parabola, the theory of elliptic integrals becomes simply common trigono-

metry, or parabolic trigonometry with the theory of logarithms.

These views will suggest to us the reflection, how very small is the field of that vast region, the Integral Calculus, which has hitherto been cultivated or even explored! When we find that the highest and most abstruse of known functions, not only circular functions and logarithms, but also elliptic integrals of the three orders, are exhausted, "used up," in representing the symmetrical intersections of surfaces of the second order, who shall exhibit and tabulate the integrals of those functions which represent the unsymmetrical sections of surfaces of the second order, or generally those curves of double curvature in which surfaces of the third and higher orders intersect? Considerations such as these but add fresh evidence to the truth, how small even in mathematics is the proportion which the known bears to the niknown!

Cheltenham, August 8, 1856.

In revising this memoir for publication among the Reports of the British Association, I have supplied several numerical examples to illustrate the theory. I have added some new theorems, such as the curious properties of the polygon of n sides circumscribing the parabola, p. 95; the theorem which connects the corresponding points of the parabola and the equilateral hyperbola, p. 94; a new trigonometrical form for the roots of a cubic equation, p. 81; and the geometrical expressions for the 2n roots of a trinomial equation, in the excepted case, by the help of parabolic trigonometry, p. 99. I have also made a few other additions, and several corrections.—J. B.

The Vicarage, Wandsworth, Nov. 10, 1856.

Report on the Marine Testaceous Mollusca of the North-east Atlantic and neighbouring Seas, and the physical conditions affecting their development. By Robert Macandrew, F.R.S.

In the following Report, prepared in compliance with a wish expressed by the Committee of the Natural History Section of the British Association at the Glasgow Meeting last year, I have endeavoured to embody the results of personal research, obtained principally by means of the dredge, at various

intervals during the past twelve years.

The field of my labours has extended from the Canary Islands to the North Cape (about 43 degrees of latitude), and with reference to the following Tables, it should be explained that when a species is stated to extend northwards to the latter, or southwards to the former of these limits, it is not to be inferred that it does not range further; and this it is more important to bear in mind, because a large proportion of the Mollusca inhabiting the coasts of Finmark are known to be widely distributed in the Arctic Seas, while a considerable number of the Canary species extend to, and in some cases attain their maximum of development in, the tropical region.

It is hardly necessary to add, that even within the district to which my observations have been confined, many species of mollusca are recorded to have been obtained which it has not been my good fortune to meet with or

identify, and that of all such I have taken no note.

Report on Mollusca of the North-east Atlantic, &c.

| Remarks. | perforated in wood. | in stone, chalk & frequent of large size in Wales. | Malaga, South of England littoral to 15 fathoms South of England stone, clsy, &c, frequent at greatest depth off Portland. England, Drontheim littoral and sublittoral Britainstone, turf, &c, frequent. Mogador, Britain | I have only obtained it on the south coast of Englandin volcanc scoria, British Museum. | | | Canary Islands to Zetland It to 90 fathoms England to Spain Sand and mud moderate Madeira to North Drontheim 4 to 80 fathoms Britain, and at 10 sand and mud moderate at Madeira and North Drontheim to 25 fathoms. | several specimens at Bodoe. | rilosiuscula, Maegik |
|------------------------------------|---|---|--|---|---|---|---|-----------------------------|--|
| Frequency. | moderate | frequent | frequent frequent. | : | and frequent. | moderate. | moderate. | raremoderate. | moderate. rare. rare |
| Ground. | | in stone, chalk & | stone, clay, &c stone, turf, &c chalk, turf | stone, turf | | sand and mud | sand and mud sand and mud | mudsand | sand sand and mud sand |
| Locality of principal development. | Northern seas | | South of England Britain South of England | South of England | Spain and Portugal. | South of Spain | England to Spann Britain, and at 10 to 25 fathoms. | Nordland | Zetland Bantry Bay, 5 fath. |
| Vertical range. | at 20 fathoms | littoral and sublittoral | littoral to 15 fathoms littoral and sublittoral littoral and sublittoral | low water to 20 faths. | low water to 60 faths. | shore to 8 fathoms | 10 to 90 fathoms | 12 fathoms 3 to 80 fathoms | 10 to 20 fathoms 8 fathoms 5 to 50 fathoms 12 to 15 fathoms |
| Geographical range. | . FirthofClydeandHammerfest at 20 fathoms Northern seas moderate perforated in wood | dactylus, Lin Mediterranean to Britain littoral and sublittoral Britain | Malaga, South of England littoral to 15 fathons South of England stone, clay, &c, frequent England, Dronthein | South of England | Canary Islands to South of low water to 60 faths. Spain and Portugal. limestone England. | North of Spain, Gibraltar, shore to 8 fathoms South of Spain sand and mud moderate. | Canary Islands to Zetland 10 to 90 fathoms England to Spain sand and mud moderate. Madeira to North Drontheim 4 to 80 fathoms Britain, and at 10 sand and mud moderate to 25 fathoms. | arenosa, Mötler | vilosiuscula, Maegit |
| Species. | Acephala. Teredo, Adanson. sp. not identified. Xylopinga, Turton. dorsalis, Turton. | dactylus, Lin. | | Pholadidca, Leach. papyracca, Solander Clavagella, Lam. sp. | Spengler. am . Lam. B | | obtusa, Leach Lyonsia, Turton. Norvegica, Chem. | arenosa, Möller | villosiuscula, Maegil pubescens, Pulleney convexa, Wood distorta, Mont. |

| ON | MOLLUSCA O | F THE NORT | H-EAST ATI | ANTIC, ETC. | 103 |
|---|--|---|--|--|--|
| abundant in Torbay. | ft. | costellata, Deskayes Canary Islands to Drontheim 10 to 100 fathoms Mediterranean, 20 sand and mud local. Finnark, Hammerfest | 6 to 30 fathoms Britain to the Me-mud | lowwater to 100 faths. Britain, atlow water sand abundant abundant by the dredge in roots of Laminaria by the dredge in roots of Laminaria by the dredge in roots of Laminaria low water low water and sub-Scotland and North sand frequent frequent of Ireland of Ireland sand littoral and sublit-Britain sand littoral local littoral l | pellucidus, Pennant Mediterranean to Nordland 5 to 100 fathoms North Britain sand frequent largest in Zetland and Norway; very small in Mediterranean. |
| 10 fathoms | are. | ate | nud | Britain, Finnark | sandfrequent |
| O Nordland 10 fathoms ZetlandandNorway sand local | Faro in Portugal sand | to 40 fathors. s. Mediterranean, 20s to 50 fathors. uncertain | Britain to the Mc-mud diterranean. sand and mud uncertain. sand | 100 faths. Britain, atlow waters to 6 fathoms. Ireland | North Britains |
| | 1 shallow water 20 to 40 fathoms 40 to 80 fathoms 10 to 80 fathoms | heim 10 to 100 fathoms 40 to 80 fathoms 20 to 40 fathoms | im 6 to 30 fathoms 6 fathoms of 10 to 35 fathoms | lowwater to 100 faths. Britain, atlow to 6 fathom to 6 fathom low water and sub- Scotland and 1 littoral and sublit- Britain toral. littoral and sublit- Britain toral. | ind5 to 100 fathoms |
| Britain to Nordland general | Portugal, Mediterranear Hebrides and Madeira Finnark | fest. Canary Islands to Dront Loch Fyne | Canary Islands, Drontheim 6 to 30 fathoms Mediterranean 6 fathoms Mediterranean, North of 10 to 35 fathoms | | Mediterranean to Nordla |
| renponta, screen pretenuis, Putener Saxicava, F. de Bellevae. arctica, Lingeneral rugosa, Lin | Panopæa, Menard de la Groye Aldrovandi, MontPortugal, Mediterranean shallow waterFaro in Portugal sand | costellata, Deshayes Canary Islands to Drontheim 10 to 100 fathoms abbreviata, Deshayes Loch Fyne | | , Lin. , Lin. Lin. in. tn., Pulteney | pellucidus, Pennant |

| , | | | |
|------------------------------------|--|--|--|
| Remarks, | Mogador to Britain shore to 6 fathoms Wales sand | Cornwall to Canaries, Medi-2 to 50 fathoms Faro, Portugal sand | ammobia, <i>Lam</i> . Canary Islands to Cardigan sublittoral to 12 faths. Spainsand |
| Frequency. | noderate. rare frequent. abundant. frequent. frequent. frequent. frequent. local. abundant. abundant. rare. abundant. | local frequent frequent. | frequent |
| Ground. | and hocal. mud moderate. | sandsand sandsand | sand |
| Locality of principal development. | Wales | Faro, Portugal Madeira | Spain |
| Vertical range. | shore to 6 fathoms 7 to 25 fathoms 10 to 30 fathoms 3 to 40 fathoms 3 to 100 fathoms 5 to 100 fathoms 15 to 100 fathoms 16 to 10 fathoms shore ilitoral | Canaries, Medi-2 to 50 fathoms Faro, Portugal sand | sublittoral to 12 faths. |
| Geographical range. | Acephala (continued). Rogador to Britain shore to 6 fathoms. Wales sand local. Fegumen, Lin. Canary and Madeira Islands 7 to 25 fathoms. Spain muderate. moderate. coarctatus, Baixe. Canary and Madeira Islands 7 to 25 fathoms. Spain mud moderate. candidus, Revieri Canary Islands to Hebrides. Line Hebrides. Line Hebrides. rare moderate. candidus, Revieri Canary Islands to Hebrides. Line Hebrides. Line Hebrides. rare rare candidus, Revieri Canary Islands to Hebrides. Roditeranean. Roditeranean. Roditeranean. Roditeranean. Requent. prismatica, Mont. Finnark to Mediteranean. Rot Of fathoms. Britain. Rond of Roditeranean. Rot Of fathoms. Britain. Rocal. Requent. contact, Brown South of England to Tunis. Shore Britain. Rocal. Rocal. Rand Rocal. cotaxidi, Payr. Mediterranean. Shore Gibraltar? Rand Abundant. ponds, Lin. Mediterranean. Shore to I fathoms. Britain. Bundant. Bundant. | Cornwall to Canaries, Medi- terranean, and Azores. Gibraltar, Canaries, Ma- deira. North of Spain, Mediter- ranean. | Canary Islands to Cardigan Bay. |
| Species. | Acephala (continued). Ceratisolen, Forbes. legumen, Lin Soleenrus, Baine. coaretatus, Gmel striglatus, Lin syndosanya, Reeluz alba, Wood intermedia, Mont intermedia, Mont intermedia, Thompson Renis, Mont Scrobienlaria, Schamacher piperata, Gmel Cottardi, Payr Donax, Lin anatinus, Lin trunculus, Lin trunculus, Lin venustus, Poli | Ervilia, Turton. castanca, Mont. nitens, Mont.? Mesodesna, Desh. donacilla, Desh. | Psammobia, <i>Lam.</i> vespertina, <i>Chem.</i> |

| | | O | N M | OLLU | SCA OF | THE NORT | H-E | AST ATI | ANT | ic, et | c. | 105 |
|------------------------|---|---|--|--|---|---|-------------------------|---|---|---|--|---|
| | natious. Mediterranean and sandfrequent takes the place of P. tellinella in Naditerranean and sand somthern latitudes. | a handsome species found north and | Mediterranean. | British specimens the largest, small in Mediterranean. | . Mediterranean varieties smaller and narrower than the British. | South of Spain sand | | | local the form of <i>T. Costæ.</i> frequent striated, compressed. | very large at Stornoway; varieties from Bantry Bay narrower and | seronger. | largest at Vigo, small at Cadiz and Mediterranean, rare in Mediterra- nean. |
| - | frequent | frequent. | local. | local. | local | frequent. frequent. frequent. frequent. | frequent. | frequent. moderate. local. | | frequent | .10cai. | localfrequent. |
| 0 | and | sand | sand | : : | sand and mud | sand sand sand sand sand sand sand sand | sand | sand and mud sand sand | sand | sand | sand | sandsand |
| Carlo and | Mediterranean and | Britain, 4 to 10 fath. sand | South of Spain | South of Ireland Mediterranean | Anglesea, Algiers sand and mud local | South of Spain sand frequent. uncertain sand frequent. Britain sand frequent. Arctic cass, 4 to 10 sand and mnd frequent. | Mediterranean sand | Canary Islands? Malaga Mediterranean | Malaga Madeira | Britain | Spain and Portugal | Faro? Britain, at 5 faths. Britain, 20 to 30 fathoms. |
| מ מנו מנו דותרוונותווו | noms | | shore | low water to 30 faths. | | | Canary 10 to 50 fathoms | 20 to 40 fathomsshore shore (15 faths.), dead | shore to b rathoms | to North of shallow water Britain sand frequent | South of shallow water Spain and Portugal sand | shore 5 to 35 fathoms 7 to 50 fathoms |
| tellinella, Lam | costulata, Turton Canaries, Madeira, Britain 8 to 60 fathoms | Canaries to Nordland 2 to 80 fathoms Britain, 4 to 10 fath. sand shore Faro Faro sand | Mediterranean to Drontheim shore South of Spain sand | Gibraltar to Britain | | Canary Islands to Britain 5 to 10 fathoms South of Spain sand frequent. Mediterranean to Britain shore Uncertain Sand frequent. Mogador to Nordland Shore to 12 fathoms. Britain Sand frequent. Britain, Finnark | Mediterranean to Canary | serrata, Brocchi Vigo to Canary Islands 20 to 40 fathons Canary Islands ? sand and mud irare pulchella, Lam Mediterranean fhore since Mediterranean sand froquent. Mediterranean sand froquent. Mediterranean sand moderate mediterranean sand moderate had island moderate sand moderate local sand moderate local sand moderate local sand sand local sand local sand local sand local sand local local sand sand local sand sand sand sand local sand | punicea?, Lin. Mediterranean. snore to brathoms. Maraga. sand shore. Malaga. sand sn. Mogador, Madeira 16 to 35 fathoms. Madeira sand | Mediterranean to North of Scotland. | Mediterranean to South of England. | Vigo to Mogador |
| tellinella, Lam | costulata, Turton | <i>m</i> . | | | donacina, <i>Lin.</i> | a. ius ney | distorta, Poli | serrata, Brocchi pulchella, Lam. Costæ, Ph. planata, Lin. | punicea?, Lin. | Lutraria, Lam. elliptica, Lam. | oblonga, Chem | Mactra, Lin. rugosa, Chem. solida, Lin |

| 106 | | REPORT—1650. | |
|------------------------------------|---|--|--|
| . Remarks. | Acephala (continued). Britain to Canary Islands shore to 30 fathoms . Britain? Britain to Canary Islands shore to 30 fathoms . Britain? Britain to Canary Islands shore to 30 fathoms shore to 30 fathoms sand and mud frequent. At Teneriffe only one valve from 35 fathoms, several varieties in Mediterranean. stultorum, Lin. Britain to Canary Islands shallow water South of Europe South of Europe Inave never obtained alive. Portugal and Mediterranean. Islands shallow water South of Europe Portugal? Inave never obtained alive. | South of England to Canaries littoral | Carnaryon Bay to Canary Is- sublittoral to 40 fa-Spain |
| Frequency. | frequent. frequent rare | frequent. abundant abundant local. frequent. frequent. frequent. frequent. abundant. moderate. abundant | frequent |
| Ground. | sand and mud sand and mud | imestone | sand |
| Locality of principal development. | Britain ? | Spain and Portugal limestone | Spain |
| Vertical range. | shore to 30 fathoms . shallow water shallow water | littoral | sublittoral to 40 fa. thoms. sublittoral to 40 fa. thoms. |
| Geographical range. | Acephala (continued). Subtruncata, Da Costa Britain to Canary Islands shallow water Mediterranean sand and mud frequent At Tenerific only one valve finitional. Lin Britain to Canary Islands shallow water South of Europe sand and mud frequent At Tenerific only one valve finitional and Mediterranean. shallow water South of Europe rare I have never obtained alive. ctricola, Lenr North of Spain, South of littoral Portugal? linestone firequent. | rerupis, Lam. Sonth of England to Canaries littoral | therea, Lam. Carnarvon Bay to Canary Is- sublittoral to 40 fa-Spainsand |
| Species. | Acephala (continued). Mactra, Lin. subtruncata, Da Costa stultorum, Lin. helvacea, Chem. Petricola, Lem. lithophaga, Retzius | Venerupis, Lam. irus, Lin. Taptes, Muhlfeldt. decussata, Lin. pullastra, Wood virginea, Gmel. aurea, Gmel. nitens, Scacchi geographica, Lin. Bendantii, Payr. Lucinopsis, Forbes. Artemis, Poli. exoleta, Lin. inca, Pulteney | Cytherea, Lam. chione, Lin. venetiana, Lam. |

