surface.)

A single specimen of a naked mollusk, apparently belonging to this genus, and of which I give a sketch, was dredged at Sholl Bay, at the southern extremity of Smyth's Channel, in December 1868. The mantle was of a dirty yellow colour, marked with lines and blotches of light vandyke brown; and its under surface around the foot was marked with light-coloured striæ. The animal possessed the power of shortening and elongating the tentacles. At times it crawled along the sides of a glass, filled with sea-water, in which it was kept, on its large muscular foot, the shape of which underwent constant changes; and at others it floated on the surface of the water, with the foot uppermost. In the figure, taken after death, the foot is extended. Couthouy has described *Peronia marginata* from Fuegia; but as I have not seen his description, I do not know whether it is this species or not.

*TECTIBRANCHIATA.*97. *APLYSIA DACTYLOMELA*, Rang.

Specimens of this species were taken at St. Vincent. Mr. Darwin mentions it in his account of his visit to St. Jago.

98. *APLYSIA BRASILIANA*, Rang.

I found a specimen of this species on the rocks of the Island of Paqueta, in the harbour of Rio de Janeiro, in September 1867.

*NUDIBRANCHIATA.*99. *DORIS*, sp.

Specimens of a large species, of a yellow colour, were procured at Ancud, Chiloe.

100. *DORIS*, sp. (Pl. LVIII. fig. 6, dorsal surface.)

A specimen of a species of this genus, of which I give a sketch, was obtained on a frond of *Macrocystis*, in Tuesday Bay, near the western entrance of the Strait of Magellan, in December 1868. The surface of the mantle was minutely villous, and it was tinted with delicate shades of greyish white and yellowish white. The branchial plumes were semi-transparent. Should this species prove to be undescribed, I would suggest that it be named *Doris magellanica*.

101. *EOLIS CAMPBELLII*, n. s. (Pl. LVIII. fig. 5: *a*, dorsal surface; *b*, ventral surface.)

A beautiful *Eolis*, of which I have found no description, and of which I give a sketch, was obtained on a rock in Swallow Bay, on the north-east of Fuegia. It is certainly

distinct from the *Eolidea patagonica*, D'Orb. The mantle was of a beautiful pale rose-pink hue, slightly freckled with pale chocolate-brown. The foot was also pale rose-pink, having a pale bluish hyaline appearance at the edges. The branchial tufts were pale pink, with their central ramifications chocolate-brown. I dedicate this species to Dr. S. Campbell, R.N., late Surgeon of H. M. S. 'Nassau,' to whom I was greatly indebted for much kind assistance in the collecting and preserving of specimens.

## PTEROPODA.

## 102. PNEUMODERMON PERONII, Cuv.

A number of specimens of this species were taken, in the towing-net, between St. Vincent and Rio Janeiro in October 1866.

## 103. CLEODORA PYRAMIDATA, Linn.

This species was taken, in the towing-net, between the river Plate and the Strait of Magellan in November 1867.

## 104. CUVIERIA COLUMELLA, Rang.

Taken in the towing-net, along with *Cleodora pyramidata*, in November 1867.

## LAMELLIBRANCHIATA.

## OSTREIDÆ.

## 105. OSTREA CHILENSIS, Ph.

This species is very abundant in the Bay of San Carlos de Ancud (Chiloe).

## 106. PECTEN PURPURATUS, Lam.

Common in the Bay of Coquimbo.

## 107. PECTEN PATAGONICUS, King.

This species is common in the Strait of Magellan.

## 108. PECTEN NATANS, Ph.

This beautiful little species, the valves of which are so transparent that the body may be as clearly seen through them as though it was surrounded by an envelope of talc or mica, is very abundant on the growing fronds of the kelp (*Macrocystis*) in the Strait of Magellan, skipping actively about by opening and closing its valves.

## 109. PECTEN DARWINII, Reeve?

Dead valves of a *Pecten*, probably referable to this species, were found at the Otter Islands in Smyth's Channel.

## 110. LIMA PYGMÆA, Ph.

A few specimens of this elegant little species were dredged in the Strait of Magellan.

## MYTILIDÆ.

## 111. MYTILUS CHILENSIS, Hupé.

This species is common in the Strait of Magellan, Chiloe, and Chili, and is one of the principal articles of diet of the Fuegians. Pearls are frequently to be met with in this species—a fact which did not escape the observation of some of the earlier navigators in the Strait.

## 112. MYTILUS MAGELLANICUS, Chemn.

This species is common in the Strait of Magellan, as well as at the Falkland Islands.

## 113. MYTILUS OVALIS, Lam.

I obtained specimens of this species in the western channels.

## 114. MODIOLARCA TRAPEZINA, Lam.

This is one of the most abundant mollusks in the Strait of Magellan and western channels, being attached by a gelatinous byssus in myriads to the fronds of the *Macrocystis*. The shell varies greatly in colour, being sometimes of a pale-yellow tint, and at others dark olive, verging on black.

## ARCADÆ.

## 115. LEDA, sp.

Many specimens of a small *Leda* were dredged at Port Tamar, in the western part of the Strait of Magellan.

