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## MOLLUSCA OF DORSETSHIRE

## (MARINE, ESTUARINE, FRESHWATER, AND LAND)

and

## THE BRACHIOPODA.

BY

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## \#edicated

то
ERNEST RUTHVEN SYKES, EsQ., F.Z.S.,
Late Secretary of the Malacological Society,
In Grateful Acknowledgment of most Generous Assistance rendered during the Preparation of this Volume, both in the Introductory Portion and in the Text.

Many of its Pages testify to his
Numerous and Valuable
Contributions.

By his Sincere Friend,
J. C. MANSEL-PLEYDELL.

## PREFACE.

It is nearly ioo years ago since Dr. Pulteney published his Catalogue of "Shells found on the Dorsetshire Coast," since which date Malacology has naturally received considerable additions in this County. Among the earliest works on British Shells since Pulteney's time are Montagu's "Testacea Britannica," and Maton and Rackett's "Descriptive Catalogue of the British Testacea," published in the sixth volume of the "Transactions of the Linnean Society." After an interval of about 50 years, Professor E. Forbes and Mr. S. Hanley's "British Mollusca," in four volumes, in which was incorporated the Professor's work in conjunction with Mr. McAndrew on the coast of Weymouth and the neighbourhood, appeared.

In 1870 I brought out a Catalogue of the "Mollusca of Dorset" in the Introduction of the third edition of Hutchins' "History of Dorset," which I have made the basis of this Volume.

Through the help of the undermentioned friends I have been able to considerably enlarge the list as to localities, and also to add some few new species and genera. My grateful acknowledgments are due to Mr. E. R. Sykes, to whom I have dedicated this Volume. I owe a debt of gratitude also to Mr. Clement Reid, whose investigations on the superficial deposits of the County gave him opportunities of which, as an experienced malacologist, he has taken advantage, and enabled him to add new localities and confirm some of Pulteney's more dubious records. For instance, he rediscovered Helix (Theba) cantiana at Spettisbury, where Rackett found it in 1813; he also collected it at Winterbourne Stickland, the only other Dorset record. I am indebted to him also for directing me to some ancient hedgerows in search of Helix (Helicodonta) obvoluta, a rare shell found only in England, in Hampshire and two other counties. Although unsuccessful with respect to Helix (Helicodonta) obvoluta, I found an equally rare snail, Clausilia Rolphii, a valuable addition to the County list.

The late Messrs. W. Thompson, J. H. Austen, W. Kendall, and R. Damon gave me valuable assistance, as also Dr. Turner, Mr. C. P. Cambridge, and Miss Colson. I may have omitted to mention some to whom thanks are also due, whose names are in the body of this Volume.

J. C. MANSEL-PLEYDELL.

November 17th, 1898.

## MOLLUSCA.

This group includes the shell-bearers, as well as the naked forms whose shells are either hidden under the mantle, or are entirely absent. Cuvier was the first to place them among the principal groups of the Animal Kingdom, and in the following order :1. The Cephalopoda; 2. The Gastropoda (Snails and Slugs, terrestrial and aquatic) ; 3. The Pelecypoda ; 4. The Brachiopoda; 5. The Ascidians (Sea-Squirts) ; 6. The Pteropoda (Winged Snails), Clio, \&c.; 7. The Cirrhipoda (Barnacles). This last soon gave way to malacological criticism. The Ascidians, which Cuvier considered to be Pelecypoda without shells, soon followed, after being tossed about and joined to various groups, even with the Vertebrata, through embryonic similarities. Instead of secreting a calcareous shell on the surface of their bodies they envelope themselves in a case varying in consistence from soft jelly to tough leather. The Cephalopoda derive their name from the attachment of the feet, or principal locomotive organs, to the head; in their general conformation the molluscan character is retained. There is no trace of the muscular foot of the Gastropod, except in the Nautilus, which in its general structure approaches that order most nearly ; it is the only existing Cephalopod which is wholly provided with an external shell. From the earliest geological periods thousands of species of this Order swarmed in the primæval seas. The Cuttle-fish, which has no external shell, is furnished with an ink-bag, from which it can discharge a black pigment, and easily effect a safe retreat from the enemy. Sir Richard Owen divided the Order into two Sections, Dibranchiata and Tetrabranchiata, founded on the existence of two symmetrical gills in one and four in the other. The Octopus, the Sepia, the Loligo, and the Argonaut belong to the first section,
the Nautilus pompilius to the last. This is the only remnant of the order which once inhabited every sea of the world. The Pelecypoda and the Brachiopoda resemble each other in both having a bivalve shell; but differ in the attachment of the animal to the shell. In the former it is lateral, and marked by one or two muscular scars on the inside face of each valve. In the latter it is vertical or dorsal. The Pelecypoda have no distinct head; the absence of a jaw is compensated for by a series of vibratory cilio, which fringe the gills, creating currents, propelling the food in the direction of the mouth, into which it is guided by palpi on each side. As the Order is exclusively aquatic, and the animals branchiferons, their uniformity of life determines their anatomical characters, which are more marked than with the Gastropods. The Pelecypoda usually rest on the longer axis of the shell, and with the aid of the foot can burrow vertically down into the sand, or mud below. Some choose for their homes the tough tegument of an Ascidian. The Pholadidæ can perforate solid rock by means of the rasping file-like ridges of the shell, which they have the power of revolving, and of hollowing out a highly-polished cist. A colony of several will occupy the same block of stone. Gastrochæna, Saxicava, and other borers whose shells are smooth, have also the power of excavating in the solid rock without any visible appliance, which is possibly done by chemical action. The Mytilus and Modiola spin a byssus, by which they are able to attach themselves to some object. These frequent the shoreline, and thus anchored are not exposed to be washed away by the inconing sea at low-tides.

The Gastropods receive their name from the situation of the muscular dise or foot, upon which the animal creeps. The aquatic species are usually furnished with an operculum attached to the posterior surface of the body, completely shutting it in when withdrawn within the shell. Pomatias (Cyclostoma) elegans and Acicula lineata are the only British land-shells with this appendage, and are probably the survivals of aquatic ancestors. The shell of Helix aperta is so disproportionate to the size of the animal that it can
scarcely receive one-third of it. Testacella has a very small shell attached to the upper surface of the tail, for the protection of the respiratory organs, which extend over a large portion of the body, and it is remarkable that the Nudibranch in its embryo state has a shell, dispensing with it when the branchial appendages appear. The Polyplacophora (Chitons) are furnished with a shell composed of a series of plates jointed to each other ; the animal is thus able to roll itself up like the Woodlouse, although not so completely. It has no tentacles, but a large muscular foot, and a well-developed lingual ribbon. Cuvier divided the Gastropods into seven Orders. Fischer proposes three :-1. Pulmonata, terrestrial, hermaphrodite; 2. Opisthobranchiata, marine and hermaphrodite, respiration branchial, or cutancous, the branchiæ and auricle placed behind the ventricle ; 3. Prosobranchiata, sexes distinct, respiration branchial, or pulmonary ventricle in rear of the auricle. The greater proportion of the marine Gastropods belong to this Order. Nearly all the terrestrial Gastropods are vegetable feeders, Testacella is an exception; its food consists principally, if not entirely of the earth-worm. The marine Gastropcds with a notched peristome (for the extrusion of the siphon) are mostly carnivorous. Those with an unnotched are herbivorous. Beyond the depth of 15 fathoms vegetation is restricted to calcareous algæ (Nullipores, Corallines, \&c.) These were formerly ranked as animals on account to their resemblance to Zoophytes. The tissue of their stems is so consolidated with carbonate of lime as to obtain a stony hardness, only yielding to an application of acid, which restores it to the condition of an ordinary alga. The Gastropoda, in contrast to the Pelecypoda, whose life results in cephalic atrophy, lead an active life, and have not only a well-developed head, but a special organ in connexion with the mouth, the odontophore, which consists of a lingual riblon, or radula with its cushion and muscles. This radula is set with minute teeth like a rasp and it is continuously growing forward as the filiger-nail does on its bed. The radula and jaws are not only used for feeding, but in some instances for boring the shells of other Mollusca or for crushing
iv.
the shells of Crustacea. There is abundant proof of this destructive work on every shore, by the perforated shells strewn about in every direction. There are traces of organs of hearing in many of the Mollusca, consisting of a calcareous concretion, termed an otolith, which is in continual vibration. Among the Cephalopods this sac is placed in the cephalic region, foreshadowing the auditory arrangement of the vertebrates. Ocellary spots occur on the margin of the mantle of Pectens and other free-swimming Bivalves. Many of the Gastropoda have no eyes ; when present they are small in proportion to the size of the body. In the more highly organised Cephalopods they are much larger and more highly developed, a necessary provision for their active habits.

Marine Mollusca are mentioned in these pages as inhabiting depths of so many fathoms, or frequenting different zones. The phrase must be understood to refer to the several belts stretching out in succession from the shore to the farthest limits of measurement. These have been divided into five zones by the late Professor E. Forbes. 1. The Littoral zone, between tide-marks. 2. The Laminarian zone, so called from the prevailing sea-weed, extends from low-water-mark to 15 fathoms. 3. The Coralline zone, extending from 15 to 50 fathoms; here many of our rarest species are tound. 4. The deep-sea Coral zone, extending from 50 to 300 fathoms. Beyond this depth is the Abyssal zone, which Forbes considered to be scarcely developed within the British area. It must be remarked these zones have been much criticised of late. Of all the land and fresh-water mollusca Helix and Unio have the widest distribution. Some no doubt have been transported great distances by human agencies. Cryptomphalus aspersa to Algeria, the Azores, and Brazil, and many other places. Tachea hortensis has been naturalised in New England, and on the banks of the St. Lawrence. The minute Vallonia pulchella is found in Madeira, the Caucasus, and in nearly all the northern parts of North America.

The partial absence of limestone among the Cambrian rocks affected the shell-bearing Mollusca, as compared to the succeeding

Silurian. The Brachiopoda are amongst the most numerous and characteristic of the Palæozoic series. The Pelecypoda first appear in the Tremadoc rocks, sparingly in the Silurian, becoming very numerous in the Mesozoic, and have held their ground to the present day. The Gastropods have also a very wide distribution in time, from the Arenig, or Skiddaw series, to the present day.

The characteristic families of the Pelecypoda of the Lower Silurian are Aviculidæ, Mytilidæ, Arcidæ, Nuculidæ, Astartidæ, Lucinidæ, Cardiidæ, Pholadomyidæ. The Gastropoda are Euomphalus, Murchisonia, Natica, Pleurotomaria, Trochus. Old types gave way to new in the Triassic age, when the Ostrea appeared for the first time, with Avicula, Lima, Pecten, Arca, Astarte, Cardium, Modiola, Trigonia, Pholadomya, among the Pelecypoda; Alaria, Cerithium, Chemnitzia, Natica, Pleurotomaria, Trochus, Turbo, among the Gastropoda. Their development culminated towards the end of the Jurassic age, when, climatal changes taking place, lowered the temperature, and to which may be assigned the disappearance of the great Saurians which had previously swarmed on sea and land.

The Tertiary age shows a gradual change, and an approach towards the Molluscan life of the present day. Some genera disappeared altogether. Until within the last 50 years Pholadomya was supposed to be extinct, it is now found living in the Australian Seas. Pecten, Mytilus, Avicula, and Nucula have continued almost without any modification from Palæozoic ages. On the other hand Caprinidæ and Hippuritidæ were restricted to the Cretaceous age. The Fresh-water Gastropoda, Neritina, Planorbis, Paludina, Hydrobia, Melania appeared for the first time in the Oolitic age ; Limnæus, Physa, Bithinia, in the Purbecks and Wealden. Gastropoda are rare in the Lower Chalk and not well preserved. The fresh-water and land-shells began to take a prominent place towards the end of the Cretaceous age, and have continued to the present day.

Most of the genera found in the Eocene and the Oligocene beds are now living, but the species differ. The marine Miocene

Gastropods of Europe are now mainiy represented in the tropical seas. Those of the Pliocene age have a closer affinity to those living in the neighbouring seas. The Upper Pliocenes of Italy, for instance, contain more than 90 per cent. of the species now living in the Mediterranean. The influence of climate on the distribution of species is well marked. Arctic types of the present day occur in the Crags of Norfolk and Suffolk, and in the Glacial Pleistocene beds of northern Europe.

## CLASSIFICATION OF THE BRITISH MOLLUSCA.

I have endeavoured in the following arrangement to give an outline of the genera of the Mollusca now living in Britain, or in the seas which wash our coasts, upon a fairly correct basis, and in a ferv instances I have revised the nomenclature, such as the Helicidæ, Trochidæ, Polyplacophora, and Cephalopoda. The main outline of the scheme is taken from Fischer's well-known "Manuel de Conchyliologie"; other works have also been made use of. The Cephalopoda, for example, follow the "Challenger Report." Pelseneer has been laid under contribution for the suppression of the Class Pteropoda, while the "Manual of Conchology" has been followed in as far as regards the Chitons, the Helicidæ, and the Truchidæ, \&c. In a few cases lists of the species have been given.

In nomenclature the law of priority has been kept in full view, and it may be noted that the word "type" is used in the striclest sense, as being the species intended by the author ; while "typical example" implies that while it is impossible to say that that particular species was the type, still it, or some closely allied one, was intended, in so far as the describer confined himself to a single type-form. In the forms grouped under the genera Rissoia and Odostomia much remains to be done.

In the lists published for the last twenty or thirty years in this country, the land and fresh-water mollusca have been ruthlessly sundered from their allies, the marine, and, while considerable care has been expended on the first branch, the latter are still catalogued without alteration on the principles adopted in the time of Gwyn Jeffreys. If these notes tend in any measure to uniformity of nomenclature or arrangement (for in such matters we must still sadly say tot homines quot sententice) their object will have been achieved.

CLASS CEPHALOPODA.
ORDER DIBRANCHIATA.
SUB-ORDER OCTOPODA.
Octopodidæ.
Octopus, Lam., 1799.
O. vulgaris, Lam.

Eledone, Leach, 1817. E. cirrosa, Lam.

## SUB-ORDER DECAPODA.

Sepiolilæ.
Sepiola, Leach, 1817.
S. Rondeleti, Leach.
S. Atlantica, D'Orb.

Rossia, Owen, 1834.
R. macrosoma, D. Chicije.
R. glaucopis, Lovén.
R. Oweni, Ball.

Sepiidx.
Sepia, $l$.
S. officinalis, $L$.
S. elegans, $D^{\prime}$ Orb.
S. Ruppellaria, D'Orb.
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Loligidæ.
Loligo, Lam., 1799.
L. Forbesii, Steenstrup.
L. media, $L$.

Ommastrephidæ.
Todarodes, Steenstrup, 1880.
T. sagittatus, Lam., 1799.
Illex, Steenstrup, 1880.
I. Coindetii, Vérany.

## CLASS GASTROPODA.

## ORDER PULMONATA.

## SUB-ORDER GEOPHILA.

A. Monotremata.

Testacellidæ.
Testacella, Cuv., 1800,
Vitrinidæ.
Vitrina, Drap., 1801.
Limacidæ.
Limax, L. 1758.
Agriolimax, Malm, 1868.
Amalia, Moq-Tandon, 1855.
Arionidæ.
Arion, Fér., 1817.
Geomalacus, Allman, 1842.
Zonitidæ.
The forms so frequently, in England, called Zonites, still await a thorough revision; however, for present purposes it appears wisest to follow Tryon and Mr. E. A. Smith, and, using their "sections" as genera, to group them in the following way.

Vitrea, Fitzinger, 1833.
V. crystallina, Müller.

Polita, Held., 1837.
P. Draparnaudi, Beck.
P. alliaria, Müll.
P. glabra, Studer.
P. niticlula, Drap.
P. pura, Alder.
P. radiatula, Alder.

Zonitvides, Lehman, 1864.
Z. excavata, Bean,
Z. nitida, Müll.

Conulus, Fitzinger, 1833.
C. fulvus, Müll.

Helicidæ.
M. Pilsbry has very recently in the "Manual of Conchology" published such an exhaustive anatomical and conchological study of the forms grouped under the genus Helix, that a list of the species according to his classification may be of service. If it is preferred the last four genera may be placed as sections of Helix.

Punctum, Morse, 1861.
(type, P. minutissimum, Lea = P. pygmaeum, var.)
P. pygmaeum, Drap.

Pyramidula, Fitzinger, 1833.
(type) P. rupestris, Drap.
P. rotundata, Mull.

Heliomanes (Fer.), Moquin-Tandon, 1855.
(typical example) H. virgata, Drap.
Helicella (Fer.), Risso, 1826.
(example) H. ericetorum, Müll.
Candidula, Kobelt, 1871.
(type H. candidula, Studer.)
C. caperata, Mont.

Cochicella (Fér.), Risso, 1826.
(typical example) C. barbara, L. (= acuta, Drap.)
X.

> Theba (Leach), Risso, 1826.
> (typical example) T. cantiana, Mont.
> T. carthusiana, Müll.
> Fruticicola, Held, 1837.
> (typical example) F. hispida, $L$.
> F. granulata, Alder.
> F. rufescens, Penn.
> F. revelata, Fer.
> F. fusca, Mont.
> Acanthinula, Bedk., 1846.
> (typical example) A. aculeata, Müll.
> A. lamellata, Jeff.
> Vallonia, Risso, 1826.
> (type V. rosalia $=$ V. pulchella + V. costata.)
> V. pulchella, Müll.
> V. costata, Miüll.
> Helicodonta (Fér.), Risso, 1826.
> (type) H. obvoluta, Müll.
> Chilotrema, Leach, 1820.
> (first species) C. lapicida, $L$.
> Arionta (Leach), Turton, 1831.
> (type) A. arbustorum, $L$.
> Cryptomphalus (Agassiz) Charp, 1837. (example) C. aspersa (L.)
> Helicigona (Fér.), Risso, 1826.
> (first species) H. pomatia (L.)
> Tachea (Leach), Turton, 1831.
> (typical example) T. nemoralis ( $L$.)
> T. hortensis (Müller).
> Euparypha, Hartmann, 1842.
> (type E. rhodostoma $=\mathrm{E}$. pisana.)
> E. pisana (Müller).

Pupidæ.
Buliminus, Fhrbg., 1831.
Pupa, Drap, 1805.
Vertigo, Müller, 1774.
Balea, Prideaux, 1824.
Clausilia, Drap., 180 ŏ.
Stenogyridæ.
Cecilioides (Fér.), Blvlle, 1817.
Cochlicopa (Fér.), Risso, 1821.
Azeca (Leach), Fleming, 1828.
The nomenclature as revised by Mr. Smith has been followed in these three genera.

Succineidæ.
Succinea, Drap., 1801.
B. Ditremata.

Onchidiidæ.
Onchidiella, Gray, 1 S50.
SUB-ORDER GEHYDROPHILA.
Auriculidæ.
Carychium, Müller, 1744.
Alexia (Leach), Gray, 1847.
Otinidæ.
Otina, Gray, 1847.
SUB-ORDER HYGROPHILA.
Limnaeidæ.
Ancylus, Geoffroy, 1767.
Limnaea, Lam., 1801.
Amphipeplea, Nillsson, 1822.
Planorbis, Guettard, 1756.
Physidæ.
Physa, Drap., 1801.
Aplexa, Fleming, 1828.
xii.

## ORDER OPISTHOBRANCHIATA.

## SUB-ORDER NUDIBRANCHIATA.

These we do not attempt to classify.
SUB-ORDER TECTIBRANCHIATA.
a. Cephalaspidea.

Actaeonidæ.
Actaeon, Montfort, 1810.
(type) A. tornatilis, $L$.

## Tornatinidæ.

Retusa, Brown, 1827.
(type) R. obtusa, Mont.
Utriculus, Brown, is antedated by Schumacher, in the Conidæ, Our other British species are truncatula, Brug., nitidula, Lovén, umbilicata, Mont., and mammillata, Phil.

Volvulella, Newton, 1891. (example) V. acuminata, Brug.

Cylichna, Lovén, could not be used for this species, even if it had not been preoccupied. Volvula, A.Ad., next on the list, clashes with the prior Volvulus, Oken, and therefore the above is used.

Scaphandridæ.
Scaphander, Montft., 1810.
(type) S. lignarius, $L$.
Roxania (Leach), Gray, 1847.
(type) R. utriculus, Brocchi.
Diaphana, Brown, 1827.
(type) D. minuta, Brown.
This is the Bulla utriculus of Turton, which elashes with B. utriculus, Gimel., and we have therefore used Brown's name. Our other species are expansa, Jeff., ventricosa ( $=$ ventrosa), Jeff., and, perhaps, globosa, Lovén.

Bullinella, Newton, 1891.
B. cylindracea, Penn.

Amongst the synonyms are Bullina, Risso, non Férussac; and Cylichna, Loven, non Cylichnus, Burmeister. Another British species is alba, Brown.

## Akeridæ.

Akera, Müller, 1776.
(type) A. bullata, Müll.
Haminea (Leach), Gray, 1847. H. hydatis (L.)

Our species is now frequently distinguished as H . navicula, $D a$ Costa, but sufficient specific distinction is not apparent.

Philinidæ.
Philine, Ascanius, 1752.
(type) P. aperta, $L$.
Our British species will doubtless eventaally be broken up into several sections, but until some general accord is arrived at, it appears safer to use the old name Philine.

Limacinidæ.
Limacina, Cuvier, 1817.
L, retroversa, Fleming.
Cavoliniidæ.
Clio, $L$.
C. pyramidata, $L$.

Dr. Pelseneer is followed in the nomenclature, and systematic position of the last two families.
B. Anaspidea.

Aplysiidæ.
Aplysia, L., 1767.
(example) A. punctata, $L$.
Strictly speaking Tethys, L. (175S), ought perhaps to be used for this genus.
C. Notaspidea.

Pleurobranchidæ.
Pleurobranchus, Cuvier, 1805.
The type is P. Peroni, Cuvier ; sulb-genera seem handly necessary for our two species, $P$. tuberculatus ( $=$ membranacens and P. plumula.

Runcinidæ.
Runcina, Forbes, 1851.
R. Hancocki, Forbes.
xiv.

# ORDER PROSOBRANCHIATA. 

## SUB-ORDER PECTINIBRANCHIATA.

A. 'Toxoglossa.

Conidæ.
Our British Pleurotomoid forms require careful grouping. Mangilia, Risso, has as type M. costulata, Risso, which, according to Jeffreys, $=$ nebula, Mont.; again Bela (Leach), Gray, has as type, nebulla, Mont., while Raphitoma, Bellardi, belongs to the same group. Further, Defrancia, Millet, is preoccupied by Brown in Bryozoa, therefore dealing conservatively-in the present state of uncertainty-we propose that Mangilia should stand for the group of nebula, \&c., with Hecdropleura, Monterosata, as a sub-genus for septangularis, and Thesbia, Jeff., as another for M. nana, Lovén; while Clathrcrella, Carpenter, shouid cover the forms allied to purpurea, with Teretia as a subgenus for teres, Forbes. According to recent authors Donovania, Bucq., Dautz, and Dollf. $=$ Lachesis, Risso, non. Daudin, nec Savigny, should be placed here rather than with the Muricidæ. The type is D. minima, Mont.
B. Rachiglossa.

## Fasciolariidæ.

The following forms have appeared in most British lists as "Fusus": They do not however accord with the typical forms of that genus, and may be divided as follows :-

Neptunea, Bolten, 1798.
N. antiqua, $L$.

Tritonofusus, Beck, 1847.
(type) T. islandicus, Chemn.
'T. gracilis, Da Costa.
T. propinquus, Alder.
T. Jeffreysianus, Fischer.
T. fenestratus, Turton.

Troschelia, Mörch, 1876.
T. Berniciensis, King.

## Buccinidæ.

Chrysodomus, Swainson, 1810.
C. Turtoni, Bean.

Liomesus, Stimpson, 1865.
L, Jalei, J. Sow.
Buccinopsis had been used both by Conrad and Deshayes before Jeffreys.

Buceinum, $L$.
B. undatum, $L$.

Nassidx.
Nassa, Lam, 1799.
N. reticulata, $L$.
N. incrassata, Ström.
N. pygmea, Lam.

Columbellidæ.
Columbella, Lam., 1799.
C. Haliæeti, Jeff.

Muricilæ.
Trophon, Montfort, 1810.
(type T. magellanicum, Gmel. = Gerversianum, Pallas.)
T. muricatum, Mont.
T. barvicense, Johnst.
T. truncatum, Ström.

Ocinebra (Leach), Gray, 1847.
O. erinacea, Lam.
O. aciculata, Lam.

This last species belongs to the sub-genus Corallinia, B., D., and D.
C. TAENIOGLOSSA.

Aquillidæ.
Aquillus, Montfort, 1810.
(type) A. cutaceus, $L$.
A. noclifer, Lam.

The genus Triton being preoccupied in other branches of the animalkingdom, we have used the above.
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## Oypræidæ.

Trivia, Gray, 1832.
T. europæа, Mont.

Ovula, Brug., 1789.
O. patula, Penn.

Erato, Rissc, 1826.
E. lævis, Donovan.

Aporrhaidæ.
A porrhais, Da Costa, 1778.
A. pes-pelicani, $L$.
A. Serresianus, Mich.

We have used this name in preference to Chenopus, Fhil. (1836), since it was adopted by Dillwyn and Gray prior to the publication of Chenopus.

## Cerithiidæ.

Triforis, Deshayes, 1825.
(type T. plicatus, Desh.)
T. perversus, $L$.

Bittium (Leach) Gray, 1847.
(type) B. reticulatum, Da Costa.
Cerithiopsis, Forbes and Hanley, 1849.
(type) C. tubercularis, Mont.
C. Barleei, Jeff.
C. Metaxæ, D. Ch.
C. costulata, Möll.
C. metula, Lovén.
C. pulchella, Jeff.