| | ON MOLI | LUSCA OF | THE N | ORTH-EAST | ATLANTIC, | ETC. | 107 |
|--|---|---|---|---|--|---|--------------------------------------|
| sp. ined | Canary specimens small, but beautifully coloured southern specimens beautifully coloured, not obtained in Mediterranean, East of Gibraltar. | much esteemed for culinary purposes. | only obtained a few valves, in Bri- tish Museum. | | I have taken it alive in the Hebrides, but not elsewherenot in the Mediterranean, East of Gibraltar. | most abundant in Iona Sound, 5 fathons, not met with in Medi- terranean, East of Gibraltar. | fusca, Desh |
| sand and mudraresand | in sand and mud frequent sand frequent | sand abundantsand abundantsand, gravel and frequentnudsand, gravel and various. | mudvery rare mudrare. | stone Irequent. stones local. gravel local. sand and mud abundant. sand | 20 to 30 fathoms uncertain | frequent inoderate | mud and sand rare |
| Gibraltar | on . | | | Mediterranean Mediterranean Gibraltar Gibraltar Gulf of Tunis, &c. | uncertain Finmark, sublittoral British seas Norway, 5 to 10 fa- | Western coasts of sand Britain | Malta? |
| 115 to 50 fathoms | shore to 60 fathoms | | 50 fathoms | shore to 8 fathoms . 15 to 45 fathoms . shore to 10 fathoms . 12 to 40 fathoms | 20 to 30 fathoms . shore to 15 fathoms . 5 to 160 fathoms . 5 to 50 fathoms | 5 to 50 fathoms | r 30 to 40 fathoms |
| Mediterranean to Canary au Madeira Islands. Orotava of Teneriffe | Carnarvon Bay to Canary Is-shore to 60 fathoms . Mediterranean in sand and mud frequent lands 5 or 6 fathoms. Dronthem to Canaries and 8 to 40 fathoms uucertain sand frequent Madeira. | Finmark to Mogador | Orotava unknown | Mediterranean O Canaries, littoral Mediterranean stone local Mediterranean 15 to 45 fathoms Gibraltar local local Mediterranean 15 to 45 fathoms Gibraltar gravel local Mediterranean shore to 10 fathoms Gibraltar gravel abundant. Tunis, Pantellaria, Syracuse 12 to 40 fathoms Gulf of Tunis, &c. sand rare | Scotland | Zetland to Canary Islands 5 to 50 fathoms Mediterranean to Canary Is-16 to 70 fathoms | lands. Mediterranean and Gibralta |
| sp. ined | Venus, <i>Lin.</i> verrueosa, <i>Lin.</i> casina, <i>Lin.</i> | striatula, Donovan gallina, Lin. fasciata, Costa | | calyculata, Brug. trapezia, Lin. squanosa, Lem. sulcata, Brug. corbis, Phil. | osta | triangularis, Montincrassata, Brocchi | fusca, Desh. |

| 108 | | | R | EPORT- | -1856. | | | |
|------------------------------------|--|---|---|--|--|---|--|---|
| Remarks. | Manuerfest Mulipore & mud frequent described as British on the faith antellaria 35 fathoms uncertain sand very rare, of Tunis 35 fathoms unknown sand very rare. sand wery rare. sand sand wery rare. sand sand wery rare. wery rare. wery rare. were very | | Finmark to Scilly 5 to 80 fathons Scotland sand and mud frequent. South of England to Medi-littoral and sublittoral Spain? rock rare | pton, Turton. squamosum, Mont Irish sea to Gibraltar 8 to 12 fathoms, shore uncertain sand rare. at Gibraltar at Gibraltar unknown sand very rare detected by Mr. Hanley among | some snau sneas areaged by me in the locality named. on species of Spatangus purpureus, and in Norway occasionally on | ferruginosa, Mont North of Scotland to Moga. 3 to 40 fathoms Murray Firth? sand and mud rare Naples, &c., in Mediterranean, dor and Madeira. Lidentata, Mont | Droutheim to Canary Islands sublittoral to 50 fa-Scotland | |
| Frequency. | frequent frequent very rare. very rare | frequent. | frequent. | rare. very rare | frequent | rare frequent. | moderate. frequent very rare abundant | local. |
| Ground. | mud Nullipore & mud sand | sand | sand and mud | sandsand | sand and mud | sand and mud | mud, &cstones | stones |
| Locality of principal development. | Hammerfest Nordland uncertain unknown | Mediterrancan, Madeira. | Spain? | uncertain | Zetland, 10fathoms | Murray Firth? North Britain | Scotland Gibraltar? unknown England | South of Portugal . |
| Vertical range. | 20 to 160 fathoms 4 to 16 fathoms 35 fathoms | 8 to 50 fathoms | 5 to 80 fathoms littoral and sublittoral (50 fathoms, dead). | 8 to 12 fathoms, shore at Gibraltar. 15 fathoms | 10 to 100 fathoms | 3 to 40 fathoms shore to 50 fathoms . | sublittoral to 50 fathoms. littoral shore | littoral |
| Geographical range. | Arctic Norway | West of Scotland to Canary 8 to 50 fathoms Mediterranean, Ma-sand frequent. | Finmark to Scilly 5 to 80 fathoms Scotland sand and mud frequent. South of England to Medi-littoral and sublittoral Spain? rock | piton, Turton. squamosum, Mont. Irish sea to Gibraltar 8 to 12 fathoms, shore uncertain sandrare. at Gibraltar 15 fathomsunknownsandvery | Droutheim to Mediterranean 10 to 100 fathoms Zetland, 10fathoms sand and mud frequent | | suborbicularis, Mont Droutheim to Cauary Islands sublittoral to 50 fa. Scotland | Atlantic coasts of Spain and littoral South of Portugal .stones |
| Species. | vued). | Circe, Schumacher. minima, Mont | ton. rby | Lepton, Turton. squamosum, Mont convexum, Alder | Montacuta, Turton. substriata, Mont. | ferruginosa, Mont | Kellia, Turton. suborbicularis, Mont corbuloides, Phil. complanata, Phil. rubra, Mont. | sp. |

| 0.1 | MOHEON | JII 01 1112 | | - | |
|---|---|--|---|--|---|
| Cadiz low water unknown in rocks rare specimens in British Museum. Britain, Canaries, Mediterra-5 to 50 fathoms Britain? sand rare. Mediceranean to Canaries and 12 to 60 fathoms uncertain sand local. | largest specimens in Scotland and Ireland, yellow var. at Vigo and southward. | Financia to Canaries | new as a recent species equally common in all the localities, largest in the Northminute, yellow. | minute, genus uncertain. a white variety, smaller. | Devonshired Mediterranean, 2 to 40 fathoms Spain, 6 to 10 fa. sand and mud abundant in Canaries at 16 to 40 fathoms, and Canary, and Madeira. Vigo and Mediterranean 4 to 10 fathoms Spain and Portugal mud frequent. frequent. frequent. shore to 5 fathoms Zefland, 4 to 10 fathoms Zefland, 4 to 10 fathoms Zefland, 4 to 10 fathoms Spain and Norway frequent shore to 5 fathoms Zefland, 4 to 10 fathoms Zefland, 4 to 10 fathoms Sound. Sound. |
| rare | frequent. frequent . rare. | frequent . frequent . rare frequent . | frequent. moderate. frequent. frequent | rare abundant. | abundant. frequent. very abun frequent. frequent. |
| n rockssandsand | sand and mud sand and mud | sand sand sand sand sand sand sand sand | sand and mudsand and madsandsand | sand and mud | and and mud nud sand sand sand, mud, gravel |
| ınknown | Worth of Scotland. West Scotland, Ireland and Vigo. | Zetland & Norway. Mediterranean Finmark Loch Fyne, 70 faths. | uncertain sand and mud frequent. Gibraltar sand and mud moderate Gibraltar sand and mud frequent. | Gibraltar and Medierranean. Gibraltar Britain, 6 to 8 fa- | thoms. pain, 6 to 10 fa. thoms. pain and Portugal 3ritain, littoral 2ctland, 4 to 10 fath. Norway |
| to 50 fathoms | to 40 fathoms | to 16 fathoms to 10 fathoms to 100 fathoms fathoms | 2 to 16 fathoms 1 2 to 16 fathoms 1 to 30 fathoms bore to 6 fathoms 2 fathoms | 6 fathoms | an, 2 to 40 fathoms Spain, 6 to 10 fa. sand and mud abundant thous. |
| Cadiz low water unknown in rocks rare . Britain, Canaries, Mediterra-5 to 50 fathoms Britain? sand rare. nean, Madeira. Medicerranean to Canaries and 12 to 60 fathoms uncertain sand | Finmark to Mogador shore to 80 fathoms. North of Scotland. sand and mud frequent. North Dronthein to Canaries 12 to 80 fathoms West. Scotland, Irc- sand and mud frequent, land and Vigo. Mediterranean, Canaries, Ma-5 to 40 fathoms uncertain sand rare. | Financia to Canaries | Adansoni, W. & B | — | tusticum, Lin. — Devonshireto Mediterranean, 2 to 40 fathoms — Spain, 6 to 10 fa- sand and mud — abundant thoms. — Spain and Portugal mud — abundant functions. — Spain and Portugal mud — frequent. — Spain and Portugal mud — frequent. — shore to 5 fathoms — Britain ititoral — sand — very abundant fasciatum, Mont. — Finnark to Canary and Ma-5 to 100 fathoms. — Norway — sand, mud, gravel frequent. |
| <u> </u> | Lucina, <i>Bruguière</i> . Porealis, <i>Lin</i> . spinifera, <i>Mont</i> . divaricata, <i>Lin</i> . | : : : : | Adansoni, W. & B | Cardium, Lin. erinaceum, Lam. Gaculeatum, Lin. echinatum, Lin. Dechinatum, Lin. F. | rusticum, Lin |

| 110 | WEI OWI10007 |
|------------------------------------|--|
| Remarks. | Britain to Mediterranean and 2 to 10 fathons South of England, mud |
| Frequency. | frequent. frequent. frequent. frequent. frequent. frequent. moderate. frequent. |
| Ground. | mud and mud asand and mud and mu |
| Locality of principal development. | South of England, mud iocal Vigo. Drontheim sand and mud frequent. and Ireland. Gibraltar? sand and mud frequent. unknown sand and mud revry rare uncertain sand and mud revry rare uncertain sand and mud revry rare uncertain sand and mud frequent. Mediterranean sand and mud frequent. unknown sand and mud frequent. unknown sand and mud frequent. walkiers sand and mud frequent. walkiers sand and mud frequent. Mediterranean sand and mud frequent. mark. Mediterranean mud moderate Gibraltar, Algiers fine sand frequent. Britain sand and mud frequent. sand and mud frequent. word sand and mud frequent. mark. Britain sand and mud abundant South of England. sand and mud abundant walaga? mud mud frequent. uncertain mud frequent. mucertain mud frequent mud frequent mud frequent mud frequent mud mud frequent frequent mud frequent |
| Vertical range. | 2 to 10 fathoms 20 to 100 fathoms 20 to 30 fathoms 20 to 30 fathoms 10 to 120 fathoms 30 to 160 fathoms 4 to 8 fathoms 4 to 8 fathoms 5 to 40 fathoms 4 to 40 fathoms 5 to 40 fathoms 4 to 40 fathoms 5 to 40 fathoms 4 to 40 fathoms 5 to 40 fathoms 6 to 80 fathoms 10 to 150 fathoms 10 to 150 fathoms |
| Geographical range. | Acephala (continued). South of England, mud 10cal |
| Species. | Acephala (continued). Cardium, Lin. Pygmæum, Don. Succionn, Reeve Norvegicum, Spengler. papillosum, Poli. punctatum, Brocchi minimum, Phil. elegantulum, Möller. sp. f. cham, Lin. gryphoides, Lin. Solenya, Lan. Mediterranea, Lan. Yoldia, Möller. pygmæa, Munster lucida, Bland. limatha, Say. Leda, Schunacher. caudata, Donovan pernula, Muller. emarginata, Lan. striata, Lan. Nucula, Lan. nucleus, Lin. nitida, Sou. radiata, Hanky decussata, Soue. radiata, Mont. |

| | | | OI | N N | 101 | LUSC | A OF 1 | HE N | ORT | H-E. | AST | ATI | LANTI | C, ET | 0. | | 11 |
|-------------------|--|--|---|---------------------------------------|---|-----------------------------------|---|-------------------------------------|---|---|---------------------------|---|--|-----------------------------|--|---|----|
| | Mediter 10 to 40 fathoms. Britain gravelly shundant of emal circain Consider & Madrice | or small stor in Canalities & Madella. | Start D. Algiers. Algiers. Algiers. Algiers. Algiers. Algiers. Algiers. Algiers. Algiers. | I have never met with it in the Medi- | a valve of very large size. | Mediterranean and Cadiz 2 fathoms | | Islands | smallest at Gibraltar. I have not obtained it living. | orota on shore | one valve, sp. uncertain. | | rare in Britain. | a minute species. | | marmonata, Forbes Finmark to Canary Islands shore to 100 fathoms. West of Scotland mud and gravel frequent generally imbedded in mantle of nigra, Gray Scotland to Finmark to 150 fathoms Norway and North-mud frequent. Ascidia mentula. | |
| rare. | ahundant | | abundant | frequent | rare | frequent | frequent. moderate. and stones frequent. | rare. | rare | | rare | abundant. | ent. | moderate | d frequent. | l. frequent frequent. | |
| ine sand | repolly | | nna | and | | ocks | ocks nud | stones | stones. | and | | gravel | sand and mnd . | nudstones and Null | pore. rock, weed, an | noud. nud and gravel nud | |
| uncertainf | Britain | 76.1 | Malaga, Alghers | uncertains | uncertain | Naples, &crunnencertains | Cadiz Gibraltar Cadiz and Mediter-s | uncertains | unknowns | unknowns | unknown | Scotland | Nordland, 35 faths. s Cadiz, &c | unknown | Finmark | West of Scotland | |
| 70 to 150 fathoms | 0 to 40 fathoms. | + 0 fotherm | to o tartioms | ou to 30 tathoms | hore | fathomshore to 50 fathoms | ublittoral | 5 to 40 fathoms | 0 fathoms | nore 0 fathoms | 5 fathoms | hore to 100 fathoms. | to 40 fathoms | 5 fathomshore to 50 fathoms | hore to 100 fathoms. | hore to 100 fathoms. | |
| pygraga, Phil | Britain, Canaries, Mediter-1 | ranean, Madeira. | Mcdietianeau | | pilosus, Lam Gibraikar and Mediterranean shore uncertain nate a valve of very large size. | Mediterranean and Cadiz 2 fathoms | Cadiaz, Naples, Kanares, and Sublittoral Cadiz rocks frequent. Gibraltar, Malta, Teneriffe. 35 to 45 fathoms Gibraltar mud moderate. South of England to Canary 10 to 20 fathoms Cadiz and Mediter- shells and stones frequent. | rsancan. North Droutherm | Gibraltar and Mediterranean, 40 fathoms unknownsand | Caduz and Medretranean snore unknown rare. Malta, Catania, and Teneriffe 40 fathoms nuknown sand rare. Cadiz snore unknown sand | Zembretta | Finnark to Britainshore to 100 fathoms. Scotlandgravelabundant. Britain to Gibraltar, Mediter-10 to 25 fathomsBritain?sandrare. | ranem, and Canaries. So to 150 fathoms Nordland, 35 faths, sand and mnd frequent. South of England to Medi-4 to 40 fathoms Cadix, &c mud frequent for England to Medi-4 to 40 fathoms Cadix, &c. | Hammerfest | discors, Lin. Britain, Finnarkshore to 100 fathoms. Finnarkrock, weed, and frequent. | marmorata, Forbes Finmark to Canary Islands shore to 100 fathoms. West of Scotland mud and gravel frequent nigra, Gray Scotland to Finmark 5 to 150 fathoms Norway and North-mud frequent. crn seas. | |
| pygmæa, Phil | rectunculus, Lam. | violascens I | Contro Dome | | pilosus, Lam. | ia, Poli | barbata, Linantiquata, var.?, Polilactea, Lin | nodulosa, Lovénraridentata, S. Wood | obliqua, Phil | | | modiolus, Lin | phaseolina, Philbarbata, Lin. | sp. ined | discors, Lin. | marmorata, Forbes | |

