

V.—The Marine Mollusca of the Scottish National Antarctic Expedition. By James Cosmo Melvill, M.A., F.L.S., F.Z.S., and Robert Standen, Assistant Keeper, Manchester Museum. *Communicated* by Professor J. C. EWART, F.R.S. (With a Plate.)

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The marine Mollusca obtained during the Scottish National Antarctic Expedition of s.s. *Scotia* are particularly interesting, not merely on account of certain benthic forms having been for the first time brought to light from unusual depths, but also as demonstrating an extended geographical range for certain meridional species already known; while the occurrence of sundry British and North European individuals in the Falkland Islands—perhaps brought there adventitiously—is, to some extent, a new feature in the fauna. Regarding the deep-sea species just alluded to, the dredging of a second example of the hitherto unique *Guivillea alabastrina*, Watson, from a station not far from the original *Challenger* locality, is very noteworthy; while we may at the same time signalise a *Columbarium*, *Cuspidaria*, *Chrysodomus*, and *Dentalium*, from 1775, 2645, 1775, and 1410 fathoms respectively.

The attention of the scientific world has for some years become more and more centred upon the Arctic and Antarctic polar regions, and, of them, the latter till lately presented the most virgin field for research, both physical, geographical, and biological. Every year fresh expeditions seem to be planned, equipped, and launched for the purpose of critical investigation and exploration, with most beneficial results; and the day may not now be far distant when it will be possible to draw up monographs of the various zoological groups of the Antarctic area, including, we hope, one of the Mollusca. In the meantime, we give below a collated bibliographical *résumé* of the majority of the treatises published on the subject during the past thirty years.

In conclusion, we would express our obligations primarily to Mr EDGAR A. SMITH, I.S.O., of the British Museum (Nat. Hist.), who has, with us, examined every critical species in the collection. To Mr ERNEST R. SYKES, F.L.S., and Dr W. E. HOYLE, F.R.S.E., we are also indebted for the loan of various books and pamphlets bearing upon the subject. To Dr GEORG PFEFFER and Dr HERMANN STREBEL, of Hamburg, our thanks are due for reporting on several forms submitted to them, two of which, obtained likewise by the Swedish South Polar Expedition, and differentiated, but not yet published, by Dr STREBEL, we have been asked by him to describe at the present opportunity.

And last, but by no means least, we are most grateful to Mr W. S. BRUCE, F.R.S.E., for having entrusted his Molluscan collections to us, and for much kind assistance in the way of maps and general information.

## LIST OF SPECIES CONTAINED IN THE "SCOTIA" COLLECTIONS.

## A. REGIO ANTARCTICA—INCLUDING GOUGH ISLAND.

## Class GASTEROPODA.

## Order AMPHINEURA.

## Sub-order POLYPLACOPHORA.

*Callochiton illuminatus* (Reeve)*Tonicia atrata* (Sowb.).

## Order PROSOBRANCHIATA.

## Sub-order DIOTOCARDIA.

Family *Acmæidæ*.*Acmæa ceciliana*, Orbigny.Family *Patellidæ*.*Patella ænea*, Martyn, var. *deaurata*, Gmel.,, *fuégiensis*, Reeve.,, *polaris*, Hombr. and Jacq.

## Section Zygobranchiata.

Family *Fissurellidæ*.*Fissurella oriens*, Sow.,, *picta*, Gmel.*Tugalia antarctica*, sp. n.

## Section Azygobranchiata.

Family *Trochidæ*.*Photinula expansa* (Sow.).,, *tæniata* (Wood).,, *violacea* (King).*Valvatella antarctica* (E. Lamy).

## Sub-order MONOTOCARDIA.

Section ( $\alpha$ ) Ptenoglossa.Family *Ianthinidæ*.*Ianthina exigua*, Lamarck.

Section (b) Tænioglossa.

Family *Naticidæ*.

*Natica (Lunatia)*, sp.

Family *Capulidæ*.

*Calyptræa costellata*, Phil.

*Crepidula dilatata*, Lamk.

Family *Littorinidæ*.

*Littorina (Lævilitorina) caliginosa* (Gould).

„ „ *coriacea*, sp. n.

„ (*Pellilitorina*) *pellita*, v. Marts.

„ „ *setosa* (Smith).

*Lacuna divaricata*, Fabr.

„ *notorcadensis*, sp. n.

Family *Rissoidæ*.

*Rissoa adarensis*, Smith.

„ (*Cingula*) *cingillus* (Mont.).

„ *edgariana*, sp. n.

„ *fraudulenta*, Smith.

„ *parva* (Da Costa).

„ (*Onoba*) *scotiana*, sp. n.

„ (*Manzonia*) *zelandica* (Mont.).

*Eatoniella kerguelensis*, Smith.

Family *Litiopidæ*.

*Litiopa melanostoma*, Rang.

Family *Cerithidæ*.

*Cerithium georgianum*, Pfeffer.

„ *pullum*, Phil.

*Cerithiopsis malvinarum* (Strebel, MS.), sp. n.

Family *Tritonidæ*.

*Gyrineum vexillum* (Sow.).

Section (c) *Gymnoglossa*.

Nil.

## Section (d) Rachiglossa.

Family *Muricidæ*.

- Trophon brucei*, Streb.  
 „ *cinguliferus*, Pfeffer.  
 „ *crispus* (Couth.).  
 „ *geversianus* (Pallas).  
 „ *hoylei*, Streb.  
 „ *liratus* (Couth.).  
 „ *minutus* (Strebel, MS.), sp. n.  
 „ *philippianus*, Dunker.

Family *Nassidæ*.

- Nassa (Ilyanassa) vallentini*, sp. n.

Family *Buccinidæ*.

- Chrysodomus (Sipho) archibenthalis*, sp. n.  
 „ „ *crassicostatus*, sp. n.  
*Neobuccinum eatoni* (Smith).  
*Euthria fuscata* (Brug.).  
 „ *magellanica* (Philippi).  
 „ *michaelseni*, Streb.

Family *Volutidæ*.

- Voluta (Cymbiola) ancilla* (Sol.).  
*Guivillea alabastrina*, Watson.

## Section (e) Toxoglossa.

Family *Conidæ*.

- Columbarium benthocallis*, sp. n.  
*Mangilia costata* (Donovan).

Family *Cancellariidæ*.

- Admete magellanica*, Strebel.

## Order OPISTHOBRANCHIATA.

## Sub-order TECTIBRANCHIATA.

Family *Tornatinidæ*.

- Retusa truncatula* (Brug.).

Section Siphonarioidea.

Family *Siphonariidæ*.

*Siphonaria redimiculum*, Reeve.

Order PULMONATA.

Sub-order BASOMMATOPHORA.

Family *Auriculidæ*.

*Marinula nigra*, Phil.

Class SCAPHOPODA.

*Dentalium eupatrides*, sp. n.

„ *shoplandi*, Jous.

Class PELECYPODA.

Order PROTOBRANCHIATA.

Family *Nuculidæ*.

*Nucula minuscula*, Pfeffer.

*Yoldia eightsi* (Couth.).

Order FILIBRANCHIATA.

Sub-order ANOMIACEA.

Family *Anomiidæ*.

*Anomia ephippium*, Linn.

Sub-order ARCACEA.

Family *Arcadæ*.

*Arca (Bathyarca) strebeli*, sp. n.

*Lissarca notorcadensis*, sp. n.

„ *rubrofusca*, Smith.

Sub-order MYTILACEA.

Family *Mytilidæ*.

*Mytilus edulis*, Linn.

„ *magellanicus*, Chemnitz.

„ *ovalis*, Lamarek.

*Philobrya meridionalis* (Smith).  
 „ *quadrata* (Pfeffer).  
 „ *wandelensis*, E. Lamy.  
*Modiolarca mesembrina*, sp. n.

Order PSEUDOLAMELLIBRANCHIATA.

Family *Pectenidæ*.

*Pecten colbecki*, Smith.  
 „ *multicolor*, sp. n.  
 „ ? *patagonicus*, King.  
 „ *pteriola*, sp. n.  
*Amussium octodecim-liratum*, sp. n.

Family *Limidæ*.

*Lima (Mantellum) goughensis*, sp. n.  
 „ (*Limatula*) *pygmæa*, Philippi.

Order EULAMELLIBRANCHIATA.

Sub-order SUBMYTILACEA.

Family *Lucinidæ*.

*Cryptodon falklandicus*, Smith.  
*Cyamium antarcticum*, Philippi.  
 „ *falklandicus*, Melv. and St.

Family *Erycinidæ*.

*Lasæa consanguinea* (Smith).  
*Kellia cycladiformis*, Desh.  
 „ *lamyi*, nom. nov.  
 ? *Scacchia plenilunium*, sp. n.

Sub-order TELLINACEA.

Family *Tellinidæ*.

*Tellina (Mæra) pusilla* (Philippi).

Sub-order VENERACEA.

Family *Veneridæ*.

*Chione philomela* (Smith).  
*Tapes (Amygdala) exalbida* (Chem.).

Sub-order MYACEA.

Family *Glycimeridæ*.

*Saxicava arctica* (L.), var. *antarctica*, Phil.

Sub-order ANATINACEA.

Family *Lyonsiidae*.

*Lyonsia cuneata* (Gray).

Family *Anatinidae*.

*Anatina elliptica*, King and Brod.

Order SEPTIBRANCHIATA.

Family *Cuspidariidae*.

*Cuspidaria brucei*, sp. n.

B. FROM ASCENSION ISLAND.

*Lotorium grandimaculatum* (Reeve).

*Nerita (Thelicostyla) ascensionis*, Gmel.

C. FROM SALDANHA BAY, SOUTH AFRICA.

*Chætopleura papilio* (Spengler).

*Ischnochiton tigrinus* (Krauss).

*Chiton nigrovirens*, Blainville.

*Acanthochites garnoti*, Blainville.

*Bullia annulata* (Lam.).

„ *lævigata*, Chem. (= *lævissima*, Gmel.).

*Mytilus edulis*, L., var. *meridionalis*, Krauss.

*Mytilocardia (Thecalia) concamerata*, Brug.

*Tapes pullastra* (Montagu).

*Oxysteles impervia*, Minhe.

„ *tigrina*, Chem.

*Crepidula hepatica*, Desh.

*Gyrineum (Argobuccinum) argus* (Gmel.).

*Phos plicosus*, Dunker.

*Cominella limbosa* (Lam.).

*Patella compressa*, L., var. *miniata*, Born.

„ (*Scutellastra*) *granatina*, L.

„ „ *oculus*, Born.

*Helcion pectinatum* (Born.).

*Fissurella mutabilis*, Sowerby.

*Megatebennus scutellum* (Gmelin).

## CATALOGUE OF THE MARINE MOLLUSCA OBTAINED IN

A. REGIO ANTARCTICA, including Gough Island.

B. ASCENSION ISLAND.

C. SALDANHA BAY, SOUTH AFRICA.

## A.—REGIO ANTARCTICA.

## Class GASTEROPODA.

## Order AMPHINEURA.

## Sub-order POLYPLACOPHORA.

*Callochiton illuminatus* (Reeve).*Chiton illuminatus*, Reeve, *Conch. Icon.*, tab. xxii., fig. 147 (1847).*C. (Callochiton) illuminatus*, Smith, *Proc. Zool. Soc. Lond.*, p. 35 (1881).*Lepidopleurus illuminatus*, Rochebrune, *Mission, Cape Horn*, p. 141.*Callochiton illuminatus*, Tryon and Pilsbry, *Man. Conch.*, vol. xiv., p. 51, pl. ix., figs. 92-94.

*Hab.*—Trawl, Burdwood Bank, 56 fathoms, December 1, 1903; also Port William, Falkland Islands, Station 118, January 1903.