Trichotropidæ.
Trichotropis, Brod. and Sou., 1829.
(type) T. borealis, Brod. and Sow.
Turritellidæ.
Turritella, Lam., 1799.
(type) T. terebra, $L$.
Our species is now said not to be the true terebra of Linnerus, and perhaps we had best use the name of communis, Risso.

Cæcidæ.
Cæcum, Fleming, 1817.
(type) C. trachea, Mont.
C. glabrum, Mont.

Littorinidæ.
Littorina, Fér., 1821 ,
(type) L. littorea, $L$.
L. rudis, Maton.
L. neritoides, $L$.
L. obtusata, $L$.

For the last name it appears arlvisable to use Neritnides, Brown, as a sub-genus.

Lacuna, Turton, 1827.
(type) L. puteolus, Turton.
L. divaricata, Fabr.
L. pallidula, Da Costa.
L. crassior, Mont.

Homalogyridæ.
Homalogyra, Jeff., 1867.
H. atomus, Philippi.
H. rota, Forbes and Hanley.

Skeneidæ.
Slienea, Fleming, 1828.
(first species S. depressa, Mont. = S. planorbis, Fubr.)
S. planorlis, Fabr.

Adeorbiider.
Adeorbis, S. V. Wood, 1842.
A. subcarinatus, Mont.

Jeffreysiidæ.
Jeffreysia, Alder, 1849.
(type) J. diaphana, Alder.
J. opalina, Jef.
J. globularis, Jeff.
xviii.

Rissoiidæ.
Rissoia, Frém., 1813.
(type R. ventricosa, Desm.; an ally of R. membranacea.)

We prefer for the present to reserve our criticism of the sections of this group.

Barleeia, Clark, 1855.
(type) B. rubra, Mont.
Paludestrinidæ.
Paludestrina, D'Orb., 1840 .
The name Hydrobia having previously (as Hydrobius) been used in Coleoptera has been replaced by the above. The type of both genera is P. acuta, Drap. $=P$. ventrcsa, Mont.

Bithinia, Gray, 1940.
(type B. ventricosa, Gray = B. tentaculata, L.)
Viviparidæ.
Viviparus, Montf., 1810.
(type) V. vivipara, $L$.
Valvatidæ.
Valvata, O. F. Mïll., 1774.
(type) V. cristata, Müll.
Assimineidæ.
Assiminea (Leach), Fleming, 1828.
(type) A. Grayana, Leach.
Paludinellà, Pfeiffer, 1841.
P. littorina, D. Ch.

Truncatellidæ.
Truncatella, Risso, 1826.
Proposed by Risso for the two forms T. laevigata and T. costulata, both of which, as also T. truncatula, are synonyms of T. subcylindrica, L.

Pomatiasidæ.
Pomatias, Studer, 1789.
(type) P. elegans, Müll.
The departure of the familiar name Cyclostoma is to be regretted, but a reference to Studer's original description of Pomatias, and his fixed type, will prove the necessity of the alteration.

$$
\begin{aligned}
& \text { Aciculidæ. } \\
& \text { Acicula, Hartman, } 1821 . \\
& \text { (type) A. lineata, Drap. } \\
& \text { Capulidæ. } \\
& \text { Capulus, Montfort, } 1810 . \\
& \text { (type) C. ungaricus, } L . \\
& \text { Calyptræa, Lam., } 1799 . \\
& \text { (type) C. chinensis, } L .
\end{aligned}
$$

Lamellariidæ.
Lamellaria, Mont, 1811.
Montagu proposed this named for membranaceus, and haliotoidea, no special type being named. The former species belongs to Cuvier's earlier genus Pleurobranchus, and therefore the name is here used for the second species. These remirks are made, since authors recently have used Marsenic, which is many years later in date. Even if this be used the family name will not be Marseniado, as given by Dr. Bergh, but Marseniidce.

Velutina, Fleming, 1828.
(type) V. lævigata, $L$.
Naticidæ.
Natica, (Adanson) Scopoli, 1777.
According to Dr. Dall "it may be considered positively settled that the typical Natica has an umbilicus furnished with internal ribs, and a sulcate shelly operculum." Of our British species, catena, Da Costa; sordida, Philippi; Montacuti, Forbes ; graenlandica, Beek; and Alderi, Forbes, appear to belong to the section Naticina, Guilding (1834)-type N. nitida, Donovan; while N. islandica, Gmelin, should be placed in Amauropsis, Mörch.
xx .
D. Ptenoglossa.

> Ianthinidæ.
> Ianthina, Bolten, 1788.
> (typical species, I. nitens, Menke).
> I. rotundata, Leach.
> Scalidæ.
> Scala, Humphrey, 1797.
> (first species S. clathrus, L.)

Those interested in the reasons for preferring this name to Scalaria will find a valuable discussion by Dr. Dall in his "Mollusca of the Blake Expedition," 1839, pp. 299-307; our British species are well known.

Aclis, Lovén, 1846.
(type) A. supranitida, S. V. Wood.
Perhaps Graphis, Jeffreys, might be used as a sub-genus for A. unica, Mont., and Pherusa, Clark, for A. Gulsonce.
E. Gymnoglossa.

Eulimidr.
Eulima, Risso, 1826.
Risso's first species is $E$. elegantissima, which, fide Jeffreys, $=\boldsymbol{E}$. polita, L.

Stilifer, Brod, 1832.
Stylina, Fleming, which is earlier, is preoccupied by Lamarck. The proper name of our species is Stilifer stilifer, Turton, which is earlier than S. Turtoni, Brod.

Pyramidellidae.
Odostomia, Fleming.
The grouping and correct generic title for this group is under consideration.

Turbonilla, Risso, 1826.
(type T. plicatula, Risso).
This would include all the species near lactea, $L$.
Eulimella, Forbes, 1846.
(type) E. scillæ, Scacchi.
Includes also E. acicula, \&c.

## SUB-ORDER SCUTIBRANCHIATA.

## A. Rhiphidoglossa.

Neritidæ.

Neritina, Lam., 1809.
Turbinidæ.

Phasianella, Lam., 1808.
(type P. bulimoides, Lam.)
F. pulla, $L$.

We lack the courage to replace this well-known name by Eutropia, Humphrey, 1797.

Trochidæ.

We have followed, in general, Mr. Pilsbry in this group. It will be seen that the old name of Trochus has vanished from the list, as the genus is restricted to certain tropical shells. We have thought it of service to give a full list of our species.

```
Monodonta, Lam., 1801.
(type M. labio, L.)
    M. lineata, Da Costa.
Gibbula, Risso, 1826.
(type) G. magus, L.
    G. cineraria, L.
    G. obliquata, Gmel( = G. umbili-
        cata, Mont.)
    G. tumida, Mont.
Circulus, Jeff., 1865.
(type) C. striatus, Phil. ( = Duminyi,
        Req.)
```

xxii.

$$
\begin{aligned}
& \text { Valvatella, Gray, } 1857 . \\
& \text { (type) V. groenlandica, Chemn. ( }=\text { undu- } \\
& \text { lata, Sow), } \\
& \text { V. helicina, Fabr. } \\
& \text { V. olivacea, Brown ( }=\text { glauca, } \\
& \text { Moll.) } \\
& \text { V., cincta, Phil. ( = amabilis, Jeff.). }
\end{aligned}
$$

Valvatella is here used since Leach first proposed Margarita in 1814 for a group of the Aviculidæ, and had no right to shift his name to the Trochidæ subsequently. Those who do not admit the binomialism of Chemnitz will perhaps prefer the name of $V$. undulata, Sow., for the type species.

Calliostoma, Suainson, 1840.
(type C. conulus, L.)
C. zizyphinum, $L$.
C. occidentale, Migh. and Ad.
C. granulatum, Born.
C. miliaris, Brocchi ( $=$ millegranus, Phil.)
C. exasperatum, Penn.
C. striatum, $L$.
C. Montagui, Wood.

Cyclostrematidæ.
Cyclnstrema, Marryat, 1818.
Marryat's type seems to be C. cancellatum, a very different shell to our species; Delphinuloidea, Brown, is, as Jeffreys has remarked, "heterogeneous"; perhaps Tubiola, Adams, would be the best name to use, but the subject being rather uncertain, at present we use the old name.

Haliotidæ.
Haliotis, $L$.
(type) H. tuberculata, $L$.
Pleurotomariidæ.
Scissurella, D'Orb., 1823.
(type S. costata, D'Orb.)
S. crispata, Fleming.

Fissurellidæ.
Fissurella, Brug., 1789.
(Type F. nimbosa, an uncertain species, but certainly of this group.)

> F. græca, L.
> Emarginula, Lam., 1801.
> (type) E. fissura, L.
> E. rosea, Bell.
> Puncturella, Lowe, 1827.
> (type) P. noachina, $L$.

DuxG6EOS5A. Acmæidx.
Acmæa, Eschscholtz.
(type A. mitra, Esch.)
A. virginea, Mill.
A. testudinalis, Müll.

Lepetidæ.
Lepeta, Gray, 1847.
(type) L. cæca, Miull.
Pilidium, Forbes, 1849.
(type) P. fulvum, Müll.
Propilidiun, Forbes and Hanley, 1849.
(type) P. ancyloide, Forbes.
Patellidæ.
Patella, $L$.
(typical example) P. vulgata, $L$.
Patina, (Leach) Gray, 1847.
(type P. cærulea, Mont., non $L .=\mathrm{P}$. pellucidum, L.)
P. pellucidum, $L$.

The type species of Helcion, Montfort, is pectinata, Borr, and therefore the name can hardly be used for our British shell.
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## CLASS AMPHINEURA.

## ORDER POLYPLACOPHORA.

In this Order the recent monograph by Pilsbry has been followed in the main.

## SUB-ORDER EOPLACOİHORA.

Lepidopleuridæ.
Lepidopleurus, Risso, 1826.
(type L. cajetanus, Poli.)
L. cancellatus, Sow., 1839.
L. scabridus, Jeff., 1880.
L. onyx, Spengler, 1797 ( $=$ cinereus, auct., non $L$.)

Hanleya, Gray, 1857.
(type) H. Hanleyi, Bean.

SUB-ORDER MESOPLACOPHORA.
Ischnochitonidre.
Tonicella, Carpenter, 1873.
(type) T. marmorea, Fabr., 1780.
T. ruber, $L$.

Callochiton, Gray, 1847.
(type) C. lævis, Mont., 1803.
Trachydernon, Carpenter, 1863.
(example) T. cinereus, $L$. ( = marginatus, auct.)
T. albus, $L$.

Acanthochitidæ.
Acanthochites, Risso, 1826.
According to Mr. Pilsbry the first two species are probably our British forms.
A. discrepans, Brown, $18 \pm 5$.
A. fascicularis, $L$.

## CLASS SCAPHOPODA.

Dentaliidæ.

> Dentalium, $L$.
> (typical example D. elephantinum, L.)
> D.vulgare, Da Costa( $=$ Tarentinum, Lam.)
> D. entalis, L.
> D. striolatum, stimpson ( = abyssorum, Sars.)
> Siphodentalium, Sars, 1849.
> S. lofotense, Sars.
> Cadulus, Philippi, 1844.
> C. subfusiformis, Sars.
> C. Jeffreysi, Monterosato.

The classification of the Pelecypoda (frequently called also Lamelli branchiata) is a subject to which much attention has been given, especially by continental malacologists, but with results which, as yet, can hardly be called thoroughly satisfactory. Various schemes have been tried, of which, perhaps, the most familiar to British collectors (from its having been followed by Gwyn Jeffreys) is that founded on the presence or absence of siphons. This was proposed by D'Orbigny, but has now been generally abandoned, and we are chiefly concerned with that of Fischer, extended and rewritten by Pelseneer, and that of Neurnayer and Dall. By this it is not intended to imply that the systems of Fischer and Pelseneer, Neumayer and Dall, are respectively identical, but merely that they are founded on similar lines. The former are malacological, founded on the structure of the gills, the latter conchological, founded on the characters of the hinge. While admitting in favour of these last characters that their great value in classifying fossils renders them of perhaps greatergeneral applicability, still they appear to have as yet net been sufficiently tested, and the most satisfactory course, in
xxvi.
such a work as the present, will be to adopt the families (in general) of Fischer as used in his "Manuel de Conchyliologie," and to follow, with some minor modifications, the re-arrangement of these on Pelseneer's scheme as given by Mr. B. B. Woodward, Ann. Mag. Nat. Hist., ser. 6, Vol xi., pp. 156-159. It appears, again, that the five great divisions of Pelseneer, which result in the separation of families so nearly related as the Arcidæ and Nuculidæ, Aviculidæ and Mytilidæ, into different Orders can scarcely be justified ; and the explanation appears to be that our knowledge of the Pelecypoda has not yet arrived at a point where an ideal classification can be constructed. The grouping of the Families into Orders being therefore somewhat in an unsatisfactory state, the Sub-orders will alone be used as Orders, and the general arrangement of these will be a combination of the two schemes which follow; the difference in their order being due to the fact that in one case a commencement has been made with the highest forms, in the other the lowest. It should also be borne in mird that Sub-orders and Families found in British waters are alone shown here.

The two schemes consist of-(1) the Orders, Families, \&c., as arranged by Fischer in his "Manuel;" (2) Tischer's Families as arranged by Mr. B. B. Woodward on Pelseneer's scheme. They are printed side by side for comparison.

PELECYPODA.

FISCHER. WOODWARD.

TETRABRANCHIA.
Ostracea.
Ostreidæ.
Anomiidx.

## Pectinacea.

Limidæ.
Pectinidæ.

SEP'IIBRANCHIATA.
Poromyidæ. Cuspidariidæ.

EULAMELLIBRANCHIATA. Anatinacea.

Anatinidæ (ex. Poromya) Lyonsiidæ. Pandoridæ.

Mytilacea.
Aviculidæ.
Mytilidæ.
Arcacea.
Arcidæ.
Nuculidæ.
Sulmytilacea.
Unionidæ.
Astartidæ.
Kellyellidæ.
Erycinacea.
Erycinidæ.
Galeommidæ.
Cardiacea.
Cardiidæ.
Conchacea.
Cyprinidæ.
Veneridæ.
Cyrenidæ.
Ungulinidæ.
Donacidæ.
Psammobiidæ.
Solenidæ.
Myacea.
Mactridæ.
Myidæ.
Saxicavidæ.
Gastrochænidæ.
Aujesmacea.
Pholadidæ.
Teredinidæ.

Pholadacea.
Teredinidæ.
Pholarlidæ.
Gastrochæuidæ.
Myacea.
Solenidæ.
Myidæ.
Lutrariidx.
Cardiacea.
Cardiidx.
Veneracea.
Psammobiidx.
Cyrenidæ.
Veneridæ.
Cyprinidæ.
Tellinacea.
Scrobiculariidx.
Tellinidr.
Donacidæ
Mesodesmatidæ.
Mactridæ (ex. Lutraria).
Submytilacea.
Galeommidx.
Erycinidæ (ex. Montaruta).
Kellyellidæ.
Ungulinidæ.
Lucinidæ (inc. Montacuta).
Astartidæ.
Unionidæ.
Dreissensiidæ.
Modiolopsidæ.
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DIBRANCHIA.
Lucinqcea.
Lucinidæ.
Tellinacea.
Tellinidæ.
Scrobiculariidæ,
Anatinacea.
Cuspidariidæ.
Pandoridæ.
Lyonsiidæ.
Anatinidæ.

## PSEUDOLAMELLIBRANCHIATA.

Ostreidæ
Aviculidæ,
Pectinidæ.
Limidæ.
FILIBRANCHIATA.
Mytilidæ (ex. Dreissensia).
Anomiidx.
Arcidæ.
PROTOBRANCHIATA.
Nuculidæ.

The order therefore adopted is :-
Arcacea.
Fanily Arcidæ.

> Genus Arca, $L$.
> Barbatia, Gray.
> Pectunculus, Lam.
> Limopsis, Sassi.

Nuculacea.
Family Nuculidæ.
Genus Nucula, Lam.
Leda, Schum.
Ostracea.
Family Ostreidre.
Genus Ostrea, $L$.
Family Anomiidae.
Genus Anomia, $L$.

## Pectinacea.

Family Pectinidæ.
Genus Pecten, Müller.
Family Limidae.
Genus Lima, Brug.
Limea, Brown.
Mytilacea.
Family Mytilidæ.
Genus Mytilus, $L$.
Modiola, Lam.
Crenella, Brown.
Modiolaria, Lovén.
Family Aviculidæ.
Genus Avicula, Klein.
Pinna, $L$.

## Submytilacea.

Family Dreissensiidæ.
Genus Dreissensia, P. Van Beneden.
Fanily Unionidx.
Genus Unio, Phalipsson.
Anodonta, Lam.
Family Cyrenidæ.
Genus Sphrerium, Scopoli.
Pisidium, C. Pfeiffer.
Family Kelliidæ.
Genus Kellia, Turton.
Lasæa, Leach.
Lepton, Turton.
Montacuta, Turton.

## Family Galeommirł.

Genus Galeomma, Turton.
Family Kelliellidæ.
Genus 'Turtonia, Forbes and Hanley.
Family Ungulinidæ.
Genus Ptychina, Philippi (=Axinus). Diplodonta, Bronn.

## Family Lucinidæ.

Genus Lucina, Brug.
Loripes, Poli.
Family Astartidæ.
Genus Astarte, J. Sow.
Family Arcticidæ.
Genus Arctica, Schum. ( = Cyprina).
Isocardia, Klein.
Tellinacea.
Family Tellinidæ.
Genus Tellina, $L$. Gastrana, Schum.

Family Scrobiculariidæ.
Genus Scrolicularia, Schum. Syndosmya, Recluz.

Family Mesodesmatidæ.
Genus Ervilia, Turton.
Family Donacidæ.
Genus Donax, $L$.
Family Mactridæ.
Genus Mactra, $L$.
Lutraria, Lam.

## Cardiacea.

Family Cardiidæ.
Genus Cardium, $L$.
Lævicardium, Swainson.
Veneracea.
Family Veneridæ.
Genus Venus, $L$.
Meretrix, Lam.
Circe, Schum.
Dosinia, Scopoli.
Lucinopsis, Forbes and Hanley.
Tapes, Mühlfeldt.
Venerupis, Lam.
Family Psammobiidæ.
Genus Psammobia, Lam.
Myacea.
Family Myidæ.
Genus Mya, L.
Corbula, Brug.
Family Saxicavidæ.
Genus Saxicava, F. de Bellerue.
Family Solenidæ.
Genus Solen, $L$.
Cultellus, Schum.
Pharus, Leach.
Solecurtus, Blvlle.
Pholadacea.
Family Pholadidæ.
Genus Pholas, $L$.
Pholadidea, Turton.
Xylophaga, Turton.
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Family Teredinidæ.
Genus Teredo, $L$.
Family Gastrochænidæ.
Genus Gastrochæna, Spengler.

## Anatinacea.

Family Anatinidæ.
Genus Cochlodesma, Couthuoy.
Thracia, (Leach) Blainville.
Family Pandoridæ.
Genus Pandora, Brug.
Family Lyonsiidæ.
Genus Lyonsia, Turton.
Poromyacea.
Family Poromyidæ.
Genus Poromya, Forbes.
Family Cuspidariidæ.
Genus Cuspidaria, Nardo ( = Neæra).
It will be observed that the genus Axinus has been replaced by Ptychina, inasmuch as Kirby has previously made use of the name in 1817, Sowerby's genus not being published until 1821. Cyprina has been replaced by Arctica, since the former had been previously used by Linnæus in Fishes. Similarly Necra (Gray, 1834, non Robineau Devoidy, 1830) has been replaced by Cuspidaria; and the shell usually called Amphidesma castaneum has been called Ervilia nitens, Mont. Other changes have been dealt with in the systematic portion. The genus Saxicava might with advantage be provided with a sub-genus Panomya, Gray, for S. norvegica.


## THE MOLLUSCA OF DORSETSHIRE.

## Class CEPHALOPODA.

Order DIBRANCHIATA.

Sub-order Decapoda.

## SEPIIDÆ.

SEPIA, L., 1758.

1. S. officinalis, $L$.

Very common around our coasts, occasionally cast up on the shore, seldom taken alcwe; the well-known depressed, ovateoblong shell often seen on the sandy shore. Scarce in the north, very abundant in the Mediterranean.
Weymouth, Smallmouth sands, J. C. M.-P.
Studland Bay sands, J. C. M.-P.

LOLIGO, Lamarck, 1801.
2. L. media, $L$.

This squid is only about four inches long, with a body tapering to a point, flesh colour, with numerous reddish spots, transparent.
Kimmeridge Bay ; dredged alive and cast up on the shore, J. С. M.-P.

# Class GASTROPODA. 

Order PULMONATA.
Sub-order Geophila.

MONOTREMATA.

## TESTACELLIDE.

TESTACELLA, Cuv., 1800.

## 3. T. haliotidea, Draparnaud.

Not uncommon in the Metropolitan district, also in Guernsey; very common in the South of France.
"Proceedings" Dorset Natural History and Antiquarian Field Club, Vol. v., p. 138.
Gardens, The Down House, Blandford, J. C. M.-P.
Montevideo, Chickerell, N. Richardson.

## 4. T. maugei, Férussac.

This snail is seldom met with in England. It was originally (in 1801) noticed as a native of Teneriffe, and it appears also to be indigenous to Madeira, the Canary Islands, Portugal, and the South-west of France. Transported here probably with the earth attached to the roots of plants.
It is one of the few carnivorous land-mollusca, penetrating the soil to the depth of two or three feet or more, and preying voraciously upon earthworms, which it pursues through their galleries. It will devour a lob-worm larger than itself, seizing it in the middle, and cutting it in two. It has been seen swallowing one extremity of the worm while the other was twisting about in all directions. The teeth are recurved and sharp, and when once fixed in the worm there is no chance of escape. It is provided with a small shell near the posterior extremity, about one-fourth of its length.
"Proceedings" Dorset Natural History and Antiquarian Field Club, Vol. v., p. 139.
Corfe Castle Rectory, Eustace Bankes.

## VITRINIDE.

VITRINA, Draparnaud, 1801.
Inhabits cold, temperate regions. Generally distributed.
5. V. pellucida, Müll.

Lives in moist situations, in loose earth and decayed timber, moss, and under stones.
Ulwell; Whatcombe Park wall; old trees, Clenston Wood, J. C. M.-P.

## LIMACIDE.

AMALIA, 1855.
6. A. gagates (Draparnaud). Limax gagates, Drap.

Hedges, roots of grass, under walls.
Forbes and Hanley, Vol. iv., p. 25.
Portland, under a stone, at the foot of a thorn hedge, R. D. Darbishire.

Var. plumbea. Spettisbury, C. Ashford.
Fossil : Porthand, Ploistocene bed, near the Bill, Prestuich.
7. A. marginatus, Müller.

This slug is predatory, living especially on live worms and smaller slugs.
Under old walls, stones, and among dead leaves.
Generally distributed.
LIMAX, L., 1758.
8. L. flavus, $L$

Moist woods, cellars, damp places.
Generally distributed.
9. L. agrestis, $L$.

Woods, fields, gardens.
Moquin Tandon says this slug lays from 25 to 70 eggs at a time, and between the months of April and November it does not lay less than 200 . The eggs are hatched from the seventeenth to the twentieth day. The young attain their full development within three months.
Fossil : Pliocene.
10. L. arborum, Bouchard Chanteraux.

Frequents trees, especially the beech and walnut, under the bark of trees that have been felled and decayed. It is occasionally found under stones and among rocks. Professor E. Forbes found it creeping on stones and rocks 1,500 feet above the level of the sea in County Kerry.
East Lulworth, near the carpenter's yard, Kendall.
Weymouth, Damon.
Clenston Wood, J. C. M.-P.

## 11. L. maximus, $L$.

Woods, gardens, hedges, under old logs of wood. Generally distributed.

## 12. L. brunneus, Bouchard Chanteraux.

Regarded by Gwyn Jeffreys as a doubtful species and probably only a small variety of $L$. agrestis.
Wool, Kendall.
Whatcombe Park, J. C. M.-P.

## ARIONIDE.

## ARION, Ferussac, 1819.

## 13. A. ater, $L$.

Woods, hedges, fields, damp places.
Generally distributed.
Var. albolateralis, Roebuck ; Maiden Castle, T'. F. Brown.
14. A. hortensis, Férussac.

Like the preceding, the shell is granular, but the granules differ in being cemented together.
Lives under stones and dead leaves. Generally distributed.
15. A. circumseriptus, Johnston. Conchologist, Vol. i., p. 34, 35.
Var. americanus, Pollonera. Sturminster Marshall, T. D. A. Cockerell.
Var. subalbidus, Cockerell. T. D. A. Cockerell.

## ZONITID庣.

The forms so frequently called $Z$ onites still merit a thorough revision; for present purposes it seems wisest to follow Tryon and E. A. Smith, using their "sections" as genera and grouping them in the following way :-

## VITREA, Fitzinger, 1853.

16. V. crystallina (Müll.) Zonites crystallinus (Gray).

Purbeck Papers, Vol, ii., p. 44.
Under stones, among moss in woods, and damp places.
Very smooth, shining, hyaline, depressed.
Generally distributed.
Weymouth, Damon.
Wareham, Stoborough meadows, J. H. Austen.
Creech Grange Wood; Houghton Wood; Whatcombe Park, J. C. M.-P.

POLITA, Held, 1837.
17. P. cellaria, Müll. Zonites cellarius, Gray. Helix nitens (Mat. and Rack.)
Pulteney, p. 54, pl. 10, f. 22.
Cellars, under stones, drains, among grass.
Generally distributed.
Fossil: Blashenwell tufaceous deposit.
18. P. alliaria (Müll.) Zonites alliarius, Müll.