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|------------------------------------|--|--|
| Renarks. | Straits of Gibraltar and Medi-20 to 40 fathoms. Mediterranean mud | Canaries, Nordland. Correction. Britain. Canaries, Nordland. Correction. Correction. Correction. Cadiz and Sicily. Canaries, Iitoral, Iving, to 60 uncertain. Stones Cadiz and Mediterranean. Stones Cadiz and Cadiz and And Cadiz and Cad |
| Frequency. | noderate. id mud moderate frequent frequent frequent moderate very abund very abund very abund hd gravel. local nd gravel. local nd gravel are | local. rave. moderate. abundant moderate moderate moderate abundant |
| Ground. | mud mud sand and mud sand sand sand sand sand and gravel. rocks and gravel. mud and sand | mud and sand sand and gravel sand and gravel sand stones stones stones stones |
| Locality of principal development. | Mediterranean mud moderate Spain, &c. sand and mud moderate Spain, &c. sand and mud moderate Ennerotte, 12 fath, sand frequent Finnark and Balta sand frequent Mediterranean rocks moderate Britain, 0 to 4 faths, stones moderate Garthagena, Malta. rocks moderate frequent South of Ireland? gravel frequent frequent South of Ireland? gravel local. Mediterranean? sand and gravel. local. Mediterranean? sand and gravel. local. Mediterranean. mud and sand frequent Mediterranean. mud and sand frequent frequent mud and sand frequent frequent mud and sand frequent freq | Britain. Norway. Scotland, Norway. Spain?. uncertain Mediterranean. Norway. |
| Vertical range. | 20 to 40 fathoms shore to 5 fathoms 5 to 100 fathoms 6 to 100 fathoms 7 to 40 fathoms 8 to 20 fathoms 7 to 50 fathoms 8 to 30 fathoms 8 to 30 fathoms 1 to 30 fathoms 8 to 35 fathoms | 15 to 120 fathoms 20 to 120 fathoms 15 to 50 fathoms 4 to 25 fathoms shore to 30 fathoms littoral, living, to 60 fathoms (dead). littoral and sublittoral 50 to 130 fathoms |
| Geographical range. | Lephala (continued). Rediterranean. Mediterranean. Mud. vestita, Phil. Straits of Gibraltar and Medi. 20 to 40 fathoms. Mediterranean. mud. moderate. restina, Phil. South of England to Mogador shore to 5 fathoms. Spain, &c. sand and mud. moderate. rhombea, Berkeley. Weymouth to Lancerotte. 12 to 40 fathoms. Enbrettain.55 fath. Sand. frequent. souther latitudes. decussata, Mont. West of Scotland to Finmark. 5 to 100 fathoms. Enmerotte, 12 fath. frequent. frequent. larger size in Norway, most moderate. dacrylus, Cuvier. Cadiz and Mediterranean. Intoral and sublittoral Mediterranean. Intoral and sublittoral Mediterranean. frequent. sold in the market at Alg. vilus, Lin. Mediterranean. Solon. Solon. frequent. sold in the market at Alg. minimus, Poli. Mediterranean. Solon. Garthagena, Mala. very abund. large size at Algiers. minimus, Poli. Mediterranean. Solot of Athoms. Solut of Ireland? gravel. not found east of Malgiers. mucertain. Mediter | ries, and Mateira. Britain. Subauriculata, Mont. Canaries, Nordland. Canaries, Nordland. Subauriculata, Mont. Canaries, Nordland. Subauriculata, Mont. Subauriculata, Mont. Britain, Nordland. Britain, Fundard, Mediterranean. 15 to 50 fathoms. Storland, Norway. Sociland, Norway. Sociland, Norway. Sociland, Norway. Mateira. Mateira and Sicily, Canaries, littoral, living, to 60 uncertain. Stones. Madeira. Mateira and Mediterranean. Sittoral, living, to 60 uncertain. Stones. Stones. Moch Drouthein to Finmark 50 to 136 fathoms. Stones. Moch Mediterranean. Stones. Stones. Stones. Moch Mediterranean. Stones. Stones. Stones. Moch Drouthein to Finmark 50 to 136 fathoms. Stones. Stones. Stones. Moch Drouthein to Mediterranean. Stones. Sto |
| Species. | Acephala (continued). Crenella Brown. vestita, Phil. costulata, Risso rhombea, Berkeley decussata, Mont. Lithodomus, Cuvier. adarylus, Cuvier. candigerus, Sow. Mytins, Lin. minimus, Poli. Afer, Grad. Phua, Lin. pectinata, Lin. pectinata, Lin. rudis, Lin. muricata, Poli rudis, Lin. Petinia, Lin. Petinia, Lin. Petinia, Lin. Petinia, Lin. Petinia, Lin. Tarentina, Lan. | Lina, Bruguière, subauriculata, Mont. subauriculata, Mont. Succoubii, Souc. hians, Grael. fragilis, Scacchi squamosa, Lam inflata, Lam excavata, J. C. Fabricius. Pecten, O. F. Miller. |

| | | | | rnmark to Mediterranean IV to 00 fathours fredities? safut, and hoca Gravel. orkney to Canaries and Ma-5 to 30 fathoms Britaingravel frequent not in the Bastern Mediterranean, | where it is replaced by next species. | Britainsandfrequentonly one small specimen in Canary | | | frequent not found at Gibraltar or Malaga. | var. of P. striatus? | | Nordland and Finmark 90 to 150 fathoms Aretic Sea sand rare one specimen living. Nordland and Finmark 90 to 150 fathoms nuknown sand rare one specimen living. Nordland and Finmark 90 to 150 fathoms nuknown sand rare sand rare 90 to 150 fathoms nuknown sand rare | | |
|---|-------------------------|---|--|--|--|---|---------------------------------|---|--|---|--|--|---|---|
| nd Lami-trequent. | nd stones frequent. | Lamina-frequent. | rd mud. local. | ruc, and local. | nd sand. frequent. | frequent . | frequent. | nd, and frequent. | | local. moderate. moderate . very rare. | rare. | sand rare. sand rare. sand rare. | stones. frequent. | nud, and frequent. |
| stones an | n(IsleofMan), gravel at | Azorcs, and Madeira. 12 to 15 fathoms. Finantk to Mediterranean 5 to 90 fathoms Seotland, Norway stones, Lamina-frequent. | Finnark to Gibraltar | pmmark to Mediterranean 10 to 00 ratiouss itterrates?saint, mut, com, and Madeira. Orkney to Canaries and Ma-5 to 30 fathoms Britaingravelfrequ | Mediterranean gravel and sand. frequent. | sand | Norway, 10 to 20 sand frequent. | rathoms. Cadiz and Gibraltar sand, mud, and frequent. | and Sicily mud | gena eastward. 6 to 40 fathoms Mediterranean. sand. local. Mediterranean. 10 to 12 fathoms. Malta, &c. moderate. Mediterranean. 25 to 50 fathoms. Malta, &c. sand. moderate. Cadir. Mediterranean. Tene-shore to 50 fathoms uncertain. sand. very rare. | riffe. (dead). (dead). Mediterranean, Ma-sandrare. Mediterranean, Ma-sandrare. | deira. d | Mediterranean, Canary Is-shore to 60 fathoms Mediterranean rock and stonesfrequent. | Finnark to Mediterranean shore to 160 fathoms South of Ireland, gravel, mud, and frequent. North of Spain. sand. Nordland to Mediterranean 4 to 50 fathoms Britain stones and sand. frequent. |
| TA LATHOMS LOBAN | 90 fathoms Britair | fathoms Seotlar | 00 fathoms Seotlar 00 fathoms uncert | fathoms Britair | | | | fathoms Cadiz and C | and Maderra. Malta and Sicily mud Malta and Sicily mud | fathoms Medite 2 fathoms Malta, 1 fathoms Malta, 0 fathoms uncerta |). 0 fathoms Medite | deira. Nordland and Finmark 90 to 150 fathoms Arctic Sea | 60 fathoms Medite | o 160 fathoms. South Nor fathoms Britain |
| resione w | m, Canaries, shore to | fadeira. iterranean 5 to 90 | altar 10 to 1 | ries and Ma-5 to 30 | deira. Mediterranean, from Balearic 12 to 15 fathoms | Islamus castward. Nordland to Canary and Ma-5 to 100 fathoms defra | Norway5 to 100 fathoms | Lisbon, Cadiz, Mediterranean, 6 to 40 fathoms | from Cartha. 6 to 8 1 | 6 to 40 10 to 1: 25 to 50 anean. Tene-shore t | Canaries, Ma- 15 to 50 f | 30 90 to 1. mark 90 to 1. mnark | Canary Is-shore to | editerranean shore to diterranean 4 to 50 |
| meangram wightesm | North Dronthei | Azorcs, and Madeira. | | | deira. Mediterranean, f | Nordland to Canary | Norway | Lisbon, Cadiz, Me | Mediterranean, f | | riffe. Mediterranean, C | | | |
| TATALE AND ADDRESS AND STORES AND ADDRESS | pusio. Pennant | striatus. Müller | tigrinus, <i>Müller</i> Danicus, <i>Chem.</i> | similis, <i>Laskey</i> maximus, <i>Lin.</i> | Jacobæus, Lin | opercularis, Lin | Islandicus, Müller | polymorphus, Bronn | hyalinus, Poli | snicatus, Lam. Malta, Algiers. 6 to 40 fathons. Mediterranean. sand local. Mediterranean. Mediterranean. In the 12 fathons. Malta, &c. sand moderate. Sand moderate. Sand moderate. Mediterranean. Tene-shore to 50 fathons uncertain. | gibbus, <i>Lin.</i> ? | Grænlandicus, Sowsp. inedsp. inedsp. inedsp. ined. | Spondylus, Lin. gædaropus, Lin | ephippium, <i>Lin.</i> |

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|---|---------------------|--|--|
| - | Kemarks. | copplain Continued). Continued). Stooland. | taken in tow-net, rise to the sur- face towards sunset. |
| | Frequency. | frequent. frequent. abundant abundant abundant abundant local local sabundant sabundant | rare. abundant abundant |
| | Ground. | stones and mud. & C. gravel, corallines, & C. gravel, mud sand stones and shells, gravel gravel sand and stones, shells stones sand and stone gravel and stone gravel and stone gravel and stone gravel and stone | mud rare. c. abundant c. abundant c. abundant |
| 2 | cipal development. | West of Scotland stones and mud. local. Britain | unknown |
| | Vertical range. | 30 to 50 fathoms | 60 fathoms (dead) 20 fathoms unknown unknown |
| | Geographical range. | Acephala Continued). West of Scotland. Stones and mud. Incompanies Stones and mud. Stones and mud. | Hangus, Force Canary Islands (60 fathoms (dead) unknown mud rare. rare. ochomnella, Rang Canary and Madeira Islands 20 fathoms unknown Mediterranean, &c Mediterranean, Canaries unknown Mediterranean, &c abundant striata, Rang Mediterranean, Canaries unknown Mediterranean, &c abundant striata, Rang Mediterranean, &c abundant abundant gung & Gaimard Mediterranean, canaries unknown Mediterranean, &c abundant abundant abundant |
| | Species. | Acephala (continued). Anomia, Lin. Bacuteata, Müller. Ostrea, Lin. Piliatula, Phil.? Crania, Retzina. Argiope, E. Deslongchamps, decolata, Chem. Neapolitana, Scarchi. Neapolitana, Scarchi. Neapolitana, Risso cistellula, Searles Wood. Megriia, Kin. Terebratulina, D'orb. canium, Gmel. Pteropoda. Spirialis, Eydoux & Souleyet. Riemingi, Forbes. Macanitrei, Forbes. | Hanky, Force Branch Branch Branch Branch Branch Christia, Rang. Cressis, Rang. recta, Lesueur striata, Rang subulata, Quoy & Gaimard |

| | | | | abundant very abundant between Tunis and | Keraudreniioff Grand Canary | | | } inch diameter. | | A vitro I Journal of all and I and | specimen. | | | | a specimen taken at Algiers, 30 | this species. | Museum. | 4 | 1 | |
|----------------------------|--|--|----------------------------|--|-----------------------------|--------------|--|-------------------|---|---|-----------------------|--|---|-------------------------|--|-------------------|--|----------------|---|--|
| rare. | rare. | rare. | rare. | abundant | very rare | | rare, | ud rare | frequent. | cks frequent. | ··· quantari ···· cwo | frequent. | moderate. | rare. | rate | CH CH ALMOLA | local | | moderate. | |
| quer | | rare. | rare. | | | | sand | sand and m | weed | Asturias, Vigo sand and rocks frequent. | samu ama 10 | sand | Britain (Hebrides) sand moderate. | Britain sand rare. | sand | | | | | |
| luncertain | uncertain | uncertain | uncertain | uncertain | uncertain | | Mediterranean. | unknown | Scotland | | Canalics | Britain Norway | | Britain | Britain | unfun | Britain (West) | (000 11) | Northern Sca navia. | |
| | | | | - | | | 8 fathoms (dead) | 12 fathoms (dead) | shore to 12 fathoms | | | shore to 30 fathoms 40 to 150 fathoms | 10 to 40 fathoms | 5 to 40 fathoms | 30 to 40 fathoms | f fothoms | shore to 40 fathoms | | 30 to 35 fathoms | |
| Mediterranean Canaries Ma- | deira. Mediterranean, Canaries, Ma- | deira. Mediterranean, Canaries, Ma- | Canary and Madeira Islands | Mediterranean | Grand Canary | | Mediterranean, Algiers, &c., 8 fathoms (dead) Mediterranean, sandrare. | Lancerotte | Nordland to Mogador and shore to 12 fathoms Scotland weed | Spain and Portugalshore | ilatics | North Drontheim to Canaries Shore to 30 fathoms Britain Sand Finmark, Zetland, and North 40 to 150 fathoms Norway Sand | Sea. Nordland, Mediterranean 10 to 40 fathoms | Britain 5 to 40 fathoms | Britain, Mediterranean? 30 to 40 fathoms Britain sand rate | Alviane Afestions | Prontheim to Britain and shore to 40 fathoms Britain (West) sand | Mediterranean. | ontheim, Hammerfest | |
| Me I am Me | | vaginella, Cantraine Me | | eron. Lesueur | Oxygyrus. Keraudreniioff | Gasteropoda. | Lam | | Aplysia, Gmel | PattersoniSp | : | aperta, <i>Lin.</i> | scabra, O. Müller No | catena, MontBr | pruinosa, Clark Britain, Mediterranean? 30 to 40 fathoms | | | 0 | librarius, Loven Drontheim, Hammerfest 30 to 35 fathoms Northern Scandi-mud | |