A small, pale reddish or fawn-coloured species, the surface microscopically radiately striate and granulate, with the exception of the central areae, which are longitudinally sulco-striate. The Port William examples are slightly larger and of a darker fawn colour.

*Tonicia atrata* (Sowb.).*Chiton atratus*, Sowerby; Charlesworth's *Mag. Nat. Hist.*, 1840, p. 294; *Conch. Illustr.*, figs. 57, 58." " Reeve, *Conch. Icon.*, tab. xvii., fig. 103.*Tonicia atrata* (Sowb.), H. and A. Adams, *Gen. Rec. Moll.*, i., p. 474." " " Pilsbry, in Tryon's *Man. Moll.*, xiv., p. 201, pl. xli., figs. 28-30.

*Hab.*—Shore, Cape Pembroke, Falkland Islands; and also at Port Stanley, 1903-1904.

A smooth, sometimes prettily banded or rayed species. Several very juvenile examples from contiguous localities are of similar pattern, but we dare not attempt their differentiation.

## Order PROSOBRANCHIATA.

## Sub-order DIOTOCARDIA.

Family *Acmæidæ*.*Acmæa ceciliana*. Orbigny.*Patella ceciliana*, Orb., *Voy. Amér. Mérid.*, p. 482, tab. lxxxii., figs. 4-6." " Gay, *Hist. Chili*, viii., p. 260 (1854).*Acmæa ceciliana* (Orb.), Tryon, *Man. Conch.*, xiii., p. 33, pl. xxxiv., figs. 14-21.



*Hab.*—Trawl, Port William, Falkland Islands, January 31, 1903.

A small but attractive species. We have received it previously from the same locality. It was found, for instance, by Mr RUPERT VALLENTIN,\* and likewise by Miss COBB, in Lively Island, in the enumeration of whose Mollusca † we at first named it *textilis*; Gould, a species confined to the western coasts of America.

#### Family *Patellidæ*.

##### *Patella ænea*, Martyn, var. *deaurata*, Gmel.

*Patella deaurata*, Gmelin, *Syst. Nat.*, xiii., p. 3703.

*Nacella ænea*, Mart., var. *deaurata*, Gmel.; Tryon, *Man. Conch.*, xiii., p. 118, pl. xlvi., figs. 28–36.

*Patella ænea*, Reeve, *Conch. Icon. (Patella)*, fig. 9 (1855).

*Hab.*—Stanley Harbour, Falkland Islands, shore.

##### *Patella fuegiensis*, Reeve.

*Patella fuegiensis*, Reeve, *Conch. Icon.*, *Patella*, fig. 73 (1855).

„ (*Patinella*) *fuegiensis*, Smith, *Phil. Trans. Royal Soc. Lond.*, vol. clxviii., p. 180, tab. ix., figs. 14, 14a.

*Nacella fuegiensis*, Tryon, *Man. Conch.*, xiii., p. 121, pl. xlix., figs. 28–31 (1891).

*Hab.*—On shore rocks, Hearnden Water, Falkland Islands, January 7, 1903.

In somewhat puny condition, showing somewhat uneven ribs, and close latticed sculpture.

##### *Patella polaris*, Hombr. and Jacq.

*Patella polaris*, Hombron and Jacquinot, *Ann. des Sci. Nat.*, II., xvi., p. 191 (1841).

„ „ v. Martens and Pfeffer, “Mollusken von Süd-Georgien,” *Jahrb. Hamburg. Wiss. Anstalt*, iii., p. 101, tab. 2, figs. 11–13 (1886).

*Nacella polaris* (H. & J.), Tryon, *Man. Conch.*, xiii., p. 120, pl. xlix., figs. 21–27 (1891).

*Hab.*—Dredged, Scotia Bay, South Orkneys, at 5–10 fathoms, January 2, 1904. Also at 1½ fathoms, December 3 and 18, 1903; and again at 6 fathoms, February 1, 1904.

Station 325, Scotia Bay, South Orkneys. Dredged at 9–15 fathoms, December 17, 1903, and various antecedent and subsequent dates.

#### Section *Zygobranchiata*.

##### Family *Fissurellidæ*.

##### *Fissurella oriens*, Sow.

*F. oriens*, Sow., *P.Z.S.*, 1834, p. 124; *Conch. Illust.*, fig. 25; *Theas. Conch.*, iii., p. 186, figs. 19, 20; Reeve, *Conch. Icon.*, fig. 13.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

\* *Journ. of Conch.*, vol. ix., p. 103 (1898).

† *Ib.*, vol. x., p. 45 (1900).

*Fissurella picta* (Gmel.).

*Un Lépas rare de Magellan*, etc., Davila, *Cat. Syst. et Raisonné des Cur.*, etc., i, p. 88, tab. iii., fig. 6, 1767.

*Lepas ovata ampla*, etc., Martini, *Syst. Conchyl. Cat.*, vol. i., p. 131, tab. xi., fig. 90.

*Patella picta*, Gmel., in *Syst. Nat.*, xiii., p. 3729.

*Fissurella picta*, Gould, *U.S. Expl. Exped.*, atlas, tab. 31, fig. 469, animal.

*Hab.*—Dredged in 6 fathoms, Port Stanley, Falkland Islands, February 2, 1904.

*Tugalia antarctica*, sp. n. (Plate, fig. 1).

T. testa alba, oblonga, conico-depressa, parmophoroide, apice incurvo, posticé subimpendente, anticé obscuré intus sulcato, superficie extus pulcherrimé cancellata, striis tenuissimis, apud latera crassioribus, decorata, undique concentricé delicaté et arcté striata, et liris incrementalibus irregulariter prædita, intus alba, nitida, marginibus minuté crenulatis.

Alt. 7, long. 23, lat. 13 mm. spec. maj.

„ 4, „ 16, „ 10 „ „ min.

*Hab.*—Burdwood Bank, south of the Falkland Islands, at 56 fathoms.

Allied to *T. elegans*, Gray, *ossea*, Gould, and *parmophoroidea*, Quoy, but of much finer sculpture and more convex. The internal groove leading to the sinus is, indeed, present, but very obscurely indicated, its region, however, being noted by the absence of longitudinal sculpture dorsally.

## Section Azygobranchiata.

## Family Trochidæ.

*Photinula expansa* (Sow.).

*Trochus expansus* (*Margarita*), Sowerby, *Conch. Illustr.*, figs. 16, 17. Philippi in *Mart. and Chem.*, ed. ii., p. 254, tab. xxxvii., fig. 18.

*Trochus* (*Photinula*) *expansus*, E. A. Smith, *Phil. Trans. Roy. Soc.*, vol. clxviii., p. 167 (1879).

*Photinula expansa* (Sow.), H. and A. Adams, *Gen. Rec. Moll.*, vol. i., pp. 427, 428 (1858).

„ „ v. Jhering, in *Nachrichtsbl. malak. Gesellsch.* (1902), p. 99.

*Hab.*—Station 118, trawl, Burdwood Bank, at 56 fathoms, December 1, 1903; also trawl, Port Stanley, Falkland Islands, at 1–10 fathoms, January 25, 1903.

*Photinula tæniata* (Wood).

*Trochus tæniatus*, Wood, *Ind. Suppl.*, pl. v., fig. 12.

*Margarita tæniata*, Reeve, *Conch. Icon.*, pl. xx., figs. 4, 4a.

*Photinula tæniata*, H. and A. Adams, *Gen. Rec. Moll.*, i., p. 427 (1858). v. Jhering in *Nachrichtsbl. malak. Ges.* (1902), p. 101.

*Hab.*—Trawl, Port William, Falkland Islands, at 6 fathoms, January 1903.

*Photinula violacea* (King).*Margarita violacea*, P. P. King, *Zool. Journ.*, No. xix., London (1832), p. 346.

" " Hombr. and Jacquin., p. 59, pl. xiv., figs. 29-31.

*Trochus violaceus*, Philippi, *Conch. Cab.*, ii., p. 254, pl. xxxvii., fig. 19.*Photinula halmyris*, Rochebrune and Mabile, *Miss. Cap Horn*, Paris (1839): "Mollusques," p. 89, pl. iv., fig. 6.*Photinula violacea*, v. Jhering, in *Nachrichtsbl. malak. Ges.* (1902), p. 98.*Hab.*—Trawl, Burdwood Bank, at 56 fathoms.

A very nacreous, pink-tinged species, with spire more or less elevated.

*Valvatella antarctica* (E. Lamy).*Margarita antarctica*, Ed. Lamy, *Expéd. Antarctique Française* (1907), p. 9, planche i., figs. 2, 3." " "Moll. Orcades du Sud," *Bull. Mus. Hist. Nat.*, t. xii., p. 123 (1906).*Hab.*—Scotia Bay, South Orkneys, 9-10 fathoms, April 1903. Station 325, 9 fathoms, August 1903. Macdougall Bay, South Orkneys, at 10 fathoms, December 1903; also in shore pools in Scotia Bay.A smooth, *Photinula*-like species, but easily distinguished by the deep umbilicus. We follow Mr EDGAR SMITH (*Nat. Antarct. Exped.: Nat. Hist.*, vol. ii., p. 11) in use of the generic name *Valvatella*, Gray (1857), and would refer to *Proc. Mal. Soc.*, vol. iii. (1898), p. 205, and *Journ. Conch.*, viii. (1897), p. 472, in justification thereof.

## Sub-order MONOTOCARDIA.

## (a) Ptenoglossa.

Family *Ianthinidæ*.*Ianthina exigua*, Lamarck.*Ianthina exigua*, Lam., *Anim. sans Vert.*, vi., p. 206." " Tryon, *Man. of Conch.*, p. 37, pl. x., figs. 17-22.*Hab.*—Station 72, tow-net, lat. 34° 2' S., long. 49° 7' W.

Small but perfect and characteristic examples, pale, but finely striate.

## (b) Tænioglossa.

Family *Naticidæ*.*Natica (Lunatia)*, sp.*Hab.*—Surface-dredged by tow-net, lat. 9° 6' S., long. 31° 45' W.

A few very minute, evidently juvenile forms. They are white, shining, globose, four-whorled, including the small, dark-coloured apical, hardly perforate, mouth large proportionately, operculum corneous, paucispiral.

Family *Capulidæ*.*Calyptræa costellata*, Phil.

- Calyptræa costellata*, Philippi, in *Arch. Naturg.* (1845), p. 62.  
*Trochita corrugata*, Reeve, *Conch. Icon.*, xi., fig. 96 (1858).  
 " " Sowerby, *Thes. Conch.*, v., p. 89.  
*Calyptræa costellata*, Phil.; H. Strebel, "Mollusken Fauna der Magalh. Prov.," *Zool. Jahrb. Jena* (1906), p. 159, Taf. xiii., figs. 88-97.

*Hab.*—Trawl, 56 fathoms, Burdwood Bank, lat. 50° 25' S., long. 51° 0' W.  
 All of the form *clypeolum*, Reeve, figured by STREBEL, Taf. xiii., figs. 93 a, b.

*Crepidula dilatata*, Lam.

- Crepidula dilatata*, Lamarck, *Anim. sans Vert.*, vii., p. 644.  
 " " " Sowerby, *Thes. Conch.*, v., p. 65, figs. 100, 101.  
 " " " Reeve, *Conch. Icon.*, xi., 3.  
 " " " Hermann Strebel, "Mollusken Fauna der Magalh. Prov.," *Zool. Jahrb. Jena* (1906), p. 166, Taf. xiii., figs. 100, 101.

*Hab.*—Trawl, Port William, Falkland Islands, 6 fathoms.  
 An abundant species. The synonymy is very extensive. We have given it all, briefly, in *Journ. Conch.*, ix., p. 101.

Family *Littorinidæ*.*Littorina (Lævilitorina) caliginosa* (Gould).