Glossy, amber colour, more transparent and fulgent than the preceding ; has a smell of garlic.
On stone walls, fallen timber, under stones.
Generally distributed.
Clenston Wood, under the bark of fallen trees, J. C. M.-P.
Smedmore, on walls under ivy, J. C. M.-P.
19. P. pura (Ald.) Zonites purus, Ald.

Among dead leaves and moss.
Bloxworth, C. O. P. Cambridge.
East Lulworth, Kendall.
Weymouth, Damon.
Houghton Wood, Whatcombe Park, J. C. M.-P.

Morden Park, J. C. M.-P.
Creech Grange Wood, J. C. M.-P.
Wilkes Wood, J. C. M.-P.
20. P. nitidula (Drap.) Zonites nitidulus, Drap.

Woods, under stones among moss and dead leaves.
Not uncommon.
East Lulworth, Kendall.
Clenston Wood, Houghton Stubbs, Whatcombe Park.
Langton Matravers, Leeson Wood, Mrs. Beccles; Wilkes Wood, Smedmore, J. C. M.-P.
Blashenwell Quaternary tufaceous deposit, Clement Reid.
21. P. padiatula (Alder.) Zonites radiatulus, Ald.

Under fallen trees, among dead leaves and moss.
Purbeck Papers, vol. ii., p. 44.
Bloxworth, C. O. P. Cambridge.
Weymouth, Danon.
Swanage, Godlingston, $R$. H. Sollen Smith.
Leeson Wood, Mrs. Beceles; Langton Matravers, Wilkes Wood, J. C. M.-P.
Whatcombe Park, J. C. M.-P.

Sub-genus Zonitoides, Lehmann.
22. Z. nitida (Müller). Zonites nitidus, Müll.

Under loose stones, decayed wood, and roots of grass especially in marshy places.
Weymouth, Damon.
Morden, Bere Regis, C. O. P. Cambridge.
Puncknowle, water-courses, and among the roots of grass, J. C. M.-P.

Chamberlaynes, Bere Regis, among the roots of grass, J. С. M.-P.

Houghton Stubbs, J. O. M.-P.
23. Z. excavata (Bean). Zonites excavatus, Bean.

Under fallen trees, among dead leaves, and moss in shady woods
East Lulworth, Kendall.
Weymouth, Damon.

CONULUS, Fitzinger 1833.
24. C. fulvus (Müll.) Helix fulva, Müll.

Robinson's Purbeck, p. 178.
Under decayed wood, leaves, stones, in woods and in marshy places.
Bloxworth, C. O. P. Cambridge.
Langton Matravers, in moss, Wilkes Wood Farm, R. H. Soden Smith.

## HELICIDA.

M. Pilsbry gives so exhaustive an account, both anatomical and conchological, in his "Manual," that we have followed him first, and place the last four genera as sections of Melix.

PUNCTUM, Morse, 1854.
25. P. pygmæum (Drap.) Helix pygmæa, Drap.

Purbeck papers, p. 44.
Robinson's Purbeck, p. 177.
Woods, moist places, under stones and dead leaves.
Godlingston, near Swanage, R. H. Soden Smith.
East Lulworth, Kendall.
Whatcombe Park, Houghton Stubbs, J. C. M.-P.
Smedmore, at the foot of stone walls, Swanage, Round-down, under stones, J. C. M.-P.
Fossil : Blashenwell, J. H. Austen.

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\text { PYRAMIDULA, Fitz., } 1833 .
$$

26. P. rupestris, Drap. Helix rupestris, Studer. H, umbilicata, Forbes and Hanley.
Pulteney, p. 19, f. 24.
Forbes and Hanley, Vol. iv., p. 81, pl. 121, f. 7, 8.
Mont. Test., Brit., p. 434, pl. 13, f. 2.
On rocks, walls, and stones.
Portland, under loose stones, Montayu; Mr. Sykes found 80 under one stone at Portland.
East Lulworth, Kendall.
Corfe Castle river, Montagu, very abundant. In Purbeck there is not a stone wall which is not the resort of this little snail, J. C. M.-P.
Puncknowle, stone walls, J. C. M.-P.
Houghton Stubbs, J. C. M.-P.
27. P. rotundata (Müll.) H. rotundata, Müll. H. radiata, Da Costa.
Pulteney, p. 54, pl. 20, f. 15, 16.
Under stones, logs of wood, bark of old trees.
Generally distributed.
Fossil : Blashenwell Quaternary tufaceous deposit.
HELIOMANES (Fér) Moquin-Tandon, 1855.
28. H. variabilis, Drap. Helix virgata Da Costa.

Puiteney, p. 53, pl. 20, f. 7.
Prit.-Conch, Vol. i., p. 210.
Downs, limestone, chalk pastures, and heather; exceedingly abundant on and near the sea coast,
Mr. Gwyn Jeffreys says the largest specinen of $A$. virgata that I have ever seen were collected by Mr. W. Thompson at Weymouth ; they are four-fifths of an inch in breadth.
Mr. Clement Reid sent me specimens of similar dimensions which he collected last year (1896) at Affpuddle. I have found them equally large at Puncknowle, J. C. M.-P.
Generally distributed.
Var. carinata, Jefireys. Winfrith, Daniel.
Weymouth, Damon.
White with translucent bands, Maiden Castle and Portland, E. F. Burrows.

Almost black with traces of lighter peripheral zones, Portland, E. R. Sykes.

Fossil: Portland, Pleistocene bed, cliff near the Bill, Prestwich.

## HELICELLA (Fer) Risso, 1826.

29. H. ericetorum (Müll.) Helix ericetorum, Müll.

Pulteney, p. 53, pl. 20, f. 8.
Dry heaths, downs, woods, hedge-banks.
Generally distributed.
Tilly Whim, J. H. Austen.
Especially large and dark banded; Gadcliff and Worbarrow, J. С. M.-P.

Var. alba, Charpentier.
Hedge-banks, Liscombe Bottom ; quarry on hill above Kimmeridge, J. C. M.-P.
Fossil : Blashenwell, Quaternary tufaceous deposit.

CANDIDULA, Kobelt, 1871.

30. C. caperata (Mont.) Helix caperata, Mont.<br>This is the Helix fasciolata of Poiret.<br>Pulteney, p. 53, pl. 19, f. 20.<br>Downs, on stalks of grass, under stones.<br>Generally distributed.<br>Worbarrow, Kentall.<br>Portland ; covers the downs and grassy lands, Damon.<br>Muston Down, above Winterborne Kingston ; Clenston ;<br>Liscombe Bottom, abundant, J. C. M.-P.<br>Banks of the Fleet, Abbotsbury, J. C. M.-P.

## COCHLICELLA (Fer) Risso, 1826.

31. C. barbara ( $L_{\text {I }}$ ) Helix acuta, Müll. Bulimus acutus, Forbes and Hanley.
Puiteney, p, 55, pl. 18, f. 8, 10.
Maton and Rackett, Transactions, Lin. Soc. Vol. viii., p. 210.
Abundance on the waste land on the chalk, Purbeck and Portland, Forbes and Hanley.
Bindon A bbey, abundant, Kendall.
Lulworth Cove, Maton and Rackett, E. R. Burrows.
Weymouth, sand banks between Ferry-bridge and Portland, Damon; The Nothe, J. C. M.-P.
Worbarrow Bay, J. C. M.-P.
Down, between Mewps Bay and Arish Mill, J. C. M.-P.
THEBA (Leach), Risso, 1826.
32. T. Cantiana (Mont.) Helix Cantiana, Mont.

Pulteney, p. 53, pl. 19, f. 21.
Hedges, wooded banks, and walls.
Stickland, high-road near Normandy Farm, Clement Reid; Spettisbury, Rackett, confirmed by Mr. Clement Reid, March, 1897.
Weymouth, Damon.

## FRUTICICOLA, Held, 1837.

33. F. hispida (L.) Helix hispida, $L$.

Pulteney, p. 54, pl. 21, f. 10.
Under stones, logs of wood, in moss and grass, woods, hedges.
Generally distributed.
Fossil : Blashenwell tufaceous deposit, Clement Reid ; Portland, Quaternary bed, near the Bill, Bullen.
34. F. concinna (Jeffreys). Helix concinna, Jeffreys. H. hispida (var. concinna), Forbes and Hanley.

Jeffreys separates this species from H. hispida. The shell is sub-conic and not globose as is the case with hispida and more glossy, the hairs more scattered, and the body of the snail is reddish-krown, instead of grayish-brown or slate colour.
Generally distributed.
Warehain ; banks of Frome, R. H. Soden Smith, Bloxworth, C. O. P. Cambridge.
Abbotsbury Swannery; banks of the estuary.
Bushy places, Chapman's Pool, St. Alban's Head, J. C. M.-P.
Houghton Stubbs, J. C. M.-P.
35. F. granulata, Alder. Helix sericea, Müll.

Brit. Conch, Vol. i., p. 201.
Under moss, hedge-banks, damp meadows.
Bloxworth, C. O. P. Cambridge.
Langton Matravers, Worth Wood, J. C. M.-P.
Stoborough, banks of river, left high and dry after floods, J. C. M.-P.

Chamberlaynes, Bere Regis ; water-courses and meadow, Houghton Stubbs, Whatcombe Park, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement Reid.
36. F. rufescens (Penn). Helix rufescens, Penn.

Pulteney, p. 53, pl. 20, f. 6.
Hedges, gardens, under stones, or decayed trees.
Generally distributed.
Puncknowle, extremely large and fine, double the ordinary size, J. C. M.-P.
Fossil : Blashenwell Quaternary tufaceous deposit, Dr. Turner.
37. F. fusca (Mont.) Helix fusca, Mont.

Woods, brambles, young trees, osier beds.
"Proceedings" Dorset Natural History and Antiquarian Field Club, Vol. xii., p. 104.
East Lulworth, Kendall.
Langton Matravers, on the lower road to Corfe Castle, J. C. M.-P.

Bloxworth; Bere Regis, C. O. P. Cambrildge.
Houghton Stubbs, J. C. M.-P.

ACANTHINULA, Beck, 1846.
38. A. aculeata (Müll.) Helix aculeata, Müll. Helix spinulosa, Lightfoot.
Pulteney, p. 54, pl. 19, f. 23.
Purbeck Papers, Vol. ii., p. 43. Robinson's Purbeck, p. 178.
Among dead leaves and in moss woods.
Bloxworth, C. O. P. Cambridge.
Langton Matravers, Leeson Wood, Mrs. Beccles; Quarleston Farm, F. W. Soden Smith.
Spettisbury, T. Rackett.
Weymouth, Damon.
Three miles N.E. of Dorchester, E. R. Sylies.
Fossil: Blashenwell tufaceous deposit, Clement Reid.
VALLONIA, Risso, 1820.
39. V. pulchella (Müll.) Helix pulchella, Müll.

Kobinson's Purbeck, p. 177. Purbeck Papers, Vol. ii., p. 43.
Under stones, logs of wood, in moss and roots of grass.
Portland, E. R. Sylies.
Weymouth, C. O. P. Cambridge.
Bloxworth, C. O. P. Cambridge.
Creech Grange ; Holme, and on the heaths, Purbeck Papers.
Swanage, Round Down, J. C. M.-P.
Whatcombe Park, J. C. M.-P.
Portland Quaternary bed, near the Bill, Bullen.
Fossil : Blashenwell Quaternary tufaceous deposit.
40. V. costata (Müll.) Helix pulchella, Var. costata, Müll.

Under stones, logs of wood, in moss and roots of grass.
Swanage, damp spots, R. H. Soden Smith.
East Lulworth, Kendall.
HELICIGONA (Fér), Risso, 1826.
41. H. lapicida (L.) Helix lapicida, $L$.

Pulteney, p. 52, pl. 20, f. 9.
Rocks, walls, woods, hedge-banks.
Generally distributed.
Especially abundant at Portland, E. R. Syles.
Bloxworth, C. O. P. Cambridge.
Gadeliff, abundant, Corfe Castle, J. C. M.-P.
Hedge-banks, Whatcombe, Houghton Wood, Liscombe, J. C. M.-P.

Fossil: Blashenwell Quaternary tufaceous deposit.

ARIANTA (Leach), Turton, 1831.

## 42. A. arbustorum (L.) Helix arbustorum, $L$.

Moist shady places, hedges, woods.
Bloxworth, C. O. P. Cambridge,
East Lulworth, Kendall.
Liscombe Bottom, J. C. M.-P.
Encombe, Swyre Hill, Creech Grange Wood, J. C. M.-P.
Stoke Wake Hill, Houghton Wood, with three bands round the last whorl, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement Reid.

CRYPTOMPHALUS (Agassiz), Charpentier, 1857.
43. C. aspersa, Müll. Helix aspersa, Müll. H. hortensis, Pulteney.

Pulteney, p. 55, pl. 20, f. 1.
Woods, gardens, where they are especially abundant.
Generally distributed.
Occasionally found in ancient interments.

TACHEA (Leach), Turton, 1831.

## 44. T. nemoralis (L.) Helix nemoralis, $L$.

Pulteney, p. 54, pl. 21, f. 1, 2, 3, 4, 8.
Woods, gardens, and hedges.
Generally distributed.
Var. hybrida, Poiret, Rodwell, Weymouth, Damon.
Var. major, East Lulworth, Kendall ; Gadcliff ; brilliantly coloured with broad dark brown bands, which nearly equal the ground colour of the shell, J. C. M.-P.

Var. minor, Jeffreys, Weymouth, Damon.
Fossil : Blashenwell Quaternary deposit.
45. T. hortensis (Müll.) Helix hortensis, Müll.

Pulteney, pl. 21, f. 6.
Differs usually from the preceding by the white peristome and rib of the same colour. This difference is not always constant.
Generally distributed.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement Reid.

EUPARYPHA, Hartman, 1842.
46. E. pisana (Müll.) Helix pisana, Müll. H. cingenda, Pult.
Pulteney, p. 52, pl. 18, f. 5.
"Proceedings" Dorset Natural History and Antiquarian Field Club, Vol. xii, p. 104.
Between Lulworth and Weymouth (very vayue), Pulteney; Muston Down, Winterborne Kingston, C. O. P. Cambridge.
Mr. Cambridge found only two specimens. This shell is restricted usually to the immediate neighbourhood of the sea.

## PUPIDE.

BULIMINUS, Ehrnbg, 183].
47. B. obscurus (Mïll.) Bulimus obscurus, Müll. Helix obscura, Gmel.
Pulteney, p. 55, pl. 19, f. 17.
Mont. Test. Brit., p. 391, pl. 22, f. 5.
Upon trunks of trees, among dead leaves in woods, on walls, and rocks.
Portland, on the highest parts, under stones, Montagu.
Bloxworth, C. O. P. Cambridge.
East Lulworth, Kendall, E. F. Burrows.
Worth Matravers, Seacombe Quarries, Encombe and Chapman's Pool, Smedmore, walls, and under ivy, Gadcliff, J. C. M.-P.

Houghton Wood, J. C. M.-P.
Fossil : Blashenwell Quaternary tufaceous deposit.
Var. alba, Jeffreys. Lulworth, Jeffreys.
48. [B. montanus, Draparnaud. Bulimus montanus, Drap.

Lives on trunks of trees, chiefly beech, ash, and hornbeam, in the woods of southern and western counties.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement Reid.]

## PUPA, Drap.

49. P. secale, Drap, 1835. Turbo juniperi, Mont.

Pulteney, p. 51, pl. 19, f. 11.*
Maton and Rackett, Trans. Linn. Soc., Vol. viii., p. 182.
Brit. Conch, Vol. i., p. 243.
Purbeck Papers, Vol. ii., p. 45.
Rocks, cliffs, hills, woods.
Abbotsbury Hill, near St. Catherine's Chapel, Byer.
Portland, C. O. P. Cambridge.
East Lulworth (rare), Jeffreys, E. R. Sylies.
Gadcliff, J. C. M.-P.
Swanage, cliffs, Durleston Bay ; Round Nown, J. C. M.-P.
50. P. umbilicata, Drap.

Pulteney, p. 51, in part.
On walls and rocks, under stones, and among dead leaves, and under bark of trees.
Generally distributed.
Very abundant in the Isle of Purbeck; on the walls about Smedmore House.
Ulwell, near Swanage, J. C. M.-P.
Houghton Wood, J. C. M.-P.
Fossil : Blashenwell Quaternary tufaceous deposit, Clement Reid.
51. P. muscorum (L.) P. marginata, Drap. Turbo muscorum, $L$.
Pulteney, p. 51, in part.
Brit. Conch, Vol. i., p. 249.
Under stones, roots of grass, and dead leaves.
Less common than the preceding.
Weymouth, Pulteney.
Houghton Stulbs, J. C. M.-P.
Var. bigranata, Rossnc.
Lulworth, Jeffreys.
Fossil : Portland, Quaternary bed, cliff near the Bill, and Chesilton, Prestwich.

VERTIGO, Muill, 1774.

## 52. V. antivertigo (Drap.) Pupa antivertigo, Drap.

Under stones and fallen timber, on water plants, and in marshy places.
East Lulworth, Kemdall. Bloxworth, C. O. P. Cambridge.
Wool, near the railway station, Kendall.
Morden Park Lake, on reeds, J. C. M.-P.
53. V. pygmæa (Drap.) Pupa pygmæa, Drap.

Brit. Conch., Vol. i., p. 258.
Robinson's Purbeck, p. 178.
Under stones, logs of wood, or roots of grass.
Chapman's Pool, among moss (rare), R. H. Soden Snith.
Bloxworth, C. O. P. Cambridge.
East Lulworth, E. Kendall.
Weymouth, near the two-mile-stone, Dorchester main-road, C. O. P. Cambridge.

Houghton Stubbs, J. C. M.-P.
Var. pallida, Jefireys. Bindon Meadows, Wool, Daniel.
54. V. edentula (Drap.) Pupa edentula, Drap.

Robinson's Purbeck, p. 178.
Woods, under leaves, roots of trees, reeds.
Frequent and well diffused in the Purbeck district, R. H.
Soden Smith.
Bloxworth, C. O. P. Cambridge.
East Lulworth, Cole Wood, Kendall.
Chapman's Pool, Encombe, R. H. Suden Smith.
Morden Park Lake, on Sparganium, J. C. M.-P.
Whatcombe Park, J. C. M.-P.
55. V. pusilla (Müll.) Pupa pusilla, Müll.

Under stones and among dead leaves and moss in woods.
Mewps Bay, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement
Reid.
56. V. minutissima (Hartmann). Pupa minutissima, Hartmann.
Brit. Conch., Vol. i., p. 270.
Under stones, dead leaves, in moss.
East Lulworth, G. Jeffreys.
Portland, common on the east coast, E. R. Sykes; Weymouth, Osmington, C. O. P. Cambridge.

## BALEA, Prideaux.

57. B. perversa (L.) Turbo perversa, L. Balea fragilis, $L$.
Pulteney, p. 51.
On trunks of trees, rocks, and walls covered with lichen.
East Lulworth, Kendall.
Weymouth, Damon.
Bloxworth, C. O. P. Cambridge.
Smedmore, J. C. M.-P.
Whatcombe Park ; Clenstone Wood, J. C. M.-P.
CLAUSILIA, Drap, 1805.
58. C, rugosa, Drap. bidentatus, Ström. C. nigricans (Maton and Rackett).
Pulteney, p. 51, pl. 19, f. 10.
On walls, rocks, moss, under stones, and on trees.
Generally distributed.
Abundant on stone walls, Smedmore, J. C. M.-P.
Hedge-banks, Lisconibe Bottom ; Milton Park wall, south side; among moss, Houghton Stubbs; Whatcombe Park, J. C. M.-P.
Fossil: Blashen well Quaternary tufaceous deposit, Clement Reid.
59. C. laminata (Mont.) Turbo laminatus, Mont.

Pulteney, p. 51, pl. 19, f. 9.
Trunks and roots of trees, especially on the beech, and bushy cliffs.
Ploxworth, C. O. P. Cambridge.
Hedge-banks, Bagber, Miltoa Albas, Clement Reid.
East Lulworth, Kendall; Liscombe Bottom, J. C. M.-P.
Grange Wool, on heech trees; Studland, bushy places, Old Harry, J. C. M.-P.
Var. albida, Jeffreys. East Lulworth, F. Burrows.
Fossil: Blashenwell Quaternary tufaceous deposit.
60. C. Rolphii, Gray.

Under stones, among dead leaves, and in the bark of trees.
This shell has hitherto been found only in Kent, Sussex, Hants, and Gloucestershire, occurring in a few places. As it is associated in the neighbouring county of Hants with Helix obvoluta and Buliminus montanus, it is not improhable that these too may be found at Liscombe.
This species is an Upper Tertiary fossil.
Liscombe Bottom, among dead leaves, J. C. M.-P.

## STENOGYRIDE.

COCHLICOPA (Fér), Risso, 1819.
61. C. lubrica (Müll.) Zua lubrica, Müll. Helix lubrica, Mont.

Pulteney, p. 55, pl. 21, f. 18.
Under stones, logs of wood, on moss and dead leaves.
Whatcombe Park; Houghton Stubbs; Chamberlaynes, Bere Regis, J. C. M.-P.
Smelmore ; Wareham, Stoborough Meadows, J. C. M.-P.
Fossil : Blashenwell Quaternary tufaceous deposit.

## CECILIOIDES (Fér), Blainville, 1817.

62. C. acicula (Müll.) Achatina acicula, Müller.

Robinson's Purbeck, p. 117.
Under stones, ronts of trees, grass, bushes, usually beneath the surface.
Portland, C. O. P. Cambridge ; Weymouth, Damon.
Ulwell, near Swanage, at base of Chalk-range; Punfield, J. C. M.-P.

Houghton Stubbs, J. C. M.-P.
Fossil : Blashenwell Quaternary tufaceous deposit.

AZECA, Leach, 1818.
63. A. tridens (Pult.) Cochlicopa tridens (Pult.) Turbo
tridens, Pult. tridens, Pult.
Pulteney, p. 51, pl. 19, f. 12. Mont. Brit. Test., p. 338.
Maton and Rackett, Trans. Lin. Soc., Vol. viii., p. 181.
Among herbage and damp moss in woods, rare.
Stour river, on water plants, Pulteney.
Fast Lulworth; Bindon, river Frome, Kendall.
Montagu says: "The species here described we received from
Dr. Pulteney, who has given it a place in his catalogue of Dorsetshire shells, and who says he has found it on water plants by the river Stour."

## SUCCINEIDE.

SUCCINEA, Drap, 1801.
64. S. putris (L.) Helix putris, $L$.

Pulteney, p. 56, pl. 18, f. 19.
On water places, mud, and moist places.
Generally distributed.
Var. with a thickened white outer lip, pond between Whitechurch and Milborne, T. Rackett.
65. S. elegans, Risso.

Similar in habits to $S$. putris.
Generally distributed,
Spettisbury, Dorset (C. Ashford).
Chamberlaynes, J. C. M.-P.
66. [S. oblonga, Drap. Proceedings Dorset Nat. Hist. and Ant. Field Club, Vol. xvi., p. 173, 174.

This shell is rare and local in Britain.
Fossil : Portland Quaternary bed, cliff near the Dill, Prestwich, E. R. Sykes.

Not now living in Dorset.]

# Class DITREMATA. 

Order GEHYDROPHILA.

## AURICULIDE.

CARYCHIUM, Müller, 1774.
67. C. minimum, Müll.

Pulteney, p. 52, pl. 19, f. 13.
Under stones, logs of wood, roots of grass, among moss and dead leaves.
Generally distributed.
East Lulworth, Kendall.
Weymouth, Damon.
Bryanston, among moss ; Whatcombe Park, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, Clement Reid.

## ALEXIA (Leach), Gray, 1847.

68. A. denticulata (Mont.) Conovulus denticulatus, Mont.

Purbeck Papers, Vol. ii., p. 45.
On mud-flat sand salt-marshes, under stones, on coast cliffs, sometimes far higher than high-water-mark.
Weymouth, Lodmoor, salt-marshes, Bryer.
River Frome, below Wareham, under tidal influence, J. H. Austen.

Portland, associated with the white variety, very large and abundant locally, E. R. Sylies.
Tilly Whim, Swanage; Dancing Ledge, Langton Matravers, J. C. M.-P.
69. A. bidentata (Mont.) Conovulus bidentatus, Mont.

Crevices of rocks near high-water mark, or where the spray of the sea only occasionally reaches.
Sandsfoot Castle, Weymouth ; Portland ; Fleet ; plentiful under stones between tide-mark in company with Truncatella truncatula and Rissoa littorea, E. R. Sylies.
Kimmerilge Bay in crevices of rocks, at and ahove highwater mark, associated with Lascea rubra and Otina otis.
Var. alba, Turton. Weymouth, Damon.

## HYGROPHILA.

## LIMN ÆIDE.

ANCYLUS, Geoffrey, 1767.
70. A. fluviatilis (Müll.) Patella lacustris, $L$.

Pulteney, p. 58, pl. 22, f. 8. Brit. Conch, Vol. i., p. 102.
Purbeck Papers, Vol. ii., p. 42.
On submerged stones and on the under side of water plants.
East Lulworth, Arish Mill, G. Jeffreys.
Weymouth, Damon.
Ulwell Bottom, near St. Alban's Head, J. H. Austen; Godlingston, Swanage, J. C. M.-P.
Spettisbury, Stour ; Chamberlaynes river, Bere Regis, J. С. M.-P.

Var. capuloides, Jeffreys. Corfe river (very rare), G. Jeffreys.
Var. gibbosa, Jeffreys. Osmington Mills, Gr. Jeffreys.
Var. albida, Jeffreys. Arish Mill, G. Jefreys.
71. A. lacustris (L.) A. oblongus, Forbes and Hanley. Patella oblonga, Lightfoot.
Pulteney, p. 58, pl. 18, f. 20, and pl. 22, f. 8.
Purbeck Papers, Vol. ii., p. 46.
Similar habits to the preceding.
On plants in the river Stour, T. Rackett; Stour, Spettisbury, and Chamberlaynes river, J. C. M.-P.
Corie River, Swanage, stream, J. H. Austen; Ulwell; Bottom, between St. Alban's Head and Chapman's Pool, J. C. M.-P.

