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form occur on *Laminaria*,
m, but as *S. porrecta*, teste

bricius) Morch.

d. One thick-walled, dex-
the aperture, and series of
Also in Packard's list.

Verrill.

l; Shoal Tickle, August 15,
orth of Nakoak, 5 fathoms,
s, a broken shell of *Sipho*
and ascending forms occur,
S. tubæformis. Previously

REPORT ON A COLLECTION OF SHELLS FROM PERU, WITH
A SUMMARY OF THE LITTORAL MARINE MOLLUSCA OF
THE PERUVIAN ZOOLOGICAL PROVINCE.

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INTRODUCTION.

Under the auspices of the Ministerio de Fomento of Peru, Mr. R. E. Coker was engaged in making studies and collections of animals of the Peruvian coast with the intention of contributing to the knowledge of the aquatic resources of the country. In the course of this work numerous economic notes were made in relation to the animals obtained.

On the portion of the collection consisting of Mollusca, the authorities of Peru, through the intervention of Mr. Coker, have requested the writer to prepare a report.

It was found on looking into the matter that no systematic list of the shore mollusks of the Peruvian province had been published for more than half a century. It was thought that the value of this report to the naturalists of Peru and elsewhere would be considerably enhanced, after discussing the collection in question, if to it was added a list of the species reported as occurring on the shores of the Peruvian zoological province. The present report therefore contains both, together with illustrations of the chief economic mollusks of the Peruvian coast and islands contained in the collection.

It should be said that specimens of this collection have been returned with identifications, to the Peruvian authorities, and another series retained in the U. S. National Museum for reference. The notes in small type were prepared by Mr. Coker, who also collected the local names by which the more conspicuous species are known to the fishermen and local salesmen. It will be observed that these "common" names are no more precise or descriptive than those of our own fishermen, the same name being often applied to extremely distinct animals.

Family GADINIIDÆ.

Genus GADINIA Gray.

GADINIA PERUVIANA Sowerby.

1835. *Mouretia peruviana* SOWERBY, Proc. Zool. Soc., p. 6; Zool. Beechey's Voy., Moll., p. 147, pl. 39, fig. 6, 1839. Gulf of California, south to Talcahuano, Chile.

Suborder STYLOMMATOPHORA.

Superfamily DITREMATA.

Family ONCHIDIIDÆ.

Genus ONCHIDIUM Buchanan.

ONCHIDIUM CHILENSE Hupé.

1854. Gay, Hist. Chile, p. 120. San Carlos de Chiloë.

ONCHIDIUM JUANFERNANDEZIANA Wissell.

1898. Zool. Jahrb., suppl. vol. 4, pp. 583-640, pl. 1-3. Juan Fernandez Island.

ONCHIDIUM LANUGINOSUM Hupé.

1854. Gay, Hist. Chile, p. 121. San Carlos de Chiloë.

Superorder CTENOBRANCHIATA.

(STREPTONEURA.)

Order ORTHODONTA.

Superfamily TOXOGLOSSA.

Family TEREBRIDÆ.

Genus TEREBRA Bruguière.

TEREBRA GUAYAQUILENSIS E. A. Smith.

1880. Proc. Zool. Soc., p. 481. Guayaquil.

TEREBRA STRIGATA Sowerby.

1825. Tankerville Cat., App., p. xxv; Thes. Con., p. 151, pl. 41, fig. 10, 1847. Cape St. Lucas and Gulf of California south to Paita, Peru, and the Galapagos Islands.

TEREBRA ASPERA Hinds.

1843. Proc. Zool. Soc., p. 154.—SOWERBY, Thes. Con., p. 174, pl. 43, fig. 44, 1847. Guayaquil and Paita, Peru.

TEREBRA GEMMULATA Kiener.

1839. KIENER, Icon., *Terebra*, p. 15, pl. 5, figs. 11, 11a. Chile.

TEREBRA LARVÆFORMIS Hinds.