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|------------------------------------|--|---|
| Remarks. | Sasteropoda (continued) pishiyra, Lowin pishiyra, Lowin Finanark, Canaries, Madeira shore to 60 fathoms. Britain pishing, Lowin Norilland to Teneriffe Shore to 90 fathoms. Britain Shiftian Solution to Canary Islands; Journal to Teneriffe Shore and sublitton. Britain Medicarneon (Carlagean) 30 to 90 fathoms. Mediterranean Morilland to Morilland | discrepans, Brown] Madeira and Azores. |
| Frequency. | rare. moderate. frequent. abmd.local frequent. rare. frequent | |
| Ground. | (Murray sand mode sand and mud frequents sand and mud frequents). Sand and mud frequents sand freq | |
| Locality of principal development. | o 60 fathoms. Britain (Murray sand rare. frequent. of athoms. Britain sand and mud. frequent. sand and mud. frequent. sand and mud. frequent. sand and mud. frequent. sand uncertain uncertain sand and mud. frequent. of athoms. Wigo? sand and mud. frequent to fathoms. Wigo? sand and mud. frequent to fathoms. Wigo sand and mud. frequent sand. Sand. sand. frequent sand sand and mud. frequent to fathoms. Wigo sand and mud. frequent sand. Sand. sand. frequent canaries sand and mud. frequent canaries sand and mud. frequent canaries. sand and mud. frequent canaries. sand and mud. frequent sand. sand. frequent sand. sand. frequent canaries. sand. sand. frequent sand. sand. frequent canaries. sand. sand. frequent sand. sand. frequent sand. sand. frequent canaries. sand. sand. frequent sand. sand. sand. frequent canaries? sand. sand. hocal. canaries? sand. hocal. frequent. sand. sand. sand. hocal. canaries? sand. sand. hocal. frequent. canaries? sand. sand. hocal. frequent. canaries? sand. sand. shells. frequent. frequent. sand. sand. shells. frequent. frequent. | |
| Vertical range. | shore to 60 fathoms Britain (Murray sand rare. shore to 90 fathoms Britain (Murray sand moderate. 10 to 60 fathoms Britain sand and mud frequent. shore and sublittoral Britain sand and mud frequent. 30 to 40 fathoms Mediterranean sand mud rare sand morertain sand rare shore, 4 fathoms Northern Norway sand and mud frequent shore, 4 fathoms Wigo? sand and mud frequent shore, 4 fathoms Wediterranean sand and mud frequent 10 to 100 fathoms Wediterranean sand and mud frequent shore control of fathoms Mediterranean sand and mud frequent shore control of fathoms sand and mud frequent shore control of fathoms uncertain sand and mud frequent shore control of fathoms Britain (Anglesea) sand and mud frequent shore sand | |
| Geographical range. | Strict S | Madeira and Azores. |
| Species. | Gasteropoda (continued). Amphispliyra, Loven. cylichna, Loven. cylichna, Loven. truncata, Mont. manillata, Phil. fragilis, Jeffreys alba, Lowin Akera, O. F. Miller. bullata, Miller. bullata, Lin. Cranchii, Leach cynined. sp. ined. denticulata, Mont. Feemini, Payr. Feelipes, Adanson. ghi, ined. Chilon, Lin. [fascicularis, Lin.] | discrepans, Brown |

| ON MODI | LUSCA OF THE NO | RIH-EAST ATLANT. | 10, ETC. 117 |
|--|--|---|---|
| | Mediterranean. More to 10 fathoms Norway? Stones Grequent Iarge near Oban, Loch Spelive, Mull Island. | Finantial Lin Finantial Fig. Lin Vigo to Canaries and Madeira 2 to 50 fathoms Fig. Lin Mediterranean Fig. Lin Mediterranean Spain and Portugal sand and mud Spain and Mediterranean Spain and mud Spain and Mud Mediterranean Spain and Mud Spain and Mud Mediterranean Spain and Mud Mediterranean Spain and Mud Spain and Mud Negoto 20 fathoms Arctic sea Spain and Mud Arctic sea Spain and Mud Spai | Malaga, Mogadorshoreshore Gibraltar and Ma-rocks frequent does not range eastward in the Mediterranean. Naples, Algiers, &c |
| stones and stells rate. stones | | ortugal? sand and mud abundant species, the specimen way being intermedi. Portugal sand and mud abundant very rare in Canaries, wonly 1 specimen in 5 and and mud frequent variety transparent slender at Tunis. sand and mud rare short, smooth, pelucid. | frequent |
| Zedand & Noway, ston laminarian zone. Britain ston Norway ston Zedand and Nor-ston Way. Hebrides. Britain ston | Shore to 10 fathoms. Norway ? stones | 2 to 200 fathoms Spain and Portugal? sand and mudabunic to 50 fathoms Spain and Portugal sand and mudabunic shore to 20 fathoms Mediterranean sand and mudfreque 20 to 30 fathoms Vigo? | Gibraltar and Ma-rock laga? uncertain sand uncertain sand Arctic seas rock Zetland? |
| shore to 20 fathoms 4 to 20 fathoms 4 to 20 fathoms 6 to 40 fathoms 6 to 40 fathoms | shore to 10 fathoms shore to 12 fathoms shore stathoms shore | 2 to 200 fathoms a 2 to 50 fathoms dshore to 20 fathoms 20 to 30 fathoms 80 to 200 fathoms | shore 8 to 10 faths. (dead) 12 fathoms shore to 10 fathoms |
| cinereus, Lin | marmoreus, O. Fat. Finnark to Scotland horse to 10 fathoms. Norway? stones finequent finivus, Wood Vigo, Lishon Shore to 12 fathoms. Vigo calculated finitus, Fathors. Syracuse, Asturias shore calculated finitus, Fathors. Gibraltar? carthagena. Shore calculated finitus, Gray. Mediterranean shore shore meeting Mediterranean calculated finitus. Gray. Mediterranean shore calculated finitus for meeting mediterranean shore shore meeting meeting finitus for meeting | Finnark to Mogador | Malaga, Mogador shore Gibraltar and Ma-rocks frequent laga? Naples, Algiers, &c 8 to 10 faths. (dead). uncertain sand and mud rare. Canary Islands 12 fathoms uncertain sand and mud rare Isle of Man to North Cape shore to 10 fathoms Arctic seas rocks and stones frequent Nordland to Mogador shore to 56 fathoms Zetland? shells, &c frequent |
| cinereus, Lin | marmoreus, O. Fab. fulvus, Wood Cajetanus, Poli Rissoi, Payr Sienlus, Gray Polii, Phil. Canariensis, Webb&Berth. areolus, Sars | Defrailiun, Lin. entalis, Lin. tarentinum, Lam. dentalis, Lin. rubescens, Desp. sp. ined. | |

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|------------------------------------|---|---|---|
| Remarks. | West of Scotland | Matteirs | |
| Frequency. | abundant abundant frequent. abundant. abundant. frequent. frequent. frequent. frequent. | frequent. frequent. frequent. frequent. | moderate. rarc. abundant. and shells frequent. and shells moderate. and shells moderate. |
| Ground. | sand and shells . stones and mud . stones | rocks weed rocks Laminaria | shells mode rare. shells makells and shells frequences and shells frequences and shells focal, stones and shells mode shells and shells mode shells and shells mode shells and sand shells mode of the shells and sand shells inceal. |
| Locality of principal development. | 10 fathoms uncertain sand and shells rare | Mateira rocks Canaries (Lance- weed rotte). Mediterranean rocks Britain and Norway Laminaria Britain (South) shells | Mediterranean? Spain Britain Loch Fyne? Mediterranean? Mediterranean? |
| Vertical range. | 20 to 70 fathoms 20 to 70 fathoms Finnark. 20 to 80 fathoms fer 2 | 12 to 20 fathoms shore to 12 fathoms | shore 30 to 40 fathoms shore to 10 fathoms love to 100 fathoms to 20 fathoms 10 to 40 fathoms 10 to 20 fathoms 35 to 50 fathoms |
| Geographical range. | asteropoda (continued). ancyloides, Forbes. ancyloides, Forbes. Northern Norway . 20 to 70 fathoms . Northern Norway . stones and mud. abundant dilum, Forbes. South of Ireland, Finnark 20 to 80 fathoms . Northern Norway . stones and mud. abundant. della, Lin. Azores, Mogador? cernlea, Lam. Britain, Gibraltar, Agieres, &c. shore . Canaries and Madeira . Shore . Charries & Madeira rocks . Shore . Shore . Charries & Madeira rocks . Shore . Charries and Madeira . Shore . Charries & Madeira rocks . Frequent. Shore . Gibraltar, &c. Lowei, D'Orb Charries and Madeira . Shore . Mediterranean . Oocks . Frequent Charries and Madeira . Shore . Mediterranean . Oocks . Frequent Charries and Madeira . Shore . Mediterranean . Oocks . Frequent Shore . Charries & Madeira rocks . Frequent Charries & Mediterranean . Oocks . Frequent Shore . Charries & Mediterranean . Oocks . Frequent Shore . Charries & Madeira rocks . Frequent Charries & Mediterranean . Oocks . Frequent Shore . Charries & Madeira rocks . Frequent Mediterranean . Oocks . Frequent Mediterranean . Oocks . Frequent Mediterranean . Oocks . Frequent Shore . Charries & Madeira rocks . Frequent Charries and Madeira . Shore . Charries & Madeira rocks . Frequent | tenusis, Dilhuyan Gussonii, Costa Gussonii, Costa Gussonii, Costa Gussonii, Costa Gussonii, Costa Agicrs, &c. Agicrs, &c. North Cape to Mogador Shore North Cape to Mogador Shore Britain and Norway Laminaria Hungarica, Lin. Nordland to Mediterranean Shore Britain (South) Britain (South) Britain (South) Britain (South) Britain Britain | repidula, Lan., Carthagena, Algiers, &c. Shore Mediterranean? Shells Mediterranean Shells Mediterraneau. Mediterraneau. Shells Mediterraneau. Shells Mediterraneau. Shells Mifford Haven to Canary Shore to 10 fathoms Spain Shells Milford Haven to Canary Shore to 10 fathoms Spain Shells Mediterraneau Shells Shells |
| Species. | Gasteropoda (continued). Lepeta, Gray ancyloides, Forbes. cæca, Midler Pildium, Forbes. fulvun, Müller vulgata, Lin. vulgata, Lin. cerenia, D'Orb. guttata, D'Orb. guttata, Lom. Lowei, D'Orb. centaia, Lom. Lowei, D'Orb. Candei, D'Orb. | nn a , Lam. n. | Crepidula, Lam. ungalbosa, Def. Calyptræa, Lam. Sinensis, Lin. Sinensis, Lin. rosea, Bell. rosea, Bell. crassa, J. Sowerby elongata, Costa |

| | | . Mediterranean specimens much smaller than those of Atlantic. possibly a var. of I. communis, but much smaller. | Canary Islands | possibly a variety of preceding. Ditto. Mogador 3 fathoms, Vigo 4 fathoms, | low water to 20 faths, Norway | most frequent on red weed from 20 fathoms subject to great variety in form, colour and sculpture, according to habited | conulus, Lin |
|--------------------|---|--|--|--|--|--|------------------------|
| archaente. | frequent. frequent. frequent. moderate. | abundantrarelocal | rare. very rare frequent | frequent frequent rare | frequent. frequent. local, mode rate. | | frequent |
| פוחחבם שחת זחתת | stones and shells shells and stones stones stones | abundant. abundant rare. local | sandrare. sandrery rockfrequ | rocksand and mud | Lanellaria frequent. weed, sand, and frequent. gravel. sand and stones local, mo | sand and weed | sand and mud |
| Manch a : | uncertain | | oms (dead) uncertainsand | Mediterraneanrockfrequentpossib Canary and Madeira rockfrequentDitto. uncertainsand and mud rareMoga | Norway Norway Finmark | Finmark at 20 fa- thoms. Britain | Mediterranean? |
| ore to 20 fathoms. | to 100 fathoms ore to 50 fathoms ore to 60 fathoms | Uncertain Uncertain abun abun | fathoms (dead) fathoms | shore shore 3 to 60 fathoms | O Finmark low water to 20 faths, Norway | to 130 fathoms | to 20 fathoms |
| and Azores | Brith of Clyde to Finmark 20 to 100 fathoms uncertain stones and shells frequent. Britain to Canaries and Ma-shore to 50 fathoms Mediterranean? shells and stones frequent. Mediterranean, Gibraltar, and shore to 4 fathoms Mediterranean stones frequent. Mogador Mogador Shore to 60 fathoms Mediterranean sandstones moderate. | Canaries, Madeira, and Azores Mediterranean, Madeira Canaries, Madeira, and Azores Asturias Orkney, Northern Scandi: shore to 100 fathoms, uncertain | Canary Islands | Gibraltar, Naples shore Bediterranean lock frequent Canary and Madeira Islands, shore Canary and Madeira Islands, shore south of England, Mogador 3 to 60 fathoms mucertain sand and mud rare materials. | North of England to Finmark low water to 20 faths. Norway Oban to Finmark | Nordland, Finmark | inean, Canaries, and 4 |
| Madeira | Eirth of Clyon Britain to Cheira. Mediterrane Mogador. Asturias to C | | navia Canary Isl Nordland Guernsey | Gibraltar Canary an | North of England Oban to Finmark Orkney to Finmar | British se Canarie | Mediterran Madeira. |
| sp. Ined | Puncturella, Lowe. Noachina, Lin. Fissurella, Lam. reticulata, Don. rosca, Lam. gibba, Phil. | tatulina, jam. toommulis, Lam. prolongata, Blaine. exigua, Lam. sp. ined.? Scissurella, D'Orb. crispata, Fleming | Bertheloti, D'Orb angulata, Lovén. Haliotis, Lin. tuberculata, Lin. | lancilosa, Lam. sp.? Adeorbis, Searles Wood. subcarinatus | helicina, O. Fab North of England to Finmark undulata, Sow Oban to Finmark | cinerea, Couthouy | conulus, Lin. |

| 120 | | *************************************** | |
|------------------------------------|--|---|--|
| Remarks. | Isle of Man to Canary and 5 to 50 fathoms uncertain sand moderate a beautiful variety from deep water, Madeira Islands. South of England and Ire-shore to 15 fathoms Gibraltar and Medi-sand and mud abundant. land, Canaries, Madeira, Ire fathoms South of Englands and and mud moderate living in 15 fathoms, Gibraltar; 35 fathoms, Gibraltar; 35 fathoms, Gibraltar; 40 fa- | millegranus, Piil. Mediterranean to Nordland. 5 to 100 fathoms. West of Scotland sand and mad Irequent. South of England to Canary 4 to 50 fathoms. Mothered Spain sand and mud Irequent. South of England to Canaries & Madeira Islands. crenulatus, Piil | and weed, abundant. moderate. abundant. abundant. much variety in size and colour. abundant. local. local. nud, &c frequent Itom the coast of Asturias and from the coast. |
| Frequency. | moderate abundant. moderate | frequent. frequent. abundant abundant abundant abundant | and weed, abundant, moderate. abundant abundant frequent abundant abundant local local nud, &c frequent nd stones. |
| Ground. | sand and mud | sand and mud sand and mud sand and Lami naria. rocks gravel and mud | gravel and weed mud rocks rocks rocks mud rocks sand rocks rocks rock sand rock s |
| Locality of principal development. | meertain | West of Scotland , sand and mud Irequent North of Spain sand | Mediterranean gravel and weed, abundant, Mediterranean rocks abundant, uncertain rocks abundant, uncertain rocks abundant, large and Gibraltar mod abundant, Mediterranean rocks abundant, Incorranean rocks abundant, Incorranean rocks abundant, Incorranean rocks and coral Mediterranean rocks and december abundant, Incorranean rocks and december abundant, Incorranean rocks and december abundant, Incorranean rocks and stones frequent. |
| Vertical range. | : : : | 5 to 100 fathoms Shore to 20 fathoms 2 to 80 fathoms shore to 20 fathoms shore low water to 25 faths. | shore, 2 fathoms 6 to 8 fathoms shore shore shore to 12 fathoms shore 4 to 12 fathoms shore shore 4 to 3 fathoms shore shore shore shore shore |
| Geographical range. | striatus, Lin | Mediterannen to Nordland. 5 to 100 fathoms West of Scotland sand and mud Irequent frequent and Madeira Islands North of Spain sand frequent | canaliculatus, Phil. South of Portugal and Me-shore, 2 fathoms. Mediterranean gravel and weed. abundant, dinterranean Mediterranean Mediterranean mud |
| Species. | Gasteropoda (continued). Trochus, Lon. striatus, Lin. Montagui, Gray | millegranus, Püik. exiguus, Pulteney crenulatus, Pült. tumidus, Mont. cinerarius, Lin. umbilicatus, Mont. magus, Lin. | fanulum, Gmel. fanulum, Gmel. fragaroides, Lam. indecorus, Phil. Saulcyi, W. & B. Richardi, Payr. Laugieri, Payr. Vieillotti, Payr. urticulatus, Lam. divaricatus, Lim. |