## OTINIDE.

OTINA, Gray, 1847.
72. 0. otis, Turton.

Very local, confines itself to the crevices of rocks, between tide-marks.
Kimmeridge Bay, associated with Lascaa rubra and Alexia bidentatus, J. C. M.-P.

LIMN世A, Lam.
73. L. peregra, Müll. Helix putris, Pen.

Pulteney, p. 56, pl. 12, 613, and pl. 21, f. 13. Generally distributed.

Var. succinæformis, Jeff. Extremely common.
Var. labiosa, Jeffreys. Morden Park Lake, J. C. M.-P.
Forsch Portland, Quaternary bed, cliff near the Bill, and at Chesilton, Prestwich.

## 74. L. auricularia (L.) Helix auricularia, $L$.

Pulteney, p. 21, pl. 56, f. 17.
Marshes, slow streams, ponds.
Less common than the preceding.
Generally distributed.
Wareham, Stoborough Meadows, J. C. M.-P.
Spettisbury, Stour, J. C. M.-P.; Weymouth, Dampn.
Var. acuta, Jeff.
Mr. Jeffreys says: "It is apt to be infested, as well as its congeners, by an annelid allied to the Nais vermicularis of Muiller, which usually takes up its abode between the neck and mantle and over the tentacles of the molluse, incessantly vibrating, and apparently not parasitic but feeding on animalcules." Brit. Conch., Vol. 1, p. 109.

## 75. L. stagnalis (L.) Helix stagnalis, $L$.

Pulteney, p. 55, pl. 21, f. 11.
Slow rivers, ponds, and narshes.
East Lulworth, Kendall.
Holwell, H. H. Wood.
Weymouth, Damon.
Bryanston, river Stour, J. C. M.-P.
Chamberlaynes, Bere Regis river; Almer, in a pond near the turn off to Spettisbury, J. C. MI.-P.
Wareham, Stoborough meadows, ditches, J. C. M.-P.
76. L. palustris, L. Helix palustris, Gmel.

Pulteney, p. 55, pl. 18, f. 18.
Purbeck Papers, Vol. ii., f. 46.
Marshes, ponds, ditches.
Holwell, H. Wood.
Weymouth, Damon.
East Lulworth, Kendall.
Chamberlaynes, Bere Regis.
Langton Matravers, Wilkes Wood; Wareham, Swanage, J. H. Austen. Stoborough Meadows, J. C. M.-P.

Var, tincta. Dorsetshire, G. Jeffreys.
77. L. truncatula (Müll.) Helix fossaria, Mont.

Pulteney, Racketts ed., p. 56, pl. 18, f. 17.
Banks of slow and muddy rivers, marshes, and wet places.
It is nearly amphibious.
Weymouth, Damon; Abbotsbury, ditches near Chesil Beach, J. C. M.-P.

Chamberlaynes, Bere Regis, J. C. M.-P.
Bryanston Park, Whatcombe, river-course, J. C. M.-P.
Encombe, Chapman's Pool, Wareham, Stoborough Meadows, ditches, J. C. M.-P.
Blashenwell, water-course, J. H. Austen.
East Lulworth, Bindon Meadows, Kendall.
Var. minor, Jeffreys. Langton Matravers, Wilkes Wood, J. C. M.-P.
Portland, Quaternary bed, cliff near the Bill, Prestwich.
Limnoea truncatula is supposed to be made use of as the nurse of the liver-fluke frascioia hepatica, an entozoa belonging to a group of the animal kingdom, whose mode of propagation is by what is termed the alternation of generations, in which each individual is unlike its immediate parent and offspring.
78. L. glabra, Müll. Helix octanfracta, Mont.

Pulteney, p. 55, pl. 18, f. 11.
Ditches and ponds; not common.
Purbeck Papers, Vol. ii., p. 46.
Lytchett, T. Rackett.
Weymouth, Damon.
East Lulworth ; Morden, streamlet, Kendall.
Spettisbury, river Stour, J. C. M.-P.
Stoborough meadows, Wareham, J. H. Austen.

AMPHIPEPLEA, Nillsson, 1822.

## 79. A. glutinosa (Müll.) Limnæa glutinosus, Müll.

Ponds and water-courses ; rare.
Mantle very expanded, with which the animal when in the water nearly envelopes its shell, but withdraws it when touched.
Chamberlaynes river, Bere Regis, J. C. M.-P.

PLANORBIS, Guettard, 1756.
80. P. nitidus, Müller. Helix fontana, Mont.

Pulteney, p. 53, pl. 19, f. 19.
Mont. Test. Brit., Vol. ii., p. 462, pl. 6, f. 6.
Ponds, marshes, stagnant water.
Wareham, ditches, Montagu; Stoborough Meadows, J. C. MI.-P.
Chamberlaynes river, Bere Regis, water-courses, J. C. M.-P.
Morden Park Lake, J. C. M.-P.
81. P. contortus, (L.)

Purbeck Papers, Vol. ii., p. 47.
On water plants in marshes, slow rivers, lakes.
Weymouth, Damon.
Wool, Bindon Meadows, Kendall.
Wareham, Stolorough Meadows, and river, J. C. MI.-P.
Chamberlaynes, Bere Regis, rare, J. C. M.-P.
Sturminster Newton, near Lididon, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, J. C. M..P.

## 82. P. nautileus (L.) Turbo nautileus, (L.)

Pulteney, p. 50, pl. 19, f. 16.
Robinson's Isle of Purbeck, p. 178.
Water-plants in marshes, lakes, nonds, slow rivers.
Wareham, water-courses, Stoborough Mendows, J. C. M.-P.
Swanage, Newton Manor, R. W. Soden Smith; Encombe, Chapman's Pool, J. C. MI.-P.
Lulworth Castle, pond at South Lodge-gate, Damon; Weymouth, Daniel.
Sturminster Marshall, water-courses, J. C. M.-P.
83. P. albus, Müll. Helix alba, Mont.

Pulteney, p. 53, pl. 19, f. 18.
Marshes, ponds, ditches.
Generally distributed.
84. P. spirorbis (Müll.) Helix spirorbis, L.

Pulteney, p. 53, pl. 20, f. 17.
On plants in shallow and stagnant water.
Generally distributed.
85. P. vortex (L.) Helix vortex, $L$.

Pulteney, p. 52, pl. 20, f. 12. Purbeck Papers, Vol. ii., p. 47.

On water-plants in shallow water.
Generally distributed.
Weymouth, Damon.
Swanage, stream, J. H. Austen.
Wareham, water-courses, Stoborough Meadows, J. C. M.-P.
Chamberlaynes, Bere Regis, J. C. M.-P.
Spettisbury, river Stour, J. C. M.-P.
86. P. carinatus (Müll.) Helix planata, Maton and Rackett.

Pulteney, p. 52, pl. 20, f. 18,
On water-plants, marshes and stagnant water.
East Stoke; Woolbridge, river Frome ; Wareham, Stoborough Meadows, J. C. M.-P.
Morden Park ; Chamberlaynes, Bere Regis, J. C. M.-P.

## 87. P. complanatus (L.) P. marginatus, Drap. Helix planorbis, Pult.

Pulteney, p. 52, pl. 14, f. 8, and pl. 20, f. 10.
Purbeck Papers, Vol. ii., p. 46.
Marshes, ponds, and slow streams.
East Lulworth, Kendall.
Bryanston, river Stour, J. O. M. $\cdot P$.
Wareham, water-courses, Stoborough Meadows, J. H. Austen.
Chamberlaynes, Bere Regis, river, Morden Park Lake, J. C. M.-P.

## 88. P. corneus (L.) Helix cornea, $L$.

Montagu Test. Brit., p. 428.
"Proceedings" of Dorset Natural History and Antiquarian Field Club, Vol. xii., p. 103.
Slow streams, ponds, ditches.
The largest of the European species of Planortis; Montagu
describes it as plentiful in some parts of Ingland, but that
he had not found it further westward than in Dorsetshire.
Weymouth, C. O. P. Cambridge.
89. [P. glabra, Jeffreys.

On aquatic plants in marshes, lakes, and ponds.
A rare British shell, and occurs as early as the Upper Tertiary period.
Fossil : Quaternary bed, Chesilton, Portland, Prestwich.
There is no record of a Dorset living specimen.]
90. P. parvus, Suy. P. glaber, Jeff:

This shell is local, although its range is wide. Jeffreys records only 20 British localities (1862).
Portland, Quaternary deposit, cliff near the Bill, Prestwich.

## PHYSIDE.

PHYSA, Drap., 1801.
91. P. fontinalis, (L.) Bulla fontinalis, $L$.

Pulteney, p. 43, pl. 21, f. 6. Montagu, Test. Brit., Vol. i., p. 228. Purbeck Papers, Vol. ii., p. 46.

On aquatic plants in streams and ditches.
Weymouth, Danon.
Dorchester, Fordington meadows, water-courses, J. C. M.-P.
Chamberlaynes, Bere Regis, J. C. M.-P.

Sturminster Marshall, J. C. M.P.
Swanage, stream; Blashenwell meadows, J. H. Austen; Wareham, Stoborough meadows, J. C. M.-P.
Physa fontinalis, in common with other water mollusca, as Limncea glutinosa, L. stagnalis, and Bythinia tentaculata, have the power of thread-spinning for suspension. Montagu, at the beginning of the century, noticed this habit. He says: "Physa (Bulla) fontinalis has a very considerable locomotive power, and transports itself by alhering to the surface of the water, with its shell downward, against which it crawls with as much apparent ease as on a solid body, and will sometimes let itself down gradually by a thread affixed to the surface of the water."

APLEXA, Fleming, 1828.

## 92. A. hypnorum (L.) Physa hypnorum (L.) Bulla hypnorum $L$.

Pulteney, p. 43, pl. 18, f. 20. Purbeck Papers, Vol. ii., p. 46. Robinson's Purbeck, p. 178.
Upon aquatic plants, in ponds, ditches, wet splashy places which are dry in summer.
Weymouth, Damon; East Burton, ditches, Kendall. Langton Matravers ; Wilkes Wood, R. H. Soden Smith. Swanage, stream ; water-course, Blashenwell, J. H. Austen. Wareham, water-courses; Stoborough Meadows, J. C. M.-P.
Chamberiaynes, Bere Regis, water-courses, J. C. M.-P.
Mr. Sheriff Tye, speaking of Aplexa ( Physa) hypnorum, says:
"In one case I saw three of these and a Linnocea glabra upon the thread of one of the former at one time. Often when the two Physce met on the same thread they fought only as mollusca of this genus can, and the manœuvres they went through upon this fairy ladder outdid any that the cleverest gymnast could perform. I once saw one ascending, and when it was overtaken by another then came the tug-of-war ; each tried to shake the other off by repeated blows and jerks of its shell and body in a most excited manner. Neither being able to gain the mastery, one began to descend, followed by the other, which it overtook and reached the bottom first."-Quarterly Journal of Conchology, November, 1878.

## Order OPISTHOBRANCHIATA.

Sub-order Nudibranchiata.

## DORIDIDÆ.

DORIS, L., 1758.
93. D. tuberculata, Cuv.

Weymouth Bay, dredged ; Sandsfoot, rocks, E. R. Sylees.

## POLYCERIDE.

THECACERA, Fleming, 1838.
94. T. pennigera (Mont.)

Weymouth, dredged in ten fathoms, W. Thompson.
ANCULA, Lovèn, 1846.
95. A. cristata (Ald.)

Weymouth, dredged ; Sandsfoot Castle, rocks, E. R. Sylies.
TRIOPA, Jolnston, 1838.
96. T. clavigera, Müll.

Weymouth, dredged ten fathoms, E. R. Syles.

## ÆOLIDIDÆ.

EOLIS, Cuvier, 1798.
97. ※. Landsburghi, Alder and Hancock.

Weymouth, Sandsfoot, E. R. Sykes.
98. Æ. papillosa (L.)

One of the largest of the family, attaining a length of three inches.
Weymouth, "Once appeared in hundreds at the mouth of the Fleet," E. R. Sylies.
Kimmeridge Bay, dredged, several, J. C. M.-P.

## A. CEPHALASPIDEA. ACTÆONIDÆ.

ACTEON, Montfort, 1810.
99. A. tornatilis (L.) Tornatella fasciata (L.) Voluta tornatilis, $L$.
Pulteney, p. 44, pl. 14, f. 2.
Weymouth, Bryer ; E. R. Sykes.

## TORNATINIDE.

## RETUSA.

100. R. obtusa, (Mont.) Cylichna cylindracea, Mont. Bulla cylindracea, Pennant.
Pulteney, p. 43, pl. 18, f. 22. Mont. Test. i., p. 21, pl. 7, f. 2.
Inhabits various depths, occasionally cast ashore, Weymouth, (Pulteney) W. Thompson.
Between South Haven and Studland, Carleton Green.
Challenger Expedition, Ascension Island.
Fossil : Coralline and Red Crags.
101. R. truncatula (Brug). Utriculus truncatulus, Brug. Cylichna truncata, Mont.
Forbes and Hanley, Vol. iii., p. 510, pl. 114, f. 7, 8.
Brit. Conch., Vol. iv., p. 421, 422.
Not uncornmon in the Laminarian zone.
Weymouth, dredged, W. Thompson.
Var. pellucida (Bro.)
Weymouth, G. Jeffreys.
Porttound Fossil: Coralline Crag., Raised Beach, Prestwich.
102. R. hyalina (Turton). Amphisphypa hyalina, Turt.

Forbes and Hanley, Vol. iii., p. 521, pl. 114, f. 1, 2.
Lives in the Laminarian zone.
Weymouth, dredged, 50 fathoms (dead), Forbes and Hanley, Poole Harbour, back of Hook, W. Turner.

## SCAPHANDRIDÆ.

SCAPHANDER, Montfort, 1810.

## 103. S. lignarius, $L$.

Pulteney, p. 43, pl. 23, f. 9. Da Costa, p. 26.
Weymouth Bay, W. Thompson.
Portland (one specimen), E. R. Sykes.
Da Costa mentions having received this shell from Dorsetshire.
Fossil : Coralline and Red Crag.

## AKERID风.

AKERA, (Mïll.) 1776.
104. A. bullata, Müll. Bulla akera, Gmel.

Pulteney, p. 43, pl. 22, f. 13.
Forbes and Hanley, Vol. iii., p. 527, pl. 114d, f. 4, 5, 6.
Inhabits the Littoral zone among Zostera; is only locally abundant.
Poole, Ham shore, T. Rackietts.
The Fleet, five miles above Portland Bridge, where it is very small, E. R. Sylies.
Weymouth, the mud at high water-mark is fringed with them, S. Hanley ; among Zostera, W. Thompson.
Poole, Barlee; Poole Harbour, back of Hook, dredged, living, Dr. Thrner ; Harbour, shore near the mouth, south side, thrown up dead very abundant, J. C. M.-P.

HAMINEA (Leach), Gray, 1847.

## 105. H. hydatis (L.) Bulla hydatis, $L$.

Pulteney, p. 43, pl. 23, f. 10.
Forbes and Hanley, Vol. iii., p. 530, pl. 114d, f. 7.
Inhabits the Laminarian zone.
Portland Roads, dredged (alive), E. R. Sykes.
Weymouth, Jeffreys.
Poole, on the sands within the Harbour, Dilwynn; back of
"Hook" and "Lake" within the Harbour, Dr. Turner.
Swanage Bay, dredged, J. C. M.-P.

## PHILINIDE.

## PHILINE, Ascanias, 1772.

106. P. aperta, $L$.

Pulteney, p. 43, pl. 22, f. 3.
Inhabits muddy ground at various depths between low-water mark and 30 fathoms, Pulteney.
Weymouth, "All I know were fished up at Weymonth and not anywhere else on the British Coasts. They are, however, not frequent, so that it seems a rare shell," Pulteney. Weymouth Bay, 4 fathoms dredged, W. Thompson.
Poole Harbour, back of Hook, dredged (alive), Dr. Turner.
Studland, Old Harry, dredged (alive), Dr. Turner; Studland Bay, dredged (alive), on the sea-shore (dead), J. C. ML.-P.
Kimmeridge Bay, off Gadeliff, dredged, J. C. M.-P.
Cape Verde Islands and Madeira, 7 to 25 fathoms, Challenger Expedition.

## 107. P. scabra, Müll.

Lives at low water-mark of spring tides and at various depths from 5 to 140 fathoms.
Sandsfoor, under stones, E. R. Sykes.
Weymouth, Danion.
Fossil : Coral. Crag.
108. P. catena, Montagu. Bulla punctata, Adams. Brit. Conch., Vol. iv., p. 450.
This little shell, which is composed of barely two coils, measures only a fifth of an inch in length and an eighth of an inch in breadth.
Weymouth, Damon.
fha Different parts of coast of Dorset, Jefireys.
109. P. punctata (Clark). Bullæa punctata, Clark.

This very minute shell is usually only one line in length, but it attains sometimes to a tenth of an inch and a third less in depth.
Weymouth, Damon.

## B. ANASPIDEA.

## APLYSIIDE.

APLYSIA, L., 1767.
110. A. punctata, Cuv. A. hybrida, Soze.

Lives upon Sea-weed and Zostera from low-water to 5 or 6 fathoms.
Portland, Zostera bed, W. Thompson.
Weymouth, Damon.
Lyme Regis, J. W. Cundell.

## PLEUROBRANCHIIDE.

PLEUROBRANCHUS, Cuvier, 1805.
111. P. plumula, Mont.

Weymouth, Sandsfoot, under stones, E. R. Sykes.
Var. alba.
Weymouth, Damon.
112. P. tuberculatus, Meckel, 1808. P. membranaceus (Mont.) Lamellaria membranacea, Mont.
A very local shell. Mr. Gwyn Jeffreys (1869) knew of only three records beyond the British sens-the north of France, Naples, and Trieste.
Shell ear-shaped, membranous, and transparent.
Weymouth, Damon.

## RUNCINIDÆ.

RUNCINA, Forbes, 1853.
113. R. coronata, Quatrefages, 1844. R. Hancocki, Forbes.

Brit. Conch., Vol. v., p. 16.
"Specimens sent me from Weymouth by Mr. Thompson were dark purplish-brown with minute round spots of yellow, a streak of the former colour on the tail. The branchial plumes lay on the riglat hand side of the vent. They ware extensile and exceedingly active, Jeffreys.
Belmont Bay, near Weymouth, W. Thompson and Gray; Sandsfoot, among Zostera, E. R. Sykes.

## Order PROSOBRANCHIATA.

Respiration, bronchial, or pulmonary gland; species mostly aquatic ; some frequent brackish water, others freshwater, some are terrestrial. The respiratory organs are modified to meet this difference of habit.

Sub-order Peotinibranchiata.

## A. TOXOGLOSSA.

## CONIDE.

MANGILIA, Risso, 1826 (Mangelia).
114. M. nebula (Mont.) Mangelia nebula, Mont.

Pulteney, p. 46, pl. 14, f. 16.
Weymouth, T. Racketts.
White Nore (dredged), W. Thompson.

## 115. M. attenuata (Mont.)

A southern species and rather scarce. Between Studland and South Haven, Carleton Green. Fossil : Pliocene, Calabria, and Taranto, Philippi.

## 116. M. striolata (Scacchi), Philippi, non Risso.

Forbes and Hanley, Vol. iii., p. 483, pl. 114a, f. 1, 2.
A very rare Dorset shell.
Weymouth, dredged ten fathoms (dead), J. Hanley. Largest example, rather more than eight lines, and about two and a-half lines broad.
Fossil : Pliocene, Sicily.

## 117. M. brachystoma (Philippi).

A very rare Dorset shell.
Brit. Conch., Vol. iv., p. 382.
Habitat: mud among stones, and muddy sand.
Weymouth, Thompson.
Taken in 50 fathoms off Cornwall by McAndrew; also found in shallow water off Torquay, E. R. Sylkes.

## 118. M. costata (Don.)

Living at low-water-mark of spring-tides; in many localities ranges from five or less to fifty fathoins, inhabiting stony and sandy grounds.
Weymouth, Thompson.
Fossil : Red and Coralline Crags. Glacial deposit at Widford.
119. M. lævigata (Plilippi).

Brit. Conch., Vol. iv., p. 386.
Fossil : Coralline Crag.
Var. minor, Jeffreys. Length, 0.3 ; brealth, 0.1 inch.
Weymouth, Damon.
This small variety is found alive at Weymouth, its type form being probably extinct in the British Isles; the locality given in Guernsey has been searched several times of recent years, but it is believed without success, E. R. Sykes.
Fossil: Red Crag.
120. M. rufa (Mont.)

Mont. Test. Brit., p. 263.
Dorsetshire, Montagu.
Weymouth, dredged, W. Thompson. Alive on rocks, E. R. Syles.
Kimmeridge Bay, dredged, J. C. M.-P.
Weymouth, dredged, W. Thompson.
Fossil : Raised Beach, Portland, E. R. Sykes.
121. M. turricula (Mont.)

Pulteney, p. 47, pl. 14, f. 15.
Weymouth, T!' Raclett, W. Thompson.
Fossil : Red Crag. Raised beach, Portland, E. R. Syles.

HEDROPLEURA, Monterosato, 1883.
122. H. septangulare (Mont.) Murex costatus, Pult.

Pulteney, p. 46, pl. 14, f. 15.
Forbes and Hanley, Vol. iii., p. 458, pl. 112, f. 6, 7, Donovan, Vol. v., pl. 179, f. 4.
Weymouth, among rocks (dead), S. Hanley; dredged, W.
Thompson.

CLATHURELLA, Carpenter, 1857.
The cancellated surface, more ventricose form, and more pronounced canal distinguish it from Mangilia.
123. C. purpurea (Mont.) Mangelia purpurea (Mont.)

A very rare Dorset shell.
Brit. Conch., Vol. iv., p. 373.
Weymouth, Thompson and Damon.
124. C. linearis (Mont.) Mangelia linearis (Mont.)

Frequents sandy and shelly sea-beds at various depths.
Distributed round the coast.
Weymouth Bay, W. Thompson.
Between South Haven and Studland, Carleton Green.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil : Red and Coralline Crags.
125. C. gracilis (Mont.) Murex gracilis (Mont.)

Inhabits the Coralline zone.
Pulteney, p. 46, p. 14, f. 18.
Portland, West Bay, T. Rackett.
Weymouth Bay, dredged off Ringstead and Osmington, W. Thompson; scarce, but very large, E. R. Sylkes.

Kimmeridge Bay, dredgel, J. C. M.-P.
126. C. Trevelliana (Turton). Mangelia Trevelliana (Turton).

Very rare ; a boreal shell.
Between Studland and South Haven, Carleton Green.
Fossil: Red and Coralline Crags.
DONOVANIA, Bucquoy, Dautz, and Dollfus, 1882.
Fischer points out that the lingual ribbon is most akin to that of Sipho ( = Tritonofusus): Journ. de Conch. 1888, pp. 132-6.
127. D. minima (Mont.) Lachesis minima, Mont.

Inhabits the Littoral and Laminarian zones.
Forbes and Hanley, Vol. iii., p. 377, pl. 101, f. 7, 8.
Brit. Conch., Vol. iv., p. 314.
The position of this shell is uncertain. Most authors place it among the Mangilice. The operculum approaches the Muricidre.
Weymouth, dredged in three or four fathoms with Phasianella, S. Hanley.

Weymouth, alive at extra low tide, E. R. Sylkes.
Poole, sandbank (dead), Dr. Turner.
Between Chapman's Pool and St. Alban's Head, dredred, shelly ground, J. C. M. II'.
Fossil: Miocene of Italy.
3 RACHZGLIOSIA.

## FASCIOLARIIDÆ.

NEPTUNEA, Bolten, 1798.

## 128. N. antiquus ( $L$ ). Fusus antiquus, $L$.

Pulteney, p. 47, pl. 17, f. 4.
Thrown up on the Dorset coast with Buccinum undatum, but not plentifully, Pulteney.
Weymouth, W. Thomuson.
Studland shore, thrown up alive after a storm, J. C. M..-P.
Red and Mammaliferous Crags.
TRITONOFUSUS, Beck, 1847.

## 129. T. gracilis (Da Costa).

Brit. Concl., Vol. iv., p. 335.
Coralline and leep-sea zoues, from 20 to 145 fathoms; common on the northern fishing banks, but rare in the South of England. It is occasionally brought to liillingegate Market, but is not saleable, Jeffreys.
Weymouth, E. R. Sylies.
Fossil : Coralline, Red and Mammaliferous Crags.

## BUCCINUM, L., 1767.

## 130. B. undatum, $L$.

Pulteney, p. 45, pl. 17, f. 6.
Gwyn Jeffreys, in a note on this whelk, says "I have seen between 30 and 40 shells of B. undatum extracted from the stomach of a single cod. After the shell has been cleared out and ejected by the fish it makes a convenient habitation for the Hermit Crab. At the enthronization feast of Willian Warham, Archbishop of Canterbury, on the 9th of March, 1504, there were provided 8,000 whelks at five shillings per thousand." Brit. Conch. iv., p. 290.
Generally distributed round the coast.
Raised beach, Portland, Prestwich.
Fossil : Coraline, Red, and Mammaliferous Crags.

## PURPURIDE.

PURPURA, Brug., 1789.
131. P. lapillus (L.)