1843. Proc. Zool. Soc., p. 155.—SOWERBY, Thes. Con., p. 176, pl. 43, figs. 46, 47, 1847. Guayaquil.

TEREBRA PLICATA Gray.

1834. Proc. Zool. Soc., p. 61.—TRYON, Man., vol. 7, p. 24, pl. 7, fig. 20, 1885. Guayaquil.

Family

Genus CO

CONUS BRUNNEUS Mawe.

1828. WOOD, Ind. Test., Ill., *Conus*, pl. 57, fig. and southward to Mant

CONUS FERGUSONI Sowerby.

1875. Proc. Zool. Soc., p. ward. Galapagos Isla

CONUS LUCIDUS Mawe.

1828. WOOD, Index Test. Paita, Peru; and Galu

CONUS MONILIFER Sowerby.

1833. Proc. Zool. Soc., Magdalena Bay, Lowe Peru.

CONUS PRINCEPS Linnæus.

1758. Syst. Nat., 10th ed. 30a-30b, 1833. Pana

CONUS PURPURASCENS Broderip.

1833. Proc. Zool. Soc., 1 Gulf of California an

CONUS RECURVUS Broderip.

1833. Proc. Zool. Soc., 1 Guaymas, Mexico, to

CONUS TORNATUS Broderip.

1833. Proc. Zool. Soc., Ecuador coast.

CONUS XIMENES Gray.

1839. Zool. Beech. V. fornia to Sechura B.

Fami

Genus SURC

SURCULA MACULOSA Sowerby.

1833. *Pleurotoma maci* REEVE, Con. Icon. to Guayaquil.

SURCULA MAURA Sowerby.

1833. *Pleurotoma ma* REEVE, Con. Ico Kiener). Guayaquil

SURCULA OLIVACEA Sowerby.

1833. *Pleurotoma ol* 136.—REEVE, Con Salango, Ecuador.

SYNONYMOUS NAMES.

The student of the preceding list, familiar with the names contained in Orbigny's "Voyage," will miss a number of names which he would naturally have expected to find. It would have broken up the unity and conciseness of the faunal list to have it include any synonymy not necessary to the references given, i. e., the name used at the time of the description of the species and that used in connection with one or more good figures of the species. In order that the student may be able to identify synonyms with the name adopted in the list, an alphabetical summary of the chief synonyms is here given. The summary does not claim to contain all synonyms, for the work of bringing them together would have amounted to a monograph of the Peruvian provincial mollusk fauna, for which at present time could not be spared. Nor is the accuracy of this summary more exact than it could be made during the search of the literature and the comparison of the species in the collection of the U. S. National Museum. A thorough and complete study of the fauna would doubtless reveal the necessity for a certain number of changes. The present summary may be regarded as a step toward a future monograph. I have profited much in preparing it by the data given in Tryon's Manual, especially the volumes due to Dr. H. A. Pilsbry, without invariably accepting the decisions in that work. The works cited in the bibliography preceding the Faunal List have been carefully examined, together with many others which will be found cited in the List, and it is believed that nearly all the conspicuous synonyms will be found in the following summary. In adopting generic names the International Code of Rules for Zoological Nomenclature has been rigidly adhered to, and, while it would be too much to expect that absolute accuracy has been attained, the author has done his best in that direction. Eight hundred and sixty-nine species are cited in the Faunal List, and for the whole about 650 synonyms have been noted. This would indicate that the nomenclature is in a tolerably satisfactory state.

SUMMARY OF THE CHIEF SYNONYMS.

- Acmaea cymbula* Hupé = *Scurria scurra* Lesson.
Acmaea nistoria Philippi = *A. viridula* Lamarck.
Acmaea plana Philippi, not Reeve = *A. viridula* Lamarck.
Acmaea pretrei Orbigny = *A. viridula* Lamarck.
Acmaea punctatissima Philippi = *Scurria parasitica* Orbigny.
Acmaea spectrum Wimmer = *A. variabilis* Sowerby.
Aeolis auctororum, cf. *Aeolidia* Cuvier.
Amalthea Schumacher, not *Amaltheus* Montfort = *Hipponix* DeFrance.
Amphidesma croceum Gould = *Semele solida* Gray.
Amphidesma orbiculare Hupé = *Semele solida* Gray.
Amyza Troschel = *Prisogaster* Mörch.
Anomia electus Gray = *A. peruviana* Orbigny.