## 116. YOLDIA, sp.

Specimens of a fine *Yoldia* were dredged at the Otter Islands in December 1868; and one was also obtained at Playa-Parda Cove in January 1869; but I have not succeeded in finding them at the British Museum, though they are recorded in the register.

## UNIONIDÆ.

## 117. UNIO CHILENSIS.

Specimens of this species were obtained for me by Mr. Gray, the Navigating Lieutenant of the 'Nassau,' at Limache, not far from Valparaiso.

## LUCINIDÆ.

## 118. KELLIA BULLATA, Ph.

Dredged in the eastern part of the Strait of Magellan.

## CYPRINIDÆ.

## 119. ASTARTE LONGIROSTRIS, D'Orb.

Common in the eastern part of the Strait of Magellan.

## 120. CARDITA THOUARSII, D'Orb.

Dead valves of this species were dredged at Sholl Bay.

## VENERIDÆ.

## 121. CHIONE EXALBIDA, Chemn.

Dead valves of this species are very abundant on the sandy beach at Punta Arenas; but I found very few living species.

## 122. CHIONE ANTIQUA, King.

This species was obtained at Ancud, Chiloe.

## 123. CHIONE COSTELLATA, Sow.

Specimens were procured at Lota (Bay of Arauco). I think there is good reason to doubt whether this species is distinct from *C. antiqua*.

## 124. ANOMALOCARDIA MACRODON, Lam.

I found specimens of this species at the island of Paqueta, Rio de Janeiro.

## MACTRIDÆ.

## 125. MACTRA (MULINIA) EDULIS, King.

This species is common at Punta Arenas (Sandy Point), Port Famine, and other localities in the Strait of Magellan.

## 126. MACTRA (MULINIA) EXALBIDA, Gray.

Obtained at Sholl Bay.

## 127. LUTRARIA (DARINA) SOLENOIDES, King.

Common at Punta Arenas, Port Famine, and numerous localities in the eastern part of the Strait of Magellan.

## TELLINIDÆ.

## 128. MESODESMA CHILENSIS, D'Orb.

This species is extremely abundant in the Bay of Coquimbo.

## SOLENIIDÆ.

## 129. SOLEN GLADIOLUS, Ph.

This species I met with at Lady Point and Port Famine.

## 130. SOLEN MACHA, Molina.

Obtained in the Bay of Coquimbo.

## 131. SOLEN DOMBEII, Lam.

Obtained at Ancud, Chiloe.

## GASTROCHLENIDÆ.

## 132. SAXICAVA ANTARCTICA, Ph.

Common in the Strait of Magellan.

## PHOLADIDÆ.

## 133. PHOLAS CHILENSIS, Mol.

Common at Ancud (Chiloe), and regarded as a delicacy by the Chilotes.

## BRACHIOPODA.

## 134. WALDHEIMIA VENOSA, Solander.

This fine species occurs plentifully in Possession Bay and various other localities in the eastern part of the Strait of Magellan. Numbers of live specimens were dredged off Cape Possession, in about fifteen fathoms water, and preserved in spirit. The largest specimen procured, which is not much inferior in size to that described and figured by Mr. Davidson in the 'Annals and Magazine of Natural History' (ser. 3, vol. xx. p. 81), was dredged at Port Famine in January 1869. To the westward of Port Famine I have not met with it. The specimens of this species collected by me are by far the largest recent Brachiopoda in the British-Museum collection.

## 135. WALDHEIMIA DILATATA, Val.

This species is also to be met with abundantly in the eastern part of the Strait of Magellan. All the specimens obtained, which were in general associated with individuals of *W. venosa*, were of small size.

## 136. TEREBRATELLA MAGELLANICA, Chemn.

This species is also common in the Strait of Magellan. I have dredged it from the eastern entrance as far west as Port Gallant. They are not unfrequently distorted in shape.

## TUNICATA.

## 137. CYNTHIA GREGARIA, Less. Cent. Zool. pl. lii. fig. 3; Voyage du Coquille, tom. ii. p. 435.

This species, discovered by Lesson at Port Lous, in the Falkland Islands, I met with in the Strait of Magellan, and also at Stanley Harbour, Falkland Islands.

## 138. CYNTHIA VERRUCOSA, Less. Cent. Zool.

I only met with this curious species at Stanley Harbour, Falkland Islands, among the masses of *Macrocystis* lying on the beach.

## 139. CYNTHIA MAGELLANICA, n. s. (Pl. LVIII. fig. 2.)

This species, which appears to be undescribed, I met with principally in Peckett Harbour, on the Patagonian coast of the eastern part of the Strait of Magellan. The individuals frequently occurred in masses, and were in general of a globose form. The test is rather thin, smooth, and of a greenish hue. The specimen dissected by me presented nothing specially interesting in the form or arrangement of its organs.

## 140. CYNTHIA GIGANTEA, s. n.

This species, of which I have likewise met with no description, is of very large size. It is of an oblong form, flattened from side to side. The test is very strong and coriaceous, of a dirty brown colour. The oral and atrial apertures are irregularly plicated, situated on two very prominent mammiform papillæ. The base is generally incrustated with sand; and in many cases the test bears a number of parasitic animals. The largest specimen obtained measured no less than 8 inches from base to apertures, and was between 4 and 5 inches broad. Attached to the test were a number of moderate-sized *Boltenia* and a variety of Polyzoa.