Pulteney, p. 44, pl. 15, f. 1-4, 9, 12.
This is the true dog-periwinkle, very predaceous, and can perforate the shell of its victim by the rasping action of its lingual ribbon.
Common all round our coasts; extremely large on the rocks of Broad Bench, Kimneridge Bay, J. C. M.-P.
Fossil: Red Crag; raised beach, Portiand, Prestuich.

## NASSIDÆ.

NASSA, Lamarck, 1 1799.
Most of the species are littoral.

## 132. N. reticulata (L.)

Pulteney, p. 45, pl. 15, f. 10.
Ranges from the edge of the Littoral to the upper part of the Laminarian zone.
Very destructive to oysters, upon which it feeds, sometimes piercing as many as 15 or 20 in succession before its hunger is satisfied.
133. N. incrassata (Ström).

Pulteney, p. 45̃, pl. I5, f. 8.
Generally distributed round the coast.
Swanage, J. E. Cooper, Miss Cohon.
Kimmeridge Bay, dredged (abundant), J. C. M.-I.
Fossil : Coralline and Red Crags.

## 134. N. pygmæa (Lamarck).

Forbes and Hanley, Vol. iii., p. 394, pl. 108, f. 5, 6.
Weymouth, dredged, abundant, S. Hanley, W. Thompson, E. R. Sykes.

Kimmeridge Bay, Gadeliff, on sandy ground, dredged, J. C. M.-P.

## MURICIDE.

TROPHON, Montfort, 1810.

135. T. muricatus (Mont.)<br>Weymouth, Damon.<br>Ringstead Bay, W. Thompson.<br>Kimmeridge Bay, dredged, J. C. M.-P.<br>Fossil : Coraliine and Red Crags.

136. [T. truncatus (Ström.)

A boreal shell, known only in the Pleistocene beds.
Raised Beach, Portland, E. R. Sylkes.]
OCINEBRA (Leach), Gray, 1847.
137. O. erinacea (L.) Murex erinaceus, $L$.

Pulteney, p. 46, pl. 14, f. 7.
Abundant around the coasts, ranging from a depth of 5 to 30 fathoms.
Fossil : Mammaliferous Crag; Raised Beach, Poriland, Prestwich.
138. O. aciculata (Lam.) Murex aciculatus, Lam. Murex corallinus, Scacchi.
Weymouth, Damon.
Fossil : Coralline Crag, Pliocenc, Italy.

## CYPRÆIDÆ.

TRIVIA, Gray, 1832.
139. T. europæa (Mont.) Cypræa europæa, Mont. C. pediculus, Penn.

Pulteney, p. 42, pl. 22, f. 6.
Generally distributed round the coast, ranging from low-water mark to 50 fathoms; exceedingly common in Kimmeridge Bay, dredged (alive), J. C. M.-P.
Var. minor, Mar.
Weymouth, Damon.
Fossil : Coralline and Red Crags.
C. TAENIOGLOSSA.

ERATO, Risso, 1826.
140. E. lævis (Donovan). Marginella lævis, Donovan.

Ranges from one to fifty fathome.
Weymouth, Damon.
Fossil : Coralline and Red Crags.
OVULA, Brug, 1789.
141. 0. patula (Pen.) Bulla patula, Pen.

Pulteney, p. 43, pl. 12, f. 8.
Weymouth, Pulteney.

## APORRHAIDE.

APORRHAIS, Da Costa, 1778.

## 142. A. pes-pelicani (L.) Strombus pes-pelicani, $L$.

Generally distributed round the coast.
Weymouth Bay (alive), scarce, W. Thompson, E. R. Sykes.
Poole sand-banks, Dr. Turner.
Poole Harbour, shore (dead), J. C. M.-P.
Kimmeridge Bay, dredged (alive), 15 fathoms, J. C. MI.-P.

## CERITHIIDE.

TRIFORIS, Deshayes, 1825.
143. T. perversus ( $L$.) Cerithium perversum, $L$.

Ranges from the Laminarian zone to 15 and 20 fathoms. Weymouth, Damon.

BITTIUM (Leach), Gray, 1847.
144. B. reticulatum (Da Costa.) Murex reticulatum,

Pulteney, p. 47, pl. 14, f. 13.
Lives in the Laminarian zone; ranges from Norway to the Mediterranean.
Kimmeridge Bay at low-water-mark, alive, shell-sand (dead), J. C. M.-P.

CERITHIOPSIS, Forbes and Hanley, 1849.
145. C. tubercularis (Mont.) Murex tubercularis, Mont.

Forbes and Hanley, Vol. iii., p. 365, pl. 91, f. 7, 8. Portland, West Bay, 18 fathons, E. Forbes and McAndrew. Weymouth Bay, W. Thompson.
Poole Harbour, south side, near the mouth, J. C. M.-P. Kimmeridge Bay, dredged, J. C. M.-P.

## TURRITELLIDE.

## TURRITELLA, Lam., 1799.

146. T. communis, Risso. Turbo terebra, Auct non L.

Pulteney, p. 51, pl. 15, f. 5, 6.
Lyme Regis, J. W. Cundalb.
Weymouth, abundant in 5 fathoms, E. R. Sylies,
Kimmeridge Bay, dredged on a muddy sea bottom, J. C. M.-P. Fossil : Red and Mammaliferous Crags.

## CÆCIDÆ.

## CÆCUM, Fleming, 1824.

147. C. trachea (Montagu). Dentalium trachea, Mont.

Forbes and Hanley, Vol. iii., p. 178, pl. 69, f. 4.
Brit. Conch., Vol. iv., p. 76.
Inhabits the Coralline zone.
Weymouth, Forbes and Hanley, E. R. Sykies.
Fossil : Coralline Crag, Suffolk, Searles Wood. Jeffreys does not think Searles Wood's species to be C. trachea but $C$. mammillata.

## 148. C. glabrum (Mont.)

This little animal frequents the Coralline zone.
Forkes and Hanley, Vol. iii., p. 181, pl. 69, f. 5.
Weymouth, S. Hanley.
Kimmeridge Bay, shell-sand, J. C. M.-P.
Fossil : Coralline Crag.

## LITTORINIDE.

LITTORINA, Férussac, 1821.

## 149. L. littorea (L.)

Pulteney, p. 49, pl. 17, f. 1.
"Proceedings" Dorset Natural Histcry and Antiquarian Field Club, Vol. xvi., p. 173.
Pre-eminently the "Periwinkle" of our shore. Inhabits the belt between tide-marks.
Mr. Sykes says some of the specimens of this species from the Portland Raised Beach show a curious flattening of the whorls and a tendency to become keeled; it may be some brackish water affected them, which the occurrence of Succinea oblonga suggests.
Fossil: Raised beach, Portland, Prestwich. Blashenwell, Quaternary tufaceous deposit; Red and Mammaliferous Crag.
150. L. Pudis (Donovan).

Pulteney, p. 49, pl. 18, f. 6.
Inhabits the Littoral zone above, and at, high water-mark.
"Proceedings" Dorset Natural History and Autiquarian Field Club, Vol. xiii., p. 191.
Stony and rocky shores, estuaries.
Viviparous. It has the power of maintaining life a considerable time out of water.
Mr. Sykes's paper on monstrosities of this species from the Fleet estuary near Langton, in the "Proceedings" of the Dorset Field Club, is worthy of special attention.
Generally distributed.
Weymouth, handsomely coloured, E. R. Sylkes.
Var. patula, Jeff. Fleet, Weymouth, brackish water, E. R. Sykes.
Swannery, abundant on the silk-weed, J. C. M.-P.
Var. tenebrosa, Mont. Fleet, E. R. Sykes.
Fossil : Raised Beach, Portland, Prestwich, E. R. Sykes.

## 151. L. neritoides (L.)

Pulteney, p. 49, pl. 18, f. 13.
Rocks above high-water-mark.
Generally distributed.
In immense numbers on the surface of the rocks, at Broad Bench west side of Kimmeridge Bay.

NERITOIDES, Brown, 1827.
152. N. obtusata (L.) Littorina littoralis (L.) L. obtusata ( $L$.)
Pult., p. 57, pl. 16, f. 13-16, and pl. 20, f. 2, 3.
Generally distributed round the coast.
Fossil : Raised keach, I'ortland, Prestwich. Blashenwell, Quaternary tufaceous deposit.

LACUNA, Turton, 1827.
153. L. puteolus (Turton).

Inhalits the Laminarian zone.
Between Studland and South Haven, J. E. Cooper:
Weymouth, Damon.
Kimmeridge Bay, J. C. M.-P.
Fossil : Raised beach, Portland, Prestwich.

## 154. L. crassior (Mont.)

Weymouth, dredged, W. Thompson. Moderately plentiful, alive in 6 to 7 fathoms, a few at extreme low-tides, $E . R$. Sylkes.
Shore between Studland and South Haven, J. E. Cooper:
Kimmeridge Bay, east side, St. Alban's Hcad, shelly seabottom, J. C. M.-P.
155. L. divaricata (Fabr.) L. vincta, Mont.

Inhabits the Laminarian zone.
Weymouth, W. Thompson.
Studland Bay, J. C. M.-P.
156. L. pallidula (Da Costa). Nerita pallidula, Da Costa.

Pulteney, p. 57, pl. 20, f. 4, 5. Da Costa, p. 51 ; recorded by him from Dorsetshire.
Whitenose, dredged, W. Thompson. Weymouth, Damon.
Luiworth Cove, E. R. Sylees.
Between Studland and South Haven, thrown up on the shore, J. C. M.-P.
Fossil : Raised Beach, Portland, E. R. Syies.

## HOMALOGYRIDE.

HOMALOGYRA, Jefreys, 1867.
1ธ̃. H. atomus (Phil.) Skenea nitidissima, Fleming.
Weymouth, among green sea-weed on stones, E. R. Syles. Kimmeridge Bay, sea-sands (dead), J. C. M.-P.
158. H. rota (Forbes and Hanley.) Skenea ? rota, Forbes and Hanley.
This minute shell is less than a half-line in length, and has the appearance of a miniature Ammonite.
Weymouth, Danon; extremely rare.

## SKENEIIDÆ.

SKENEA, Fleming, 1828.
159. S. planorbis (Fabr.) Helix depressa, Mont.

Found all round the British shores.
Weymouth, Nothe Fort to Sandsfoot, W. Thompson.
Swanage, J. E. Cooper.
Fossil: Raised Beach, Portland, Prestuich. Clyde beds, Norway.

## ADEORBIIDE.

ADEORBIS, S. Wood, 1842.
160. A. subearinata (Mont.)

Swanage, shore (dead), E. R. Sykes, J. E. Cooper.
Weymouth, Damon.
Fossil: Red and Coralline Crags.

## RISSOIID庣.

RISSOIA, Fréminville, 1813.
161. R. striatula (Mont.) Turbo striatulus, Mont.

Pulteney, p. 50, pl. 14, f. 10.
Forbes and Hanley, Vol. iii., p. 73, pl. 79, f. 7, 8.
Weymouth, dredged (dead), W. Thompson; seven fathoms, S. Hanley.

Studland Bay, rare, T. Rackett.
Kimmeridge Bay, dredged (alive), shore-sand (dead), J.C.M.-P.
162. R. cancellata (Da Costa). R. crenulata, Michaud.

Forbes and Hanley, Vol. iii., p. 80, pl. 79, f. 1, 2.
Pulteney, p. 49, pl. 14, f. 6, 9.
Found sparingly on the coast, Pultene!!.
l'ortland, West Jay, dredged (dead), lo fathoms, McAndrew and E. Forles.
Shore, between Studland and South Haven, Carleton Green.
163. R. costata (Adams). Turbo costata, Adams.

Pulteney, p. 51, pl. 19, f. 5.
Found by Colonel Montagu on the coast, T. Rackett.
Weymouth, Damon.
Sandsfoot, Weymouth, under stones, W. Thompson, E. R. Sylces.
Swanage, J. E. Cooper.
Kimmeridge Bay, between tide-marks, under stones, J. С. M.-P.

Fossil : Middle Pliocene.
164. R. parva (Da Costa).

Pulteney, p. 50, pl. 19, f. 4.
Forbes and Hanley, Vol. iii., p. 98, pl. 76, f. 2, 6, and pl. 77, f. 6, 7.

On sea-weeds at low-water-mark and in the Laminarian zone.
Common on the Dorsetshire coast, Pulteney.
Shore between Studland and South Haven, Carleton Green.
Swauage, J. E. Cooper:
Kimmeridge Bay, under stones and on corallines near low-water-mark (alive), among shell-sand (dead), J. C. M.-P.
Weymouth, common in weed, E. R. Sykes; dredged alive twelve fathoms, Forbes and Hanley.

## 165. R. inconspicua (Alder.)

Forbes and Hanley. Vol. iii., p. 113, pl. 76, f. 7, 6, pl. 82, f. 5-9.

A common British shell, sulject to great modifications, and associated with the preceding.
Weymouth, Fontes and Hanley.
Fossil : Norwich Crag ; post-glacial beds, Norway.

## 166, R. membranacea (Adams). R. labiosa, Pult.

Pulteney, p. 49, pl. 18, f. 16. Forbes and Hanley, Vol. iii., p. 109, pl. 76, f. 5, pl. 77, f. 1, 2, 3. Brit. Conch., Vol. iv., p. 32.

Weymouth, Barlee.
Fleet, Wyke Regis, abundant, W. Thompson.
Poole, T. Racliett.
Swanage Bay, dredged, J. C. M.-P.
Var. minor, Jeffreys.
Weymouth, Barlee.
Several interesting varieties found near the mouth of the Fleet, E. R. Sylies, and as high up as the Swannery, J. С. M.-P.

## 167. R. violacea (Desmarets.) R. rufilabrum (Leach), Alder.

Brit. Conch., Vol. iv., 34.
Inhabits the Laminarian zone.
Weymouth, Damon, E. R. Sykes.
Swanage, J. E. Cooper.
168. R. costulata, Ald.

Forbes and Hanley, Vol. iii., p. 103, pl. 77, f. 4, 5.
Brit. Conch., Vol. iv., p. 36.
Weymouth, Jeffeys, E. R. Sykes.
Lulworth, Jeffreys.
Kimmeridge Bay, shore-sand, J. C. M.-P.
Challenger Expedition, Madeira.
Fossil : Middle Pliocene.

## 169. R. striata (Aclams.)

Inhalits stones and muddy places between tide-marks and in the Laminarian zone.
Weymouth, Damon.
Swanage, J. E. Cooper.
Studland, Old Harry, drelged, Dr. Thrner.
Kimmeridge Bay, dredged at several depths, J. C. M.-P.
Fossil : Raised Beach, Portland, Prestwich. Coralline Crag.

## 170. R. fulgida (Adams).

Forbes and Hanley, Vol. iii., p. 129, pl. 75, f. 1, 2. Brit. Conch., Vol. iv., p. 44.
Inhabits the Littoral zone.
Length, the twentieth of an inch, breadth one-third less.
Extremely rare.
Weymouth, Jeffireys.
Var. pallida, Jeff.
Lulworth, Jeffireys.
171. R. semistriata (Mont.)

Iuhabits the Littoral and Laminarian zones.
Weymouth, Damon.
172. R. cingillus (Mont.)

Forbes and Hanley, Vol. iii., p. 122, pl. 79, f. 9, 10.
Inhabits the Littoral zone.
Generally distributed, living between tide-marks, in mudily rocky places.
Swanage, J. E. Cooper.
Weymouth, Damon, E. R. Sy/kes.
Portland, snow-white, $E . R$. Sykes.
Kimmeridge Bay, very abundant, dredged alive, and in shoresand, J. C. M.-P.
Var. rupestris, Forbes.
Weymouth, Damon, E. R. Sykes.
173. R. subeylindricata, G. Jeffieys.

Quarterly Journal Geolngical Society, Vol. xxxi. (1875), p. 52. "Proceedings" Dorset N'stural Histury and Antiquarian Field Club, Vol. xvi., p. 173.
Fossil: Raised Beach, Portland, Prestivich.
Mr. Gwyn Jeffreys says: "I have examined the shells and washed shell-sand from the Raised Beach of Portland collected by Mr. (Sir Joseph) Prestwich. The shells are rather northern than southern, but I have not detected any peculiarly arctic species, and certainly none of a Mediterranean or Lusitanian type. All the species inhabit the British coast from Shetland to Yorkshire except one, which I consider to be unclescribed, and which I propose to name Rissoa subcylindracata.
Mr. E. R. Sykes suggests that this shell is a form of Rissoa albella (Lovén.)

BARLEEIA, Clarlc, 18555.
174. B. rubra (Mont.) Rissoa rubra, Adams.

Inhabits Laminarian zone.
Weymouth, Damon.
Kimmeridge Bay, sea-weeds (alive), sea-sand (dead), J. C. M.-P.

Var. unifasciata, Jeff.
Kimmeridge Bay, J. C. M.-P.

PALUDESTRINA, D'Orb, 1841.
175. P. ulvæ (Pen.) Rissoa ulvæ, Forbes and Hanley.

Common in brackish water and estuarics between tidemarks.
Pulteney, p. 49, pl. 18, f. 12.
Weymouth, exceedingly abuudant in the ditches of Lodmoor, W. Thompson.

Poole Harbour, south side, near the mouth (alive), thrown uf on the shore with Zostera, very abundant, J. C. il..-P.
Fossil : Coralline Crag.
176. [P. similis (Drap.) Rissoa anatina, Drap. Hydrobia similis, Draparnaud.

Mudly ditches to which sea-water has access.
Weymouth, Damon, but very dubions.]
177. P. ventrosa (Mont.)

Brit. Conch , Vol. i., p. 66.
Ditches and ponds, which are overflowed only at spring-tiles, and in tidal rivers.
Weymouth, adhering to Ulva lactuca, T. Racket. Lodnoor, E. R. Sylies.
Swannery, Albotsbury, allhering to the silk-weel, J. C. M.-P.
Wareham river (tidal), below Reicliff, adhering to the water-weeds, J. C. M.-P.

BITHINIA, Gray, 1821.
178. B. tentaculata (L.) Helix tentaculata, $L$.

Pulteney, p. 56, pl. 21, f. 12.
Rivers, brooks, ditches.
Generally distributed.
Fossil: Quaternary deposit, Chesilton, Prestwich. Blashenwell tufaceous deposit, J. C. M.-P.
Fossil : Mammaliferous Crag.
179. B. Leachii (Sheppard).

Slow rivers, ponds, water-courses; rare.
Holwell, H. H. Wood.
Wareham, river Frome, J. C. M.-P.
Ulwell and Godingstone, near Swanage, J. C. M.-P.

## VIVIPARID庣.

VIVIPARUS, Montfort, 1810.
180. [V. contecta, Millet. Paludina Listeri, Forles and Hanley. Helix vivipara, Da Costa.
Pulteney, p. 54, pl. 17, f. 2.
Slow streams.
Extremely doubtful. Pulteney gives no locality, but says "it is common in ponds and rivers on Potamogeton and other plants."]

## VALVATIDE.

VALVATA, O. F. Müller, 1774.
181. V. piscinalis (Müll.) Turbo fontinalis, Pult.

Pulteney, p. 50, pl. 18, f. 3, 4.
Slow rivers, ponds, ditches.
Spettisbury, T. Racliett.
Jast Lulworth, Kendall.
Weymouth, Damon.
Wareham, river below the town, Chamberlaynes, near Bere Regis, J. C. M.-P.
Sturminster Marshall, river Frome, J. C. M.-P.
Fossil: Blashenwell Quaternary tufaceous deposit, J. C. M.-P.
182. V, cristata, Müll.

Ponds, ditches, and slow streams.
Chamberlaynes, J. C. M.-P.

PALUDINELLA, Pfeiffer, 1841.
183. P. littorina (Delle Chiaje). Helix littorina, Delle Chiaje.
Forbes and Hanley, Vol. iii., p. 132, pl. 81, f. 6, 7.
Brit. Conch., Vol. v., p. 101.
Under stones among seaweed.
Weymouth, inside the Chesil Bank, Metcalfe.
Var. albina, E. R. Sykes.
Portland, E. R. Sylkes.
Poole Harbour, among seaweed, J. C. M.-P.

## TRUNCATELLIDÆ.

TRUNCATELLA, Risso, 1826.
184. T. subeylindrica (L.) T. Montagui, Lowe. Helix subeylindrica, $L$. Turbo truncatus, Mont.
Pulteney, p. 51, pl. 19, f. 8.
An influx of fresh water appears to be essential for this shell.
Portland, S. Hanley; an isolated spot under deeply buried stones at high-water-mark (alive), E. R. Sykes.
Flect (alive), W. Thompson; shore opposite Wyke, cast up dead at high-water-mark, S. Hanley, J. C. M.-P.

## POMATIASIDE.

This and the next are the only two British land-shells furnished with an operculum.

POMATIAS, Studer, 1789.
185. P. elegans (Müll.) Cyclostoma elegans, Miull.

Pulteney, p. 50, pl. 21, f. 9.
Under stones, hedge-banks, rocks, roots of brushwood. Generally distributed.

Abundant and brilliantly coloured, Gad-cliff, east flank of Worbarrow Bay.
Liscombe Bottom, abundant, J. C. M.-P.
Fossil : Portland Quaternary bed near the Bill, Bullen.
Blashenwell Quaternary tufaceous deposit, J. C. M.-P.
In the barrows and earthworks of the county.

## ACICULIDE.

ACICULA, Hartm., 1821.

186. A. lineata (Drap.) Acme lineata, Hartmann.<br>Length of shell only a tenth of an inch.<br>Under stones, in woods, among decayed leaves.<br>"Proceedings" of Dorset Natural History and Antiquarian Field Club, Vol. xii., p. 104.<br>Bloxworth, C. O. P. Cambridge.

## CAPULIDE.

CAPULUS, Montfort, 1810.
187. C. ungaricus (L.)

Pulteney, p. 58, pl. 53, f. 7.
Very rare, attached to shells, at various depths.
Weymouth, dredged, Pulteney, McAndrev.
Portland, on the trawling ground, W. Thompson.

## CALYPTRÆIDE.

CALYPTREA, Lamarck, 1799.
188. C. chinensis (L.)

A southern shell, abundant in Jersey and Guernsey, extenls to the Mediterranean. Gencrally found attached to shells and stones, and is taken at various depths.
Weymouth, frequently attached to Ostrea edulis and Pecten maximus, occasionally a colony of six or eight on one shell, W. Thompson.
Between Studland and South Haven, Carleton Green.
Local name, Chinese bonnet.

## LAMELLARIDÆ.

LAMELLARIA, Mont, 1811.
189 L. perspicua (L.) L. haliotoidea (Mont.)
L. tentaculata (Mont.)

Forbes and Hanley, Vol. iii., p. 3555, p. 35̄8, pl. 99, f. 8, 9.
Pulteney, p. 43, pl. 22, f. 5.
Mont. Brit. Test. p. 211, pl. 7, f. 6.
Studland beach, Montagu.
Weymouth, Barlee, Bryer, W. Thompson; dredged (alive), E. R. Sykies.

Mr. Peach's excellent observations of this genus were continued for 10 years. Lamellaria, as if impelled by the same instinct which takes the salmon to the river and the herring to shallower water, migrates inshore, and seeks its proper spawning ground. Brit. Conch., Vol. iv., p. 238.
Fossil: Coralline Crag.
VELUTINA, Fleming, 1828.
190. V. lævigata (L.)

Ranges at various depths from the Laminarian zone to thirty fathoms.
Studland beach, T. Rackett, J. C. M.-P.
Weymouth Bay, dredged (living) on oysters and other objects, W. Thompson, E. R. Sylkes.

Studland Bay (living), Dr. Turner.
Poole Channel, dredged (alive), J. C. M.-P.

## NATICIDE.

NATICINA, Guilding, 1834.
191. N. catena (Da Costa). Natica monilifera, Lam.

Pulteney, p. 57, pl. 21, f. 7.
Inhabits large sandy bays.
Weymouth, Pulteney, E. R. Sykes.
Poole, Pultenty.
Studland Bay, dredged, Dr. Turner.
Shore between Studland and South Haven, after gales, J. C. M.-P.

Fossil : Red and Mammaliferous Crags.

## 192. N. Alderi (Forbes.)

Lives on all kinds of ground ranging from the shore to as many as eighty or ninety fathoms. It is smaller than $N$. catena. Weymouth, E. R. Sylces.
Swanage Bay, dredged, J. C. M.-P.

## 193. N. Montacuti (Mont.) Natica Montagui, Forbes.

It ranges from Cornwall to Zetland, but is only a common shell in the north. In the Later Tertiary and Quaternary beds it is very common.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil : Raised beach, Portland, Prestuich.

## D. PTENOGLOSSA. <br> SCALIDæ.

SCALA, Humphrey, 1797.
194. S. communis (Lamarck.)

Pulteney, p. 50, pl. 15, f. 11.
Poole Harbour, Pulteney.
Weymouth sands, Pulteney, dredged, $1 \frac{3}{4}$ inch in length, E. R. Sykes ; two living specimens, W. Thompson.

Kimmeridge Bay (rare) dredged, J. C. M.-P.
195. S. Turtonis (Twrt.)

Rare in Dorset, chiefly met with in the south-west of England, Weymouth, Damon.
196. S. clathratula (Mont.)

A southern species and rare.
Weymouth, Damon.
Fossil : Coralline Crag.
ACLIS, Lovén, 1846.
Inhabits the Littoral zone.

## 197. A. ascaris (Turton).

A very rare and small shell, not exceeding the seventh of an inch in length.
Weymouth, Damon.
Fossil : Coralline Crag.

## 198. A. unica, Montagu.

Another exceedingly small shell, of similar dimensions as the preceding.
Weymouth, Damon.

## E. GYMNOGLOSSA. <br> EULIMIDE.

EULIMA, Risso, 1826.
199. E. polita (L.)