- Anomia hamillus* Gray = *A. peruviana*
Anomia lampe Gray = *A. peruviana* O
Anomia larbas Gray = *A. peruviana* O
Aplysia Linnæus, 1767 = *Tethys* Linn:
Arca brasiliensis Reeve, not Lamarck
Arca hemicardium Koch = *A. reversa*
Arca inaequivalvis Reeve, not Brugui:
Arca sowerbyi Orbigny = *A. biangula*:
Artemis macilenta Reeve = *Cyclinella*
Artemis tenuis Sowerby, 1852, not R.
Arthemis saccota Gould = *Cyclinella s*
Astracium, see *Astræa*.
Auricula nigra Philippi = *Marinula*)
Avicula Lamarck, see *Pteria* Scopoli
Barnea truncata Tryon, not Say = *B*
Buccinum bolicianum Souleyet, see
Buccinum cochlidium Kiener, cf. *B*.
Buccinum cribrarium Lamarck, see
Buccinum fusiforme Souleyet = *Sole*
Buccinum insignis Reeve, 1846 = *Ca*
Buccinum pagodus Reeve = *Solenost*.
Buccinum parvulum Dunker = *Nüt*
Buccinum pristis Deshayes, 1844 =
Buccinum serratum Dufresne, 1834.
Bulla Linnæus, 1758, p. 725, not 1
Bulla ampulla Troschel, not Linn:
Bulla nebulosa Gould, 1852, not S:
Bulla panamensis Philippi, 1848 =
Bulla punctata A. Adams, 1850 = *I*
Bulla striata Orbigny, 1837 = *B. pu*
Cadulus panamensis Pilsbry and S
Callista longispina Mörch = *Pitaria*
Calyptrea, see also *Crucibulum* an
Calyptrea amygdala Valenciennes
Calyptrea araucana Lesson = *Tro*
Calyptrea cornea Broderip = *Cheil*
Calyptrea dilatata Sowerby, 1824
Calyptrea echinus Broderip = *Cre*
Calyptrea foliacea Broderip = *Cre*
Calyptrea hystrix Broderip = *Cre*
Calyptrea rudis Broderip = *Cheil*
Calyptrea rugosa Deshayes, not 1
Calyptrea sordida Broderip = *Tro*
Calyptrea strigata Broderip = *Cre*
Calyptrea tubifera Lesson = *Cruci*
Calyptrea umbrella Deshayes = *C*
Calyptrea umbrelia Deshayes (p
Calyptrea unguis Broderip = *Tro*
Calyptrea varia Broderip = *Cheil*
Cancellaria ovata Sowerby, 1832
Cancellaria unifasciata Orbigny,
Cardita arcella Valenciennes = *C*
Cardita flammea Michaud = *Vem*
Cardita tricolor Sowerby, 1832 =

Bolten, 1798.
Conrad, 1837.

e, 1832.
Orbigny.
Orbigny.

Blainville.

Mawe.

Le.

u.

Bl, n. n.

Duclos.

Orbigny.

e.

Blainville.

Bruguère.

Blainville.

Orbigny.

ip.

Blainville, 1832.

Blainville.

Orbigny.

Broderip.

Orbigny.

Lamarck.

Mörch.

k.

Orbigny.

Orbigny.

Orbigny.

Orbigny.

Orbigny.

Lamarck.

Orbigny.

Orbigny.

Lamarck.

Orbigny.

Orbigny.

(Schudi).

Strombus luhuanus Linnæus, is Indo-Pacific (Peru, Tschudi).