## 141. BOLTENIA LEGUMEN, Lesson.

A species of *Boltenia*, common in the eastern part of the Strait, and also met with at the Falkland Islands, is, I believe, referable to the above species, obtained "sur les rivages de la baie Française de la Soledad, une des Malouines."

## 142. PYURA MOLINÆ, Blainv.

I met with the only described species of this curious genus of social Tunicata both at Chiloe, where it is known under the name of "pinré," and at Luco Bay (a subdivision of the Bay of Arauco), and preserved specimens from both localities, which were afterwards despatched to England. I regret, however, that I have not succeeded in finding them among my collections deposited at the British Museum, and that I am, in consequence, unable to furnish an exact description of the animal, which as yet appears to be principally known from Molina's account of it ('Saggio sulla storia naturale del Chili'). The individual animals (which are of considerable size, sometimes exceeding a couple of inches in length) lie in cells, in a firm matrix of cartilaginous consistence; and from the hurried inspection that I made of them at the time they were collected, I have little doubt that the genus belongs to the social, and not the compound section of attached Ascidiæ.

## GOODSIRIA, g. n. (Ascid. Soc.).

Mass elongate, lobed, rooted at the base, composed of very many minute flask-shaped animals, imbedded in cells in the circumference of a fibro-gelatinous matrix. Oral and atrial orifices of individuals in general distinct, situated on well-marked papillæ.

Species unica:—

## 143. G. COCCINEA.

On what appears to me to be a new genus of social Tunicata, of which I met with numerous examples in the eastern portion of the Strait of Magellan, and also at Port Stanley, in the Falkland Islands, I have bestowed the above generic name in honour of the late Prof. Goodsir, to whom, conjointly with the late Prof. Edward Forbes, science is indebted for valuable observations on this class of animals.

The animal mass presents a very remarkable appearance when fresh, reminding one in some measure of certain of the fleshier Alcyonoid polyps. It frequently attains a very

considerable size, specimens above two feet in length having been found. The colour when recent is of a vivid scarlet, whence the specific name, and the surface is papillate. I regret that at the time when the specimens were obtained, having much work on my hands, I had not sufficient leisure to undertake a minute investigation of the component animals, which are very small, seldom exceeding a line in length; and I have not succeeded in making out the details of their structure after their three years' immersion in spirit. Their general arrangement and form, however, will be readily understood by a reference to the sketches which accompany this paper. (See Plate LVIII. fig. 3: *a*, a mass, is represented of the natural size; *c* shows a small portion of the surface, slightly magnified; *b*, a transverse section through one of the masses, of the natural size; *d*, a portion of the same, magnified; *e*, a single individual, still more magnified.) Numerous specimens are in the British Museum.

144. *APLIDIUM PEDUNCULATUM*, Quoy et Gaim.

Many specimens of a pedunculated Tunicate found attached to the fronds of *Macrocystis* are not, I think, distinct from the above species from Australia, described and figured by Quoy and Gaimard (Voyage de l'Astrolabe, Mollusques, tom. iii. p. 626; Atlas, pl. 92. figs. 18, 19).

145. *APLIDIUM FUEGIENSE*, n. s.

Mass firm, flattened, disk-like, of a pale bluish-grey colour, marked with innumerable rather irregularly distributed slightly projecting points of a pale yellow colour (the individual animals).

Several specimens of this Tunicate were dredged in the Strait of Magellan. The first was brought up on a fishing-line in Philip Bay, north-west of Fuegia, in December 1866. I have not been able, after much trouble expended in cutting sections of the mass, to make out the anatomy of the animals further than to satisfy myself that they belong to the genus *Aplidium*. In fig. 1, Pl. LVIII., *a* represents a portion of the surface of the natural size, *b* the same magnified, and *c* a vertical section magnified.

146. *SYCOZOA SIGILLINOIDES*, Lesson.

This name was given by Lesson (in the 'Voyage de la Coquille,' Zoologie, tom. ii. p. 436) to a remarkable pelagic Tunicate allied to *Pyrosoma*, which was taken "flottant, par un beau jour de calme en Décembre 1822, à trente lieues au sud de la Terre-des-Etats, par 53 degrés de latitude australe, dans le voisinage du Cap Horn." The animal is figured in the 'Atlas,' Mollusques, No. 13. fig. 5. I obtained specimens of it only on one occasion, in December 1866, between the river Plate and the Strait of Magellan; and these are now in the British Museum. I may add that I have met with no notice of *Sycozoa*, save in the 'Voyage de la Coquille.'

## CRUSTACEA.

## DECAPODA.

## BRACHYURA.

## 1. EURYPODIUS LATREILLII, Edw.

This species was taken abundantly in the dredge at the Tysson Islands, in Falkland Sound.

## 2. EURYPODIUS AUDOUINII, Edw. and Luc.

Dredged at Port Otway, Cape Tres Montes.