Pulteney, p. 55. pl. 19, f. 15.
Lives at various depths from seven to fifteen fathoms.
Portland ; Ringstead, W. Thompson.
Shore between Studland and South Haven, Carleton Green.
Kimmeridge Bay, dredged, abundant, J. C. M.-P.
Fossil : Coralline and Red Crags.
200. E. incurva, Renieri.

Differs from the preceding in its small dimensions and curvature.
Weymouth, Damon.
201. E. subulata (Donovan.) Helix subulata, Mont.

Shell highly polished; pale fulvous, with spiral zones of orange-brown encircling the body.
Pulteney, p. 58, pl. 19, f. 14.
Weymouth (Donovan.)
Fossil : Coralline Crag.

## PYRAMIDELLIDE.

ODOSTOMIA, Fleming, 1828.
Living at depths ranging from low-water to 40 fathoms. Among seaweed at low water mark.
202. O. Lukisi, Jeffeys.

Brit. Conch, Vol. iv., p. 120.
Lulworth, 10-12 fathoms (living), G. Jeffeys.
Weymouth, Damon.

## 203. O. nivosa (Mont.) O. cylindrica, Alder.

Inhabits the lower Littoral and upper Laminarian zones. Portland, under stones, E. R. Sykes.
204. 0. acuta, Jeffreys.

Inhabits the Coralline zone.
Shell conic, smooth, shining, slightly transparent, stained with a veinous flesh-colour.
Brit. Conch. Vol. iv., p. 130.
Weymouth, Damon, E. R. Sykes.

## 205. 0. pallida (Mont.) O. eulimoides, Hanley.

Forbes and Hanley, Vol. iii., p. 273, p. 95, f. 1-3.
Lives on valves of Pecten opercularis, Coralline zone.
Abounds on the coast of Dorset, Forbes and Hanley.
Weymouth, Damon.

## 206. 0. conoidea (Brocchi.)

Forbes and Hanley, Vol. iii., p. 260, pl. 95, f. 4. Brit. Conch., Vol. iv., p. 128.
Weymnuth, E. Forbes.
Poole Harbour, near the Powder House (alive), Dr. Turner.
207. O. unidentata (Mont.)

A solid little shell, smooth, glossy, and very little transparent.
It bears the general aspect of Paludestrina ulvce.
Weymouth, dredged, W. Thompson.

## 208. 0. turrita, Hanley. 0. unidentata, var., Forbes and Hanley.

Brit. Conch., Vol. iv., 135.
Remarkably long and thin, differing from any other known Odostomia.
Placed by Forbes provisionally as a variety of $O$. nnidentata.
Under stones, and in rock-pools at low-water mark of springtides; on old oysters, and Pecten maximus, Laminarian and Coralline zones.
Weymouth, Damon.
209. O. plicata (Mont.)

Brit. Conch., Vol. iv., p. 137.
Forbes and Hanley, Vol. iii., p. 271, pl. 98, f. 1, 2.
Under stones and among sea-weed at low water mark.
Weymouth, Forbes and Hanley; Portland, E. R. Syles.
210. O. insculpta (Mont.) Turbo insculpta, Mont.

Coralline and deep-sea zones.
Rarely found alive, usually dead in shell-sand.
"The incised revolving lines round the lower part of each whorl serve to recognize the species."-Jeffreys.
Weymouth, Damon.
Fossil : Coralline Crag.

## 211. 0. diaphana, Jeffreys. O. obliqua, Alder.

Inhabits the Coralline zone.
This very rare shell is only a line broad and the fifth of an inch long; like $O$. unidentata it verges on the confines of the genus, and approsches Rissoia.
Weymouth, Damon.
212. O. decussata (Mont.)

Inhabits the Coralline zone; the length is scarcely a line and a-half.
A very rare and local species. Forbes and Hanley assign for it only four English localities (of which Salcombe Bay, cited by Montagu, is one), three Scotch, and three Irish.
Weymouth, Damon.

TURBONILLA, Risso, 1826.
213. T. indistincta (Mont.) Chemnitzia indistincta,

Ranges from the Laminarian zone to as deep as 40 fathoms.
Distributed all round the shores of the British Islands and ranges to the Mediterranean.
Weymouth, Damon.
Fossil : Coralline Crag, and Pleistocene.
214. T. spiralis (Mont.) Odostomia spiralis, Forbes and Hantey.

Distributed round the coasts of the British Isles, cannot be said to be rare nor local.
Weymouth, Danoon.

215 T. fenestrata (Forbes.) Chemnitzia fenestrata, Forbes and Hanley.

Forbes and Hanley, Vol. iii., p. 249, pl. 93, f. 6-7.
This rare shell was first noticed and named by E. Forbes, dredged in 7 fathoms at the entrance to Dartmouth Harbour (dead). Taken alive in Torbay.
Weymouth, Damon, E. R. Sykes.
216. T. rufa (Philippi). Chemnitzia rufa, Forbes and Hanley.

Brit. Conch., Vol. iv., p. $1 \hat{6} 2$.
"Coasts of Cornwall, Devon, and Dorset, in trawl-refuse, and at comparatively small depths."-Jeffreys.
Weymouth, Danon.
Fossil : Coralline Crag.
217. T. lactea (L.) Chemnitzia elegantissima, Forbes and Hanley.

A common shell round the British coasts from shore-line to 50 fathoms.
Weymouth, Damon, E. R. Sylies.
Swanage, J. E. Cooper.
Kimmeridge Bay (east), near Chapman's Fool, dredged in deep water on shelly ground, J. C. M.-P.
Fossil : Coralline Crag.

EULIMELLA, Forbes, 1846.
218. E. acicula, Forbes and Hanley.

Inhabits the Coralline zone.
Weymouth Bay, dredged, W. Thompson.

Order SCUTIBRANCHIATA.

## A. RHIPIDOGLOSSA. <br> NERITIDE.

NERITINA, Lamarck, 1809.
Restricted chiefly to the fresh-water of warm regions.
219. N. fluviatilis, (L.)

Pulteney, p. 57, pl. 16, f. 17, 18.
Slow rivers.
Generally distributed.
Dorchester, River Frome (very large size), E. R. Sykes.
Spettisbury River, Stour.
Chamberlaynes River, Bere Regis, J. C. M.-P.

## TURBINIDE.

PHASIANELLA, Lamarck, 1804.
220. P. pulla (L.) Turbo pullus, $L$.

This beautifully coloured shell is distributed abundantly round the coast, usually taken in the Laminarian zone.
Lyme Regis, J. W. Cundall.
Weymouth, Damon; abundant, E. R. Sylies.
Shore between Studland and South Haven, Kimmeridge Bay (dredged), very plentiful, J. C. M.-P.

## TROCHIDE.

MONODONTA, Lamarck, 1801.
221. M. lineata (Da Costa). Turbo lineatus, Da Costa.

Pulteney, p. 48, pl. 17, f. 3, 7.
A littoral shell found between tide-marks and very common on the coast. Da Costa cites it as a Dorsetshire shell.
Portland and rocks south-west corner of the island, $W$. Thompson.
Lulworth Cove, M. G. Stuart.
Kimmeridge Bay rocks, lower tide-marks, plentiful in the Laminarian zone, J. C. M.-P.

GIBBULA, Risso, 1826.
222. G. magus (L.) Trochus magus, $L$.

Pulteney, p. 48, pl. 16, f. 1, 2.
One of the most beautiful of the Trochidce, variegated with rosy tints on a white ground. It lives at various depths.
Weymouth Bay, dredged, W. Thompson, E. R. Sykes.
Between Studland and South Haven, cast up on the shore, J. C. M.-P.

Poole Harbour, shore, J. C. M.-P.
Kimmeridge Bay, dredged (alive) at various depths, J. С. M.-P.
223. G. cineparia (L.) Trochus lineatus, Pult.

Pulteney, p. 48, pl. 16, f. 11, 12 .
Around our coasts on stones, and sea-weed at low-water-mark, abundant in the Laminarian zone.
Generally distributed.
Fossil : Red Crag.

## 224. G. umbilicata (Mont.) Trochus umbilicatus (Mont.)

This Littoral shell, though abundant wherever it occurs, is confined to the Southern and Western coasts.
Pulteney, p. 48, pl. 16, f. 7, 8.
Generally distributed.
Fossil : Raised Beach, Portland, Prestwich.

## 225. G. tumida (Mont.) Trochus tumidus, Mont.

Pulteney, p. 48, pl. 16, f. 9, 10.
An abundant shell on our coasts, usually found in the Coralline zone.
Weymouth, Bryer.
Weymouth Bay, dredged, W. Thompson.
Shore, between Studland and South Haven (dead), Carleton Green.
Kimmeridge Bay, dredged at various depths, abundant, J. C. M.-P.

Fossil : Red and Mammaliferous Crags.

VALVATELLA, Gray, 18ะ7.
Boreal, under stones, and seaweed near low-water-mark.
226. [V. helicina (O. Fabricius).

Quarterly Journal Geological Society, Vol. xxxi., 1875, p. 5 .
"Proceedings" Dorset Natural History and Antiquarian Field Club, Vol. xvi., p. 173.
Its most southern limits at the present day are Yorkshire and Dublin Bay.
Fogsch, Raised Beach, Portiand, Prestwich.]

CALLIOSTOMA, Swainson, 1840.
227. C. zizyphinum (L.) Trochus zizyphinus, $L$.

Pulteney, p. 48, pl. 16, f. 3, 4.
Abundant round the coast.
Poole, Pulteney; living and deal, on sand-banks, Dr. Turner. Weymouth, Pulteney.
Lyme Regis, J. W. Cundall.
Kimmeridge Bay, dredged at various depths.
Fossil : Coralline and Red Crags.
228. C. granulatum (Born.) Trochus granulatus, Born. Trochus papillosus, Pult.
Pulteney, p. 48, pl. 16, f. 6.
Forbes and Hanley, Vol. ii., p. 499, pl. 67, f. 7, and pl. 68, f. 2. Rare.
Poole, north shore, Pulteney.
Weymouth, Pulteney, S. Hanley.
Portland, West Bay, 15 fathoms, McAndrew and E. Forbes. Lulworth, M. G. Stuart.
Fossil : Red Crag.
229. C. miliaris (Brocchi). Trochus millegranus, Pheitippi.

Forbes and Hanley, Vol. ii., p. 502, pl. 66, f. 9, 10.
Rare on our coasts.
Portland, West Bay, dredged 15 to 20 fathoms, McAndrew and E. Forbes.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil : Coralline Crag.
230. C. exasperatum (Penn.) Trochus exiguus, Pult.

Brit. Conch., Vol. iii., p. 324. Forbes and Hanley, Vol. ii., p. 505, pl. 66, f. 11, 12. Pulteney, p. 48, pl. 21, f. 4.

Lulworth, dredged, 7 and 12 fathoms, G. Jeffieys.
Weymouth Bay, 7 fathoms (alive), McAndrew and E. Forbes.

Shore between Stpuland and South Haven, Carleton Green.
Kimmeridge Bay, dredged alive, J. C. M.-P.
231. C. striatum (L.) Trochus striatus, $L$. T. erythroleucos, Pult.

Pulteney, p. 48, pl. 18, f. 2.
Inhalits the Laminarian zone. It does not reach as far north as Scotland.
Weymouth, Damon. Common among sea-weed, E. R. Sylkes,
Kimmeridge Bay, dredged, J. C. M.-P.
232. C. Montagui, (Wood). Trochus Montagui, Gray. Trochus Montacuti, Wood.
Forbes and Hanley, Vol. ii., p. 511, pl. 65, f. 10, 11.
Portland, West Bay, dredged from 7 to 20 fathoms, $M c A n d r e w$ and E. Forbes.
Weymouth Bay, very plentiful, W. Thompson.
Kinmeridge Bay, dredged at various depths, J. C. M.-P. Fossil : Coralline and Red Crags.

## CYCLOSTREMATIDE.

CYCLOSTREMA, Marryat, 1818.
233. C. serpuloides (Mont.) Skenea divisa, Fleming.

Forbes and Hanley, Vol. iii., p. 161, pl. 74, f. 4, 5, 6.
Inhabits the lower Laminarian and the upper Coralline zones.
Weymouth, Jeffreys.

## 234. C. Cutlerianum (Clark.)

Brit. Conch., Vol., iii., p. 287.
Inhabits the Coralline zone.
An extremely rare shell.
Lulworth, Jeffreys.

## FISSURELLIDÆ.

FISSURELLA, Brug., 1789.
235. F. græca (L.) Patella græca, Pennant.

Pulteney, p. 59, pl. 23, f. 3.
Forbes and Hanley, Vol. ii., p. 469, pl. 63, f. 4, 5.
Adheres to shells, from the Laminarian zone to 50 fathoms.
Portland, West Bay, McAndrew and Forles.
Weymouth, Pulteney.
Poole, Pulteney ; sand-banks (dead), Dr. Turner:
Studland, J. E. Cooper.
Kimmeridge Bay, dredged, various depths, J. C. M.-P.
Fossil : Coralline Crag.
EMARGINULA, Lamarck, 1801.
236. E. fissura (L.) E. reticulata, J. Sow.

Pulteney, p. 59, pl. 23, f. 1 .
Ranges from low-water-mark to deep water.
Shore, between Studland and South Haven, J. E. Cooper.
Weymouth, Pulteney.
Kimmeridge Bay, dredged (dead), off Chapman's Pool, J. C. M. P.

Fossil : Coralline and Red Crags.
237. E. rosea, Bell.

Forbes and Hanley, Vol. ii., p. 479, pl. 63, f. 3.
Poole, Professor Bell.
Weymouth Bay, 7 fathoms, West Bay, Portland, 15 fathoms, McAndrew and E. Forbes.
Studland, J. E. Cooper.
Kimmeridge Bay, dredged, J. C. M.-P.

## B. DOCOGLOSSA.

## ACMÆIDÆ.

ACMIEA, Eschscholtz, 1828.
238. A. virginea (Müll.) Patella virginea, Müll.

Pulteney, p. 59, pl. 14, f. 11.
Distributed round the coast, adhering to shells, and stones at various depths from the Laminarian zone to 20 and 30 fathoms.

Weymouth Bay, numerous, W. Thompson; near Sandsfoot Castle, under stones, where is also an albino variety, E. R. Sykes.

Kimmeridge Bay (dredged), J. C. M.-P.
Fossil: Coralline Crag; Raised Beach, Portland, Prestivich.
239. A. testudinalis (Müll.) Patella testudinalis, Müll.

Lives on the under-side of stones at low-water and in the Laminarian zone. It is a northern species.
Weymouth Bay, W. Thompson.

## PATELLIDE.

PATELLA, L., 1757.
240. P. vulgata, L. P. athletica, Bean. P. vulgata,
var. depressa, Mont.

Both forms generally distributed.
Fossil: Raised Beach, Portland, Prestwich; Blashenwell Quaternary tufaceous depcsit, J. C. M.-P.

PATINA (Leach), Gray, 1847.

## 241. P. pellucida (L.) Helcion pellucidum (L.) Patella pellucida, $L$.

Two varieties of this limpet are met with on our coast. One is thin and transparent adorned with longitudinal lines of a bright blue colour; the other is thicker, stronger, and opaque, irregular in shape and with no iridescence in the inside.
Inhabits the Laminarian zone, and is generally distributed round the coast.
Portland, Pulteney.
Weymouth, Pulteney.
Studland Bay, shore, J. C. M.-P.
Kimmeridge Bay, dredged, J. C. M.-P.
Var, lævis, Pennant.
Weymouth, Damon.

# Class AMPHINEURA. 

Order POLYPLACOPHORA, Blainville.

Sub-order Eoplacophora, Shutleworth, 1853.

## LEPIDOPLEURIDE.

LEPIDOPLEURUS, Risso, 1826.
212. L. cancellatus (Sow.), 1839. Chiton albus, Pult.

Pulteney, p. 25, pl. 1, f. 3. Forbes and Hanley, Vol. ii., p. 410 , pl. 59, f: 3.

Poole, on valves of shells and other objects, Pulteney.
Weymouth, dredged, from 8 to 10 fathoms, S. Hanley.

CALLOCHITON, Gray, 1847.
243. C. lævis (Montagu). Chiton marginatus, Pult.

Forbes and Hanley, Vol. ii., p. 411, pl. 3. Pulteney, p. 25, pl. 1., fig. 2 (probahly).
Weymouth, S. Hanley; dredged 5 fathoms, E. R. Sykes.
Poole Harbour, shore and lake; sandbanks, Dr. Turner.

TRACHYDERMON, Carpenter, 1863.
244. T. cinereus (L.) Chiton cinereus, $L$.

Pulteney, p. 25, pl. 1, f. 4.
Common around our coasts. The greenish type lives under stones near low-water-mark, very common; the red type in deep water.
Weymouth, on the rocks, and on oysters, Pulteney; common on the shore and dredged in 5 fathoms, E. R. Sylkes.
Poole, Pulteney.
Kimmeridge Bay, under stones between tide-marks, dredged in deep water, J. C. M.-P.

ACANTHOCHITES, Risso, 1826.

## 245. A. fascicularis (L.) Chiton fascicularis, $L$.

Brit. Conch., Vol. iii., p. 211 ; Pulteney, p. 25, pl, 1, f. 1. Under stones and on shells, at depths ranging from low-water-mark to 20 fathoms.
Poole, on oyster shells, not uncominon, Pulteney.
Weymouth, plentiful between tide-marks, W. Thompson, E. R. Syles.

Lyme Regis, J. W. Cundall.
Kimmeridge Bay, abundant from the shore to deep water, J. C. M.-P.

Var. gracilis, Jeff.
Lulworth, Jeffreys.
Weymouth, Metcalfe and Damon.
Fossil : Coralline Crag, Suffolk.
246. A. discrepans (Brown). Chiton discrepans, Brown.

Shell larger. The margin is very broad, more so than in the preceding, and more dilated.
On rocks and stones from low-water-mark to 25 fathoms.
Weymouth, Damon.

## DENTALIIDE.

## DENTALIUM, $L$.

247. D. vulgare, Da Costa. D. Tarentinum, Lamarel. D. entalis, $L$. (in part).

Forbes and Hanley, Vol. ii., p. 451, pl. 57, f. 12.
Pulteney, p. 59, pl. 22, f. 10.
A southern British shell, in contrast to D. entalis, which must be regarded as a northern type.
Weymouth, Damon, E. R. Syles.
Studland Bay, thrown up by the sea (alive), J. C. M.-P.
Kimmeridge Bay, dredged (alive), more common on the western side of the Bay (Gadcliff), J. C. M.-P.

## Class PELECYPODA.

The classification of the Pelecypoda has been always a matter of great difficulty owing to their comparatively uniform structure. The muscular impressions were for a long time solely relied upon. An arrangement based on the existence of one or two adductor muscles only proved unsatisfactory, as well as the classification based on the form of the foot; Fischer based his classification on the respiratory organs. That of Pelseneer, founded on the gill structures, is probably the best, and will be generally used.

## (Lamellibranchiata, Conchifera, Bivalves.)

## ARCIDE.

BARBATIA, Gray, 1840.
248. B. lactea (L.) Arca lactea, $L$,

Pulteney, p. 36, pl. 11, f. 5.
Forbes and Hanley, Vol. ii., p. 238, pl. 46, f. 1-3.
Secretes itself in the cavities of shells, and anchors itself to stones hy its byssus.
North shore of Poole, Pulteney.
Portland, dredged 15 fathoms, E. Forbes.
Weymouth, W. Thompson.
Kimmeridge Bay, dredged, different depths, J. C. M.-P.
Swanage, Miss Colson.
Fossil: Coralline and Red Crags.

## PECTUNCULUS, Lamarck, 1799.

249. P. glycimeris (L.) Area pilosa, $L$.

Pulteney, p. 36, pl. 11, f. 2.
Generally distributed round the coast; inhabits deep water.
Weymouth and Swanage, Pulteney.
Portland, West Bay, of a more ovate form, E. R. Sykes.
Kimmeridge Bay, dredged, 10 fathoms, J. C. M.-P.
Dead valves thrown on shore between Studland and South Haven, J. C. M.-P.
Fossil : Coralline and Red Crags.

## NUCULIDE.

## NUCULA, Lamarck, 1799.

## 250. N. nucleus ( $L$ ). Arca nucleus, $L$.

Pulteney, p. 37, pl. 12, f. 6.
Abundant; frequents a coarse sea-bottom.
Weymouth and about Poole Harbour, Pulteney.
Poole, dredged, back of Hook, Dr. Turner.
Weymouth, plentiful, E. R. Sylces.
Between South Haven and Studland, Carleton Green.
Kimmeridge Bay, dredged at several depths, J. C. M.-P.
West Bay, between West Bexington and Abbotsbury, J. C. M.-P.

Fossil : Red and Coralline Crags.
Var. radiata, Forbes and Hanley.
Forbes and Hanley, Vol. ii., p. 220, pl. 47, f. 4, 5, and pl. 48, f. 7.

Weymouth, common, E. R. Syles.
Kimmeridge Bay, dredged, J. C. M.-P.
251. N. nitida, G. B. Sowerby.

Ranges from low spring-tides to 86 fathoms.
Weymouth, W. Thompson.
Kimmeridge Bā, abundant, dredged, J. C. M.-P.
Fossil : Coralline Crag.

LEDA, Schumacher, 1817.
252. L. minuta (Moll.) Arca minuta, Fabricius.

Pultoney, p. 36, pl. 1, f. 16.
Forbes and Hanley, Vol. ii., p. 225, pl. 47, f. 11-13.
Rare in the southern counties.
Weymouth, scarce, S. Hanley.
Kinmeridge Bay, dredged, J. C. M.-P.
Fossil : Red Crag and Pleistocene.

## OSTREIDE.

OSTREA, $L$.
The genus Ostrea is distinct from the Pectinidle in the structure of its gills and by its resting on the left valve.

## 253. O. edulis, $L$.

Poole, within the harbour, shell pink (living), Dr. Turner.
Fleet, Weymouth, abundant; planted in an oyster-bed, E. R. Sy/es.

Frequently met with in excavations of the Roman Period.
Var. hippopus, Lamarck. Forbes and Hanley, Vol. ii., p. 307.
Weymouth Bay, dredged, Er. R. Sykes.
In 1873 a bed of this variety was discovered on the trawlingground 15 miles south of Portland Bill
Poole, outside the Harbour, Dr. Turner.
Kimmeridge Bay, dredged, deep water, J. C. M.-P.
Fossil : Red Crag. Raised Beach, Portland, Prestwich.

## ANOMIIDE.

ANOMIA, L., 1767.
Attached to oysters and other shells. They assume the form of the surfaces with which their growing margins are in contact.

## 254. A. ephippium, $L$.

Pulterey, p. 28, pl. 11, f. 3. Brit. Conch., Vol. ii., p. 33a.
Weymouth, abundant, Damon.
Sandy shore between South Haven and Studland, J. C. M.-P. Kimmeridge Bay, attached to stems and oyster-shells, J. C. M.-P.

Var. squamula, L. Weymouth, round sea-weed stems, E. R. Sykes.
Var. aculeata, Müll. Kimmeridge Bay, on a scallop the ridges of which were repeated on its shell, J. C. M.-P.
The variations are due to the position it takes on the olject to which it attaches itself.
Fossil : Coralline and Red Crags.

## 255. A. patelliformis, $L$. Anomia undulata, Gmel.

Pulteney, p. 39, pl. 11, f. 4.
It extends from the Littoral zone to 40 and 50 fathoms. Weymouth, Damon.
Fossil : Coralline and Red Crags.

## PECTINIDE.

PECTEN, Müll, 1776.
256. P. pusio (L.) Ostrea sinuosa, $L$.

Pulteney, p. 38, pl. 10, f. 3-6.
Generally distributed round the coast, ranging from low-water-mark to several fathoms.
Weymouth Bay, Damon, E. R. Sylies.
loole, breakwater (living) ; sandbanks, outside Harbour (dead), Dr. Turner:
Kimmeridge Bay, dredged, abundant, J. C. M.-P.
Fossil: Coralline Crag.
257. P. opercularis (L.) Ostrea opercularis, $L$.

Pulteney, p. 38, pl. 9, f. 1, 2, 4, 5.
Generally distributed round the coast ; local name, Squin.
Var. lineatus, Da Costa; extremely common in Weymouth Bay, E. R. Sylies.

Var. Audouinii, Payr.; Weymouth Bay, E. R. Sylies.
Fossil : Coralline and Red Crags.
258. P. varius (L.) Ostrea varia, $L$.

Pulteney, p. 38, p. 10, f. 1, 2, 4, 5, 7, 9.
This beautiful and variable-coloured shell is distributed generally round the coast, dredged at various depths, and invariably attached to some olject by its hyssus.
Poole, breakwater (living), outside Harbour (dead), on the sandbanks, Di. Turner.
Weymouth, Ek. R. Sykes.
Kimmeridge Bay, dreilged, J. C. M.-P.
Shore between South Haven and Studland, J. C. M.-P.
Fossil : Lenham beds.
£59. P. tigrinus, Müller.
An extremely variable species. Some shells are perfectly smooth while others are ribbed (costata).
Scarce on our coasts.
Swanage, Miss Colson.
Weymouth Bay, dredged, W. Thompson.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil : In the Coralline Red, and Mammaliferous Crags.

## 260. P. maximus (L.) Ostrea maxima, $L$.

Pulteney, p. 37, pl. 9, f. 3.
Has a range of depth varying from 3 to 40 fathoms.
"The sea between Portland and Purbeck has been long famous for the production of this species," Pulteney.
Weymouth Bay, a few have been trawled in the Bay and off Portland, but less abundantly than formerly, E. R. Sykes.
Kimmeridge Bay, dredged in deep water, J. C. M.-P.
Between South Haven and Studland, after storms and high seas, valves may be seen strewn as high as the sanddunes, J. C. M.-P.
Fossil : Coralline Crag.
LIMA, Bruguière, 1792.
The Limas move backwards.
261. L. Loscombii, G. B. Sowerby.