- Littorina caliginosa*, Gould, *Proc. Boston Soc.*, iii., p. 83 (1849).  
*Hydrobia caliginosa* (Gld.), E. Smith, *Phil. Tr. Roy. Soc. Lond.*, clxviii., p. 173, pl. ix., fig. 8 (1879).  
*Lævilitorina caliginosa* (Gould), Pfeffer, in *Mollusken von Süd-Georgien*, p. 81, Taf. i., fig. 8, a-d (1886).  
 " " Pelseneer, *Voy. "Belgica": Zool., Moll.*, p. 8. E. Lamy, "Moll. Orcades du Sud," *Bull. Mus. Hist. Nat.*, t. xii. p. 112.

*Hab.*—Trawl, Port William, January 31, 1904; and also Hearnden Water, Falkland Islands, January 7, 1903.

*Littorina (Lævilitorina) coriacea*, sp. n. (Plate, fig. 2).

L. (*Lævilitorina*) testa pertenui, coriacea, periostraco corneo brunneo-olivaceo contacta, ovato-oblonga, haud nitente, anfractibus 5-6, quorum apicalis parvus, obtusus, cæteris apud suturas impressis, tumidulis, apertura ferè rotunda, peristomate tenui, flexili, margine columellari paullum producto.

Long. 7, lat. 3 mm.

*Hab.*—Scotia Bay, South Orkneys. Dredged at 5-10 fathoms, January 2, 1904.  
 More oblong than any form of *L. caliginosa*, Gould, and likewise larger than the

several Georgia Island species described by Dr PFEFFER.\* It is of remarkably thin substance, covered with a leathery brownish-olive epidermis, which extends over the outer lip, and to some extent also round the columellar margin, which is slightly basally produced.

*Littorina (Pellilitorina) pellita*, v. Marts.

*Littorina pellita*, E. von Martens, "Moll. Süd-Georgien," *Sitz. Ges. Naturf. Fr. Berlin Jahrg.*, 1885, p. 92.

*Lævilitorina pellita* (Marts.), v. Martens and Pfeffer, "Moll. Süd-Georgien," *Jahrb. Hamburg. Wiss. Anst.*, iii. Jahrg., p. 79, pl. i., figs. b, d (1886).

*Littorina (Pellilitorina) pellita* (Marts.), E. A. Smith, "Southern Cross" *Antarct. Exped.*, p. 204 (1902).

*Hab.*—Shore pools, Scotia Bay, South Orkneys, December 6, 1903. Station 325. Off weed and stones at 9–10 fathoms, May 1903.

The largest example (alt. 15, lat. 12 mm.) comes from Scotia Bay.

*Littorina (Pellilitorina) setosa* (Smith).

*Littorina setosa*, E. A. Smith, *Ann. and Mag. N. Hist.*, xvi., p. 69 (1875); *Phil. Trans. Roy. Soc. Lond.*, vol. clxviii., p. 172, pl. ix., fig. 6.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9–10 fathoms, June 1903.

Much more uncommon than *L. pellita*, v. Marts. Our few examples are hardly typical, and in form show affinity with *pellita*. We are indebted to Mr E. A. SMITH for having examined them.

*Lacuna divaricata*, Fabr.

*Trochus divaricatus*, Fabr., *Faun. Grœnland.*, p. 392 (1780).

*Lacuna vineta*, Forbes and Hanley, iii., p. 62, pl. lxxii., figs. 10–12; lxxiv., figs. 7, 8; lxxxvi., figs. 6–8.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

We cannot dissociate the Antarctic specimens from those of Arctic or British shores. One example is banded, being probably the var. *fasciata*, Brown.

*Lacuna notorcadensis*, sp. n. (Plate, figs. 3, 3a).

L. testa parum rimata, ovato-rotunda, tenui, cinereo-alba, undique epidermide tenui straminea induta, anfractibus 4–5, quorum apicalis minutus, obtusus, lævis, cæteris apud suturas gradatis, spiraliter acuté penultimo quadri-, ultimo anfractu octo-carinato, lineis incrementalibus obscuris longitudinaliter præditis, apertura ferè rotunda, labro paullum effuso, continuo, columella ferè recta.

Long. 3, lat. 3 mm.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9–10 fathoms, April 1903.

Much resembling in general appearance, though not in substance and texture, a *Fossarus*, this little shell might possibly find a place near *Lævilitorina umbilicata*,

\* VON MARTENS and G. PFEFFER, *Mollusk. von Süd-Georgien*, pp. 81 sqq.

Pfeffer, which possesses slightly impressed carinæ on the body-whorl; or, with greater probability, in proximity to certain *Lacunæ*, being nearly allied to *L. wandelensis*,\* Lamy, an Antarctic species recently described from Carthage Bay, Wandel Island. The substance is thin, covered with a pale and fugitive epidermis. The spiral keels on the body-whorl are eight in number, as against only five in *L. wandelensis*; of these one is obscure, the others seem strong and well defined; the spire likewise is more elevated.

### Family *Rissoïdæ*.

#### *Rissoa adarensis*, Smith.

*Rissoa adarensis*, E. A. Smith, *Rep. "Southern Cross" Exped. Antarctic*, Brit. Mus. (1902), p. 205, pl. xxiv., fig. 17.

" " *Nat. Ant. Exp.*, vol. ii., p. 8 (1907), pl. ii., fig. 2.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9–15 fathoms.

A few examples, almost typical. The author of the species considers the whorls rather less convex than in the type.

#### *Rissoa (Cingula) cingillus* (Mont.).

*Turbo cingillus*, Montagu, *Test. Brit.*, p. 328, pl. xii., fig. 7.

*Rissoa cingillus*, Forbes and Hanley, vol. iii., p. 122, pl. lxxix., figs. 9, 10.

" " Jeffreys, *Brit. Conch.*, iv., p. 48.

*Hab.*—Station 325, Scotia Bay, South Orkneys. Dredged at 9–15 fathoms, April 1903.

We cannot separate the single example received from the European species, so similar is it in both form, size, and coloration. It may be that further supplies will show it to be a nearly allied southern species, though we are dubious as to this point.

#### *Rissoa edgariana*, sp. n. (Plate, fig. 4).

R. testa oblongo-fusiforini, vix rimata, parva, solidula, lævigata, anfractibus ad 7, quorum apicales duo minuti, tumiduli, brunnei, cæteris apud suturas paullum impressis, subventricosis, pallide stramineis, flammis longitudinalibus fulvo-brunneis indistinctis ornatis, ultimo magnitudine cæteros exæquante, infra peripheriam versus basim spiraliter zonula fulvo-brunnea succincta, apertura ovata, peristomate tenui ferè continuo, paullum expanso, columella paullum incrassata.

Alt. 3·5, lat. 1·25 mm.

*Hab.*—Scotia Bay, South Orkneys, 9–15 fathoms.

A brightly coloured, smooth, subhyaline species when in fresh condition. The majority, however, of those collected being defunct, are more solid in appearance. The markings are indistinct longitudinal brown flames surrounding the whorls; and on the

\* *Expéd. Antarct. Franç. Charcot*, "Mollusques," par E. Lamy (1907), *Bull. Mus. Hist. Nat. Paris* (1905), p. 478, figs.

body-whorl itself, below the periphery, there is a pale fulvous-brown spiral zone. We are indebted to Mr EDGAR SMITH for having examined this and other species, and have much pleasure in connecting his name with it.

*Rissoa fraudulenta*, Smith.

*Rissoa fraudulenta*, E. A. Smith, *Nat. Ant. Exped., Nat. Hist.*, ii, p. 9, pl. ii., fig. 3 (1907).

*Hab.*—Scotia Bay, South Orkneys. Dredged, 6 fathoms.

Fine examples of this newly described, spirally striate *Rissoa*, differing from the types in being straw-coloured, otherwise identical.

*Rissoa parva* (Da Costa).

*Turbo parvus*, Da Costa, *Brit. Conch.*, p. 104.

*Rissoa parva*, Forbes and Hanley, iii., p. 98, pl. lxxvi., figs. 2, 6; pl. lxxvii., figs. 6, 7; and pl. lxxxii., figs. 1-4.

„ „ Jeffreys, *Brit. Conch.*, iv., p. 23; v., pl. lxvii., fig. 3.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

These specimens cannot be dissociated from the typical European and British shell, and have probably been accidentally imported into the Falkland Islands.

*Rissoa (Onoba) Scotiana*, sp. n. (Plate, fig. 5).

R. (*Onoba*) testa alba, imperforata, solidiuscula, fusiformi, anfractibus 6, quorum apicales duo pervitrei, globulares, cæteris apud suturas impressis, ventricosis, undique arcuissimè spiraliter striatis, ultimo anfractu zonula straminea obscura ad medium prædita, superficie interdum obscurè longitudinaliter costellata, apertura semicirculari, intus albo-lactea, peristomate incrassato, continuo, paullum effuso, columella obliqua.

Long. 3, lat. 1 mm.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9-15 fathoms, April 1903.

With a superficial resemblance to *Rissoa (Onoba) striata*, Mont., a well-known European species, this little shell seems, likewise, akin to *R. (Ceratia) turqueti*, E. Lamy,\* recently described from Wandel Island, from which it differs in possessing one whorl more, in being not in the least degree rimate, in the thickened continuous peristome, and the obscure spiral straw-coloured zone encircling the body-whorl. Perhaps, in time to come, additional links to bind these two species together may be found.

*Rissoa (Manzonina) zetlandica* (Mont.).

*Turbo zetlandicus*, Montagu, *Trans. Linn. Soc.*, xi., p. 194, t. xiii., fig. 3.

*Rissoa zetlandica*, Forbes and Hanley, iii., p. 78, pl. lxxx., figs. 1, 2.

„ „ Jeffreys, *Brit. Conch.*, iv., p. 20; v., pl. lxvii., fig. 1.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

Obtained at the same time as *R. parva* (Da Costa), it is equally probable that this,

\* *Bull. Mus. Hist. Nat. Paris* (1905), p. 479, fig.; *Expéd. Charcot*, p. 6, pl. i., fig. 8.

of which only one somewhat broken example occurred, is not a genuine native of these southern shores and seas.

*Eatoniella kerguelenensis*, Smith.

*Eatonia kerguelenensis*, E. A. Smith, *Ann. and Mag. N. Hist.*, xvi. (1875), p. 70.

*Eatoniella kerguelenensis* (Sm.), Dall., *Bull. N.S. Nat. Mus.*, iii., p. 42 (1876).

„ „ E. Smith, "Zool. Kerguelen Moll.," *Phil. Trans. Roy. Soc. Lond.*, clxviii., p. 174, pl. ix., fig. 40 (1879).

*Rissonia* (*Eatoniella*) *kerguelenensis*, Smith, *Man. Conch.*, ix., p. 391, pl. lx., fig. 67 (1887).

*Hab.*—Scotia Bay, South Orkneys, 9–10 fathoms, April 1903. Station 325, contiguous to first locality, 9–10 fathoms, July 1903; also shore pools in Scotia Bay, December 6, 1903.

Quite typical, often encrusted with nullipore. Found likewise in South Georgia.\* A further extension of range is now established.

Family *Litiopidæ*.

*Litiopa melanostoma*, Rang.

*Buccinum litiopa*, M. E. Gray, *Figs. Moll. Anim.*, i., t. 24, figs. 1, 2.

*Litiopa melanostoma*, Rang., *Ann. des Sci. Nat.*, xvi., p. 303 (1829); *Man. Hist. Moll.*, p. 129.

„ *bombix*, Rang., *l.c.*, p. 303 (1829).

„ *maculata*, d'Orb., *Moll. Cuba*, ii., p. 149.