## 3. EURYPODIUS SEPTENTRIONALIS, Dana.

This species is common in the Strait of Magellan from the eastern entrance as far as Sandy Point. I feel somewhat doubtful whether it is distinct from *E. Audouinii*, as some of the points of distinction pointed out by Dana, *e. g.* the length of the hairs on the legs, are not to be depended on.

## 4. EURYPODIUS BREVIPES, Dana.

This species, which, I think, is a good one, although the length of the joints of the limbs is certainly not a thoroughly reliable distinction, being subject to a very considerable amount of variation in different individuals, was dredged in Possession Bay.

## 5. EPIALTUS DENTATUS, Edw.

This crab has a wide range on the coast of Chili. I obtained specimens at Ancud (Chiloe), Lota (Bay of Arauco), and Coquimbo. It is of a dull greenish colour when alive, and is very sluggish in its movements. It appears to be an inhabitant of shallow water, as I invariably found it under stones in the rock-pools at about half-tide.

## 6. CANCER EDWARDSII, Edw.

This crab, which closely resembles our British species in general appearance, is common at Ancud (Chiloe), where it is largely eaten by the inhabitants.

## 7. XANTHO PLANUS, Edw.

Common at Chiloe, and attains a considerable size.

## 8. XANTHO GAUDICHAUDII, Edw.

I met with numerous examples of this pretty species at Ancud (Chiloe), in pools in the rocks at low tide.

## 9. PILUMNOIDES PERLATUS, Edw. and Luc.

This species is also common at Chiloe.

## 10. ERIPHIA GONAGRA, Fabr.

This crab is abundant at Rio de Janeiro on rocks in shallow water.

11. *PIRIMELA DENTICULATA*, Montagu.

A specimen was obtained at St. Vincent, Cape-Verdes.

12. *PLATYONYCHUS PURPUREUS*, Dana.

This large swimming-crab is common at Coquimbo and in Luco Bay; and I have reason to believe that it extends along the west coast of South America as far north as Panama.

13. *LUPA SPINIMANA*, Leach.

This handsome species appears to be common at Rio de Janeiro, as it is frequently exposed for sale in the market. A fine specimen was taken on the rocks of a small island in the harbour in October 1866.

14. *LUPA RUBRA*, Lam.

Several specimens of this crab were taken on the rocks of a small island in the harbour of Rio de Janeiro in August 1867.

15. *LUPA CRIBRARIA*, Lam.

I found a number of specimens of this prettily marked species on the sandy beach of Five-fathom Bay, Rio de Janeiro, in the beginning of October 1867.

16. *TRICHODACTYLUS QUADRATUS*, Latr.

This species is common in freshwater streams and damp places in their vicinity in the neighbourhood of Rio de Janeiro. On one occasion, in August 1867, on a rock at the side of a stream at Tijuca, I found a female with between fifty and sixty live young ones under the pleon in the ordinary situation of the ova, which renders it probable that in this species, as in the Land-crabs, the young undergo no metamorphosis. Dr. Von Martens is right in his conjecture in the 'Zoological Record' for 1868, that the crab which Mr. Spence-Bate has named *Uca Cunninghamsi* is only this well-known species.

17. *TRICHODACTYLUS GRANARIUS*, Nic.

This crab (which, I think there is some reason to doubt, is not a true *Trichodactylus*) is common on the coast of South Chili. I generally met with it in situations where the sea-water was rendered brackish by small streams debouching into it. It was extremely common at Ancud (Chiloe); and I met with a single specimen at Port Laguna, to the north of the Darwin Channel, in the Chonos archipelago.

18. *PINNOTHERES TRANSVERSALIS*, Edw. and Luc.

A single specimen of this remarkable species was taken on the sandy beach near Punta Arenas (Sandy Point), in the Strait of Magellan, after a severe gale, in June 1867.

19. *HALICARCINUS PLANATUS* (Fabr.), White.

This curious flat-backed crab is very common under stones on the beach at Punta Arenas and many other localities in the Strait of Magellan, where it was also dredged at depths of from 12 to 15 fathoms.

## 20. OCYPODA RHOMBEA, Fabr.

This crab is common on the sandy beach outside the harbour of Rio de Janeiro, but is exceedingly difficult to capture, on account of the speed with which it runs on the approach of the enemy. On one occasion, when, I suppose, I must have seen thirty or forty individuals, I only succeeded in obtaining a single one, and that with the assistance of two friends. The animal is generally to be found resting on the sand, about ten yards above the edge of the water, and, on becoming aware, at a considerable distance, of the danger with which it is menaced, rushes down into the surf, where it is impossible to capture it.

## 21. SESARMA ANGUSTIPES, Dana.

A specimen of this crab was taken at Rio de Janeiro in July 1867.

## 22. GONIOGRAPSUS INNOTATUS, Dana.

Taken with the preceding, at Rio de Janeiro in July 1867.

## 23. CYRTOGRAPSUS ANGULATUS, Dana.

A crab which I have little doubt in referring to this species is very plentiful in the rock-pools in the vicinity of Monte Video. Dana's specimen was taken at the mouth of the Rio Negro, the north-eastern boundary of Patagonia.