Portland, dredged, 15 fathoms, McAndrew and E. Forbes.
Weymouth, Damon.
Kimmeridge Bay, dredged, 10 fathoms, J. C. M.-P.
Worbarrow Bay, dredged, J. C. M.-P.
Fossil : Coralline Crag.

## MYTILIDE.

MYTILUS, L., 1758.
Several often found together attached by the byssus to stones and often to floating objects.
262. M. edulis, $L$.

Pulteney, p. 39, pl. 12, f. 5.
Generally distributed round the coast, and in estuaries.
Var. pellucida, Penn. Weymouth, E. R. Sykes.
Fossil : Coralline Crag. Raised beach, Portland, Prestwich.

MODIOLA, Lamarck, 1799.
Modiola is distinguished from the mussel by its habit of burrowing, or spinning a nest of small stones, and fragments of shells, by its byssal threads.

## 263. M. modiolus (L.)

Generally distributed round the coast from low-water-mark to 60 fathoms.
Fossil : Red and Norwich Crags.
264. M. adriatica, Lamarck. M. tulipa, Lamarck.

Forbes and Hanley, Vol. ii., p. 189, pl. 45, f. 7, and pl. 48, f. 6. Portland, West Lay, 15 fathoms, gravel, McAndrew.
Between South Haven and Studland, J. E. Cooper.
Swanage, Miss Colson.
Kimmeridge Bay, Gadcliff, dredged, J. C. M.-P.
265. M. barbata, Lamarck.

Forbes and Hanley, Vol. ii., p. 190, pl. 41, f. 4.
A rather rare British species, but not uncommon on the Dorset coast.
Dredged off Portland in fifteen fathoms and in Weymouth Bay in nine fathoms, McAndrew and Forles.
Shore between South Haven and Studland, J. C. M.-P.
Kimmeridge Bay, frequent, dredged in several depths, J. C. M.-P.

Fossil: Red Crag.
266. M. phaseolina, Philippi.

Kimmeridge Bay, dredged fifteen fathoms, J. C. M.-P.
First recorded as a British shell by Mr. Jeffreys in 1847. Fossil : Coralline Crag.

## MODIOLARIA, Beck (Lovén).

267. M. marmorata (Forbes.) Crenella marmorata, Forbes. Mytilus discors, Da Costa.
Generally distributed round the coast.
Poole and Swanage Bay, attached to oysters, Pulteney.
Weymouth, common in the tests of ascidians, E. R. Syles.
Kimmeridge Bay, dredged in moderately deep water, usually found in the tests of Ascidians, sometimes on the valves of Oysters, J. C. M.-P.
On the shore between South Haven and Studland, J. C. M. P.
268. M. costulata (Risso.) Crenella costulata (Risso.)

First notice of it as a British shell in Vol. xix., p. 113, "Annals of Natural History," by Gwyn Jeffireys.
Weymouth, Damon.
Fossil : Coralline and Red Crags.
269. M. discors (L.) Crenella discors, $L$.

Weymouth, rather plentiful; dredged, attached to oysters, algæ, and zoophytes, W. Thompson.
Weymouth, in seaweed, E. R. Sylkes.
Kimmeridge Bay, dredged at various depths, J. C. M.-P.
Fossil: Chillesford Crag; doubtfully recorded from the Coralline.

CRENELLA, Brown, 1827.
The animal does not spin a thick byssus like Modiolaria, but secretes a single thread only for attachment by which it holds itself suspended in the water.
270. C. rhombea (Berkeley). Modiola rhombea, Berkeley.

Forbes and Hanley, Vol. ii., p. 209, pl. 25, f. 3.
A single individual of this small and extremely rare shell, the average length of which does not exceed the fifth of an inch, was dredged at Weymouth, allhering by its byssus to a large mass of slate by the Rev. Miles Berkeley, Forbes and Hanley.
Poole, sand-banks (living), Dr. Turner.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil : Coralline Crag.

## AVICULIDÆ.

PINNA, L., 1758.
271. P. pudis, L. P. pectinata, $L$.

Pulteney, p. 41, pl. 3, f. 3.
Forbes and Hanley, Vol. ii., p. 255, pl. 43, f. 1, 2, and pl. 53, f. 8.
Swanage and Studland, thrown up on the shore after a rough sea, Pulteney.

Weymouth and Dorset coasts, S. Hanley.
Weymouth, on the beach occasionally, E. R. Sylper.
Kimmeridge bay, west side Gadeliff, dredged. J. C. M.-P. Fossil: Coralline Crag.

## UNIONIDE.

UNIO, Plilippsson, I788.
272. U. pictorum (L.) Mya pictorum, $L$.

Pulteney, p. 28, pl. 12, f. 4.
River Stour, " Noticed by Henry Seyner, Esq, where I also have found it," Pulteney.

ANODONTA, Lamarck, 1801.
273. A. cygnea (L.) Mytilus cygneus, $L$.

Slow rivers and ponds.
Pulteney, p. 40, pl. 12, f. 2.
Generally distributed.
Var. rostrata, Jeff. Corfe river, G. Jeffreys.

## CYRENIDÆ.

SPH ÆRIUM, Scop., 1777.

## 274. S. corneum (L.) Tellina cornea, $L$. Cyclas cornea (Lam.)

Slow rivers and ponds.
Pulteney, p. 23, pl. 7, f. 2.
Generally distributed.
Fossil : Mammaliferous Crag.

275. S. lacustre, Müller.<br>Ponds and standing waters.<br>Lulworth, Castle gate pond, Daniel.<br>Holwell, H. H. Wood.<br>Stoborough Meadows, Wareham, J. C. M.-P.

## PISIDIUM, C. Pfeiffer, 1821.

276. P. amnicum (Müller).

Forbes and Hanley, Vol. ii., p. 135.
Slow ponds and streams.
Lulworth, T. Rackett.
Chamberlaynes, Bere Regis, J. C. M.-P.
Corfe river, King Edward's Bridge; Stoborough Meadows, J. C. M.-P.

Wareham, watercourses, meadows, Bevan.
Var. pulchella. Weymouth Daniel.

## 277. P. fontinale (Drap.)

Slow streams and standing water. East Lulworth, Kendall.

Var. Henslowiana, Holwell, H. H. Wood.
Var. pulchella, Weymouth, Damon; river, Chamberlaynes, Bere Regis, J. C. M.-P.
Var. cinerea, river Stour, Spettisbury, J. C. M.-P.

## 278. P. pusillum, Gmel.

Ponds and ditches.
West Lulworth, Kendall.
Wareham, watercourses, Stoborough meadows, and meadows on the north side of the town, J. C. M.-P.
Chesil Bank, ditches adjoining Abbotsbury, and West Bexington, J. C. M.-P.
Sturminster Marshall, watercourses, J. C. M.-P.

## 279. P. nitidum, Jenyns.

Ponds and standing water.
Swanage pond, R. H. Smith.
Chamberlaynes, Bere Regis (river), J. C. M.-P.
Burton, near Wool, watercourses, river Frome, J. C. M.-P.
Wilkes Wood ; Langton Matravers, ponds J. C. M.-P.
Chapman's Pool, J. C. M.-P.

## 280. P. roseum, Scholtz.

Marshes, ponds, and stagnant waters. Weymouth, Damon.

## KELLIID压。

KELLIA，Turt．， 1822.

## 281．K．suborbicularis（Mont．）

Forbes and Hanley，Vol．ii．，p．87，f．9，9』 $9_{\text {B．}}$ ．
Ranges from low－water－mark to 60 fathoms，abounding mostly in about 15 or 20 fathoms．It lives in the cavities of rocks，or of dead bivalves．
Off Portland，in 15 fathoms，Forbes and McAndrev．
Weymouth，from masses of Corallina officinalis，W．Thompson．
Sandsfoot，E．R．Syles，
Kimmeridge Bay，dredged， 12 fathoms，J．C．M．－P．
Fossil ：Coralline Crag．

LASÆA（Leach），Brown， 1827.
This genus is intermediate between Montacuta and Kellia．
282．L．rubpa（Mont．）Kellia rubra，Mont．
A strictly littoral species，lives between tide－marks，in crevices of rocks，and among the roots of Corallines and Fuci．
Weymouth，plentiful on the stems of Corallina officinalis， W．Thompson．
Kimmeridge Bay，in crevices and nooks of shore－rocks near high－water－mark，and Coralline roots，J．C．MI．－P．

Var．pallida，Jeffreys．
Portland，abundant in one locality to the exclusion of the typical form，E．R．Sykes．

LEPTON，Turton， 1822.
283．L．squamosum（Mont）．
Forbes and Hanley，Vol．ii．，p．98，pl．36，f．8， 9.
Frequents the Laninarian and Coralline zones．
West Bay，Portland，dredged， 15 fathoms，Forbes and McAndrew．
Weymouth，W．Thompson．
Kimmeridge Bay，dredged，J．C．M．－P．
Fossil ：Coralline Crag．
284. L. nitidum, Turt. Kellia nitida (Turton).

This minute shell is only 0.1 mm . long and 0.29 mm . broad. It is very local, ranges from Shetland to the Channel Islauds from 10 to 90 fathoms.

Var. convexa, Alder.
Weymouth, Damon.
Fossil: Coralline Crag.
285. L. Clarkiæ, Clark.

Brit. Conch., Vol. ii., p 202.
This very minuie and scarce British shell is only 0.85 mm long and 0.1 mm . broad.
Lulworth Cove, Gwyn Jeffreys.
Weymouth, Damon.

MONTACUTA, Turton, 1819.
286. M. ferruginosa (Mont.)

Weymouth, E. R. Sylies.
Fossil : Coraline Crag.
287. M. bidentata (Mont.)

Forbes and Hanley, Vol. ii, p. 75, pl. 18, f. 6., 6a.
Generally found embedled in the thick valves of dead oysters.
Weymouth, Jeffreys.
Portland, in mud under stones, E. R. Sylies.
Fossil: Coralline Criag.
288. M. substriata (Mont.)

Weymouth, Damon.
Fossil: Coralline Crag; \&c.

## GALEOMMIDÆ, Gray.

GALEOMMA, Turton, 1825.
289. G. Turtoni, Sow.

This very minute shell (which is ouly 0.2 mm . long and $\cdot 04 \mathrm{~mm}$. kroad). It inhabits rocky and story ground from low-water-mark to 20 fathoms.
Weymouth, on Eschara foliacea, W. Thompson.

## KELLIELLID®.

TURTONIA, Forles and Hanley, 1849.
Habits similar to those of Lasæa, living in pools and crevices of rocks between tile-marks and on the roots of sea-weeds and Corallines. Mr. Thompson took them from the stomachs of Mullets on the north-east coast of Ireland.

## 290. T. minuta (O. Falr.) Cyamium minutum (O. Fabr.)

The occurrence of this minute shell on our coast is confined to Weymouth and there only sparingly. It rareiy exceeds the tenth of an inch in length and half of that amount in breadth. It is found in company with Lasæa rubra.
Weymouth, Damon.
Fossil : Remarkable for its abundance in the Raised beach at Portland.

## UNGULINIDЖ.

PTYCHINA, Philippi, 1836.

## 291. P. flexuosa (Mont.)

Forbes and Hanley, Vol. ii., p. 54, pl. 35̄, f. 4.
Weymouth, dredged, 7 fathoms, Forbes and McAndrew. Weymouth Bay, E. R. Syites.

DIPLODONTA, Bronn, 1831.
292. D. rotundata (Mont.) Tellina rotundata, Mont.

Pulteney, p. 30, pl. 5, f. 8.
Forbes and Hanley, Vol. ii., p. 66, pl. 35, f. 8.
Poole, "I have found dead valves abundant on the rocks above high-water-mark," Montagu.
Poole, sand-banks (dead), Dr. Turner.
Weymouth, Damon.
Shore between South Haven and Studland ; Poole Harbour near the entrance on the south side, J. C. M.-P.
Fossil : Coralline and Red Crags.

## ASTARTIDE.

ASTARTE, Sow.; 1816.
293. A. sulcata (Da Costa).

Weymouth Bay, W. Thompson.
Fossil : Red Crag.

## 294. A. triangularis (Mont.)

A more abundant shell in Scotland than in England. Very abundant in the Scilly Islands.
Weymouth, Damon.
Fossil: Coralline Crag.

## ARCTICIDE.

ARCTICA, Schum., 1817.
295. A. islandica (L.) Cyprina islandica (L.) Venus islandica, $L$.
Forbes and Hanley, Vol. i., p. 441, pl. 29, f. 4. Pulteney, p. 35, pl. 6, f. 5.

One of our largest British shells, a northern species, living at depths from 5 to 25 fathoms.
Weymouth, very frequent, Hanley.
Poole, E. Forbes ; sand-banks, Dr. Turner.
Swanage Bay, dredged, 5 fathoms, Miss Colson.
Lyme Regis, dredged, J. W. Cundall.
Between Studland and South Haven, numbers thrown up on the sandy shore after a gale, J. C. M.-P.
Fossil: British Pliocene from the Box Stones to the Weybourn Crag.

## DONACIDÆ.

DONAX, L., 1758.
Siphons short, separate, divergent.
296. D. vittatus, Da Costa. D. anatinus, Lam. D. trunculus, Pult.

Pulteney, p. 33, pl. 6, f. 3. Forbes and Hanley, Vol. i., p. 332, pl. 21, f. 4, 5, 6.

An exceedingly abundant shell on the sandy parts of the coasts ; often thrown up after a rough sea.
Weymouth, Pulteney, W. Thompson, E. R. Sykes.

Poole, Pulteney.
Shore between Studland and South Haven, J. C. M.-P.
Owing to the tough hinge-ligament the valves are usually found undetached. The specific name anatinus having been appropriated by Continental writers for the Mediterranean species, British conchologists have adopted Da Costa's name vittatus.
Fossil: Norwich Crag ; doubtfully in the Red Crag.
297. D. politus (Poli.)

This is one of the brightest-coloured shells of the British seas.
Lives in sand near low-water-mark of spring tides.
Weymouth, Damon.
Whitenose, dredged, 5 fathoms (alive), E. R. Sykes.
Shore between South Haven and Studland, J. C. M.-P.
Fossil : Coralline Crag.

## MACTRIDe.

## MACTRA, L., 1767.

298. M. subtruncata (Da Costa).<br>Forbes and Hanley, Vol. i., p. 358, pl. 21, f. 8, and pl. 22, f. 2. Pulteney, p. 32, pl. 5, f. 10.<br>Weymouth, dredged, 7 fathoms, E. Forbes and McAndrew. Weymouth, Pulteney.<br>Poole, sand-banks, Dr. Turner.<br>Abundant on the shore between Studland and South Haven ; Studland Bay, dredged, J. C. M.-P.

Var. striata, Bro.
Weymouth Bay, on the old oyster bed, E. R. Sylkes.
Fossil : Coralline and Red Crags; it survived through the Glacial Period.

## 299. M. stultorum, $L$.

Pulteney, p. 33, pl. 8, f. 3.
Another abundant shell in the sandy districts of the coast.
North shore, Poole ; Weymouth, Pulteney.
Weymouth Bay, large number thrown up alive on the shore after easterly gales, many tenanted by the pea crab (Pintharis pisum), W. Thompson.
Abundant on the shore between South Haven and Studland, after a gale, J. C. M.-P.

Var. cinerea, Mont.
Weymouth, Damon.
Fossil : Coralline Crag.
300. M. solida, L.

Pulteney, p. 34, pl. 12, f. 1.
Forbes and Hanley, Vol. i., p. 352, pl. 22, f. 1, 5.
Common in the sandy districts of the coast.
Poole, Pulteney.
Weymouth, Pultenery.
Between Studland and South Haven, thrown up on shore (alive), Dr. Turner, J. C. MI.-P.
Var, elliptica, Brooon. Weymouth, W. Thompson.
Var. truncata, Mont. Weymouth, Damon.
Fossil : Coralline Crag.
301. M. elliptica, Brown.

Bears a close resemblance to $M$. solidda, but differs in size, being smaller, broader in proportion to its length, and less solid. Habits similar.
Studland shore (living), Dr. Turner.

## LUCINIDE.

LUCINA, Bruguiève, 1793.
The foot of the Lucina is often twice as long as the animal and is usually folded and concealed between the gills.
302. L. borealis (L.)

Inhabits muddy gravel and sand from low-water-mark spring tides to 82 fathoms.
Weymouth, Damon.
LORIPES, Poli, 1791.
303. Loripes lacteus (Mont.) Tellina lactea, Mont. Lucina leucoma, Thit.
Pulteney, p. 30, pl. 5, f. 9.
Forbes and Hanley, Vol. ii., p. 57, pl. 35, f. 2.
Poole, single valves are often thrown up on the shore, rare, Pulteney.
Studland, E. Forbes.
Fleet, Weymouth. Very fine specimens commonly ohtained by digging at the mouth of the Fleet, E. R. Sulies,
Kimmeridge Bay, dredged, J. C. M.-P.

## TELLINIDÆ.

The valves are often richly coloured and ornamented with finely sculptured lines.

## TELLINA, $L$.

304. T. crassa, Gmel.

Pulteney, p. 30, pl. 7, f. 4. Poole, sand-banks (dead), Dr. Turner. Weymouth and Poole, S. Hanley.
Portland Bay, West, 15 fathoms, McAndrew and E. Forles. Kimmerilge Bay, near Gadeliff, on gravelly sand, dredged.
Fossil : Coralline and Red Crags.
305. T. balthica, L. T. solidula, Pult.

Pulteney, p. 31, pl. 8, f. 4.
Generally distributed round the coast.
Poole sand-banks, living and dead, Dr. Turner.
Poole Harbour, mud, J. C. MI.-P.
Weymouth Backwater, common, E. R. Sylres.
Studiand, shore, J. C. M.-P.
Fossil : Raised beach, Portland, Prestwich.
306. T. tenuis, Da Costa.

Pulteney, p. 30, pl. 5, f. 3.
Da Costa, p. 210.
Extremely common on our sandy shores, living buried in in the sand below low-water-mark. Da Costa nutices it as a Dorsetshire shell.
Weymouth, W. Thompson, E. R. Sylies.
Shore between Stuidland and South Haven, J. C. M.-P.
307. T. fabula, Gronovius.

Pulteney, p. 30, pl. 12, f. 3.
A littoral shell, occasionally ranging to a depth of 7 fathoms. Poole, sand-banks (dead), Dr. Turner.
Studland, sanil-banks, T. Rackett.
Sandy shore between Studland and South Haven, J. C. M.-P. Weymouth, W. Thompson, E. R. Sylkes.
Fossil: Mammaliferous Crag, Suffolk.
308. T. incarnata, L. T. squalida, Pult. T. depressa, Pult.

Pulteney, p. 30, pl. 5, f. 2.
Forbes and Hanley, Vol. i., p. 298, pl. 20, f. 5.
A scarce British shell.
Weymouth, dredged, 7 fathoms, E. Forbes and McAndrew.
Poole, north shore, Pulteney.
Weymouth, shore after a storm ; lives in sand, at the mouth of the Fleet estuary, $E$. R. Sylies.
309. T. donacina, $L$.

Pulteney, p. 29, pl. 11, f. 3, 6.
Forbes and Hanley, Vol. i., p. 292, pl. 12, f. 3, 6.
A widely-distributed species.
Weymouth, very sparingly, Pulteney.
Portland, West Bay, dredged in $1 \overline{5}$ fathoms, E. Forbes and McAndrew.
Kimmeridge Bay, dredged, 11 fathoms, J. C. M.-P.
Fossil: Coralline and Red Crags.

## SCROBICULARIIDE.

SCROBICULARIA, Schumacher, 1817.
310. S. piperita (Gmel.) Mactra Listeri, Gmel.

Pulteney, p. 33, pl. 7, f. 1.
Usually found at the mouths of rivers and inlets, and not far from fresh-water.
Poole Harbour and north shore, Pulteney, Dr: Turner.
Mud-flats, Branksea Island, abundant, J. C. M.-P.
Weymouth, Pulteney.
The Fleet, generally dead, $E$. R. Sykhes.
"One valve obtained at Bawdsey Cliff. I have one also from the Woodbridge district," MS. by the late Mr. R. Bell in the possession of E.R. Sylces. This confirms Searle Wood's doubtful Red Crag.
Fossil : Quaternary tufaceous deposit, Blashenwell, Clement Reid.

SYNDOSMYA, Reeluz, 1842.
311. S. prismatica (Mont.) Scrobicularia prismatica (Mont.)

This iridescent species has a great range of depth from the Laminarian zone to 100 fathoms. There is no record of it, east of Weymouth.
Weymouth, S. Hanley.
312. S. nitida, Lovén. S. intermedia, Thompson.
A boreal shell.
Forbes and Hanley, Vol. i., p. 31, pl. 17, f. 9, 10.
Lives in slimy mud at different depths.
E. Forbes (1853) gives several British localities for this shell, but omits Weymouth. McAndrew found it on the north coast of Cornwall. Messrs. Howse and Mennell on the Dogger Bank.
Weymouth, Damon, E. R. Sylees.

## 313. S. alba (Wood). Mactra Boysii, Mont.

Pulteney, p. 33, pl. 12, f. 7.
Not uncommon on the sandy and muddy parts of the const.
Studland, T'. Rackett.
Poole, T. Rackett.
Weynouth, W. Thompson; dredged, 5 fathoms, E. R. Sylies.
Kimmerilge Bay, dredged, 8 fathoms, abundant, J. C. M.-P.
Fossil: Upper Tertiaries from the Clyde beds to the Coralline Crag.

## 314. S. tenuis, (Mont.) Scrobicularia tenuis (Mont.)

Pulteney, p. 33.
Forbes and Hanley, Vol. i., p. 323, pl. 17, f. 11.
In the Fleet, west of Portland Bridge, abundant, S. Hanley, J. С. M.-P.

Fleet estuary (alive) with Rissoia membranacea, E. R. Sykes.
Poole Harbour, south side, near the mouth (deal), abundant, thrown up with the sea-weed, J. C. M.-P.

## LUTRARIA, Lam., 1799.

## 315. L. oblonga (Chemnitz.) <br> Pulteney, p. 33, pl. 2. f. 4. <br> Forbes and Hanley, Vol. i., p. 374, pl. 13, f. 1. <br> Lives in moist mud and ooze. <br> Poole Harbour, north shore; Poole Harbour, opposite Branksome; deep mud near Lilliput, J. C. MI.-P. <br> Poole sand-banks (dead), Dr. Turner; Studland beach, Pulteney, J. C. M.-P. <br> Weymouth, Pulteney; thrown up on the shore continually covered with Algæ, Sepulæ, Corallines, only met with ten living specimens, W. Thompson ; E. R. Sykes.

## 316. L. elliptica, Lamarck. Mactra lutraria, L. <br> Pulteney, p. 33, pl. 5, f. 11. <br> Lives in moist mud and ooze on the Dorset coast. <br> Weymouth, Damon, occasionally after storms. <br> Poole, on the sand-banks (dead), Dr. Turner. <br> Fossil : Coralline and Red Crags.

## Order CARDIACEA.

## CARDIIDE.

Siphons short ; foot large, sickle-shaped.
CARDIUM, L. 1758.

## 317. C. aculeatum, L.

British Conchology, Vol. ii., p. 268.
A local shell, rare on the l)orset coast but very abundant in South Devon.
Weymouth Bay, dredged, W. Thompson; several, one measuring in greatest breadth four and a-half inches, E. R. Sylees.
318. C. echinatum, $L$.

Pulteney, p. 31, pl. 6, f. 2.
Weymouth, Iay, E. R. Sykes.
Shore between Studland and South Haven, J. C. M.-P. Fossil : St. Erth beds and Red Crag.
319. C. tuberculatum, L. C. rusticum (L.)

Pulteney, p. 31, pl. 2, f. 2.
British Conchology, Vol. ii., p. 273.
Sandy bays, from low-water-mark at spring-tides to 12 fathoms.
Weymouth, Damon, E. R. Syles.
Poole, sand-banks (dead), Dr. I'urner.
Shore between Studland and South Haven, J. C. M.-P.
Fossil : St. Erth beds and Red Crag.
320. C. exiguum, Gmel. C. pygmæum, Don.

Forbes and Hanley, Vol. ii., p. 29, pl. 32, f. 8.
Weymouth, Hanley.
Weymouth Bay, on sea-weed, dredged 5 fathoms, E. R. Sylies.

Poole Harbour (living), outside harbour, sand-banks (dead), E. R. Sylkes.

Swanage Bay, dredged, Laminarian zone.
Fleet, Swannery, abundant on the silk-veed with Paludestrina ventrosa, J. C. M.-P.
321. C. Pasciatum, Mont.

Forbes and Hanley, Vol. ii., p. 25, pl. 32, f. 5.
Portland, dredged, from 15 to 27 fathoms, E. Forles and McAndrew.
Weymouth, Damon.
Kimmeridge Bay, dredged at various depths, J. C. M.-P.
Fossil : Coralline and Red Crags.
322. C. nodosum, Turt.

Forbes and Hanley, Vol. ii., p. 22, pl. 32, f. 7.
Laminarian zone, but extends occasionally to the Coralline.
Weymouth, Hanley ; E. R. Sylies.
Portland, dredged, 15 fathoms, E. Forbes and McAnitrew.
Kimmeridge Bay, dredged, J. C. MI.-P.
Fossil : Coralline Crag.
323. C. edule, $L$.

Pulteney, p. 32, pl. 11, f. 1.
Abundant in the sandy parts of Poole Harbour and at Weymouth, J. C. M.-P.
Raised Beach, Portland, Prestuich, E. R. Sylkes.
Fossil : Coralline and Red Caggs.