*Hab.*—With tow-net, surface-dredging, and upon gulf-weed (sargassum); in several places, including particularly lat. 9° 6' S., long. 31° 45' W., December 16, 1902; and lat. 29° 54' N., long. 34° 10' W., June 29, 1904.

Very variable, and with a lengthened synonymy, of which only two or three have been given above.

Family *Cerithidæ*.

*Cerithium georgianum*, Pfeffer.

*Cerithium georgianum*, Pfeffer; von Martens and Pfeffer, *Mollusken von Süd-Georgien*, p. 97, Taf. ii., fig. 7 (1886).

*Hab.*—Scotia Bay, South Orkneys, 9–10 fathoms, April 1903.

One example only, but in fine condition, entirely agreeing with Dr PFEFFER'S plate and description of his South-Georgian species. It is a curious, small, strongly spirally ribbed and keeled shell, the carinæ three in number on the lower whorls, four on the body-whorl itself. The apex is remarkably obtuse.

\* PFEFFER and VON MARTENS, *Die Mollusken v. Süd-Georgien*, 1886, p. 94, Taf. ii., fig. 5 a, b.



*Cerithium pullum*, Phil.

*Cerithium pullum*, Philippi, in *Arch. Naturg.*, 1845, p. 66.

„ *cælatum*, Couthouy; Wilkes, *Expl. Exped.*, p. 148, fig. 174 *a-d*. Gould, *Bost. Proc.*, iii., p. 123 (1849).

*Bittium cælatum*, Couthouy, *Mission de Cap Horn*, p. 40.

*Cerithium pullum* (Phil.), H. Strebel, "Beitr. der Mollusk. Fauna der Magalhaen Provinz," *Zool. Jahrb. Jena*, 1905, p. 652, Taf. xxiii., fig. 40 *a-d*.

*Hab.*—Cape Pembroke, Falkland Islands, shore.

Only dead and broken examples, but retaining the peculiar sculpture of this well-known species.

*Cerithiopsis malvinarum* (Strebel, MS.), sp. n. (Plate, figs. 6, 6a).

C. testa parva, imperforata, eleganter fusiformi, brunneo-castanea, anfractibus 7–8, apud suturas multum impressis, spiraliter fortiter bi-, ultimo tricarinato, undique cancellatis et alveatis, apertura squarrosula, peristomate tenui, albescente, columella recta, paullum producta.

Long. 4, lat. 1·5 mm.

*Hab.*—Shore, Hearnden Water, Falkland Islands.

Dr HERMANN STREBEL kindly examined our only example, and returned it with the above MS. name, requesting us to describe it. He informs us another example was found at Port Louis, by the Swedish South Polar Expedition, eight-whorled, not quite adult, in measurement  $3\cdot9 \times 1\cdot4 \times$  (aperture)  $0\cdot9$  mm.; differentiated, but not yet published.

Family *Tritonidæ*.

*Gyrineum vexillum* (Sowerby).

*Ranella vexillum*, Sowerby, jr., *Conch. Illust.*, fig. 3.

„ „ Deshayes, in *Lam. sans Vert.*, ix., p. 553, No. 30.

„ „ Reeve, *Conch. Icon.*, iii., t. 3, fig. 13.

*Triton ranelliformis*, King, *Zool. Journ.*, v., p. 347.

*Hab.*—Gough Island, trawl, 100 fathoms.

Only in juvenile condition. By some authors the *Ranella vexillum*, Sowb., is considered but a variety of the *R. argus*, Gmelin.

(c) *Gymnoglossa*.

No representatives of this section occurred.

(d) *Rachiglossa*.

Family *Muricidæ*.

*Trophon brucei*, Strebel.

*Trophon brucei*, H. Strebel, "Beitr. der Mollusk. Fauna der Magalh. Provinz," *Zool. Jahrb. Jena*, 1904, p. 230, Taf. viii., fig. 72.

*Hab.*—Station 118, Port Stanley, Falkland Islands, trawl, at 1–10 fathoms, January 25, 1903.

Near *T. liratus*, Couth., but of peculiar form. A larger series of specimens than we have seen is required to decide whether this be constant.

*Trophon cinguliferus*, Pfeffer.

*Trophon cinguliferus*, G. Pfeffer; E. von Martens and G. Pfeffer, *Mollusken von Süd-Georgien*, Hamburg (1886), p. 70, Taf. i., fig. 2 a, b.

*Hab.*—Dredged, 2–3 fathoms, Scotia Bay, South Orkneys, December 3, 1903. Also trap, Brown's Bay, South Orkneys, November 1903.

Thus showing extension of geographical range. This species has a wonderful resemblance to certain forms of *Purpura lapillus* (L.).

*Trophon crispus* (Couth.).

*Fusus crispus*, Couthouy; Gould, in *Wilkes' Expl. Exped.*, p. 229, fig. 279 a–c.

„ *fimbriatus*, Hupé; Gay, *Hist. de Chili*, p. 165, pl. iv., fig. 7.

„ „ Smith, “Alert Surv.,” *P. Z. Soc. Lond.*, 1881, tab. iv., fig. 4.

„ *crispus*, Herm. Strebel, “Beitr. der Mollusk. der Magalhaen Prov.,” *Zool. Jahrb. Jena*, 1904, p. 204, Taf. iii., fig. 10 a–g.

*Hab.*—Burdwood Bank, lat. 50° 25' S., long. 51° 0' W., 56 fathoms, trawl, December 1, 1903. Port William, Falkland Islands, trap, 6 fathoms, January 1903.

*Trophon geversianus* (Pallas).

*Buccinum geversianum*, Pallas; Spicil., *Zool.*, fasc. 10, p. 33, pl. iii., fig. 1. Chemnitz, *Conch. Cab.*, vol. iv., p. 130, pl. cxxxix., fig. 1297.

*Murex magellanicus*, Gmelin, p. 3548, No. 80 (*excl. var. β*).

„ *magellanicus* and *Murex peruvianus*, *Encyclop. Méthod.*, vers., pl. cccxcix., figs. 4, 5.

„ *lamellosus*, Dillwyn, vol. ii., fig. 730, No. 97.

„ *magellicanus*, Wood, *Ind. Test.*, p. 132, pl. xxvi., fig. 90.

„ „ Lamarck, *Anim. s. Vert.*, vol. vii., p. 171, and (ed. Desh.) vol. ix., p. 589, sp. 46 (note).

„ „ D'Orbigny, *Amérique méridionale*, vol. v., p. 451, No. 392.

„ *patagonicus*, D'Orbigny, *Amérique méridionale*, vol. v., p. 254, pl. lxxii., figs. 2, 3, No. 393.

„ *varians*, D'Orbigny, *Amérique méridionale*, vol. v., p. 452, pl. lxxii., figs. 4–7, No. 394.

*Fusus geversianus*, Reeve, *Conch. Icon.*, vol. iv., pl. iv., fig. 2.

*Trophon geversianus*, Sowerby, *Thes. Conch.*, pt. 35, p. 59, sp. 1, pl. cccxiv. (i. *Gen.*), figs. 7, 8.

„ „ Kobelt, in *Conch. Cab.* (ed. Kuster), pp. 275, 305, sp. 1, pl. lxxii., figs. 1–3, and pl. lxxiii., fig. 1, pl. lxxv., fig. 1, pl. lxxvi., figs. 1–2.

„ „ Tryon, vol. ii., p. 144, pl. xxxii., figs. 337–347, and pl. lxx., figs. 433, 435.

*Hab.*—Port William, Falkland Islands, trawl, January 31, 1903. Scotia Bay, South Orkneys, trawl, 9–10 fathoms, December 17, 1903.

*Trophon hoylei*, Streb.

*Trophon hoylei*, H. Streb., "Beitr. der Mollusk. Fauna der Magalh. Provinz," *Zool. Jahrb.*  
Jena, 1904, p. 227, Taf. viii., figs. 68 a-f, 69 a-c.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

We are not satisfied as to the specific distinctness of this species from *T. liratus*, Couth. The form and texture seem almost identical, but coloration, notably the dark purpurescent aperture, somewhat different.

*Trophon liratus* (Couth.).

*Fusus liratus*, Couthouy; Gould, *Wilkes' Expl. Exped.*, p. 231, fig. 282 a-c.

*Hab.*—Station 118, Stanley Harbour, Falkland Islands. Dredged at 3½ fathoms, January 15, 1903.

Many fine examples, in perfect condition, with operculum. We consider this the *Buccinum cancellarioides*, Reeve. It is evidently variable, and out of the forms Dr HERMANN STREBEL (to whom we are much indebted for the examination of our examples of this and its allies) has recently propounded several new species.

*Trophon minutus* (Streb., MS.), sp. n. (Plate, figs. 7, 7a).

T. testa parva, fusiformi, albo-cinerea, anfractibus 5-6, quorum apicales 2 hyalini, perlæves, cæteris apud suturas multum impressis, gradatulis, longitudinaliter arctissimè costatis, costis lævibus, incrassatis, numero ultimum apud anfractum circa 22, interstitiis lævibus, apertura ovata, albo-lactea, labro paullum effuso, supernè rectangulo, columella recta, canali paullum prolongato, lato.

Long. 7·3, lat. 4, apertura 4 mm.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9-15 fathoms, April-August 1903, February 1, 1904.

We are requested by Dr HERMANN STREBEL to draw up the description as above of a small *Trophon*, already differentiated by him in MS. as having been found in South Georgia Island recently by the Swedish South Polar Expedition. Only one example was dredged, not so perfect as our specimens, nor so large, having the apical whorls broken off, and but 3½ conserved whorls, measuring 3·7 × 1·9 mm., and numbering only 17 costæ on body-whorl, as against 22 in our type. On this account he suggests the varietal term *major* being applied to the South Orkney specimens, of which only two or three examples occurred, dredged from time to time in Scotia Bay.

*Trophon philippianus*, Dunker.

*Trophon philippianus*, Dkr.; Mart. and Chem., ed. ii. (W. Kobelt), fol. 279, tab. lxxii., figs. 4, 5.

„ *geversianus* (*fusus*), Gould, in *Wilkes' Explor. Exped.*, p. 228. Var. *philippianus*, Dkr.; H. Streb., *Zoologisch. Jahrb.*, p. 174 (1904).

*Hab.*—Shore, and at 6 fathoms, Port Stanley, Falkland Islands.

This agrees with specimens from Punta Arenas we have compared it with in the British Museum, and we are confirmed in our determination by Dr STREBEL.

Family *Nassidæ*.

*Nassa (Ilyanassa) valentini*, sp. n. (Plate, figs. 8, 8a).

*N.* testa ovato-oblonga, solidula, plicato-corrugata, plumbeo-brunnescente, anfractibus 7, quorum 2 apicales plus minus læves, cæteris irregulariter longitudinaliter crassicostatis, apud suturas magis incrassatis, impressis, arctissimè spiraliter liratis, liris rudibus, apertura rotundo-ovata, intus plumbeo-fusca vel brunnescente, labro tenui, columella paullum excavata, haud callosa, canali ad basim breviter recurva.

Long. 14, lat. 8 mm.

*Hab.*—On the shore, Port William, Falkland Islands.

To some extent resembling *N. (Ilyanassa) obsoleta*, Say.—a common estuarine species on the Atlantic shores of the United States,—this Antarctic representative differs entirely in characters of sculpture, being conspicuous for its irregular thickened plicate costæ, the whole surface being spirally sulco-lirate, mouth oval, leaden-coloured or red-brown, outer lip hardly thickened, columella slightly excavate, with no callus, canal basally shortly recurved.

We name this Falkland Islands species after one who has in late years most thoroughly explored that group, our friend Mr RUPERT VALLENTIN.

Family *Buccinidæ*.

*Chrysodomus (Sipho) archibenthalis*, sp. n. (Plate, fig. 9).