## 24. CYCLOGRAPSUS CINEREUS, Dana.

This species was taken at Lota (Bay of Arauco).

## 25. GRAPSUS PLANIFRONS, Dana.

This crab is not uncommon among the rocks at the entrance of the Bay of Coquimbo. It is very fierce, and difficult to dislodge from the clefts in which it is generally to be found ensconced.

## 26. PLANES MINUTUS, Fabr.

This long-known species was taken with *Scyllæa pelagica* and other animals on Sargassum, to the south of the Azores.

## 27. HEPATUS CHILIENSIS, Edw.

This handsome crab is not uncommon in the Bay of Coquimbo, where a fine specimen was taken.

## 28. HEPATUS ANGUSTATUS, Fabr.

Many specimens of this species were found on the beach of Five-fathom Bay, Rio de Janeiro, in October 1867.

## 29. PLATYMERA GAUDICHAUDII, Edw.

Fine specimens of this remarkable crab were obtained from fishermen in the Bay of Coquimbo in August 1868.

## 30. ACANTHOCYCLUS GAYI, Edw. and Luc.

This species was taken plentifully under stones in rock-pools at Lota, and resisted capture most fiercely, giving the most savage nips with its great right or left hand.

## 31. BELLIA PICTA, Edw.

I only obtained this species at Lota. The British-Museum specimens are labelled "Peru."

## 32. PSEUDOCORYSTES ARMATUS, Edw.

This appears to be not uncommon on the coast of Chili. I obtained specimens of it at Lota and in Herradura Bay.

## 33. PELTARION SPINULOSUM, White.

This species is common in the neighbourhood of Punta Arenas, in the Strait of Magellan, where it burrows in the sandy beaches; and I dredged it in various localities between Punta Arenas and the eastern entrance.

## ANOMURA.

## 34. LITHODES ANTARCTICA, Homb. and Jacq.

This species, which attains a large size, is abundant in the Strait of Magellan, and appears to extend as far north as Chiloe, on the west coast of South America. The young individuals differ most strikingly from the old ones in the much greater spininess of the carapace. Old individuals much resemble *L. arctica* in their general appearance. Like that species, the *L. antarctica* is very sluggish in its movements, crawling slowly about over the stones or among the stems of the *Macrocystis*. A great number of young specimens were seen in Borja Bay in January 1867.

## 35. LITHODES VERRUCOSA, Dana.

This species, which is perhaps not truly distinct from *L. granulosa*, Homb. and Jacq., is common in the eastern portion of the Strait of Magellan (I do not think I ever observed it to the west of Cape Negro); and we also met with it in great numbers at the Tyssen Islands, Falkland Sound. Like the *L. antarctica* it inhabits shallow water; and it is even more inactive than that species in its movements.

## 36. ALBUNEA, sp.

Dead specimens of a species of this genus were met with in Herradura Bay, on the coast of Chili, in August 1867; but I have not found them among my collections at the British Museum.

## 37. REMIPES SCUTELLATUS, Fabr.

A live specimen of this species was taken at St. Vincent, in the Cape-Verdes, in October 1866. It was found burrowing in the sand of the beach.

## 38. HIPPA EMERITA, Linn.

Many specimens of this species were taken in Five-fathom Bay, Rio de Janeiro, in October 1867.

## 39. HIPPA TALPOIDES, Say.

Common on the coast of Chili. Specimens were found at Ancud (Chiloe), Luco Bay and San Vicente, near Talcahuano.

## 40. PAGURUS FORCEPS, Edw. ?

A *Pagurus* which I refer with some doubt to this species is very common in the Strait of Magellan and western channels.

## 41. BERNHARDUS OBESO-CARPUS, Dana.

This species was obtained at Coquimbo.

## 42. PORCELLANA TUBERCULATA, Guérin.

Common in the rock-pools at Coquimbo.

## 43. PORCELLANA VALIDA, Dana.

Abundant at Ancud (Chiloe), and taken also at Lota.

## 44. PORCELLANA TUBERCULIFRONS, Edw. and Luc.

Very common under stones in rock-pools at Coquimbo, and taken also at Chiloe.

## 45. PORCELLANA PATAGONICA, n. sp.

Length and breadth of carapace about  $\frac{5}{16}$  of an inch. Front trilobate; the middle lobe much projecting and pointed; all three lobes minutely crenulated on the margin. Carpus not dilated in front or behind, with three prominent teeth nearly of equal size on the anterior margin, and a tooth at the outer side of the articulation with the hand. All the legs minutely granulated; the first pair slightly crested on the anterior margin. Carapace smooth on the centre, minutely granulate on the sides.

This species, which appears to me to be undescribed, was dredged in the Strait of Magellan and at Port Otway.

## 46. ÆGLEA LÆVIS, Lat.

Specimens of this curious Crustacean, which had been collected in a freshwater stream in the neighbourhood of Valparaiso, were given to me by an officer of H. M. S. 'Topaze,' then on the Chilian station.