Styliola recta Gray, 1850=*S. acicula* Rang.

Talena Gray, see *Pholadidea*.

Tectarius atyphus Stearns=*T. galapagensis* Stearns.

Tegula atra Lesson, var., cf. *T. mæsta* Jonas.

Tellina coarctata Philippi=*T. lacunosa* Hanley. West Africa.

Tellina sanguinea Wood=*T. inæquistriata* Donovan.

Terebra belcheri Smith, 1873, not of Philippi, 1851.

Terebra chilensis Deshayes, 1859=*T. gemmulata* Kiener.

Terebra elongata Wood, 1828=*T. strigata* Sowerby.

Terebra flammea Lesson, 1830=*T. strigata* Sowerby.

Terebra patagonica Orbigny, 1841; cf. *T. gemmulata* Kiener.

Terebra zebra Kiener=*T. strigata* Sowerby.

Terebratula chilensis Orbigny, not Broderip=*Magellania venosa* Solander.

Terebratula dilatata Lamarck=*Magellania venosa* Solander.

Terebratula eximia Philippi=*Magellania venosa* Solander.

Terebratula fontaineana Orbigny=*Magellania venosa* Solander.

Terebratula gaudichaudi Blainville=*Magellania venosa* Solander.

Terebratula globosa Lamarck=*Magellania venosa* Solander.

Terebratula kochii Kuster=*Magellania venosa* Solander.

Terebratula physema Valenciennes=*Magellania venosa* Solander.

Tivela radiata Sowerby, not Megerle=*T. byronensis* Gray.

Tivela suffusa Sowerby=*T. planulata* Broderip and Sowerby.

Trigona hindsii Hanley=*Tivela byronensis* Gray.

Trigona semifulva Menke=*Tivela byronensis* Gray.

Triumphalia Sowerby=*Jouannetia* Desmoulins.

Triton, auctorum, cf. *Cymatium* Bolten.

Triton chemnitzii Gray=*Cymatium wiegmanni* Anton.

Triton ranelliformis King, not *Sismonda*=*Argobuccinum vexillum* Sowerby.

Triton succinctus Lamarck=*Cymatium costatum* Born.

Tritonium cancellatum Valenciennes=*Distorsio constrictus* Broderip.

Trivia costispunctata Gaskoin=*Trivia radians* Lamarck?

Trochus araucanus Orbigny=*Monodonta nigerrima* Gmelin.

Trochus bicarinatus Potiez and Michaud=*T. luctuosus* Orbigny.

Trochus brasiliensis Menke=*Tegula reticulata* Gray.

Trochus buschii Philippi=*Astræa buschii* Philippi.

Trochus carinatus Koch=*T. luctuosus* Orbigny.

Trochus kieneri Hupé=*T. euryomphalus* Jonas.

Trochus microstomus Orbigny=*T. tridentatus* Potiez and Michaud.

Trochus perlatus Dillwyn=*T. tectum* Gmelin, part.

Trochus radians Lamarck=*Trochita trochiformis* Gmelin.

Trochus stenomphalus Jonas=*T. tridentatus* Potiez and Michaud.

Trochus torulosus Philippi=*T. quadricostatus* Gray.

Trochus tridens Menke=*T. tridentatus* Potiez and Michaud.

Trochus unidens Chemnitz=*T. tectum* Gmelin, part.

Turbinella ardeola Valenciennes, 1833=*Vasum castus* Broderip.

Turbinella muricata Born, 1780=*Vasum castus* Broderip.

Turbo assimilis Kiener=*T. fluctuosus* Wood.

Turbo atrum Kiener=*Tegula atra* Lesson.

Turbo brevispinosus Sowerby=*Astræa buschii* Philippi.

Turbo depressus Carpenter=*T. fluctuosus* Wood.

Turbo fluctuosus Reeve=*T. fluctuosus* Wood.

Turbo inermis Lamarck, not Kiener=*Astræa buschii* Philippi.

Turbo lugubris King=*T. niger* Wood.