*C. (Sipho)* testa fusiformi, tenui, albo-cinerea, undique epidermide pallidé straminea tenuissima prædita, anfractibus, in specimine unico imperfecto, ad sex, quorum apicales duo læves, submamillati, cæteris apud suturas impressis, tumidulis, spiraliter arctè liratis, liris anfractûs ultimi circá 12 suprà peripheriam, apertura ovata, columella paullum excavata, columella brevi. Operculo lutescente, unguiformi, corneo, nucleo apicali.

Long. 17, lat. 8 mm.

*Hab.*—Lat. 62° 10' S., long. 41° 20' W., 1775 fathoms, trawl, March 10, 1903.

Evidently not adult, and though this be the case, and the outer lip be to some extent broken away, we think this *Sipho* is worth describing, the upper whorls being very perfect. The ventricose, closely spirally lirated whorls seem characteristic. Only one specimen occurred, from the abysmal depth recorded above. It may be many years before another specimen is brought to light. We should imagine a full-grown shell would be at least twice the size—say 35 mm. in length.

*Chrysodomus (Sipho) crassicostatus*, sp. n. (Plate, figs. 10, 10a).

*C. (Sipho)* testa parva, ovato-fusiformi, solidula, albo-cinerea, periostraco tenui olivaceo-stramineo connecta, anfractibus 5–6, quorum apicales 2–3 gradati, subhyalini, læves, subtumidi, cæteris spiraliter crassicostatis, apud suturas impressis, ventricosus, ultimum apud anfractum numero 7, interstitiis lævibus, apertura ovata, labro paullum effuso, columella excavata, ad basim breviter truncatula.

Long. 6, at. 3 mm.

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9–10 fathoms, off weed and stones, April–August 1903.

A very compact little species, of which a few examples, all precisely similar in size and sculpture, occurred. It is likely they are nearly, if not quite, adult, and are conspicuous for the strong, acute spiral liræ or riblets encircling the three lower whorls in a uniform fashion, there being seven on the body-whorl.

*Neobuccinum eatoni* (Sm.).

- Buccinopsis eatoni*, Smith, *Ann. and Mag. N. Hist.*, xvi., p. 68 (1875).  
*Neobuccinum eatoni*, Smith, *Phil. Trans. Royal Soc.*, clxviii. (1879), p. 169, pl. ix., figs. 1, 1a.  
 " " " Tryon, *Man. Conch.*, iii., p. 197, pl. lxxvii., figs. 357, 358.  
 " " " Watson, *Rep. "Challenger": Gastropoda*, p. 216 (1886).  
 " " " E. A. Smith, "*Southern Cross*" *Mollusca*, p. 202 (1902).  
 " " " E. Lamy, *Expéd. Antarctique Française* (1906), p. 2.

*Hab.*—Trawl, Scotia Bay, South Orkneys, 9–10 fathoms, December 17, 1903, and February 20, 1904.

Several examples, mostly in live condition. The shell is of such thin texture, and the animal, perhaps, so large and swollen proportionately, that most examples were found to have their penultimate whorls broken, and the flesh protruding, when dredged up.

*Euthria fuscata* (Brug.).

- Buccinum fuscatum*, Bruguière, *Encycl. Méth.*, vers., p. 282 (1792).  
 " *antarcticum*, Reeve, *Conch. Icon.*, iii., fig. 30 (1846).  
*Tritonium schwartzianum*, Crosse, *Journ. de Conch.*, p. 174, tab. 6, figs. 9, 10 (1861).  
*Euthria antarctica* (Reeve), H. and A. Adams, *Gen. Rec. Moll.*, t. i., p. 86 (1858).  
 " " E. Lamy, "*Gastr., Exp. Charcot*," *Bull. Mus. Hist. Nat.*, t. xi., p. 476 (1905).  
 " *fuscata* (Brug.), Hermann Streb.," *Mollusk. d. Magalhaen Provinz*," *Zool. Jahrb.*, xxii., p. 611, pl. xxiv., figs. 69–72, 74–79 (1905).  
 " " E. Lamy, *Expéd. Antarct. Française: Gastr. et Pelecyp.*, p. 2 (1907).

*Hab.*—Cape Pembroke, Falkland Islands, trawl, 1–10 fathoms, January 1903; also Port William, Falklands.

*Euthria magellanica* (Philippi).

- Buccinum magellanicum*, Phil., *Abbildungen*, vol. iii., p. 48, tab. i., fig. 14 (1848).  
*Fusus rufus*, Homb. and Jacq., *Voyage de l' "Astrulabe*," vol. v., p. 107, tab. xxv., fig. 3 (1854).  
*Euthria magellanica*, Phil.; H. Streb., "*Beitr. zur Kenntn. der Moll. Fauna der Magalhaen Prov.*," *Zool. Jahrb.* (1905), p. 601.

*Hab.*—Port William, Falkland Islands.

*Euthria michaelsoni*, Streb.

- Euthria michaelsoni*, H. Streb., "*Mollusken der Magalhaen Provinz*," *Zool. Jahrb. Jena*, 1905, p. 621, pl. xxi., figs. 6, 6a, 6b.

*Hab.*—Port William, Falkland Islands, trawl, 6 fathoms, January 1903.

An interesting new form; conspicuous for a light spiral zone running round the centre of the body-whorl.

Family *Volutidæ*.

*Voluta (Cybiola) ancilla* (Sol.).

- Voluta ancilla*, Solander, *Portland Cat.*, p. 137, No. 1873.  
 „ *gracilis*, Wood, *Ind. Test.*, p. 209, Suppl., pl. iii., fig. 2.  
 „ *ancilla*, Lamarck, *Anim. s. Vert.*, vol. vii., p. 343, and (ed. Desh.) vol. x., p. 397, sp. 33.  
 „ „ Deshayes, *Encycl. Méthod.*, vers., vol. iii., p. 1141, sp. 16, pl. ccclxxxv., fig. 3.  
 „ „ Kiener, *Conch. Cat.* (ed. Kuster), pp. 152, 153, pl. xxxii., fig. 4.  
 „ „ D'Orbigny, *Amér. Mérid.*, vol. v., p. 425, No. 333.  
 „ *magellanica*, Sowerby, *Thes. Conch.*, vol. i., pt. 5, pl. liv., fig. 99.  
 „ *ancilla*, Reeve, *Conch. Icon.*, vol. vi., pl. xvii., fig. 39.  
 „ *magellanica*, Gould, *U.S. Expl. Exped.*, p. 278, pl. xx., fig. 357.  
 „ *ancilla*, Crosse, "Cat. *Voluta*," *Jour. de Conch.*, 1871, vol. xix., p. 299, sp. 61.  
 „ (*Cybiola*) *ancilla*, Kobelt, "Catalog *Voluta*," *Jahrb. deutsch. malak. Gesellsch.*, 1877, p. 310, sp. 61.  
 „ „ „ Tryon, *Manual*, vol. iv., p. 97, pl. xxix., fig. 110.

*Hab.*—Port William, Falkland Islands, trawl, 6 fathoms.

*Guivillea alabastrina*, Wats.

- Wyvillea alabastrina*, Watson, *Prelim. Report*, "Challenger" *Exped.*, p. 12; *Journ. Linn. Soc. Lonl.*, vol. xvi., p. 332.  
*Guivillea alabastrina*, Watson, *Rep. "Challenger" Exped.: Zool.*, "Gastropoda," vol. xv., pp. 262, 701, pl. xv., fig. 2.  
*Voluta (Guivillea) alabastrina*, Wats.; Sowerby, *Thes. Conch.*, iii., p. 304, pl. xviii., fig. 169.

*Hab.*—Lat. 60° 10' S., long. 41° 20' W. Dredged at 1775 fathoms, March 18, 1903.

One example in live condition, but hardly adult, and which is in shattered condition, with the larger portion of the body-whorl missing, the body protruding. The comparison, however, of the portion remaining with the figure in "Challenger" *Report* seems to indicate similarity as regards size. The whole substance of the shell is of papyraceous fragility.

Section *Toxoglossa*.

Family *Conidæ*.

*Columbarium benthocallis*,\* sp. n. (Plate, fig. 11a).

C. testa eleganter fusiformi, tenui, papyracea, alba, epidermide pallidé cinerea contacta, parum nitida, anfractibus ad 6-7, apicalibus . . . ? his ductus proximis erosis, quatuor ultimis fortissimé et ampliter apud medium carinatis, superficie undique tenuiter lirata, et longitudinaliter irregularibus striis incrementalibus prædita, ultimo anfractu subtus carina inferiori minus conspicua decorato, apertura subtriangulari, intus albo-cinerascente, peristomate tenui, margine columellari recto, canali longo, recto.

Long. 45, lat. (carina anfr. ultimi inclusa) 18 mm.

\* *Βέηθος κάλος*, "beauty of the deep."

*Hab.*—Trawl, lat. 62° 10' S., long. 41° 20' W., 1775 fathoms, March 10, 1903.

A shell of papyraceous texture, as are so many abyssal species, whitish, with very thin ash-coloured epidermis. The apex of our only specimen is wanting, and the next two whorls much eroded; the remainder are embellished with a central very acute and bold keel; in the last whorl this carina is situate above the centre, and not far below the suture. A little lower comes a less-developed spiral keel. The triangular mouth is ashy-white within, the columellar margin straight, and the canal prolonged.

*Mangilia costata* (Donovan).

*Murex costatus*, Donovan, *Brit. Shells*, vol. iii., pl. xci.  
*Pleurotoma costata*, Don.; Jeffreys, *Brit. Conch.*, vol. iv., p. 379.  
*Mangilia costata*, Forbes and Hanley, iii., p. 485, pl. cxiv., A, figs. 3-5.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

One somewhat shattered example, but agreeing with authentic Mediterranean and British examples of the northern *Mangilia costata* (Don.), which is reported from South Africa.

Family *Cancellariidæ*.

*Admete magellanica*, Strebel.

*Admete magellanica*, H. Strebel, *Zool. Jahrb.*, p. 594, Taf. xxii., figs. 29, 29 a-d (1905).

*Hab.*—Port Stanley, Falkland Islands, shore, January 31, 1904.

Allied to *A. delicatula*, Smith,\* but with finer ribs.

Order OPISTHBRANCHIATA.

Sub-order TECTIBRANCHIATA.

Family *Tornatinidæ*.

*Retusa truncatula* (Bruguière).

*Bulla truncatula*, Brug., *Encycl. Méth.*, p. 377 (1792).  
*Utriculus truncatulus*, Jeff., *Brit. Conch.*, iv., p. 421, pl. xciv., fig. 2. *Sars. Moll. Reg. Arch. Norv.*, p. 285, pl. xxvi., fig. 2; pl. xvii., fig. 18.  
*Retusa truncata*, Buq., Dantz., and Dollf., *Moll. Rouss.*, i., p. 527, pl. lxiv., figs. 12-14.  
*Bulla truncata*, Ad. (non Gmelin), *Tr. Linn. Soc.*, v., p. 1, pl. i., figs. 1, 2.  
*Volvaria truncata*, Brown, *Ill. Conch.*, G. B. ed., 1, pl. xix., figs. 17, 18.  
*Cylichna truncata*, Loven, *Ind. Moll. Skand.*, p. 42. Forbes and Hanley, *Hist. Brit. Moll.*, iii., p. 510, pl. cxiv., figs. 7, 8; pl. vv. fig. 4 (animal). Meyer and Mobius, *Fauna der Kieler Bucht*, i., p. 87 (animal).  
*Bulla retusa*, Maton and Rack., "Descr. Cat.," in *Trans. Linn. Soc.*, viii., p. 128 (1804).  
*Retusa obtusa*, Brown, *Pop. Encycl.*, ii., p. 78, pl. xvii., fig. 110.  
*Volvaria pellucida*, Brown, *Ill. Conch.*, G. B. edit., i., p. 4, pl. xix., figs. 45, 46.  
*Utriculus truncatulus*, var. *pyriformis*, Monts., *Nom. Gen. e Spec.*, p. 50.