## LEFVICARDIUM, Svaainson, 1840.

## 324. L. norvegicum (Spengler). <br> Cardium norvegicum, Speng. C. lævigatum, Penn.

Pulteney, p. 31, pl. 7, f. 6.
Inhalits sandy and gravelly ground from 55 to 30 fathoms depth. The immature valves are very beautifully coloured,
Weymouth, Pulteney.
Swanage, Pulteney.
Poole, north shore, Pulteney.
Shore between Studland and South Haven (dead), where the valves are profusely strewn, J. C. M.-P.
Kimmeridge Bay, dredged at various depths; young specimens very abundant, J. C. M.-P.
Fossil: Box Stones and Coralline Crag.

Order VENERACEA.

## VENERIDE.

## VENUS, $L$.

325. V. verrucosa, $L$.

Da Costa, p. 185, pl. 12, f. 1.
Pulteney, p. 34, pl. 8, f. 1.
Weymouth, dredged in seven fathoms, E. Forles and McAndrew.
Fleet estuary, north side, E. R. Sylies.
Swanage, Miss Colson.
Kimmeridge Bay, dredged, J. C. M.-P.
Fossil: In beds of the Glacial epoch.
326. V. fasciata (Da Costa).

Pulteney, p. 34, pl. 7, f. 3.
Forbes and Hanley, Vol. I., p. 415, pl. 23, f. 3, and pl. 26, f. 7.
Weymouth, Pulteney ; small dwarfed form, dredged, E. R. Sylkes.

Portland, dredged 15 fathoms, E. Forbes and McAndrew.
Kimmeridge Bay, off St. Alban's Head, 15 fathoms, J. C. M.-P.
Fossil : Walton and Red Crags.
327. V. casina, $L$.

Forbes and Hanley, Vol. I., p. 405, pl. 24, f. 1, 5, 6. Portland, West Bay, 15 fathoms, E. Forbes and McAndrew. Weymouth, live specimens dredged, W. Thompson.
Lulworth Cove, Morton G. Stuart.
Swanage, Mrss Colson.
Between South Haven and Studland, Carleton Green.
Fossil : Coralline and Red Crags.
328. V. ovata, Penn.

Pulteney, p. 35, t. 1, f. 15.
Forbes and Hanley, Vol. II., p. 419, pl. 24, f. 2, and pl. 26, f. 1.
A widely-distributed shell, frequenting depths varying from three to a hundred fathoms.
Weymouth, Rackett ; fairly common, E. R. Sylies.
Studland, Rackett.
Kimmeridge Bay, plentiful, various depths, J. C. M.-P. Fossil : Coralline and Red Crags.
329. V. gallina, L. V. striatula, Da Costa. V. casina, Pult.

Pulteney, p. 35, pl. 8, f. 2.
Ranges to great depths.
Weymouth, Pulteney; nearly tending to var. gibba, Jeffreys; E. R. Sykes.

Poole, Pulteney; sand-banks (dead), Dr. Turner.
Swanage, Pulteney, Miss Colson.
Studland, Pulteney.
Lyme Regis, dredged, J. W. Cundall.
Shore, between South Haven and Studland, J. C. M.-P.
Fossil : Post glacial, Kelsey Hill, S. V. Wood.

CIRCE, Schumacher, 1817.
330. C. minima (Mont.)

One of our scarcer species, plentiful in certain localities.
St. Alban's Head, off Chapman's Pool, dredged in about six fathons, J. C. M.-P.
Fossil : Coraliine and Red Crags.

DOSINIA, Scopoli, 1777.
331. D. exoleta (L.) Venus exoleta, $L$.

Artemis exoleta, Forbes.
Da Costr, p. 187, 11. 19, f. 5 ; Donovan, Vol. ii., p. 42, f. 1, pl. 12, f. 5.
Pulteney, p. 35, pl. 8, f. 5.
Poole, sand-banks, Dr. Turner.
Weymouth, Damon.
Kimmeridge Bay, St. Alban's Head, off Chapman's Pool, dredged, J. C. M.-P.
Fossil : Lenham Beds and Red Crag, doubtful in the Coralline.
332. D. lincta (Pult.) Artemis lincta, Pulteney.

Pulteney, p. 35, pl. 1, f. 13.
Weymouth, Damon.
Poole, sand-banks (dead), Carleton Green.
Fossil : Coralline and Walton Crags.

## LUCINOPSIS, Forbes and Hanley, 1848.

## 333. L. undata (Penn).

Forbes and Hanley, Vol. I., p. 435, pl. 28, f. 1, 2.
Frequents sandy ground, has a wide range of depth, from a few fathoms to 80 fathoms.
Weymouth, dredged seven fathoms, E. Forbes and McAndrew; thrown up on the shore after a storm, $E . R$. Syles.
Lyme Regis, dredged, J. W. Cundall.
Kimmeridge Day, dredged, J. C. M.-P.
Fossil : Coralline and Chillingford Crags.

TAPES, Mühlfeldt, 1811.
334. T. aureus (Gmel.) Venus aurea, Gmel.

Pulteney, p. 36, pl. 13, f. 3.
Forbes and Hanley, Vol. i., p. 392, pl. 25, f. 5.
A tolerably abundant shell. The internal colouring varies from a rich golden to a pale jellow colour with strains of purple on the hinge-margin. The distribution extends to the Mediterranean.
Weymouth, S. Hanley; cast on shore alive, W. Thompson, E. R. Syles.

Poole Harbour, south shore near the mouth, J. C. M.-P.
Kimmeridge Bay, dredged, J. C. M.-P.

## 335. T. virginea (L.)

Pulteney, p. 36, pl. 13, f. 1.
Forbes and Hanley, Vol. i., p. 388, pl. 255, f. 4.
One of the most beautiful of the British Veneride.
Portland, West Bay, dredged 15 fathoms, E. Forbes and MeAndrew.
Poole, E. Forbes.
Studland sands, Dr. Turner, Miss Colson.
Weymouth Bay, W. IThompson.
Lyme Regis, dredged, J. W. Cundall.
Kimmeridge Bay, dredged several fathoms, J. C. M.-P.
Fossil: Coralline Crag.

## 336. T. pullastra (Mont.)

Pulteney, p. 36, pl. 1, f. 8.
Forbes and Hanley, Vol. i., p. 36, pl. 1., f. 8.
A littoral shell, frequents sandy and muddy gravelly ground, the tests of Laminaria and the crevices of rocks.
Poole, E. Forbes, J. C. M.-P.
Studland sand-banks, Dr. Turner.
Weymouth, W. Thompson.
Var. purpurea. Weymouth, Damon.
Both the typical and distorted forms are common at Weymouth; the latter are not a true variety, E. R. Sykes.
Fossil : St. Erth beds, doubtful in the Coralline Crag.

## 337. T. decussata (L.) Cuneus reticulatus, Da Costa.

Pulteney, p. 36, pl. 6, f. 4.
Forbes and Hanley, p. 379, pl. 25, f. 1; Da Costa, p. 203.
A littoral shell rarely if ever taken by the dredge. At certain seasons they are seen in great numbers at the north shore, Poole Harbour, Pulteney.
Weymouth, Pulteney.
Fleet estuary, north side, abundant and fine, E. R. Sykes.
Studland sand-banks, Dr. Twiner.
Poole Harbour, near the mouth, south side.
Fossil: Crag of Weybourne.

## VENERUPIS, Lamarck.

## 338. V. Irus (L.)

Forbes and Hanley, Vol. i., p. 156, pl. 67, f. 1, 2, 3.
Da Costa, p. 204.
The lamelim on the surface of the shell distinguish it
from the rest of the rock-borers of our coasts.
Da Costa mentions it as a Dorsetshire shell.
Weymouth, Sandsfont Castle, embedded in masses of rocks on the shore, S. Hanley, E. R. Sykes.
Weymouth, W. Thompson.
Swanage, J. E. Corper.
Kimmeridge Bay, embedded in blocks of cement stone (dead), J. C. M.-P.

Fossil: Coralline Crag.

## PSAMMOBIIDE.

PSAMMOBIA, Lamarck, 1818.
339. P. tellinella, Lamarck.

Living in deep-water, it is not often thrown up on the shore.
Forbes and Hanley, Vol. i., p. 277, pl. 19, f. 4.
Portland, dredged 15 fathoms, E. Forbes and McAndrew.
Weymouth Bay, W. Thompson, E. R. Syles.
Fossil : Coralline Crag.
340. P. costulata, Turt.

Very rare and seldom met with in a living state. Weymouth, Damon.
Poole Harbour, shore, south side, J. C. M.-P.?
Fossil : Coralline Crag.

## 341. P. Ferröensis (Chemnitz). Tellina Ferroensis, Chemnitz.

Pulteney, p. 29, pl. 6, f. 1.
Poole Harbour, north shore, Pulteney, J. C. M.-P.
Studland, Miss Colson.
Weymoath, W. Thompson; stray specimens on the shore after a gale, E. R. Sykes.
Lyme Regis, T. W. Cundall. Fossil: Coralline Crag.
342. P. vespertina (Chent.) Tellina variabilis, Pult.

Pulteney, p. 29, 30, pl. 5, f. 2.
Forbes and Hanley, Vol. i., p. 271, pl. 19, f. 1, 2.
Portland, West Bay, dredged 15 fathoms, E. Forbes and McAndrew.
Weymouth, S. Hanley.
Poole, north shore, Pulteney. Studland, Miss Colson.

## Order MYACEA.

## MYIDÆ.

MYA, $L$.

## 343. M. arenaria, $L$.

Pulteney, p. 28, pl. 4, f. 2.
A broad, thick, semi-transparent shell gaping at both extremities. Lives near low-water mark or near estuaries.
Weymouth, thrown on the shore after gales, W. Thompson.
Poole Harbour, taken alive buried in weed.
Fossil : Pliocene.

## 344. M. truncata, $L$.

Pulteney, p. 27, pl. 3, f. 1.
A deep-sea shell as well as littoral.
Weymouth, W. Thompson.
Poole, sand-banks, Dr. Turner:
Between South Haven and Studland, single valves, abundantly strewed on the beach, J. C.M.-P.
Fossil: Coralline Crag and Boulder Clay at Whitby.

CORBULA, Brug., 1792.
345. C. gibba, Oliv.

Forbes and Hanley, Vol. i., p. 180, pl. 9, f. 7-12.
This shell usually frequents the Laminarian Zone, and is abundant round the coast.
Portland, West Bay, dredged 15 fathoms, Lieutenant Thomas, R.N.
Weymouth Bay and mouth of the Fleet, abundant, E. R. Sykes.

Poole, back of Hook, Dr. Turner.
Between South Haven and Studland, J. E. Cooper.
Kimmeridge Bay, muduy sea-bottom, dredged, J. C. M.-P.
West Bexington, dredged seven fathoms, J. C. M.-P.
Var. rosea, Jeff.
Weymouth, McAndrew ; Damon.
Fossil : Red and Coralline Crags.

## SAXICAVIDE.

SAXICAVA, Bellevue, 1802.

## 346. S. rugosa (L.) Mytilus rugosus, Penn.

Pulteney, p. 39, pl. 13, f. 5.
Forbes and Hanley, Vol. i., p. 146, pl. 6, f. 7, 8.
In the young state it gapes at the superior margin. Successive generations will occupy the same hole. The last inhabits the place of its predecessor. In this way two or three pairs of shells are found nested one within the other.
Durrows in limestones and crevices of rocks, roots of seaweed, \&c.
Found lodged in calcareous rocks at Weymouti and Portland, Pulteney.
Weymouth, dredged as well as found on the beach in detached portions of limestone, S. Hanley.
Portland, West Bay, dredged alive in 20 fathoms, E. Forbes and McAndreev.
Lyme Regis, dredged, J. W. Cundall.
Swanage, J. E. Cooper.
Kimmeridge Bay, in blocks of Kinmeridge clay, dredged various depths, not uncommon, J. C. M.-P.
Raised beach, Portland, Prestwich.
Fossil : Miocene ; Coralline and Red Crags.

## SOLENIDE.

Their process of locomotion is not limited to burrowing, they can dart from place to place in the water as quickly as a scallop and apparently in the same way.

SOLECURTUS, Blvlle., 1824.
347. S. antiquatus (Pult.) S. coarctatus, F. and H. non. Gmel. Solen antiquatus, Pulteney.
Forbes and Hanley, Vol. i., p. 259, pl. 15, f. 3. Pulteney, pl. 29.
Portland, West Bay, E. Forbes and MIcAndrew.
Weymouth, thrown up on the beach, E. R. Sykes.

## SOLEN, $L$.

348. S. ensis, $L$.

Pulteney, p. 28, p. 4, f. 3.
Inhabits deeper water than S. siliqua, and is not, therefore, so frequently found thrown up on the shore. Common on the sandy parts of the coast.
349. S. siliqua, $L$.

Pulteney, p. 28, pl. 2, f. 5.
A very common shell at Weymouth and between South Haven and Swanage. It buries itself under the sand to the depth of a foot or more, and on the incoming of the tide may be seen protruding its bolly a couple of inches or more, but suddenly recedes on the approach of footsteps.
Fossil: Red Crag.
350. S. vagina, L. S. marginatus, Pult.

Pulteney, p. 28, pl. 4, f. 8.
Differs from $S$. ensis in its straight valve, and from S. siliqua in having two teeth in each valve.

Weymouth, dredged, Pulteney; common at low-tiue, alive, E. R. Sykes.

## CULTELLUS, Schumacher, 1817.

351. C. pellucidus (Pennant). Solen pellucidus, Penn.

Forbes and Hanley, Vol. i., p. 252, pl. 13, f. 3.
This can scarcely claim to be a true Solen. It has an immense range of depth from 6 to 100 fathoms. Inhabits sand, and sandy mud.
Weymouth, dredged seven fathoms from 10 to 27 fathoms at various distances, $E$. Forbes and McAndrew ; five fathoms, E. R. Sylkes.
Poole, dead on sand-banks, Dr. Turner.
Studland, Miss Colson.
Worbarrow Bay, dredged 10 fathoms, J. C. M.-P.
Fossil : In the Chillesford Crag.

PHARUS, Leach teste Gray, 1840.
352. P. legumen (L.) Ceratisolen legumen (Forbes.)

Pulteney, p. 29, pl. 4, f. 4.
Da Costa, p. 238.
Found between Poole and Christchurch, but is very rare, Pulteney.

## PHOLADIDÆ, Gray.

## PHOLAS, $L$.

353. P. dactylus, L. P. hians, Pulteney.

Weymouth, S. Hanley, E. R. Sykes.
Studiand, Pulteney.
Poole, sand-banks (dead), Dr. Turner; north shore, Pulteney.
Lyme Regis, E. Forbes, J. W. Cunlall.
354. P. candida, L.

Pulteney, p. 27, pl. 1, f. 12.
Forbes and Hanley, Vol. i., p. 117, pl. 4, f. 1, 2.
Not half the size of the preceding, and fragile.
Weymouth, Pulteney ; S. Hanley ; E. R. Sykes.
Lyme Regis, embedded in blocks of lias, E. R. Sykes, E. Forbes.

Swanage, Pulteney.
Poole, north shore, Pulteney ; sanl-banks, Di. Turner. Shore, between Swanage and South Haven, J. C. MI.-P. Kimmeridge Bay, in blocks of shale, dredged, J. C. M.-P.
Fossil : Norwich Crag.
355. P. parva, Pennant.

Forbes and Hanley, Vol. i., p. 111, pl. 2, f. 2, pl. 4, f. 1, 2.
Portland, West Bay, dredged alive in 5 fathoms, McAndrevo.
Weymouth, W. Thompson.
Lyme Regis, J. W. Cundall.
Swanage, J. E. Cooper.
Kimmeridge Bay, in blocks of cement stone, dredged, J. C. MI.-P.

Var. quadrangula, Portland, A. H. Cooke.

## 356. P. crispata, $L$.

Pulteney, p. 27, pl. 3, f. 4.
Weymouth, W. Thompson.
Kimmeridge Bay, dredged in blocks of shale, J. C. M.-P.
Fossil : Walton, Red and Weybourn Crags.

PHOLADIDEA (Goodall), Turton, 1819.
357. P. papyracea (Turton) 1819.

Weymouth, Damon.
Portland, McAndrew.
This very rare shell has only recently been added to the Dorset list.
Fossil : Coralline Crag.

## TEREDINIDE.

TEREDO, L., 1757.

## 358. T. norvegica, Spengler.

Weymouth, Damon.
Fossil : Coralline and Red Crags.
359. T. navalis, $L$.

Pellets small, testaceous, forked, and solid at the base.
Weymouth, Damon.
360. T. megotara, Hanley.

Brit Conch., iii, p. 178.
"It is not unfrequently found on floating trees and pieces of fir cast ashore on the east and north of the Shetland Isles after a continuance of easterly gales, having been drifted from the opposite coasts of Norway on pieces of Janadian timber, which have apparently been transported by tie Gulf Stream, aided by a succession of westerly gales, especially during each equinox, on various parts of our shore, including the Channel Islands, Sussex, Devon, Cornwall, Dorset, Bristol Cnannel, \&c., Jeffreys.
Lulworth, on the knee-timber of a stranded vessel, Jeffreys. Weymouth, Damon.
Fossil : Red and Coralline Crags.

## GASTROCH ÆNIDÆ.

GASTROCHENA, Spengler; 1780.
361. G. dubia (Penn). G. modiolina (Lamarclc).

Da Costa, p. 234.
Forbes and Hanley, p. 131, pl. 11, f. 5, 8.
Pulteney, p. 27, pl. 1, f. 11.
Weymouth, Da Costa; dredged alive, McAndrew.
Sandsfoot Castle, soft rock and mud, alive, E. R. Sykes.
Swanage, J. E. Cooper.
Kimmeridge Bay, in blocks of shale, dredged, J. C. M.-P.
Fossil: Coralline and Red Crags.

## ANATIDINÆ.

## COCHLODESMA, Couthouy.

362. C. prætenuis (Mont.) Mya prætenuis, Pulteney.

Pulteney, p. 29, pl. 4, f. 7.
Furbes and Hanley, Vol. i., p. 235, pl. 15, f. 4.
Coast between Weymouth and Portland, Pulteney.
Poole, north shore near Brownsea, Pulteney.
Fossil: Coralline Crag.
THRACIA (Leach) Blainville, 1824.
363. T. papyracea, Poli. T. phaseolina, Lam.

Embedded in rock, near low-water-mark.
Weymouth, S. Hanley ; E. R. Sykes.
Lyme Regis, E. Forbes.
Fossil: Coralline Crag.
364. T. pubescens, Pulteney. T. phaseolina, Lamarck. Mya declivis, Turt.
Forbes and Hanley, Vol. i., p. 226, pl. 16, f. 213.
Pulteney, p. 28, pl. 4, f. 6.
Weymouth, dredged, Pulteney ; W. Thompson.
Portland Breakwater, dredged 10 to 12 fathoms, $E$. $R$. Sykes.
Fossil : Coralline Crag.
365. T. convexa, Wood.

Very rare.
Weymouth, W. Thompson.
Fossil : Coralline Crag.
366. T. distorta (Montagu).

Forbes and Hanley, Vol. i., p. 231, pl. 17, f. 1, 2, 3, 8.
Aithough not a borer this mollusc buries itself in the crevices of rocks, and conforms itself to the cavity in which it is lying.
Weymouth, dead valves on the shores, alive opposite the Old Castle, S. Hanley ; E. R. Sykes.
Kimmeridge Bay, dredged, embedded in blocks of shale and cement-stone ; not uncommon, J. C. M.P.
Fossil : Coralline Crag.

## PAND0RID庣.

PANDORA (Solander) Bruguière, 1792.
367. P. inæquivalvis ( $L$ ). P. rostrata, Lamarck.

Forbes and Hanley, Vol. i., p. 207, pl. 8, f. 1-4.
Weymouth, Damon; abundant, E. R. Sykes.
Shore between Studland and South Haven, abundant after a storm (living), J. C. M.-P.
Var. obtusa, Jef. Forbes and Hanley, Vol. i., p. 210, pl. 8, f. 5.
Portland, frequently obtained dredging, S. Hanley.
Weymouth, LE. Forbes,
White Nose, Aredged, W. Thompson.
Kimmeridge and Worbarrow Bays, dredged, J. C. M.-P.
Occurs as far as Barton in Hants, E. R. Syles.
Fossil : Typical form occurs in the Coralline Crag. Var. obtusa in the Red Crag.

## LYONSIID压.

LYONSIA, 1822.
368. L. norvegica (Chemnitz).

Forbes and Hanley, Vol. i., p. 214, pl. 8, f. 6-9.
Weymouth. "The finest specimens we know of are those dredged off Weymouth (near Portland), which measure fully one inch and three-quarters in length and seveneighths of an inch in breadth," E. Forbes and Hanley. Portland, West Bay, dredged 15 fathoms, McAnclrew.
White Nose, W. Thompson.
Kimmeridge Bay, off Gadeliff, J. C. M.-P.

Order MOLLUSCOIDA.
Sub-order Brachiopoda.

## TEREBRATULIDÆ.

ARGIOPE, Eudes Deslongchamps, 1842.
369. A. cistellula (S. Wood).

Megathyris cistellula (S. Wood).
Attached to stones and valves of shells in several fathoms deep.
Off Portland, E. R. Syzes. Fossil : Coralline Crag.

## 370. A. capsula, Jeffreys.

Habits similar to the preceding.
It occurs with $A$. cistellala in the hollows of old shells of Pectunculus glycimeris and other bivalves. Otf Portland, 18 to 25 fathoms, Danon.


## I N D E X.

## A.

Acanthinula, $x$.
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lamellata, x.
Acanthochites, 63.
discrepans, xxiy., 63.
fascicularis, xxiv., 63. var. gracilis, 63.

Acanthochitidæ, xxiv.
Achatina, 17.
acicula, 17.
Acicula, 49.
lineata, xix., 49.
Aciculidæ, xix., 49.
Aclis, xx.
ascaris, 51.
Gulsona, xx.
supranitida, xx.
unica, xx. 52.
Acmæа, xxiii., 60.
mitra, xxiii.
testudinalis, xxiii., 61.
virginea, xxiii., 60.
Acmæidæ, xxiii., 60.
Acme, 49.
lineata, 49.
Actæon, xii., 28. tornatilis, xii., 28.

Actæonidæ, xii., 28.
Adeorbiidæ, xvii., 42.
Adeorbis, xvil., 42.
subcarinata, xvii., 42.
Æolididæ, 27.
सolis, 27.
Landsburghi, 27. papillosa, 27.
Agriolimax, viii.
Akera, xiii., 29. bullata, xiii., 29.

Akeridæ, xiii., 29.
Alexia, xi., 19.
bidentata, 19.
var. alba, 19.
denticulata, 19.
Amalia, viii., 3.
gagates, 3. var. plumbea, 3.
marginata, 3.
Amauropsis, xix.
Amphidesma. castaneum, xxxii.
Amphineura, xxiv., 62.
Amphipeplea, xi., 23.
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hyalina, 28.
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Anatinacea, xxvi., xxviii., xxxii.

Anatinidæ, xxvi., xxviii, xxxii., 94.

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cristata, 27.
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" capuloides, 20.
," gibbosa, 20.
lacustris, 20.
oblongus, 20.
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var. aculeata, 66.
,, squamula, 66.
patelliformis, 67.
undulata, 67.
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Aplexa, xi.
hypnorum, 26.
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hybrida, 31.
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Aporrhais, xvi.
pes-pelicani, xvi., 38.
Serresianus, xvi.
Aquillidæ, xv.
Aquillus, xv. cutaceus, $x y$. nodifer, xv.
Arca.
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minuta, 65.
nucleus, 65.
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Balea, xi. fragilis, 16.
Balia (see errata). perversa, 16.
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patula, 38.
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utriculus, xii.
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ventrosa, xii.
Bullæa.
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Bullinella, xii.
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Cecilioides, 17. K/
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| Page line |  | for - read |  |
| :---: | :---: | :---: | :---: |
| 4 | 1 and 13 top | Chanteraux | Chantereaux. |
| 5 | 6 | 1853 | 1833. |
| 8 | 13 | specimen | specimens. |
| 9 | 17 | Abundance | Abundant. |
| 11 | 24 and 25 | transpose lines |  |
| 14 | 5 |  | add 1801. |
| 15 | 5 bottom | omit Pupa pus | illa. |
| 16 | 8 top | Balia, Prid. | Balea (Prid), Gray, 1821. |
|  | 19 | bidentatus | bidentata. |
| 18 | 17 | places | plants. |
| 19 | 6 bottom | omit Fleet. |  |
|  | 4 | Rissoa | Paludinella. |
| 21 | 1 top | Lam. | Lam., 1801. |
|  | 2 | Müll | (Drap). |
|  | 3 | 613 | f. 13. |
| 23 | 2 | glutinosus | glutinosa. |
|  | 5 | it | itself. |
|  | 12 bottom | Liddon | river Liddon. |
| 24 | 5 top | Müll | L. |
|  | 2 bottom | omit 'river.' |  |
| 25 | 17 top | glabra | glaber. |
| 26 | 15 | omit Physa hy | pnornm. |
| 28 | 9 | Retusa | add Brown, 1827. |
|  | 6 bottom | Raised beach | add Portland. |
| 30 | 2 top | Ascanias | Ascanius. |
| 31 | 9 and 10 | between these Index, p. | lines insert Notaspidea (and in 04, three lines from bottom). |
| 331 | 13 bottom | omit this line |  |
| 35 | 8 top | antiquus | antiqua. |
|  | 1 and 2, bottom | transpose. |  |
| 43 | 1, 14 top | R. | Rissoa. |
| 45 | 3 bottom | subcylindricata | Subcylindrata (bracket the whole paragraph). |
| 48 | 5 top | add Assiminea | littorina. |
| 672 | 22 | Audourini | Andoninii. |
| $10 \pm 2$ | 21 | Mesodesmatix | Mesodesmatidae. |