| identified. | | | ranean. Gibraltar, 8 faths mudabundant rare in Asturias, small in Canaries, | moderate smallish, compressed. abundant on Zostera, near Malaga. | | | | | | | not R. calathiscus of Mont | |
|---|---|---|--|---|--|---|--------------------|---------------------------------------|-----------------------------------|--|----------------------------|------------------------------|
| local local frequent | abundant. | local. frequent. | abundant | moderate | local. | abundant. rare. frequent. | rare. abundant. | rare. frequent. | local. moderate. | moderate. | abundant | local. frequent. |
| sandsand.rocks | weed | nean on Zostera ma-local. rina. Mediter-sandfrequent. | mud | rockssand | · · · · · · · · · · · · · · · · · · · | weed sand mudand gravel | sandsand mud | sandsand | sand and mud | sand | sand | sandsand. |
| E. Mediterranean? uncertain. Canary Islands | Asturias | Mediterranean Eastern Mediter- | ranean. Gibraltar, 8 faths | fathoms uncertain sand | Mediterranean | Hebrides unknown Norway? | uncertain | uncertain | uncertain Loch Fyne | uncertain | Mediterranean? | uncertain South of England |
| 2 to 15 fathoms 0 fathoms | to 5 fathoms | and 5 fathoms | fathoms | to 20 fathoms | hore | hore 0 fathoms 5 to 40 fathoms | hore, 7 fathoms | 0 to 70 fathoms hore to 50 fathoms | 5 to 30 fathoms | to 50 fathoms | hore (dead) | 0 to 50 faths. (dead) |
| sanguineus, Lin. Maita 12 to 15 fathoms E. Mediterranean? sand local vilicus, Phil. Sicily Sicily Bertheloti (Monodonta), Canary, Madeira Islands, and shore Canary Islands rocks frequent DOP 6. | South and West of Britain, 3 to 5 fathoms Asturias weed | South of Portugal and Medi-4 and 5 fathoms Mediterranean on Zostera ma-local. terranean. Malta and Sicily 5 to 12 fathoms Eastern Mediter-sand frequ | Asturias to Canaries and 9 | Mogador | Madeira. Malaga and Canariesshore Mediterraneans | Britain, Norway. shore abundant. Ordana inhknown sand. Norway indandgravel. frequent. | ssod, Arva | Mogador. Zetland, Hebrides | Beanii, Hanley | calathus, Forbes & Hanley Drontheim? South and West 8 to 50 fathoms uncertain sand moderate. of Britain and Ireland, Vigo, | granulata, Phil | sculpta, Phil |
| sanguineus, <i>Lin.</i> villicus, <i>Phil.</i> Bertheloti (Monodonta), <i>D'Orb.</i> | Phasianella, Lam. pullus, Lin | a, Scacchi | Sin. | | | Skenea, Fremma. planorbis, O. Fabr. Sp. sp. | striatula, Mont. | Zetlandica, MontZ | Beanii, Hanley abyssicola, Forbes | calathus, Forbes & Hanley I | granulata, Phil | sculpta, Phil punctura, Mont |

| Remarks. | Britain to Canaries shore to 60 fathons. Mediterranean and sand frequent. Nordland to Vigo low water to 80 faths. Britain weed shoundard. South of England to Me- 2 to 5 fathons. Britain weed shoundard. South of England to Me- 2 to 5 fathons. Britain weed loom. I frequent on Zosters. South of England to Me- 2 to 5 fathons. South of Spain weed shoundard. Of faths. dead. Spain. Weed shoundard. I frequent on Zosters. Of faths. dead. Spain. weed shoundard. I frequent on Zosters. Of faths. dead. South of England sand and weed. I have not met with it living. I for the whitevariety in crevices of rocks. Britain. to Canaries. I to 50 fathons. Britain metertain. Spain. Azores. I to 40 fathons. Britain. Sand and mud. rare. I frequent show to 10 fathons. Mediterranean. Sand and mud. rare. I frequent solvent of Spain Mediterranean. Sand and and 40 fathons. Mediterranean. Sand Carthigens, Malta. Rec. Shore to 10 fathons. Mediterranean. Sand Shore to 40 fathons. Mediterranean. Sand Malega. Anglesea, Zetland, and Dron. low water. Sathons. Mediterranean. Sand Canaries. Shore to 40 fathons. Mediterranean. Sand Canaries. Shore to 40 fathons. Mediterranean. Sand Malega. Anglesea, Zetland, and Dron. low water. Sathons. Mediterranean. Sand Canaries. Shore to 6 fathons. Mediterranean. Shore to 6 fathons. Shore to 6 |
|------------------------------------|--|
| Frequency. | frequent. frequent. abundant. local. local. local. abundant. ad. abundant. frequent. |
| Ground. | sand frequent, sand and stones, abundant, weed abundant, weed abundant, sand and weed, local, sand and weed, local, sand and mud, rare, sand and mud, rare, sand, and mandant, sand, frequent sand, frequent sand, frequent |
| Locality of principal development. | Mediterranean and Canaries. Britain Britain North of Spain West of Scotland Spain Spain Sprian Britain Britain Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Britain Britain Britain Britain Norway Norway Norway Norway |
| Vertical range. | shore to 60 fathoms low water to 80 faths 2 to 5 fathoms 4 to 5 fathoms low water to 10 faths low water to 10 faths low water, 12 faths low water, 12 faths low water, 12 faths for fathoms 3 hore 1 fathoms 4 fathoms 10 and 40 fathoms 30 to 40 fathoms 30 to 40 fathoms 10 and 40 fathoms 10 and 40 fathoms 10 water low water low water shore to 40 fathoms 20 to 50 fathoms 20 to 50 fathoms shore to 4 fathoms shore to 6 fathoms shore to 6 fathoms shore to 6 fathoms 4 to 40 fathoms |
| Geographical range. | State Dodds (continued) State Dodds (continued) |
| Species. | Gasteropoda (continued). Riscoa, Frem. costata, Adams striata, Mont parva, Costa interrupta, Adams. costulata, Alder labiosa, Mont. ruffabrum, Alder labiosa, Mont. vitrea, Mont. vitrea, Mont. ulvæ, Pennant Barleel, Jeffreys violacea, Desm. monodouta, Birom Brignieri, Poyr. auriscalpium, Lin. Montagui, Poyr. Desmarestii, Forbes sp. ined. Canariensis, Hebb & Berth, Lacum, Turton vincta, Mont. pallidula, Costa putcolus, Turton vincta, Mont. |

| alive at 20 fathoms, Vigo. | pseudoperspectivum, Bro. Gibraltar | | , | | | | | | Three or four other undescribed species of Scalaria from the Canary Islands, and two from Madeira. | | grooved like S. Grænlandica. | | |
|------------------------------------|---|------------------|--|---|---------------------------|--|--|--------------------------------|--|---|--|---|---|
| raremoderate. | very rare | trequent. | abundant. | abundant. | abundant. | frequent. frequent. abundant. | local | localrare | moderate rare moderate moderate | frequent rare frequent | rare | frequent. | frequent. |
| mud | mud | sand and mud | rocks | stonesabundant | stones abundant frequent. | rocks frequent. | pnu | mudsand and mud | sandsandsand | rocks frequent sand rare frequent | sandrare | stones and coral | stones and rock |
| Malaga and Medi- terranean. | unknown | Madeira : | Spain and Portugal? rocks | Scotland stones abundant. Britain fucus abundant. | Britain stones | Spain? Canaries, &c. | Britain, Ireland mud | uncertainsand and mud | Arctic seas Norway Britain and Ireland Canaries? | Canaries uncertain uncertain | Mediterranean | Mediterranean | Mediterranean |
| shore to 20 fathoms8 to 40 fathoms | 40 fathoms | 18 to 24 fathoms | shoreshore | | | shore shore | 4 to 24 fathoms | 1 to 10 fathoms | 20 to 40 fathoms 20 to 4 fathoms 40 to 100 fathoms | shore 12 and 20 fathoms 12 fathoms | 30 to 40 fathoms | shore, sublittoral and | shore |
| Nucenia, Z | Gibraltar | Madeira | Canadra, and Azores snore Islands. Britain to Canaries and Ma-shore Spain andPortugal? rocks abundant. | deira. Nordland to Lisbon Finmark to Malaga | Finmark to Vigoshore | Asturias, Malaga Canaries, Madeira, and Azores. | England and Ireland to the to 24 fathoms | communis, Lam | ANNO | pseudoscalaris, Brocchi. Mediterramean to Canaries. hore Canaries rocks frequent cochlea, Sove Lancerotte, Porto Santo 12 and 20 fathoms uncertain sand rare Macandrel, Forbes, MSS. Lancerotte 12 fathoms uncertain sand frequent frequent | WebDil, J. O.70. I entertine and the control of the | rimetus, Adamson Mediterraneanshore, sublittoral and Mediterraneanstones and coral. frequent. | glomeratus, Lin Cadiz and Mediterranean shore |
| luteum, Lamstramıneum, Gmel | pseudoperspectivum, Bro. Bifrontia, Deshayes. | | Adansom, Futappi Littorina, Férussac. neritoides, Lin. | littorea, Lin. | | eys] | Scalaria, Lam. Turtonis, Turton | communis, Lamclathratula, Mont | Grænlandica, Chem. Lovéni, A. Adams Trevellina, Leach | pseudoscalaris, Brocchi cochlea, Sow. Macandrei, Forbes, MSS. | sp. ined. | Vermetus, Adanson. gigas, Bivon | glomeratus, Lin |

| Remarks. | | Sand very rare Isle of Man shore, Zetland 80 faths, rare, sand rare, sand rare sand rare lare la | Nordland to Mediterranean 4 to 100 fathoms Britain sand and mud abundant Nigo to Canary Islands 8 to 30 fathoms Gibraltar sand and mud abundant rery small size in the Canaries. Faro, Gibraltar, Mogador 3 to 15 fathoms uncertain sand frequent not met with in the Mediterranean Gibraltar, Madeira 15 to 30 fathoms Britain sand, mud, and abundant. gravel gravel zethand, Nordland 70 to 100 fathoms Zethand? sand rare. | not obtained living. the largest known species, not obtained alive, |
|------------------------------------|---|--|---|---|
| Frequency. | frequent. frequent. frequent. frequent. frequent. frequent. | very rare rare. rare. rare. rare. | abundant frequent rare. abundant. | frequent, rare frequent abundant. |
| Ground. | sand and coral sand and gravel sand and gravel | sand very un-sand rare. sand rare sand rare mud rare | sand and mud sand and mud sand mud sand, mud, and gravel. | sandsand sand gravelsand |
| Locality of principal development. | Mediterranean. uncertain uncertain uncertain uncertain uncertain | 2 ::: | Britain | Britain |
| Vertical range. | 25 to 40 fatboms 12 to 50 fathoms 8 to 50 fathoms 8 to 50 fathoms 12 to 50 fathoms | shore to 80 fathoms | 4 to 100 fathoms 8 to 30 fathoms 3 to 15 fathoms 15 to 30 fathoms 5 to 100 fathoms | 10 to 60 fathoms shore to 50 fathoms 70 to 150 fathoms shore to 60 fathoms shore to 60 fathoms |
| Geographical range. | steropoda (continued). Inciditerranean Mediterranean S5 to 40 fathoms Mediterranean sand and coral frequent. frequent. ferining Canary Islands 12 to 50 fathoms uncertain sand frequent. frequent. frequent. Britain to Mediterranean 8 to 50 fathoms uncertain sand and gravel. frequent. Sarries Woodi, Carp Ganary Islands 50 fathoms uncertain sand and gravel. frequent. sand Britain to Mediterranean 8 to 50 fathoms uncertain sand and gravel. frequent. subterm, Mont Canary Islands 12 to 50 fathoms uncertain sand and gravel. frequent. sand frequent frequent. | ascaris, Turton Britain to Mediterranean Superatida, Searles Wood. South of England, Vigo, and 8 to 15 fathoms Mediterranean. Sp. ined. Sp. ined. Madeira Sp. ined. Madeira Sp. ined. Madeira Sp. ined. Gibraltar Sp. ined. Madeira Specimens. | Communis, Risso and Mogador. Vigo to Canary Islands String. String. | Hours, Joints, Londons, and Striks seas British to Mediterranean shore to 60 fathoms. South of England. Sand sand sand shore to 60 fathoms. Spain and Mediter-sand and gravel. Azores. British to Canaries and shore to 60 fathoms. Spain and Mediter-sand and gravel. abundant. ranean. |
| Species. | Gasteropoda (confinued). Vernetus, Adanson. cornens, Forbes corner, Forbes coun, Fleming. elegantissinum, Carp. trachea, Mont. Searles Woodi, Carp. glabrum, Mont. | suprantida, Searles Wood. sp. incd. ? sp. incd. ? sp. incd. | sso cehi vandus. in. Brong. | adversa, Mont. perversa, Brug. Macandrei, A. Adams. Cerithiopsis, Forbes. tubercularis, Mont. Cerithium, Brug. |

| | | Southerna. Southerna. Telende Portugal to Cannay shore to 40 fathoms Mediterranean and sand weed abundant deep water variety, more slender and | more strongly tuberculated. | | | diterranean. Scotland to Madeira, Azores, 10 to 60 fathoms Firth of Clyde sand frequent Mediterranean and southern speciand Canaries. | moderate on the shore dead. | moderate a white var.? in Zetland (80 faths.) | and Northern Norway. probably an inhabitant of British seas, confounded with E. polita | and E. distorta. | Isle of Man to Lancerotte and 3 to 40 fathoms, uncertain sand frequent abundant in Milford Haven, 7 faths. | | formosa, Jeffreys | | | . pink. . brown, slender. . white, slender. |
|-------------------|--|--|--------------------------------|------------------------------|--|---|--|--|--|--|--|--|--|--|--|---|
| moderate. | rare. | abundant. | abundant. | rare. | moderate. | frequent | moderate. | moderate. | rare | frequent | frequent | moderate. | rare local. rare. | rare. | moderate. rare. | rarerare |
| Illesanuanu muu | sand | sand and weed | and rock abundant. | sandrare. | sand | sand | : | sand | sand | sand | sand | sandsand | sand local sand and mud local sand and mud rare. | mnd | sand | sand |
| Meditor | uncertain | Mediterranean and | Canaries. Mediterranean and | Canaries. unknown | Anglesea, Zetland | Firth of Clyde | uncertain | Norway | Mediterranean | Canaries | uncertain | Britain Mediterranean and | uncertain | Obau? | uncertain Nordland and Fin- | unknown |
| fotherne | 0 to cv rathoms | hôre to 40 fathoms | | 0 fathoms | to 50 fathoms | 0 to 60 fathoms | to 40 fathoms | 0 to 100 fathoms | 1s-30 to 40 fathoms Mediterranean sandrare | 2 to 40 fathoms | to 40 fathoms | to 80 fathoms | to 15 fathoms to 8 fathoms | 5 to 30 fathoms | 0 to 50 fathoms | 30 fathoms sand rare pink. Sand rare pink. Sand rare pink. Sand rare prown, slender. Tare white, slender. |
| Daniellerie Melte | Mediterranean, realise, and 40 to 50 taknoms, uncertain sand | Madeira, outh of Portugal to Canary strange | Cadiz to Canary Islandsshore | Canaries. | Nordland and Zetland to Me-7 to 50 fathoms Anglesca, Zetland sandmoderate. | diterranean. otland to Madeira, Azores, l and Canaries. | Britain, Mediterranean, Ma- 7 to 40 fathoms uncertain sand | West of Scotland to North 20 to 100 fathoms Norway | Cape. Mediterranean, Canary 1s-3 lands, and Madeira. | Canaries, Madeira, and Azores 12 to 40 fathoms Canariessandfrequent frequent | of Man to Lancerotte and | Azores. Zetland to Lishon 6 to 80 fathoms Britain sand moderate. Portugal to Canary Islands 10 to 30 fathoms Mediteranean and sand moderate. | Bantry Bay, Vigo | Gibraltar. Firth of Clyde to North Dron-15 to 30 fathoms Obau?mudrare. | Britain to Canary Islands 10 to 50 fathoms uncertain | Straits of Gibraltar |
| Totom Diffing | | vulgatum, BrugSou | Costa | Stylina, Fleming. 1 or 2 sp | Settimon | distorta, DeshSco | subulata, Donovan Bri | bilineata, Alder We | nitida, Lam Me | sp. ined.? Car | mt | fulvocincta, Thompson Zet rufa, Phil. | formosa, Jeffreys Bar fenestrata, Forbes & Jeff. Sou scalaris, Phil. | rufescens, ForbesFirt | indistincta, Mont. Bril sp. ined. Nor | sp. ined |