\* *Nat. Antarct. Exped., Nat. Hist.*, vol. ii. (Brit. Mus. N.H.), 1907, p. 4, pl. i., figs. 5, 5a.

*Hab.*—Shore, Port William, Falkland Islands, January 31, 1904.

Indistinguishable from the European species.

Section Siphonarioidea.

Family Siphonariidæ.

*Siphonaria redimiculum*, Reeve.

*Siphonaria redimiculum*, Reeve, *Conch. Icon.*, ix., pl. v., fig. 21 (1856).

„ „ „ E. A. Smith, "Moll. of Kerguelen," in *Trans. Royal Soc. Lond.*, 1879, p. 16.

*Hab.*—Hearnden Water, Falkland Islands, shore, January 7, 1903; also trawl, Port William, Falkland Islands, January 31, 1903; Gough Island, on the shore, April 22, 1904.

Order PULMONATA.

Sub-order BASOMMATOPHORA.

Family Auriculidæ.

*Marinula nigra*, Philippi.

*Hab.*—Gough Island, on the shore, April 22, 1904.

Class SCAPHOPODA.

*Dentalium eupatrides*,\* sp. n. (Plate, fig. 12).

D. testa magna, nitidissima, tenui, alba, paullum arcuata, polita, lineis incrementalibus concentricæ prædita, versus apicem solum longitudinaliter obscure multi-striata. Apice minimo, apertura rotunda.

Long. 63, diametr. antic. 5, diametr. post. 1 mm.

A fine, glistening white species, of thin and fragile substance. The concentric incremental lines of growth are frequent, and occasionally shown more plainly by staining of straw-colour. Towards the apex the surface is longitudinally closely striate, these striæ extending for almost one-third of the total length. Some examples are straighter than others; the majority are slightly gracefully arched. The aperture is circular, varying in diameter from 5 millimetres in the type, to 7 in one very broad specimen. From the figure and description † by Dr W. H. DALL, his *D. callipeplum* seems akin to our species. This was obtained in several stations in the West Indies during the *Blake Expedition*, at between 100 and 200 fathoms.

\* εὐπατριδης, patrician.

† *Bull. Mus. Comp. Zool. Harvard*, vol. xviii., p. 419, pl. xxvii., fig. 12b (1889).



*Dentalium shoplandi*, Jous. .

*Dentalium shoplandi*, Jousseume, *Bull. Soc. Philomath. de Paris*, vi., p. 102 (1894).

*Hab.*—Lat. 71° 22' S., long. 16° 34' S., 1410 fathoms.

Specimens are in the British Museum from "near Aden," dredged at 670 fathoms. We can see no difference in this southern form, either in size, texture, or sculpture. One example, dead, but characteristic.

Class PELECYPODA.

Order PROTOBRANCHIATA.

Family *Nuculidæ*.

*Nucula minuscula*, Pfeffer.

*Nucula minuscula*, G. Pfeffer, in von Martens und Pfeffer's *Mollusken von Süd-Georgien*, p. 128, Taf. iv., fig. 15 (1886).

*Hab.*—Station 325, Scotia Bay, South Orkneys, 9–15 fathoms, April 1903.

A single example only, for the determination of which we are indebted to the author, Dr GEORG PFEFFER, of Hamburg. Its appearance in the South Orkneys is interesting, as considerably widening its geographical area.

*Yoldia eightsi* (Couth.).

*Nucula eightsi*, Couthouy; *vide* Jay, *Cat. Shells*, 1839, ed. iii., p. 113, pl. i., figs. 12, 13.

*Leda (Yoldia) eightsi*, Hanley, in Sowerby's *Thes. Conch.*, vol. iii., p. 142, pl. ccxxx., fig. 164.

*Yoldia eightsi*, Sowerby, *Conch. Icon.*, vol. xviii., pl. v., fig. 26.

*Hab.*—Station 325, Bay A, South Orkneys, at 9–10 fathoms, May 1903. Scotia Bay, at  $\frac{1}{2}$  to  $1\frac{1}{2}$  fathoms, December 18, 1903; and again at 6 fathoms, February 1, 1904. Most examples were dredged on the latter occasion.

Order FILIBRANCHIATA.

Sub-order ANOMIACEA.

Family *Anomiidæ*.

*Anomia ephippium*, L.

*Anomia ephippium*, Linné, *Syst. Nat.*, xii. ed. (1769).

" " Jeffreys, *Brit. Conch.*, vol. ii., p. 30, pl. i., fig. 4.

" " Smith, *Report "Challenger" Exp.: Zool.*, xiii., p. 318.

*Hab.*—Gough Island, trawl, at 100 fathoms.

The specimens are all in young condition, and may possibly be an allied species; but we can see no difference when compared with juvenile examples of this well-known

*ephippium*. We are corroborated in our opinion by its having been noted in the Tristan d'Acunha group (Nightingale Island) during the *Challenger* Expedition.\*

Sub-order ARCACEA.

Family *Arcadæ*.

*Arca (Bathyarca) strebeli*, sp. n. (Plate, figs. 13, 13a).

A. testa parva, orbiculata, paullum inæquilaterali, æquivalvi, alba, epidermide tenui, olivacea, fibrosa, prædita, radiatim tenuissimè arctilirata, lineis concentricis incrementalibus irregulariter cancellata, latere antico abbreviato, postico latè rotundato, margine dorsali ferè recto, deinde marginem apud ventralem leniter rotundato, umbonibus prominulis, obtusis, contiguus, conspicuis, dentibus parvis ad 18, pagim interna alba, marginibus lævibus.

Alt. 4·5, lat. 5, diam. 4 mm.

*Hab.*—Trawl, Station 291, lat. 67° 33' S., long. 36° 35' W., 2000 fathoms March 7, 1903.

Allied to *A. inæquisculpta*, Sm. (*Rep. "Challenger" Exp.*, xiii., p. 267, pl. xvii., figs. 8–8c), but differing from that species and its allies, *A. pectunculoides*, Scacchi, *A. frielei*, Jeffreys, and *A. anaclima*, Melv.,† in its rounder outline, more prominent umbones, and greater delicacy of texture. It is slightly larger than *A. imitata*, Sm. (*l.c.*, p. 321, figs. in text), which seems a very variable form, dredged in the North Pacific Ocean, lat. 35° 22' N., long. 169° 53' E., at 2900 fathoms. This last is a coarser shell than *A. strebeli*, but its nearest congener, in our opinion. It gives us pleasure to connect with this interesting benthal species the name of Dr HERMANN STREBEL, who was good enough to examine it, and give us his opinion concerning it.

*Lissarca notorcadensis*, † sp. n. (Plate, figs. 14, 14a).

L. testa parva, rotundo- vel ovato-trapezoide, solidiuscula, sordidé alba, æquivalvi, inæquilaterali, interdum epidermide fugaci, tenui, olivacea, pallida, partim tecta, undique concentricè arctè striata, umbonibus obtusis, ferè contiguus, ligamento partim externo, anticè angusta, posticè expansa, marginem ad ventralem rotundata, pagina interna alba, lævigata, marginibus pulchrè crenulatis, dentibus ad 10, utrimque divergentibus.

Alt. 5, lat. 6, diam. 2·75 mm.

*Hab.*—Off weed, and attached to Bryozoa, etc., Station 325, Scotia Bay, South Orkneys, 9–15 fathoms; also in same bay, April–June 1903, June 1904.

A proportionately thick, smoothish, white *Lissarca*; some examples roundly, others (and more generally) ovately trapezoid; larger as a rule than *L. rubrofusca*, Smith, which was found with it. The whole surface is closely concentrically striate. Within, the margins are crenulate; the teeth, five on each side of the hinge-plate, divergent.

*Lissarca rubrofusca*, Smith.

*Lissarca rubrofusca*, E. A. Smith, *Phil. Trans. Royal Soc.* (1879), vol. clxviii., p. 185, pl. ix. fig. 17.

„ „ E. von Martens and G. Pfeffer, *Mollusken von Süd-Georgien*, 1886, p. 128, Taf. iv., fig. 14 a–e.

\* *Rep. "Challenger" Exped.*, xiii., p. 318.

† *Proc. Zool. Soc. Lond.* (1907), i., p. 794, pl. liv., fig. 6.

‡ *νότος Όρκαδες*, from the locality.

*Hab.*—Scotia Bay, South Orkneys, 9–10 fathoms, April 1903. Station 325, contiguous to first-mentioned locality, off weed, dredged August 1903. Likewise in shore pools, Scotia Bay, December 1903. All seemingly typical.

Sub-order MYTILACEA.

Family *Mytilidæ*.

*Mytilus edulis*, L.

- Mytilus edulis*, Linné, *Syst. Nat.*, xii. ed., p. 1157 (1769).  
 „ „ Forbes and Hanley, ii., p. 170, pl. xlvi., figs. 1–4.  
 „ „ Jeffreys, *British Conchology*, ii., p. 104 (1863).  
 „ „ Smith, *Phil. Trans. Roy. Soc. Lond.*, vol. clxviii., p. 189 (1879).

*Hab.*—Hearnden Water, Falkland Islands, 1903.

This abundant European species is fast becoming almost universal outside the actual tropics. It was included by Mr E. A. SMITH (*vide* the reference given above) as occurring in Kerguelen Island, and it is also reported from New Zealand.

*Mytilus magellanicus*, Chemnitz.

- Mytilus magellanicus*, Chem., *Conch. Cat.*, vol. viii., pl. lxxxiii., fig. 742.  
 „ „ Reeve, *Conch. Icon.*, vol. x., pl. vi., fig. 22.

*Hab.*—Port William and Port Stanley, 6 fathoms, January 1904; also on shore, Cape Pembroke, Falkland Islands.

*Mytilus ovalis*, Lamarek.

- Mytilus ovalis*, Lam., *Enc. Méth.*, pl. ccxix., fig. 3.  
 „ „ Reeve, *Conch. Icon.*, vol. x., pl. iv., sp. 14.

*Hab.*—Hearnden Water, Falkland Islands, January 7, 1903.

*Philobrya meridionalis* (Smith).

- Mytilus meridionalis*, Smith, *Report, "Challenger": Lamellibranchiata*, vol. xiii., pp. 273, 274, pl. xvi., figs. 3, 3a.

*Hab.*—Station 325. Dredged at 9–15 fathoms, Scotia Bay, South Orkneys, May 1903.

Originally described from a station between Kerguelen and Heard Islands, at 150 fathoms, and, at about the same depth, from Prince Edward Island.

*Philobrya quadrata* (Pfeffer).

- Philippiella quadrata*, Pfeffer; E. von Martens and G. Pfeffer, *Mollusk. von Süd-Georgien*, 1886, p. 119, Taf. iv., fig. 6 a–b.

*Hab.*—Shore pools, Scotia Bay, South Orkneys.

*Philobrya wandelensis*, E. Lamy.*Philobrya wandelensis*, Ed. Lamy, *Exp. Ant. Franç. Charcot*, 1903-5, p. 16, pl. i., figs. 15, 16.*Hab.*—Scotia Bay, South Orkneys. Dredged, 6 fathoms, February 1, 1904.*Modiolarca mesembrina*,\* sp. n. (Plate, figs. 15, 15a).

*M. testa parva, ovato-trapezoide, nigro-brunnea, tenui, convexa, æquivalvi, inæquilaterali, umbonibus prominulis, paullum incurvis, obliquis, interdum partim erosis, superficie omni epidermide nigrescente contacta, sub lente radiatim longitudinaliter decorata, anticé compressa, posticé rotundata, dente cardinali in utraque valva prædita, pagina interna brunnea.*

Alt. 4, lat. 4, diam. 2 mm.