## MACRURA.

## 47. GALATHEA SUBRUGOSA (White), Dana.

This species, which is figured in the unpublished plates of the Crustacea of the An-

tarctic Expedition, as well as in Dana's magnificent work, is common in the Strait of Magellan and on the west coast of Patagonia. I obtained and preserved specimens from the Strait, the western channels, Port Otway, and Ancud. It is evidently distinct from the *G. monodon* of Milne-Edwards, from the coast of Chili—the spine on each side of the long central spine of the rostrum being of considerable length, whereas the lateral spines of *G. monodon* are described as “petites épines très-courtes.”

48. GRIMOTHEA GREGARIA (Fabr.), Leach.

Obtained between the Falkland Islands and Strait of Magellan in 1867. Specimens were also given to me the following year, which had been collected by the officers of the ‘Narcissus’ at San Carlos, in Falkland Sound. Dana's were taken in the south of Fuegia; and I find an excellent drawing of an individual, also captured in the south of Fuegia, among a collection of sketches made by Dr. Hooker when on the Antarctic expedition, and lent by him to me. A few specimens which I kept alive for some days in a glass of sea-water swam rapidly about backwards, by means of rapid flexions and extensions of the tail.

49. CALLIANASSA UNCINATA, Edw.

I found fragments of this species lying on the sandy beach of the island of Quehuy, off Chiloe, and was told by an English resident there that the species was not uncommon, burrowing in the sand.

50. CALLIANASSA GIGAS, Dana (?).

An imperfect specimen of a *Callianassa*, which does not appear to me distinct from the above species obtained at Puget Sound, was picked up by me on the beach at San Carlos de Ancud, Chiloe, in April 1861.

51. BETÆUS SCABRO-DIGITUS, Dana.

I found this species abundant in the rock-pools at Lota (Bay of Arauco), where it was difficult to catch, owing to the activity of its movements. Their colour was dull green. Dana's specimens were taken at Valparaiso.

52. BETÆUS TRUNCATUS, Dana.

This species I dredged at Puerto Bueno, west coast of Patagonia, on the 7th of December 1868. Dana's specimens were from Fuegia.

53. HIPPOLYTE GRAYI, n. sp.

Of this species of *Hippolyte*, which appears to be undescribed, and of which I give a sketch (Pl. LIX. fig. 8), I only obtained a single imperfect specimen, from Port Otway.

Rostrum shorter than the carapace, with two prominent teeth on its upper surface, and a third at its base, immediately above the eye. On the middle line of the carapace, behind the eye, are three strong teeth. Beneath the eye a fine spine. Feet long and slender, the posterior ones denticulated on the under surface. Length a

little more than an inch. Named in honour of Nav. Lieut. F. G. Gray, R.N., who was of material assistance to me in my dredging operations.

54. RHYNCHOCINETES TYPUS, Edw.

I obtained many specimens of this fine Crustacean in rock-pools at Coquimbo at low tide. It is an exceedingly beautiful creature when alive, the body and legs being elegantly mottled and banded with various shades of red and brown.

55. PALÆMON FORCEPS, Edw.

This species is the prawn so largely sold in the market at Rio de Janeiro, in the harbour of which it is taken.

56. PALÆMON CÆMENTARIUS, Pœppig.

I procured five examples of this large species, termed "Camaron" by the Chilians, and esteemed by them as a great delicacy, in freshwater marshes between the town of La Serena and the sea. In Gay's 'Historia Fisica y Politica de Chile' we are informed that it is to be found "en los embocadores de las riveras donde construyeron de grandes cavidades que cubren con tierra."

STOMAPODA.

57. MACROMYSIS MAGELLANICA, sp. n.

General form that of *M. gracilis*, Dana (from Rio de Janeiro). Cephalic portion of carapace partially separated by a suture from the remainder. Rostrum as in *M. gracilis*. Segments of pleon about as long as broad, with the exception of the sixth, which is almost twice as long. Terminal segment of pleon *deeply bilobate*. Taken at the eastern entrance of the Strait of Magellan, January 1867.

58. PHYLLOSOMA, sp.

A very small species of this genus, which I consider more prudent to leave undetermined, was taken in the towing-net between the river Plate and the Strait of Magellan, in November 1867.

59. ALIMA HYALINA, Leach.

Taken in the towing-net to the south of the Cape-Verde Islands.

60. GONODACTYLUS STYLIFERUS, Edw.

I obtained a specimen of this beautiful Crustacean in the Bay of Coquimbo, at the end of August 1868.

AMPHIPODA.

61. ORCHESTOIDEA TUBERCULATA, Nic.

Common on the sandy beach of San Carlos de Ancud, Chiloe, where it skips about after the manner of our common Sandhopper (*Talitrus locusta*).

62. *ALLORCHESTES PATAGONICUS*, n. sp. (Pl. LIX. fig. 14.)

A single specimen of an *Allorchestes*, apparently undescribed, was taken by me in a freshwater stream in the neighbourhood of the Chilian settlement of Punta Arenas (Sandy Point), in the Strait of Magellan. Unfortunately it is considerably injured; so I abstain from describing it, and content myself with bestowing on it the above provisional name.

63. *ATYLUS*? *BATEI*, n. sp. (Pl. LIX. fig. 9.)