| Remarks. | | perspicua, Lin. Britain, Vigo, Mediterranean 8 to 20 fathoms Britain, Moliterranean 8 to 20 fathoms Britain, Mediterranean 8 to 20 fathoms prodicts, Lin. Geira? Finnark South of Portugal Britain to North of Spain Britain to Mediterranean Britain Britain Britain Britain Britain Britain to Mediterranean Britain Brit Britain Britain Britain Britain Britai |
|---|---|--|
| Frequency. | rare. rare. rare. maderate. moderate. moderate. rare. rare. rare. rare. rare. rare. rare. rare. | moderate moderate frequent moderate frequent frequent very freq. local. |
| Ground. | sand and mud sand sand sand and mud sand and mud sand sand sand sand sand sand sand sand sand, stones, and shells. | sand and gravel sand sand sand sand sand sand sand pore. |
| Locality of prin- cipal development. | Murray Frith? sand and mud rare. Ohan sand rare. Ohan sand and mud frequulectain sand and mud rare. Sand and mud rare. Uncertain sand moder moder sand sand moder sand sand moder sand sand rare. Uncertain sand rare. Sand rare. Sand rare. Sand rare. Norway sand, stones, and mode sand. stones, and mode sand. stones, and mode sand. stones, and mode stones rare. | uncertain uncertain Finmark unknown South of Portugal Britain Britain Britain friday, 10 to 12 fathoms. |
| Vertical range. | 2 to 35 fathoms | 8 to 20 fathoms 5 fathoms 20 to 35 fathoms 40 to 66 fathoms shore (dead) shore to 5 fathoms 30 to 80 fathoms 2 to 45 fathoms |
| Geographical range. | affinicala, Forbes. Britain to Gibraltar and Me- 2 to 35 fathoms uncertain sand and mud rare. diterranean. Britain frammerk 20 to 30 fathoms Murray Frith? sand rare. Scille, Phil Sainds. North Drouhlein to Canary 20 to 80 fathoms Sand rare. dostomia, Flexing Strain, Canaries 10 to 60 fathoms uncertain sand and mud frequent. Britain to Gibraltar and Cana-15 to 30 fathoms uncertain sand and mud rare. Britain, Canaries, Maleira 10 to 50 fathoms uncertain sand and mud rare. Britain, Canaries, Maleira 10 to 70 fathoms unknown muderate. Britain Canaries, Britain 10 fathoms uncertain moderate. Britain Maleira 10 fathoms uncertain moderate. Britain, Madeira | necitain, Mont. Britain, Vigo, Mediterranean 8 to 25 fathons uncertain sand and gravel moderate in some foreign specimens mal is bright orange. Britain, Wediterranean? Ma 5 fathons uncertain sand moderate in Cardigan Bay large, animate deira? 20 to 35 fathons Finmark sand frequent brown and yellow sand moderate not met with opaque W sand moderate not met with alive sand moderate not met with alive moderate living near low-water mark midd. Don. Edatad to Mediterranean 36 to 80 fathoms Britain moderate living near low-water mark local loc |
| Species. | ontinued). hi nt eidt ys | Lancialaria, Mont. perspieua, Lin. prodita, Loven sp. incd. Sigaretus, Lan. haliotideus, Lin. Natica, Lan. nonlifera, Lam. nitida, Don. sordida, Phil. |

| | ON | MOLLUSC | A OF THE | NORTH-EAST | ATLANTIC, ETC. | 127 |
|-------------|---|--|---|--|--|---------------------------------|
| 2 | on Algæ between tide marks, in com- pany with Littorinæ, Tromsoe. | rare in Canary Islands. | Mogador. Mogador. Mogador. Mogador. Madeira | only once obtained living. on Gorgonia. | Zetland to Mediterranean 12 to 50 fathoms Mediterranean sand and mud rare rare rocks and Zetland Vigten Islands in Norway to low water to 20 faths. Britain rocks and stones abundant. to the Hebrides and Zetland. the Mediterranean. shore to 24 fathoms. Malta, &c. frequent I have not obtained it living. Canary and Madeira Islands. 12 to 24 fathoms. mncertain moderate. moderate. Canary Slands. 12 to 24 fathoms. moderate. moderate. moderate. Canary Slands. Ilitoral. moderate. rare. Cadiz, Mediterranean and shore (dead) moderate. rare. | moneta, <i>Lin.</i> |
| | Scotland and Ireland to Fin-4 to 50 Inthoms Hebrides, 20 Inthis. sand, mud, and irrequent. Nordland and Finmark shore to 10 fathoms Finmark stones and rock. frequent Finnark | Acadiz and Gibrattar shore to 4 fathoms Cadiz sand and mud frequent. Naples and Sicily | Univalent and Mediterranean, 50 to 40 ratioms | Canaries and Madeira | dant. ient . rate. | |
| 20 fathoms. | Hebrides, 20 faths 18 Finnark uncertain s Mediterranean | s. Cadiz? Naples 18. Algiers? 18. Gibraltar, 12 faths. | nsCanaries, 12 to 16 fathoms. Nalaga, shore to 8 fathoms. Canary Islands. | ns. uncertain | Mediterranean sand and mud rare 10 faths. Britain rocks and stones abun homs Malta, &c frequ ms uncertain sand mod nd sub Ganaries rocks mod | tropical |
| | rin-4 to 50 tathomsshore to 10 fathoms 15 to 20 fathomsrra-shore to 5 fathoms. | shore to 4 fathoms 8 to 12 fathoms aries shore to 40 fathom fedi-shore to 40 fathom | nean, 30 to 40 fathoms | shore to 20 fathom | n 12 to 50 fathoms y to low water to 20 fa was-shore to 24 fathom res and low water and s littoral and shore (dead) | shore (dead) |
| | Scotland and Ireland to Fin. 4 to 50 tathoms | near, and Gibraltar Naples and Sicily Mediterranean and Can South of Portugal and M Erranean M. Jii. | Unbratar and Mediterral Mogador. Canary and Madeira South of Portugal to Can Canaries | Canaries and Madeira | Zetland to Mediterranean 12 to 50 fathoms Mediterrane Vigten Islands in Norway to low water to 20 faths. Britain fadic, Mediterranean, Cana-shore to 24 fathoms Malta, &c free, Madeira, and Azores. Canary and Madeira Islands 12 to 24 fathoms uncertain Eastern Mediterranean and low water and sub-Ganaries Canary Islands. Canary Islands dediterranean and shore (dead) uncertain | Canaries. Cadiz ? Canarics ? |
| | Montagui, Forbes clausa, Sow. aperta, Lovén? intricata, Don | | magnenta, Trut | n. Pennant h. Lin. um, Brug | Erato, Risso. Javis, Doiovan Cyprae, Mont Pulex, Solander Candidula, Gaskoin Spyrum, Lin | moneta, Lin |

* I omit numerous species of Odostomia, all enumerated in the "British Mollusca" of Forbes and Hanley, which I have obtained in the British Seas, but not identified in any foreign locality.

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|------------------------------------|---|--|--|---|------------------------------|
| Remarks. | Canary Islands | rave at Mogador. | in British Museum. | mba, Brod. Rock of Lisbon to Canary shore to 15 fathoms South of Portugal sand and mud frequent not found in the Mediterranean east and Gibraltar. Islands. Islands. Islands. Ornwall to Mogador and low water to 8 faths Spain stones and sand frequent probablymore than one species under thrin and low water to 50 fathoms Britain, Spain sand and mud frequent. Integrated. Mont | place in southern latitudes. |
| Frequency. | rare frequent. frequent. frequent. moderate. | frequent frequent. frequent. frequent. | moderate. frequent. frequent. frequent. frequent. | frequent frequent frequent. frequent. moderate. | |
| Ground. | rocks and sand sand sand | sand and stonessand | sand rocks sand rocks sand sand sand sand | sand and mud stones and sand sand and mud sand and stavel | |
| Locality of principal development. | incertain Cadiz ? nicertain Canary micertain | uncertain | 15 fathoms Eastern Mediterra- sand | South of Portugal and Gibraltar. Spain | |
| Vertical range. | shore (dead) 15 to 60 fathoms 15 to 60 fathoms 12 to 40 fathoms | shore to 12 fathoms 3 to 5 fathoms 8 to 60 fathoms shore to 10 fathoms | 12 to 45 fathoms shore | Mogador and low water to 8 faths South of Portugal sand and mud frequent and low water to 8 faths Spain stones and sand frequent way | |
| Geographical range. | Canary Islands | Slands. Mogador, Canary Islands Shore to 12 fathoms. Uncertain Sand and stones. frequent Trave at Mogador. | Savignii, Payr. Mogador. Tunis, Malta 12 to 45 fathoms Eastern Mediterra-sand moderate. Islands. Savainson Islands. Intescens, Lam. Eastern Mediterra-sand Trace. Trequent. Islands. Mogador to Canary, Madeira shore canaries and Canaries and Azores. Itequent. Islands, and Azores. Is to 20 fathoms canaries and moderate. Islands, and Azores. Sp. ined. Canaries and Madeira. Shore (dead) unknown sand. Trequent. | Rock of Lisbon to Canary shore to 15 fathoms South of Portugal sand and mud frequent Islands. Cornwall to Mogador and low water to 8 faths Spain stones and sand frequent Morthern Norway | Madaira |
| Species. | Gasteropoda (confinued). Cyprea, Lin. Inrida, Lin. Marginella, Lam. miliacea, Lam. guancha, D'Orb. seedlina, Phil.? | glabella, <i>Lin</i> sp. incd | zyr. uson am. Orb. | Cymba, Brod. olla, Lin. Lachesis, Risso. minima, Mont. pramidalis, Strom inearis, Mont. prupurea, Mont. | I Hilbert, arterium |

| 1 . 18hd. 50 tathoms | Haricala, Mont | | - | | attenuata, Mont | Several species of Mangelia new or not identified at Gibraltar, Madeira, and in the Mediterranean. |
|--|---|---|--|---|---|--|
| medilent. | frequent. frequent. moderate. rare. frequent. | rare. frequent. rare. rare. | moderate. frequent. moderate. moderate. | moderate. frequent. | moderate. moderate. | moderate rare rare rare |
| SANDANDERS OF THE WILL AND THE STREET, | sand sand sand and gravel sand and mud | mud sand, weed, and Nullipore. sand and gravel | sand and mud sand and mud sand and mud fine sand | sand and mud | sand and mud sand and mud | sand sand sand sand |
| THE COURSE WATCHEST AND THE CO. | Norway, 10 fathoms Norway Finmark? uncertain Nordiand and Fin- | mark. South of England, Vigo. Northern coasts of Norway. uncertain Britain (Berwick | Bay). Gibraltar and Naples. Mediterranean Malaga, &c Mediterranean, 30 | fathoms. Mediterranean and sand and mud moderate Madeira. Cornwall and Vigo, sandfrequent. smaller var. north of England, and south of Scotland larger var. (coarc- | tata). 4 diditerranean, 2 to sand and mud moderate. 4 fathons. Gibraltar | East Mediterranean moerrain Naples, &c. uncertain Mediterranean |
| | 4 to 100 fathoms 4 to 100 fathoms 10 to 50 fathoms 10 to 50 fathoms shore to 12 fathoms | shore to 8 fathoms 3 to 30 fathoms (living) 15 to 100 fathoms | 8 to 30 fathoms shore to 25 fathoms 4 to 8 fathoms | 8 to 60 fathoms 5 to 60 fathoms | 2 to 18 fathoms 6 to 25 fathoms shore to 25 fathoms . | 6 to 15 fathoms |
| THE PARTY OF THE P | turicula, Mont | septangularis, Mont Britain to Mediterranean and shore to 8 fathomsSouth of England, mudrare. Azores. Holbollii, Möller | gracilis, Mont. Cultud, and wielnerranean. Gibraltar and Na-sand and mud moderate. deira. Britân to Canary Islands shore to 25 fathoms Mediterranean. sand and mud frequent. Evrigata, Phil Mediterranean, Mogador 4 to 8 fathoms Malaga, &c sand and mud inoderate. brachystoma, Phil Zetland to Mogador10 to 60 fathoms Mediterranean, 30 fine sandmoderate. | striolata, Scacchi England to Canary and Ma-8 to 60 fathoms Mediterranean and sand and mud moderate. Requent | attenuata, Nont Britain to Mediterranean 2 to 18 fathoms Mediterranean, 2 to sand and mud moderate. 4 fathoms. 4 fathoms. Asturias to Canary Islands 6 to 25 fathoms Gibraltar sand and mud moderate Vanquelinii, Payr sand and mud moderate moderate moditerranean sand and mud moderate | secalina, Phil. grana, Phil. Malta, &c., Madeira 6 to 15 fathoms Bast Mediterranean sand rare rangensa, Phil. Malta Malta 19 fathoms Inneertain sand rare rare. In to 30 fathoms Naples, &c. 8and rare. Gibraltar, Naples 8 to 10 fathoms Inneertain rare. Gibraltar, Naples 35 and 40 fathoms Sand rare. rare. Tare. Tare. |
| | bela, Leach, Mont turricula, Mont Trevellana, Turton II mitula, Lovén rosea, Sars | septangularis, Mont. Britain to Mediterranean and shore to 8 fathoms South of England, mud rare. Mangelia, Leach Azores. PHolbollii, Müller Drontheim, Finmark 3 to 30 fathoms Northern coasts of sund, weed, and frequ. Northern was of sund, weed, and frequ. northern coasts of sund sund it of sund and sund sund sand rare. teres, Forbes Parties seas to Orkney 15 to 100 fathoms Britain (Berwick) sand and gravel. rare. | gracilis, Mont | striolata, Scaechi costata, Pennant | attenuata, Mont | secalina, Phil. grana, Phil. Ingulosa, Phil. Inana, Scacchii. Cuspata, Cristof. |

| Remarks. | many varieties. abundant on Zostera. | hinn, Lam. Sand and mud local Sand and mud local Sand and mud local Mediterranean and Ca-12 to 40 fathoms uncertain Mediterranean. Canaries, and shore to 10 fathoms. Mediterranean Sableosa, Lam. Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Mediterranean Sand Mediterranean Mediterranean Mediterranean Sand Mediterranean Mediterranean Mediterranean Sand Mediterranean Mediterranean Sand Trancan Iving at Gijon, Asturias, rare Inving at Gijon, Asturias, rare Iving at Gijon, Asturias, rare Inving at Gijon, Asturias, rare Iving at Gijo |
|------------------------------------|--|--|
| Frequency. | rare. very rare. abundant. rare. abundant. moderate abundant frequent. frequent. rare. | local local frequent. rare abundant. frequent moderate |
| Ground. | sand and mud | sand and mud local sand frequ sand rare rocks, sand & mud abun rocks frequ mud mod |
| Locality of principal development. | Mordland and Fin. sand and mud rare "uncertain | unecrtain |
| Vertical range. | 30 to 150 fathoms 30 and 60 fathoms shore | shore 6 fathoms 6 fathoms shore dead, 8 fathoms living. shore to 10 fathoms shore shore shore shore |
| Geographical range. | asteropoda (continued). angelia, Leach. invale, Loven. Nordland and Finmark. Algiers, Tencriffe 30 and 60 fathoms. Invale, Loven. South of Portugal to Canary shore Jahands. South of Portugal, Canary shore Jahands. Jahands. Madeira and Azore Islahs. Madeira Islands. Canary and Madeira Islands. Jahands. J | sp. ined. Jalum, Lam. Sast Mediterranean and Ca- 12 to 40 fathoms uncertain |
| Species. | Gasteropoda (continued). Mangelia, Leach. balteata, Beck Cours, Lin. Mediterraneus, Brug. papilionaceus, Brug. rustica, Lin. scripta, Lin. scripta, Lin. minor, Seacchi cribraria, Lin. Broderipii, Sou. | Sp. ined. Sp. ined. Salea, Lin. Cassidaria, Lam. Cassidaria, Lam. Cassis, Lam. sulcosa, Lam. Saburon, Lam. Purpura, Lam. lapillus, Lin. lapillus, Lin. viveratoides, Webb & Berth. Ringicula, Deeh. |