*Hab.*—Shore, Port Stanley, Falkland Islands.

We cannot exactly match this with any of the known species.

## Order PSEUDOLAMELLIBRANCHIATA.

Family *Pectinidæ*.*Pecten colbecki*, Smith.*Pecten colbecki*, E. A. Smith, "*Southern Cross*" *Ant. Exp.* (1902), Brit. Mus. Publ., p. 212, pl. xxv., fig. 11.*Hab.*—Lat. 64° 48' S., long. 44° 26' W., at 2485 fathoms, March 13, 1903.

Fragmentary portions of the left valve only, the equal auricles being perfect, and a great part of the central superficies. This valve is flattened, and exhibits about fifteen ribs, somewhat uneven. There is uniform, close concentric striation. Colour, cinereous white suffused with dull rose-pink, with purplish tinge. Mr EDGAR SMITH described this species from a single right valve. The substance is so thin and papyraceous that it can be bent to a certain extent without injury.

*Pecten multicolor*, sp. n. (Plate, figs. 21, 21a).

*P. testa delicata, mediocri, tenui, inæquilaterali, æquivalvi, planato-convexiuscula, variis coloribus ornata, nunc flavida, nunc pallidé violacea, interdum rufescente, vel alba, interdum pulchré maculata, auriculis valde inæqualibus, posticis radiantibus, radiis arcé squamatis, anticis tenui-costatis, æqué squamatis, valva sinistra costis ad 22, lævibus, in statu juvenili pulcherrimé squamatis, deinde lævissimis, paullum irregularibus, interstitiis 5-seriatim arcissimé scobinatis, asperulatis, valva dextra costis arcis ad 50, interstitiis interdum planatis, interdum una serie squamarum scobinata decorata, umbonibus acutis, sublævibus, pagina interna radiatim sulculosa.*

Alt. 21, lat. 19, diam. 5 mm. spec. maj.

,, 16, ,, 14, ,, 3 ,, ,, min.

*Hab.*—Gough Island.A very delicate *Pecten*, variously coloured, in which the ribs and interstices of the

\* μεσέμβριος, southern.

left valve, especially, exhibit much elaboration of sculpture. When young, round, shining, very fugitive scales exist, especially towards the ventral margin, whilst the interstices are closely scobinate, there being four or five closely imbricate rows of minute squamæ. The right valve is by no means so elaborate, while the radiating ribs, irregularly placed, are more than double in number, not, indeed, leaving much space for interstitial development.

Doubtless allied to *P. limatula*, Reeve,\* and others of that section, the right valve, indeed, is hardly separable in sculpture from that of *limatula*; but its fellow is more elaborately sculptured with close rows of interstitial scales than is the case in that species, which is reported from Nightingale Island, Tristan d'Acunha (*Rep. "Challenger" Exped.*, xiii., p. 297, pl. xxi., figs. 5, 5a).

*Pecten* sp.

A right valve of *Pecten* sp., the auricles very detrite, covered with small *Balani*, *Membranipora*, and other growths both without and within, but exhibiting about 35 variable, on the whole distinct, clearly cut, narrow longitudinal ribs, may be a form of *P. patagonicus*, King.

*Hab.*—Port William, Falkland Islands. Trawled at 6 fathoms.

*Pecten pteriola*, sp. n. (Plate, figs. 16, 16a).

*P. testa parva, inæquivalvi, inæquilaterali, albo-cinerea, obliquante, valva dextra minore, haud nitente, concentricé rudi-striata, aliter lævi, auricula valvæ hujus solum antica, lata, tenuisculpta, valva sinistra convexa, arcuissimé liris concentricis incrementalibus lamellatis prædita; interstitiis feré obtectis, umbone dextræ acuto, incurvo, margine dorsaliter utrimque æquali, recto, deinde apud marginem ventralem obliqué leniter rotundato. Pagia intus alba, nitida.*

Alt. 4, lat. 4·5, diam. 1·5 mm.

*Hab.*—Station 325. Dredged in Scotia Bay, South Orkneys, April 1903, at 9–10½ fathoms.

The nearest approach to this particularly interesting little *Pecten*, of which several examples, all precisely similar, occurred, is *P. aviculoides*, Sm. (*Rep. "Challenger" Exp. : Lamellibr.*, xiii., p. 325, pl. xxii., figs. 5, 5a). It is, however, not only double the size of that minute form, but also very differently sculptured, the ribs, so characteristic on the left valve of the *Challenger* species, which came from Prince Edward Island, being absent, and replaced by closely laminate concentric ridges or liræ. The specific name is chosen from the likeness to species of *Pteria*, Scop. (= *Avicula*, Lam.) in miniature.

*Amussium octodecim-liratum*, sp. n. (Plate, figs. 17, 17a).

*A. testa compressa, albo-lactea, subpellucida, tenui, rotunda, feré æquilaterali, inæquivalvi, valvis diversé sculptis, dextra pulcherrimé cancellata, striis multis erectis concentricé radiantibus, simul ac arcuissimé longitudinaliter striatula, interstitiis quadratulis, valva sinistra delicatè et arcuissimé concentricé striata, auriculis utrimque feré æqualibus, tenuisculptis, umbonibus ambobus acutis, subprominulis, pagia interna alba, nitida, liris in valvâ utraque octodecim, ad margines extensis, prædita.*

Alt. 9, lat. 11, diam. 2·5 mm.

*Hab.*—Station 291, lat. 67° 33' S., long. 36° 35' W., trawl, 2500 fathoms.

\* Reeve, *Conch. Icon.*, viii., pl. lxxviii., fig. 124.

A very thin, milky-white, delicately papyraceous *Amussium*, the valves almost equilateral, slightly unequal, auricles subequal, straight, finely sculptured; the left valve beautifully concentrically radiately striate, the striæ very close and fine; and the right with finely cancellate upright striæ, with quadrate interstices. Within, each valve exhibits an equal number of strong lirations, say 18, whence the specific name.

Family *Limidæ*.

*Lima (Mantellum) goughensis*, sp. n. (Plate, figs. 18, 18a).

L. testa alba, mediocri, convexa, obliquata, ovato-oblonga, æquivalvi, superficie omni longitudinaliter et regulariter multi-lirata, liris ad 48, interstitiis longitudinaliter sub lente per medium æqui- et unistriatis, lineis concentricis incrementalibus spiraliter prædita, umbonibus incurvis, margine dorsali ferè recto, area ligamentari lata, centrali, pagina intus alba, longitudinaliter striatula, margine ventrali minutè serrulato.

Alt. 10, lat. 7, diam. 8 mm. sp. maj.

*Hab.*—Trawl, 100 fathoms, Gough Island, April 23, 1904.

A small species, if our specimens be adult. Although ordinary in form, with valves very convex and trapezoidly oblique, yet the delicate and regular longitudinal liræ, each with an accompanying single interstitial corresponding stria, seem characteristic.

*Lima (Limatula) pygmæa*, Philippi.

*Lima pygmæa*, Philippi, Weigmann's *Archiv f. Naturgesch.* (1845), p. 56.

*Limatula falklandica*, A. Adams, *Proc. Zool. Soc. Lond.* (1863), p. 509.

*Radula (Limatula) pygmæa*, Smith, *Phil. Trans. Roy. Soc.* (1879), vol. clxviii., p. 191.

*Lima (Limatula) pygmæa*, Phil. ; Smith, *Report "Challenger" Exp. : Zool.*, xiii., p. 292.

*Hab.*—Station 325. Dredged in Scotia Bay, South Orkneys, at 9–10 fathoms, April 1903; and again, South Orkneys, at 2–8 fathoms, December 1, 1903. Likewise in Macdougall Bay, South Orkneys.

Order EULAMELLIBRANCHIATA.

Sub-order SUBMYTILACEA.

Family *Lucinidæ*.

*Cryptodon falklandicus*, Smith.

*Cryptodon falklandicus*, A. E. Smith, *Rep. "Challenger" Exp. : Zool.*, xiii., p. 190, pl. xiv., figs. 3, 3a (1885).

*Hab.*—Scotia Bay, South Orkneys. Dredged at 9–10 fathoms, September 1903.

In every way agreeing with the type. One specimen only, but perfect. This species has also occurred at Shallow Bay, Lively Island, Falklands\* (Miss COBB).

\* *J. of Conch.*, ix., p. 105.

*Cyamium antarcticum*, Phil.

*Cyamium antarcticum*, Philippi, *Arch. Naturg.* (1845).

„ „ H. and A. Adams, *Gen. Rec. Moll.*, ii., p. 476, pl. cxiv., fig. 11 a, b  
(1858).

*Chemn., Man. de Conch.*, ii., p. 127, fig. 605.

*Hab.*—Shore, Falkland Islands, January 1903.

Only in young state, but perfect specimens.

*Cyamium falklandicum*, M. & St.

*Cyamium falklandicum*, Melvill and Standen, *Journ. of Conch.*, ix., pl. i., fig. 12 (1898).

*Hab.*—Shore, Hearnden Water, Falkland Islands, January 1, 1903.

Only in juvenile condition, occurring with the last-named species. The surface is mostly beautifully iridescent in these specimens.

Family *Erycinidæ*.

*Lasæa consanguinea* (Smith).

*Kellia consanguinea*, E. A. Smith, *Phil. Trans. Roy. Soc.*, vol. clxviii., p. 184, pl. ix., fig. 20  
(1879).

*Hab.*—Hearnden Water, Falkland Islands, January 7, 1903; Scotia Bay, South Orkneys, 6–10 fathoms, February 1, 1904.

Near *L. miliaris*, Phil., but apparently distinct. Varying somewhat in colour, from a uniform deep rose tint to straw-coloured, tinged with rose only at the dorsal margin.

*Kellia cycladiformis* (Desh.).

*Erycina cycladiformis*, Deshayes, *Trait. élém.*, pl. xi., figs. 6–9; *P.Z.S. Lond.*, 1855, p. 181.

*Hab.*—Burdwood Bank, trawl, 56 fathoms, December 1903.

A species of wide distribution in southern latitudes. Reported from North Australia (Jukes), New Zealand (Quoy, Hutton, Hector), etc.

*Kellia lamyi*, nom. nov.

*Kellyia australis*, E. Lamy, "Moll. des Orcades du Sud," *Bull. Mus. Hist. Nat. Paris*, 1906, p. 124 (non Deshayes).

*Hab.*—Scotia Bay, South Orkneys. Dredged at 6 fathoms.

A minute species, which occurred gregariously in great numbers at the above station. Its obliquely ovate form, when seen with the valves closed, somewhat recalls a *Nucula*. In the left valve the single cardinal tooth is flanked by two very prominent incrassate laterals. In some specimens there is corrosion at the umbones. We have renamed

this species in honour of M. EDOUARD LAMY, its original describer, the specific name he selected having been already employed by M. DESHAYES.

? *Scacchia plenilunium*, sp. n. (Plate, figs. 20, 20a).

Sc. testa parva, elliptico-rotunda, convexa, nitida, albida, epidermide pallidé olivacea, omnino contacta, lævigata, striis concentricis incrementalibus exceptis, apud umbones obtusos nequaquam prominulos, crassiore, marginibus feré rotundis, margine dorsali intus pluteato, ligamento partim interno, dentibus lateralibus in valve utraque utrinque extensis, pagina interna pallidé cinerea.

Alt. 4, lat. 4.5, diam. 2 mm.

*Hab.*—Shore, Cape Pembroke, Falkland Islands.