Cephalon not produced into a rostrum. Eyes oblique. A mesial dorsal carina. Last segment of pereion, and first four of pleon, produced into dentiform processes.

Of this species, which appears to be new, and which I have named after Mr. Spence Bate, to whose kindness I am indebted for information as to sessile-eyed Crustacea, a single specimen from Possession Bay, Strait of Magellan, is in the collection.

64. *ATYLUS HUXLEYANUS*, Bate.

Taken in the Strait of Magellan.

65. *THEMISTO ANTARCTICA*, Dana.

Taken in numbers in the towing-net between the river Plate and the Strait of Magellan, during a calm which succeeded a violent gale, in November 1867.

66. *IPHIMEDIA NORMANI*, n. sp. (Pl. LIX. fig. 7.)

Cephalon produced into a sharp-pointed rostrum. First three segments of pleon having a sharp-pointed tooth on each lateral margin. Eyes subreniform. Superior and inferior antennæ of nearly equal length. Colour purplish. Length 4 lines.

One specimen of this species, named in honour of the Rev. A. M. Norman, was dredged off Elizabeth Island in February 1867.

67. *CAPRELLA DILATATA*, Dana.

Taken in numbers on the screw of H.M.S. 'Nassau,' in August 1867.

*ISOPODA.*68. *SEROLIS ORBIGNIANA*, Aud. et Edw.

Very abundant in the neighbourhood of Punta Arenas, Strait of Magellan.

69. *SEROLIS GAUDICHAUDII*, Aud. et Edw.

Dredged in the Bay of Arauco (Chili), in November 1868.

70. *SEROLIS CONVEXA*, n. sp. (Pl. LIX. fig. 3.)

Most nearly allied in form to *S. planus*, Dana. Body very convex, much more so than in any of the other species of the genus with which I am acquainted. A prominent carina along the mesial line. Two last segments of pereion distinctly narrower than those which precede them. Last segment of pleon more elongated than

in *S. planus*, and possessing three well-marked ridges—a median, interrupted in the middle, and two lateral, each terminating in a sharp point. Eyes very prominent, and placed rather near each other. Two specimens taken on the north coast of Fuegia.

71. *CASSIDINA EMARGINATA*, Guérin. (Pl. LIX. fig. 4.)

This species (described, but not figured, by Guérin in the 'Icon. Règne Anim.,' from specimens taken at the Falkland Islands) I found plentifully on the fronds of growing *Macrocystis*, in the Strait of Magellan and channels on the west coast of Patagonia. Only a single unnamed specimen existed previously in the national collection.

72. *SPHÆROMA LANCEOLATUM*, White.

Extremely common under stones and among the roots of *Macrocystis* in the Strait of Magellan and channels. Is this species truly distinct from *S. gigas*, Leach?

73. *CYMODOCEA DARWINII*, n. sp. (Pl. LIX. fig. 1: *a*, antenna; *b*, last joint of first leg.)

Texture of body calcareous. Dorsal surface rough, with many minute granulations. First segment of pereion longer than the others. Fifth enlarged at either extremity, each of which bears a blunt spine. Last segment of pleon emarginate at the apex, and furnished with a strong short spine. External caudal lamella minute, narrow. A very few specimens of this species were dredged on the north coast of eastern Fuegia.

74. *IDOTEA ANNULATA*, Dana.

Specimens of this species were taken in the towing-net between Rio de Janeiro and the river Plate, and between that river and the Strait of Magellan.

75. *EDOTIA TUBERCULATA*, Guérin.

Taken in the eastern portion of the Strait of Magellan.

76. *EDOTIA MAGELLANICA*, n. sp. (Pl. LIX. fig. 6; *a*, one of the anterior legs.)

Body much smaller than that of *E. tuberculata*, and broader proportionally. No dorsal tubercles. Length 7 lines.

Taken off Cape Espiritu Santo, at the eastern entrance of the Strait of Magellan.

77. *CYMOTHOA GAUDICHAUDII*, Edw.

Taken on a fish, in the Bay of Coquimbo, August 1868.

78. *CERATOTHOA EXOCETI*, n. sp. (Pl. LIX. fig. 5.)

Allied to *C. linearis*, Dana. Body long, linear. Head longer than broad, the front prominently projecting. Processes of next segment to head longer than in *C. linearis*. First segment of pereion distinctly exceeding the two following in length. Antennæ curved backwards along the sides of the head. Posterior segment of pleon

as in *C. linearis*. Three preceding segments shorter, and rather wider than in *C. linearis*.

Taken in the mouth of a Flyingfish to the south of the Cape-Verdes. The specimen is an ovigerous female.

79. PTERELAS MAGNIFICUS, Dana.

I obtained specimens of this handsome species on fish of various species at Fortune Bay (west coast of Patagonia), and at Dungeness (eastern entrance of Strait of Magellan).

80. CIROLANA HIRTIPES (?), Edw.

An imperfect specimen of a *Cirolana* which, I think, is referable to the above species was taken on a fish at the Tyssen Islands, Falkland Sound.