| _ | | | | | | 20100000 | | | | | | | |
|--|---|---|--|---|---|--------------------------------------|-----------------------------|---|---|---|--|---|--|
| | | | 20 fathoms in the Tagus, 4 fa- thoms at Mogador, long and | narrow. five distinct varieties from as many | localities. | | | | | | 4. id | antiques, Lam Britain to Arctic seas 5 to 70 fathorns North of Englandsand and mud frequent all I obtained in Norway carinated. | |
| abundant. | abundant. | abundant. | rare local. | frequent. | frequent. | abundant. | very rare. | abundant. | rare. local. rare. | abundant. | rareabundant. moderate. | frequent | rare. moderate. frequent. moderate. |
| rock, stones, mud abundant. | and sand. | sand and stones. | sandmud | sand and mud | sand and mud | stones and weed. | rocks | sand, mud & rocks | sand sand gravel | rocks and weed abun | sand rare sand sbundant. sand moderate. sand very rare | sand and mud | sand sand and mud sand |
| Pultal | | Fibraltar and Ca- | naries. Janaries? | Mediterranean | Malaga? | Spain | ınknown | Scotland, Norway. | ıncertain ıncertain | finmark ınknown | Arctic sea | North of England | and Scotand. Incertain Vigo Sibraltar |
| INTO TO SO TALINOTES ON | to 15 fathoms | ore, 4 fathoms | and 20 fathoms | to 8 fathoms | to 10 fathoms | 10re | nore (dead) | ore to 150 fathoms. | to 150 fathoms | toral fathoms | 100 fathoms | to 70 fathoms | o to 100 fathoms w water to 10 faths. to 15 fathoms fathoms |
| Northand to Connect Sends lehons to E 64thous Push | Azores. South of England to Medi-4 to 15 fathoms Mediterranean sand and mud abundant. | terranean. to Canary shore, 4 fathoms Gibraltar and Ca. sand and stones, abundant | and Madeira Islands. and Madeira Islands. Island and Mogador | and Madierranean | Malaga and Gibraltar 4 to 10 fathoms Malaga? sand and mudfrequent. Yigo b Mogador 8 to 30 fathoms Vigo?sand and mudabundant. | North of Spain to Mogador , shore | Grand Canaryrocksvery rare. | nocinum, Lin. undatum, Lin. Arctic seas to South of En-shore to 150 fathoms. Scotland, Norway sand, mud & rocks abundant. | Dalei, J. Sowerby Benned Zetland, Finnark 15 to 90 fathoms uncertain sand and gravel. local. funiforme, Brod. South of Droutheim to the 30 to 150 fathoms uncertain sand and gravel. local. | cyaneum, Müller Finmark littoral littoral rocks and weed abundant, sp. ined | Finnark Britain to Finnark 5 to 100 fathoms Zetland sand laborate. South of England to Zetland to 100 fathoms Britain sand moderate. North Sea and Zetland 10 to 100 fathoms uncertain sand very rare. | n to Arctic seas5 | North Sea, Finmark 40 to 100 fathoms uncertain sand rare. Vigo sand moderate. Cadiz and Mediterranean 8 to 15 fathoms Gibraltar sand and mud frequent. Sicily sand moderate. |
| | | Medit | | | | | Grand | Arctic | gland. Finmark Sennet Zetland, J | Finna Mogae | | Britain | North Vigo. Cadiz Sicily |
| renember Lin | pygmæa, Lam | variabilis, Phil | sp. ined | mutabilis, Lin. | grana, Lam. trifasciata, A. Ad. | glaberrima, cmet corniculum, Oliv | sp. | Buccinum, Lin. undatum, Lin | Dalei, J. Sowerby Humphreysianum, I. | cyaneum, Müller | Fusus, Lam. Islandicus, Chem. gracilis, Da Costa propinquus, Alder. Bernicensis, King. | antiquus, Lam | Norvegicus, Chem |

| ش01 | | | | |
|------------------------------------|---|--|--|------------------|
| Remarks. | | Puricatus, Mont. Burish seas to Vigo Buritain. Sand Burish seas to Vigo Burish seas to V | a very small var. from the Azores. | |
| Frequency. | frequent. frequent. rare. moderate. frequent. frequent. | moderate. moderate. rare. frequent frequent. rare. rare. | ent. erate erate. erate. | rare. |
| Ground. | sand and mud sand and mud sand and mud sand and nud sand and nud | sand and mud sand and mud sand and mud sand, gravel, and stones. mud sand | sand rare. sand and mud moderate. sand moderate. moderate. rare. sand moderate. moderate. sand rare. sand rare. moderate. sand rare. | sand |
| Locality of principal development. | Gibraltar | Britain Norway uncertain Zetlandand Norway Gibraltar, Algiers uncertain | oms nncertain sand rare. oms Arctic seas sand frequent. homs Gibraltar sand moderate moderate moderate moderate nucertain rare. moderate nucertain sand rare. nucertain sand rare. ons uncertain rare. | Canary Islands ? |
| Vertical range. | and Canary 8 to 40 fathoms Gibraltar sand and mud frequand Canary 8 to 20 fathoms Gibraltar sand and mud frequence is fathoms Sicily sand and mud rare shore to 20 fathoms Gibraltar sand and nock mode celiterranean 8 to 20 fathoms Gibraltar sand and mud frequence to 20 fathoms Gibraltar sand and mud frequence to 20 fathoms Norway sand and mud frequence to 100 fathoms Norway sand and mud frequence to 100 fathoms Norway sand and mud frequence to 20 fathoms frequen | 12 to 50 fathoms 15 to 160 fathoms 8 to 140 fathoms 5 to 150 fathoms 1 to 25 fathoms 8 fathoms 8 fathoms 9 fathoms | 12 to 24 fathoms 10 to 50 fathoms shore to 4 fethoms 8 fathoms shore (dead) shore (dead) shore (dead) shore (100 dead) shore (100 | 20 to 50 fathoms |
| Geographical range. | | Desiring Sease | Per Madeira. Canary and Madeira Islands. 12 to 24 fathoms nucertain. Sand frequent. Viridalo, Canary and Madeira Islands. 10 to 50 fathoms Arctic seas. Sand indicator. Asturias to Canary Islands, shore to 4 fethoms. Gibraltar sand and moderate. Madeira and Azores. Corrugatus, Lam. Asturias to Canary Islands, shore (dead) nucertain. Vigo to Mediterranean. Since (dead) nucertain. Sand noderate. Scrobiculatus, Lan. Shore (dead) nucertain. Sand noderate. Scrobiculatus, Lan. Shore (dead) nucertain. Sand noderate. Shore (dead) nucertain. Sand nadeirate. Sand nadeirate. Shore (dead) nucertain. Sand nadeirate. Sand nadeirate. Shore (dead) nucertain. Sand nadeirate. Sand na | lævigata, Lam |
| Species. | Gasteropoda (continued). Fusus, Lam. pulchellus, Phil. rostratus, Olivi craticulatus, Phil. maroccanus, Chem. Sp. Trophon, De Montfort. clahratus, Lin. | muricatus, Mont. Barvicensis, Jonston Gunneri, Lovén. Craticulatus, Fab. Trichotropis, Brod. borealis, Sow. Cancellaria, Lam. cancellata, Lam. assimilis, Sow. ? sp. ince. | sp. ined | lævigata, Lam |

| | | | are cize in the Canary Islands | | | rare in West Mediterranean and Madeira. white. | |
|----------------------------------|--|--|--|---|---|---|--|
| sania, Bivon. maculosa, Lam | D'Orbiguii, Payr | erinaceus, LinBritain, Mediterranean, Ca. shore to 30 fathoms . Vigo, shore sand and rocks frequent, naries and Madeira. | trunculus, Lin | naiy Islands Wigo to Canaries, Madeira, 4 to 30 fathoms Vigo and Gibraltar sand frequent. | and Azotres. Asturias to Canary Islands shore to 15 fathoms . Vigo and Mediter-rocks frequent. | Sicily gravel and sand frequent sand frequent. rock and stones . moderate | Cephalopoda. irula, Lam. Peronii, Lam |
| s littoral Mediter | D'Orbignii, Payr Mediterranean littoral littoral sicily and Malta rocks freque freque accepting Brod Malta 40 fathoms uncertain sand rare. rare. | Ca-shore to 30 fathoms . Vigo, sh | erra-4 to 8 fathoms Mediterr Ca-4 to 35 fathoms Malara. | eira, 4 to 30 fathoms Vigo and | ands shore to 15 fathoms . Vigo and | lcira shore to 6 fathoms Malta an shore Mogador nds, shore uncertair | and shore |
| | Mediterranean | Britain, Mediterranean, naries and Madeira. | Faro, Cadiz, and Medite: nean. Faro, Mediterranean to | ii Vigo to Canaries, Made | and Azores. Asturias to Canary Isla and Madeira. | Mediterranean and Mad- Mogador Madeira and Canary Islan | a. Bay of Biscay to Azores c Canary Islands. |
| Pisania, Bivon. maculosa, Lam | D'Orbignii, Payr. Typhis, Montfort. Sowerbii, Brod | erinaceus, Lin | trunculus, Lin brandaris, Lin | corallinus, Scacchi | Edwardsii, Payr | cristatus, Brocchi torosus, Lam | Cephalopoda. Spirula, <i>Lam.</i> Peronii, <i>Lam.</i> |

- Additional Observations which could not be conveniently embodied in the foregoing Table.
- Saxicava arctica, Lin.—Absent from no district within the range of my researches, but is much more frequent and larger in the northern than in the southern latitudes. The large solid variety, now living only in the Arctic seas, is found dead (fossil?) in deep water on the coasts of Scotland.
- Gastrochana modiolina, Lam.; Gastrochana cuneiformis, Lam.—Not having been able to detect any specific difference between the British specimens and those from the south of Europe, I treat them as identical. In the Canaries the specimens are smaller and inhabit greater depths than in other localities.
- Ceratisolen legumen, Lin.—Is of much smaller size in southern localities; frequent at Malaga, but not eastward in the Mediterranean.

Donax anatinus, Lam.—I have dredged abundantly from 15 fathoms on the Dogger Bank, a remarkable exception from its ordinary habitat.

Donax venustus, Poli.—Is closely allied to Donax anatinus, of which it takes the place at Lisbon, Mogador and in the Mediterranean; in latter associated with D. trunculus.

Tellina solidula, Pulteney.—Is reported to be frequent in the Mediterranean,

but I have never met with it south of Britain.

Mactra subtruncata, Da Costa.—There are two distinct varieties (? species), the one larger, solid and strongly rudely striated concentrically, is sublittoral, and most abundant on some of the Scottish shores; the other, small, smooth and thin, is more generally distributed, both as regards depth and climate.

Venus striatula, Don.—On the Mediterranean coasts of Spain and to the southward, it is comparatively rare and confined to deep water; in the

British seas it frequents all the zones of depth.

Astarte arctica, Gray.—A valve obtained from west of Zetland, 50 fathoms, by Prof. E. Forbes and myself, and recorded in the 'British Mollusca,' is in my possession, and I have every reason to believe it to be fossil. The reasons which induce me to believe that this species is not an actual inhabitant of the British seas are, that it is a shallow-water species, very gregarious, and not met with on the coast of Norway, south of the Arctic Circle.

Astarte compressa, Mont.—Subject to great variety in form, size, &c. I be-

lieve A. Banksii to be only a variety of this species.

Kellia suborbicularis, Mont.—I incline to think that there are two species included under this name, if not, they are well-marked varieties; the one smaller, more orbicular and more pellucid; the other much larger, more elliptical and, when fully grown, less transparent. It is the last which is found imbedded in very fine mud contained in dead bivalves.

Cardium edule, Lin.—Varies greatly in size, form, number of ribs, &c.

Near Tunis a narrow neck of land divides the bay from a shallow saltwater lake, at the head of which the city of Tunis is situated; on the one
side of this neck of land (that facing the bay) all the specimens of Cardium edule were strong, triangular, and with few ribs, while on the side
towards the lake, they were thinner, wider and nuch more numerously
ribbed. The northern varieties attain the largest size.

Modiola Petagnæ, Scacchi.—In shallow water in the harbour of Carthagena,

free. In the Canary Islands, at 12 to 15 fathoms, small and distorted,

imbedded in Nullipore.

Crenella discors, Lin.—The largest British specimens I have obtained were on the north coast of the Isle of Man, 10 fathoms. At Southampton the pale green variety is frequent about low-water mark, adhering to the leaves of Zostera marina. Near Tromsoe in Finmark it is most abundant in beds covering the under surfaces of ledges of rock. Though reported to be found in the Mediterranean I have not met with it south of the British Channel, and believe it to have been confounded with C. costulata by Mediterranean authors.

Lithodomus caudigerus, Sow.—The authors of the 'British Mollusca' state that this is a South American species. It is frequent on the coast of Asturias, Bay of Biscay, also at Faro in the south of Portugal, at low water burrowed in limestone rocks, but not found in the south of Spain or Mediterranean, where its place is occupied by L. dactylus. I have

never obtained them together in any locality.

Pecten Jacobæus, Lin.—Notwithstanding that this species is named after the Saint of Compostella, I have not been able to detect it on the coasts of

Galicia, or the north of Spain.

Pecten Danicus, Chem.—This species would appear to have been formerly much more abundant on the west coasts of Scotland than it is at present, as the number of dead valves bears no proportion to that of living specimens. It is met with throughout the Hebrides, but is most frequent in Loch Fyne, the normal form in mud at about 70 fathoms, the smaller and strongly striated variety upon hard ground at about 40 fathoms. It is extremely rare in Finmark, and I only met with small dead specimens north of Drontheim.

Pecten Islandicus, Müller.—Is doubtless extinct in the British seas, though dead valves are frequent in the Firth of Clyde, Hebrides, Zetland, Murray Frith and North Sea. In Norway, north of Drontheim, it is by

far the most abundant species of Pecten.

Anomia ephippium, Lin.—Unlike most testaceous mollusca, which only require to be better known to be esteemed as delicacies for the table, the Anomia is not to be eaten with impunity. On one occasion, having sent my yacht round from a neighbouring port to that of Villaviciosa in Asturias, where I purposed joining her after an excursion inland, my crew, having been told that there were oysters in the harbour, determined to dredge on their own account in my absence, and procured abundance of the Anomia in large agglomerated masses. Seeing by the complexion of the animals that they were not common oysters, only one of the men would venture upon eating them, and he suffered in consequence severe vomiting, &ē., with swelling of the abdomen, from which he did not entirely recover for two or three days.

The most beautiful yellow and purple varieties are found in the sunny

seas of the Mediterranean.

Ostrea edulis, Lin.—Subject to much variation, which has occasioned the making of one or two questionable species, and rendered uncertain the limits of its distribution. The common English or Welsh oyster is, however, certainly abundant and of excellent quality at Redoudela, situated at the head of Vigo Bay; and I have likewise dredged it off Cape Trafalgar in sand, and off Malaga in mud, but have not noticed it further eastward in the Mediterranean.

Chiton fascicularis, Lin.; Chiton discrepans, Brown.—I must acknowledge my inability to discriminate satisfactorily between these species.

Chiton cancellatus, Sav.—Is more nearly allied to C. Rissoi of the Mediterranean than to C. asellus, of which it has been supposed to be a variety.

Chiton fulvus, Wood.—This fine species differs as much in its habits as in appearance from its European congeners. It enjoys greater powers of locomotion than any other Chiton of my acquaintance, creeping freely in the sand between tide marks in Vigo Bay, where it is very abundant, and where several were found adhering to the chain cable every time it was raised from our anchorage abreast of the town of Vigo. It is, nevertheless, extremely local, not recorded to be obtained in any locality but those I have named, unless from Patagonia, whence there are specimens in the British Museum under another name, but in no way to be distinguished from the present species.

Chiton Cajetanus, Poli.—Inhabits the Mediterranean and Bay of Biscay, but has not been detected in any intermediate locality, nor on the south

coasts of Spain.

Patella vulgata, Lin.—Becomes a local species on the northern coasts of

Norway, and I did not meet with it in Finmark.