A small, rounded, somewhat convex shell, with shining pale olive epidermis, smooth, save for the concentric lines of growth. We are not sure of its genus; but in some respects it possesses affinity to the European *Scacchia elliptica*, Phil. Within, the inner side of the dorsal margin protrudes as a kind of flattened narrow shelf or buttress in both valves, the extended lateral teeth being placed at either extremity of it. (*Plenilunium*, a full moon, from the rounded form.)

Sub-order TELLINACEA.

Family *Tellinidæ*.

*Tellina (Mæra) pusilla* (Philippi).

*Tellina pusilla*, Phil., *Moll. Sic.*, i., p. 29, t. iii., fig. 9 a, b.

„ *pygmæa*, "Phil."; Lovén, in Forbes and Hanley, i., p. 295, pl. xix., figs. 6, 7.

*Hab.*—Shore, Gough Island, April 22, 1904.

Only one half valve, but perfect, and coloured with rose radiations. We cannot separate it from the British species, which apparently has a wide range in the eastern-tropics. It occurs, for instance, in the Persian Gulf, and on the Mekran Coast; and this occurrence at Gough Island shows a further extension of its range southward in the Indian Ocean.

Sub-order VENERACEA.

Family *Veneridæ*.

*Chione philomela* (Smith).

*Venus philomela*, E. A. Smith, *Report "Challenger" Exp.: Lamellibr., Zool.*, xiii., p. 117, pl. ii., figs. 7, 7b (1885).

*Hab.*—Trawl, Gough Island, at 100 fathoms, April 23, 1904.

Only small, dead, and imperfect examples. Originally described from Nightingale Island, one of the Tristan d'Acunha group, and within measurable distance of Gough Island.



*Tapes (Amygdala) exalbida* (Chem.).

- Venus exalbida*, Chemnitz, *Conch. Cat.*, vol. xi., p. 220, pl. ccii., fig. 1974.  
 „ „ Reeve, *Conch. Icon.*, vol. xiv., fig. 13.  
 „ „ Sowerby, *Thes. Conch.*, vol. ii., p. clxi., fig. 193.  
*Chione exalbida*, Deshayes, *Cat. Conchif. Mus. Brit.*, p. 154.  
 „ (*Omphaloclathrum*) *exalbida* (Chem.), Paetel, *Catal.*, iii., p. 85.  
*Tapes (Amygdala) exalbida* (Chem.), E. A. Smith, *Rep. "Challenger" Exped.: Lamellibr.*, xiii., p. 117.

*Hab.*—Port William, Falkland Islands, trawl, January 31, 1904.

Sub-order MYACEA.

Family *Glycimeridæ*.

*Saxicava arctica* (L.), var. *antarctica*, Phil.

- Mya arctica*, Linné, *Syst. Nat.*, p. 1113.  
*Saxicava arctica* (L.), Forbes and Hanley, i., p. 141, pl. vi., figs. 4–6.  
 „ *antarctica*, Phil., *Archiv f. Naturg.*, 1845.

*Hab.*—Gough Island, trawl, 100 fathoms, April 23, 1904; Burdwood Bank, trawl, 56 fathoms, December 1, 1903.

We consider *S. antarctica*, Phil., by which name some would designate this protean species, merely as a synonym, or, at most, varietal, there being no salient characters which can be discerned by us as warranting their distinctness.

Sub-order ANATINACEA.

Family *Lyonsiidæ*.

[*Lyonsia cuneata* (Gray).

Of this or a nearly allied species a single specimen, hardly adult, was found after a gale in a stranded root of the giant *Macrocystis*, at Port Stanley, Falkland Islands, February 5, 1904. It has sometimes been considered an *Entodesma* or *Mytilimeria*.]

Family *Anatinidæ*.

*Anatina elliptica*, King and Brod.

- Anatina elliptica*, King and Broderip, *Zool. Journ.*, vol. v., p. 325.  
 „ „ Reeve, *Conch. Icon.*, xiv., fig. 14.  
 „ „ Griffiths, *Anim. Kingd.*, xii., pl. xxii., fig. 3.  
 „ „ Smith, *Rep. "Challenger" Exped.: Lamell.*, *Zool.*, xiii. (1885), p. 76.  
 „ „ „ *"Southern Cross" Moll.*, p. 210, pl. xxv., figs. 9, 10.  
 „ „ „ *Nat. Antarct. Exped.*, vol. ii. (Brit. Mus. N.H.), p. 1, pl. iii., fig. 3 (1907).  
 „ *prismatica*, Sowb., *P. Z. Soc. Lond.*, p. 87 (1834).

*Hab.*—Station 325, Scotia Bay, South Orkneys. Dredged at 9–10 fathoms. A large, well-grown example. Smaller examples from the same locality, these last

partially covered with bright green, somewhat shining epidermis. Mr SMITH's figures of this species, references to which are given above, illustrate two extremes of form admirably.

Order SEPTIBRANCHIATA.

Family *Cuspidariidæ*.

*Cuspidaria brucei*, sp. n. (Plate, figs. 19, 19*a* and *b*).

C. testa pro genere magna, ovata, tenui, papyracea, nitida, superficie omni delicatè concentricè irregulariter lamellato-striata, inæquilaterali, ferè æquivalvi, convexa, umbonibus maximè contiguè, paullum inter se erosis, margine postico dorsaliter ferè recto, deinde subrostrato, ventrali, cum margine antico, leniter rotundato. Pagina intus alba, lactea, nitida, dente cardinali in valva sinistra parvo, centrali, in dextra laterali lato, extenso. fossa ligamentari obliqua, parva.

Alt. 17, lat. 26·5, diam. 10 mm.

*Hab.*—Lat. 39° 48' S., long. 2° 33' E., 2645 fathoms.

A very conspicuous, creamy-white, shining *Cuspidaria*, of papyraceous texture, of which only one example was dredged from the deep sounding given above. The posterior rostrum is abbreviate, the shell otherwise being gently rounded in the fore part. The umbones are close together, and detrite owing to friction. Within, the surface is pure, shining white, showing traces of the external concentric lamellar striation. We should place this species in the typical section of the genus (*vide* SMITH, *Rep. "Challenger" Exped.*, vol. xiii., pp. 35-39; and DALL, *Bull. Mus. Comp. Zool. Harvard*, vol. xii., pp. 292 *sqq.*). To Mr W. S. BRUCE, F.R.S.E., this beautiful addition to the genus is dedicated.

B.—AT ASCENSION ISLAND.

*Lotorium grandimaculatum* (Reeve) [*Triton*].

*Hab.*—Ascension Island, net, 18 fathoms, June 9, 1904.

Now considered a var. of *L. lotorium* (L.).

*Nerita (Thelicostyla) ascensionis*, Gmel.

*Hab.*—Ascension Island Harbour, dredge, 25 fathoms.

Good examples of this usually worn species, in various stages of growth.

C.—AT SALDANHA BAY, SOUTH AFRICA.

*Chætopleura papilio* (Spengler).

*Hab.*—Two fine specimens from coaling jetty, Capetown Docks.

*Ischnochiton tigrinus* (Krauss).

*Hab.*—Shore, Hontjes Bay, Saldanha Bay.

*Chiton nigrovirens*, Blainville.

*Hab.*—Shore and trawl, Hontjes Bay and Saldanha Bay.

*Acanthochites Garnoti*, Blainville.

*Hab.*—Trawl, False Bay, May 8, 1904; Hontjes Bay, shore, and trawl; Saldanha Bay, shore and trawl.

A fine and well-known species.

*Bullia annulata* (Lam.).

*Hab.*—Trawl, Saldanha Bay, 9–10 fathoms.

*Bullia lævigata*, Chem. [*lævissima*, Gmel.].

*Hab.*—Shore, Hontjes Bay, Saldanha Bay, May 20, 1904.

*Mytilus edulis*, L., var. *meridionalis*, Krauss.

*Hab.*—Trawl, Saldanha Bay, 25 fathoms.

*Mytilocardia (Thecalia) concamerata* (Brug.).

*Hab.*—Shore, Hontjes Bay, Saldanha Bay, 25 fathoms.

*Tapes pullastra* (Montagu).

*Hab.*—Trawl, Saldanha Bay, 25 fathoms.

We cannot separate the several examples, all perfect, that were gathered at the above locality, from the European species. It is also recorded by KRAUSS, from Natal and Algoa Bay.\*

*Oxysteles impervia*, Menhe.

*Oxysteles tigrina*, Chem.

*Hab.*—Trawl, 25 fathoms, Saldanha Bay; *O. tigrina* also occurring at Hontjes Bay.

*Crepidula hepatica*, Desh.

*Hab.*—Trawl, 25 fathoms, Saldanha Bay.

*Gyrineum (Argobuccinum) argus* (Gmel.).

*Hab.*—Hontjes and Saldanha Bays, 5–15 fathoms.

*G. vexillum* (Sowb.) seems synonymic.

*Phos plicosus*, Dunker.

This, which is the *Nassa speciosa* (A. Ad.), is a handsome species with certain characteristics of both genera, the Nassoid element, in our opinion, prevailing. We should therefore be inclined to restore it to the genus *Nassa*.

\* *Vide* G. B. SOWERBY, *Marine Shells of South Africa*, p. 59 (1892).

*Hab.*—Trawl, Reitz Bay, trap, 5 fathoms; and in Saldanha Bay, 5 fathoms, May 20, 1904.

*Cominella limbosa* (Lam.).

*Hab.*—Trawl, Saldanha Bay, 25 fathoms; and shore, Hontjes Bay.

*Patella compressa*, L., var. *miniata*, Born.

We cannot dissociate this species from *P. umbella*, Gmelin. It is a species that varies its form in accordance with its habitat.

*Hab.*—Trawl, 25 fathoms, Saldanha Bay, May 21, 1904.

*Patella (Scutellastra) granatina*, L.

*Hab.*—Shore, Hontjes Bay.

*Patella (Scutellastra) oculus*, Born.

With the last. These two handsome and similar species possess well-defined characters differentiating them from each other, but, though they usually occur together, have not yet been noticed to hybridise.

*Helcion pectinatum* (Born.).

*Hab.*—Shore, Hontjes Bay, Saldanha Bay.

*Fissurella mutabilis*, Sowerby.

*Hab.*—Trawl, 25 fathoms, Saldanha Bay.

*Megatebennus scutellum* (Gmelin).

*Hab.*—Trawl, Saldanha and Hontjes Bays.

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## EXPLANATION OF PLATE.

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| 1. <i>Tugalia antarctica</i> .                 | 12. <i>Dentalium eupatrides</i> .             |
| 2. <i>Littorina (Lævilitorina) coriacea</i> .  | 13, 13a. <i>Arca (Bathyarca) Strebli</i> .    |
| 3, 3a. <i>Lacuna notoreudensis</i> .           | 14, 14a. <i>Lissarca notorcadensis</i> .      |
| 4. <i>Rissoa edgariana</i> .                   | 15, 15a. <i>Modiolarca mesembrina</i> .       |
| 5. " <i>scotiana</i> .                         | 16, 16a. <i>Pecten pteriola</i> .             |
| 6, 6a. <i>Cerithiopsis malvinarum</i> .        | 17, 17a. <i>Amusium octodecim-liratum</i> .   |
| 7, 7a. <i>Trophon minutus</i> .                | 18, 18a. <i>Lima (Mantellum) goughensis</i> . |
| 8, 8a. <i>Nassa (Ilyanassa) vallentini</i> .   | 19, 19a, 19b. <i>Cuspidaria brucei</i> .      |
| 9. <i>Chrysodomus (Sipho) archibenthalis</i> . | 20, 20a. ? <i>Scacchia plenilunium</i> .      |
| 10, 10a. " " <i>crassicostatus</i> .           | 21, 21a. <i>Pecten multicolor</i> .           |
| 11a. <i>Columbarium benthocallis</i> .         |   |

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