81. NEROCILA FALKLANDICA, n. sp. (Pl. LIX. fig. 2.)

Last two segments of pereion armed with acute points. Three last epimerals acute. Pleon longer than broad. The first two segments laterally produced, and armed with acute points. The last segment somewhat triangular, emarginate at the tip. Caudal appendages aculeate; the outer are considerably the larger.

Taken on a fish in Falkland Sound, by one of the officers of H.M.S. 'Narcissus.'

ENTOMOSTRACA.

82. CYPRIDINA GIBBOSA, Dana.

Taken in the towing-net between Monte Video and the Strait of Magellan, December 1866.

SIPHONOSTOMA.

83. CALIGUS CHÆNICHTHYIS, n. sp. (Pl. LIX. fig. 15.)

The general form of this species, apparently undescribed, will be better understood by the figures than by any description. The cephalic buckler is deeply horseshoe-shaped posteriorly.

The two specimens figured are, I believe, male (*b*) and female (*a*), and were taken on *Chænichthys esox*, in Port Grappler, west coast of Patagonia.

84. LERNÆA, sp. (Pl. LIX. fig. 11 *a, b*.)

The two *Lernæans* figured were taken on the gills of fish in the Strait of Magellan; but as the species of this genus vary very much in form, I have thought it more prudent not to name the species.

85. LERNÆOCERA, sp. (Pl. LIX. fig. 10.)

The specimen figured was found attached to the eye of a fish taken at the Otter Islands, west coast of Patagonia.

86. CHONDRACANTHUS, sp. (Pl. LIX. fig. 13. Two views of an individual, and a portion of one of the ovaries.)

A single specimen of a *Chondracanthus* closely resembling *C. merlucii* in general form was taken in the mouth of a Gadoid fish, at the eastern entrance of the Strait.

87. SPHYRION KINGI, sp. n. (Pl. LIX. fig. 12.)

Specimens of this singular Crustacean, which I have figured of the natural size, were taken on the gills of fish at the entrance of the river Gallegos (east coast of Patagonia), and at the eastern entrance of the Strait of Magellan. It differs from the species (*S. lævigatus*) on which the genus was founded, which was described by Quoy and Gaimard in the voyage of the Uranie (Zoologie, p. 541; Atlas, pl. 86. fig. 10) under the name of "*Chondracanthe lisse*," in the greater width of the sucking-disk and of the body, as well as in various other points, which will be readily understood by a comparison of the figures of the *S. lævigatus* and the *S. Kingi*, which I have thus named because I believe that Captain King was the first to obtain specimens of it, as he makes reference in his narrative to remarkable Lernæans taken on fish at the entrance of the river Gallegos. In the determination of this species I have to express my obligations to Dr. Baird, who suggested to me its true affinities, to Prof. Kölliker, of Wurzburg, who informed me of the existence of other specimens of it in the Museum of the College of Surgeons, and to Prof. Flower for his kindness in showing me the specimens in question.

DESCRIPTION OF THE PLATES.

TAB. LVIII.

- Fig. 1. *Aplidium fuegiense*, n. sp.: *a*, portion of surface, natural size; *b*, the same, magnified; *d*, a vertical section, magnified.
- Fig. 2. *Cynthia magellanica*, n. sp., natural size.
- Fig. 3. *Goodsiria coccinea*, sp. n.: *a*, a mass, natural size; *b*, a transverse section through a mass, natural size, showing the arrangement of the individuals; *c*, a portion of the surface, magnified; *d*, a portion of a transverse section, magnified; *e*, a single individual removed from its cell, more highly magnified.
- Fig. 4. *Peronia*, sp.: *a*, ventral; *b*, dorsal surface.
- Fig. 5. *Eolis Campbellii*, n. sp.: *a*, dorsal, and *b*, ventral view, of the natural size.
- Fig. 6. *Doris magellanica*, n. sp., natural size.

TAB. LIX.

- Fig. 1. *Cymodocea Darwinii*, n. sp. magnified; *a*, antenna; *b*, last joint of first leg.
- Fig. 2. *Nerocila falklandica*, n. sp., natural size; *a*, antenna, magnified.
- Fig. 3. *Serolis convexa*, n. sp., natural size.
- Fig. 4. *Cassidina emarginata*, Guérin, natural size.
- Fig. 5. *Ceratothoa exocæti*, n. sp., natural size.
- Fig. 6. *Idotea magellanica*, n. sp., magnified; *a*, first leg, more highly magnified.

- Fig. 7. *Iphimedia Normani*, n. sp., magnified.
- Fig. 8. *Hippolyte Grayi*, n. sp., magnified.
- Fig. 9. *Atylus Batei*, n. sp., magnified.
- Fig. 10. *Lernæocera*, sp., magnified.
- Fig. 11. *Lernæa*, sp., slightly magnified.
- Fig. 12. *Sphyrion Kingi*, n. sp., natural size; the line shows the length of the longest specimen; *a*, sucking-disk of the largest specimen, natural size.
- Fig. 13. *Chondracanthus*, sp., magnified.
- Fig. 14. *Allorchestes patagonicus*, n. sp., magnified.
- Fig. 15. *Caligus chænichthyis*, n. sp., magnified.