Patella pellucida, Lin.—The distribution of this species is regulated by that of the Laminaria, on which it feeds. It is not unfrequent in the north of Spain; is absent from the south of Spain and Mediterranean, but unexpectedly appears again in the harbour of Mogador, where it is of small size. In high northern latitudes it is much paler in colour.

Patella Gussonii, Phil.—Among some hundreds of dead specimens I only took one or two living, and these were upon a deep-water red fucus.

Calyptræa Sinensis, Lin.—I have never obtained British specimens in less than 8 or 10 fathoms, whereas on the coasts of Spain it is generally found about the sea margin, and in shallow water.

Trochus crenulatus, *Phil.*—I believe to be specifically distinct from *T. exiquus*, is subject to great variation in colour; the grey variety is more

common to the eastward.

Trochus millegranus, Phil.—Of this species there are two very distinct varieties, of which the smaller and more conical inhabits the Mediterranean and south coast of England and Wales, while the larger is common to the north-west coasts of Britain and Norway.

Rissoa abyssicola, Forbes.-A specimen received from Captain Spratt,

dredged by him in 350 fathoms, about 40 miles from Malta.

Turritella communis, Risso.—The ordinary British form is wider in proportion and possesses fewer volutions than that of the Mediterranean. A large variety with numerous volutions is found in Cork Harbour and in Bressa Sound, always in shallow water, while the ordinary variety inhabits all the zones of depth. I have taken white specimens of both the forms, consequently absence of colour is not always the consequence of great depth.

Conus Mediterraneus, Brug.—Is very frequent at Lancerotte, but does not extend westward to Teneriffe or to the Salvage or Madeira Islands.

Purpnra lapillus, Lin.—Though generally littoral, inhabits the depth of 8 or 10 fathoms in certain localities, and in these cases undergoes considerable modification of form; from deep water and mud, it is large and fusiform, from 8 fathoms and rough ground the specimens are beautifully imbricated.

Ringicula auriculata, Menke.—At Vigo, the northern limit of its range, it attains the greatest dimensions and is very abundant, but not striated as

in the Mediterranean and Madeira.

Nassa trifasciata, A. Adams.—Most abundant at Vigo, but smaller than in

the Mediterranean; in latter district it undergoes considerable variation in colour.

Fusus gracilis, Da Costa.—Notwithstanding the opinion of Middendorf, adopted by Forbes and Hanley, that this is only a variety of F. Islandicus of Chemnitz, I am quite satisfied of the contrary after obtaining the true Fusus Islandicus in the neighbourhood of the North Cape. It was from about 100 fathoms, and measured $4\frac{1}{2}$ inches in length, while adult specimens of Fusus gracilis from the same locality did not measure more than $2\frac{1}{10}$ inches in length.

Spirula Peronii, Lam.—This shell, possessing a peculiar aptitude for floating on the surface of the sea when dead, is liable to be drifted to localities very remote from its native habitat. A chance specimen has occasionally been picked up on the shores of Britain; on the south coast of the Bay of Biscay it is still rare, is more frequent at Gibraltar and Malaga, and abundant in the Canary Islands. I am not aware of its having been

found in the eastern Mediterranean.

The following Table will be of assistance in a comparison of the Geographical range of the species and the number obtained in each of the districts.

| Species. | Northern Scandinavia (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
|---|--|-------------|-----------|------------------|-----------------|-----------|--------------------------------------|----------|-----------------|----------|---------|
| Acephala. Xylophaga, Turton. dorsalis, Turton | * | * | * | | | | | | | | |
| Pholas, Lin. | | | | | | | | | | | |
| dactylus, Lin | | • • • • • • | ••••• | * | * | * | * | | 1 | | |
| parva, Lamcrispata, Lin | | * | * | * | * | * | • | | | | |
| candida, Lin. | | Ψ | * | * | * | * | * | * | | | |
| Pholadidea, Leach. | | ••••• | , | | | | | | | | |
| papyracea, Solander | | | | * | | | 1 | | | | |
| Clavagella, Lam. | | | | | | | | | | | |
| sp. ined | | | | | | | | | * | | |
| Gastrochæna, Spengler. | | | | | | | | | | | |
| modiolina, Lam | | | | * | * | * | * | * | * | * | 1 |
| cuneiformis, Lam | | | | | | | | | | | |
| Pandora, Lin. | | | | | | | | | | | |
| rostrata, Lam | | ••••• | ••••• | | * | * | * | * | | | |
| obtusa, Leach | | | * | * | * | * | * | * | * | | |
| Lyonsia, Turton. | | * | * | * | * | | | | | * | |
| Norvegica, Chem | | * | * | * | 1 | | | | | T | |
| Thracia, Leach. | * | | | | | | | | | | |
| phaseolina, Lam | . * | * | * | * | * | * | * | * | * | * | |
| villosiuscula, Macgill | | | * | * | | | | | | | |
| pubescens, Pulteney | | | J | * | | | * | 1 | | | |
| convexa, Wood | | * | * | * | | | * | | 1 | | |
| distorta, Mont | | | * | * | 1 | | | | | | |
| | , | | 1 | l | 1 | | 1 | i | | 1 | |

| | | | | | | | | | | | - |
|--|--|------------|-----------|------------------|-----------------|---------------|--------------------------------------|-------------|-----------------|----------|---------|
| Species. | Northern Scandinavia (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
| Acephala (continued). | | | | | | | | | | | |
| Periploma, Schum. |] | | 1 | | | | | } | | | |
| prætenuis, Pulteney | * | * | * | * | | | ł | | | | |
| Saxicava, F. de Bellevue. | 1 | | | 1 | } | | | | | į | |
| arctica, Lin | * | * | * | * | * | * | * | * | * | * | |
| rugosa, Lin | | ••••• | ••••• | * | * | | 1 | | | | |
| Panopæa, Menard de la Groye. | | ĺ | _ | | | | * | | | | |
| Aldrovandi, Menard Poromya, Forbes. | | •••• | ****** | | | 1 | ~ | | | | |
| granulata, Nyst and Westen- | | | | 1 | | | | | | | |
| dorp | | | * | | | | | | | * | |
| Korenii (Embla), Lovén | * | | | | | | | | | | |
| Neæra, Gray. | | | | | | | | | | | |
| cuspidata, Olivi | * | * | * | ••••• | * | ••••• | * | • • • • • • | * | * | |
| costellata, Desh | | * | * | ••••• | •••••• | ••••• | * | | * | 不 | |
| abbreviata, Desh | * | ****** | * | | | | | | | | |
| Corbula, Bruguière. | | | | | | | | | | | |
| micleus Lam. | | * | * | * | * | * | * | * | * | | j |
| rosea, Brown | | | | | | | * | | | | |
| Subsenia Tuetan. | 1 | | | | | | | | | | |
| Binghami, Turton | | 1 | * | * | * | • • • • • • • | * | | | | |
| Mya, Lin. | | | | -1. | | | | | | | |
| truncata, Lin | * | * | * | * | | | | | | | |
| arenaria, Lin | 1 | ^ | • | · • | | | | | | | |
| Solen, Lin. siliqua, Lin | | ,,,,,, | * | * | * | * | * | | | | |
| ensis, Lin. | * | * | * | * | * | * | * | | | | |
| marginatus, Pulteney | | | | * | * | * | * | | | | |
| pellucidus, Pennant | * | * | * | * | * | * | * | | | | |
| Ceratisolen, Forbes. | 1 | | | | | | | | | | ì |
| legumen, Lin | | 1 | ١ | * | * | * | * | * | | | |
| Solecurtus, Blainville. | | | * | * | | * | * | | * | * | |
| candidus, Renieri | | | * | * | | * | * | | * | * | |
| strigilatus, Lin | | | | | | * | * | | | | |
| Syndosmya, Recluz. | 1 | | | | | | | | | | |
| alba. Wood | * | * | * | * | * | * | * | * | | | |
| prismatica, Mont | * | * | * | * | * | * | * | | ļ | | |
| intermedia, Thompson | * | * | * | | | | * | * | | | |
| Renieri, Browntenuis, Mont | | | | * | * | | * | | | | |
| Scrobicularia Schumacher. | | | | | | | | | | | |
| piperata, Gmel | | | * | * | * | * | * | | | | |
| Cottardi, Payr | | | | ••••• | ••••• | | * | | | | |
| Donax, Lin. | | | | | | | | | | | |
| anatinus, Lam | • | * | * | * | * | * | * | | | | |
| trunculus, Lin | | | | | | * | * | * | *? | | |
| venustus, Poli | | | | * | | * | * | | | | 1 |
| Ervilia, Turton. | 1 | | | 1 | | | | | | | |
| castanea. Mont | | | | * | | * | | | * | * | * |
| nitens?, Mont. | | | | | | | * | | * | * | |
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| Species. | (Finmarkand Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Acephala (continued). Mesodesma, Desh. | | | | | | | | | | | |
| donacilla, Desh | | | | | * | | * | | 1 | i | |
| Psammobia, Lam. | 1 | | | 1 | | | | | | | |
| vespertina, Chem | ļ | | | * | * | * | * | | * | | |
| telliuella, Lam | * | * | * | * | * | 1 | | | | | |
| costulata, Turton Ferroensis, Chem | | | * | * | ••••• | | * | | * | * | |
| costata, Hanley | | * | 1. | * | | * | * | * | * | | |
| Gastrana, Schumacher. | | | | | | 1 ~ | | ^ | | | |
| fragilis, Lin | | * | | * | * | * | * | | | | |
| Tellina, Lin. | | | | | | | | | | | |
| crassa, Pennant | | | * | * | * | * | * | | | | |
| balaustina, Lin | | | * | * | * | | * | | * | * | |
| pygmæa, Phil | | | | 1 | 1.4 | | * | | | * | |
| incarnata, Lin | | | * | * | | | * | | * | * | |
| tenuis, Da Costa | | | * | * | * | * | * | *? | | | |
| fabula, Gronovius | * | * | * | * | | | * | *? | | | |
| solidula, Pulteney proxima, Brown | * | * | * | * | 1 | | | | | | |
| distorta. Poli | | | | | | | * | | * | * | |
| carrata Propohi | | 1 | 1 | | * | * | * | | * | ~ | |
| pulchella | | | | | | | * | | | | |
| Costæ, Phil | | | | | | * | * | * | | | |
| planata, Lin | | ····· | | ••••• | • | * | * | | | | |
| pulchella. Costæ, Phil. planata, Lin. punicea?, Lin. sp. ined. sp. ined. | ••••• | | | | | | * | | | | |
| sp. ined. | | | | | | | | * | | * | |
| Lutraria, Lam. | | | | | | | | | | | |
| elliptica, Lam | | | * | * | * | * | * | | | | |
| oblonga, Chem | • | | | * | * | * | * | | | | |
| Mactra, Lin. rugosa, Chem | | | İ | | * | * | * | · · | • | | |
| solida, Lin. | | | * | * | * | * | 不 | * | | | |
| elliptica, Brown | * | * | * | * | | | | | | | |
| subtruncata, Da Costa | | | * | * | * | * | * | * | * | | |
| stultorum, Lin | ••••• | | * | * | * | * | * | * | * | , | i |
| helvacea, Chem | • • • • • • • | ••••• | ••••• | ••••• | | * | * | | | | |
| lithophaga, Retzius | | | | | * | * | | | | | |
| Venerunis, Lam. | | | | | * | | | | | | |
| irus, <i>Lin</i> | ••••• | ••••• | | * | * | * | * | | * | *. | |
| Tapes, Muhlfeldt. | | | | | | | 41. | | | | |
| decussata, Lin | * | * | * | * | * | * * | * * | * | | | |
| virginea, Gmel | * | * | * | * | * | * | * | * | | | |
| aurea, Gmel. | | | | * | * | * | * | | | | |
| nitens, Scacchigeographica, Lin | | | | | | | * | | | | |
| geographica, Lin | ••••• | ••••• | ••••• | ••••• | | ••••• | * | | | | |
| florida, Lam | ••••• | ••••• | ••••• | ••••• | ••••• | ••••• | * | | | | |
| Lucinopsis, Forbes. | | | | ••••• | | | 1 | | | | |
| undata, Pennant | | | * | * | * | | * | j | | | |
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| Species. | Northern Scandinavia (Finmark and Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador, | Canary Islands. | Madeira. | Azores. |
| Acephala (continued). | | | | | | | | نط | | | |
| Artemis, Poli. | | | | | | | | | | | |
| exoleta, Linlincta, Pulteney | * | * | * | * | * | * | * | | | | |
| Cytherea, Lam. | į | | | , i | | ,,, | | | | | |
| chione, Lin. | | | | * | ••••• | * | * | | * | * | * |
| Venetiana, Lam | ····· | ••••• | • • • • • • | | | * | * | ••••• | * | | |
| sp. inedsp. ined | | | | | | | * | ••••• | * | * | |
| Venus, Lin. | | | | | | | | | * | | |
| verrucosa, Lin | ••••• | ••••• | | * | * | * | * | ••••• | * | * | |
| casina, Linstriatula, Don | | * | * | * | * | * | * | ••••• | * | * | |
| gallina, Lin. | * | * | * | * | * | * | * | * | | | |
| fasciata, Da Costa | | * | * | * | * | * | * | | - } | | |
| ovata, Pennant | * | * | * | * | * | * | * | | | | |
| sp. inedsp. ined. | | ••••• | ••••• | | ••••• | ••••• | | ••••• | * | | |
| Cardita, Brug. | | | | ****** | ••••• | ***** | * | * | | | |
| calyculata, Brug | | | | | | | * | * | * | * | * |
| tranezia. Lin | | | | | • | * | * | | | | |
| squamosa, Lamsulcata, Brug | | ••••• | ••••• | ••••• | ••••• | ••••• | * | | | | |
| corbis, Phil. | | | | ***** | | | * | , | | | |
| Isocardia, Lam. | | | | | | | | į | - | | |
| cor, Lin | | ••••• | * | | | | | | | | |
| Astarte, Sow. arctica, Gray | * | | | | | | | | | | 1 |
| sulcata, Da Costa | * | * | * | * | * | | * | | 1 | | |
| compressa, Mont | * | * | * | | | | | | - | | |
| triangularis, Mont | | | * | * | * | | * | | * | | |
| incrassata, Brocchi | | | ••••• | | ••••• | ••••• | * | ••••• | * | | _ |
| fusca, Desh | * | | ***** | | ••••• | | ^ | | | | |
| elliptica, Brown | * | | * | | | | | | | | |
| bipartita, Phil | | | | | | | * | | | | |
| sp. ined | ***** | | • | • | ••••• | ••••• | * | | | | |
| minima, Mont. | | | * | * | * | * | * | | * | * | |
| Cyprina, Lam. | | | | | | | | | | | |
| Islandica, Lin. | * | * | * | * | | | | | | | |
| Galeomma, Turton. Turtoni, Sow | | | | * | * | | * | | | | |
| Lepton, Turton. | | | | | | | | | | | |
| squamosum, Mont | | | * | * | * | | * | | | | |
| Montacuta, Turton. | ••••• | ••••• | | * | | | | | | | |
| substriata, Mont | | * | * | * | | | * | | | | |
| ferruginosa, Mont | | | * | * | | | * | * | *? | *? | |
| bidentata, Mont | * | * | * | * | * | | * | | | | |
| Kellia, Turton. suborbicularis, Mont | | * | * | * | * | * | * | | * | | |
| corbuloides, Phil | | | | | | * | * | * | * | | |
| complanata, Phil | | | | | | | * | * | | | |
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| Species. | Northern Scandinavia (Finmarkand Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Acephala (continued). | | | | | | | | | | - | |
| Kellia, Turton. rubra, Mont | | | * | * | | | | | * | * | |
| Pythina, Hinds. | | | ^ | T | | | | ***** | ^ | ~ | |
| sp. ined | | | | ••••• | * | * | | * | | | |
| Ungulina, Daudin. oblonga?, Daudin | | | | | | | * | | | | ` |
| Diplodonta, Brown. | | | | | | | | | | | |
| rotundata, Mont | ••••• | ••••• | ••••• | * | • • • • • • • | * | * | ••••• | * | * | |
| Lucina, Bruguière. | | ••••• | ••••• | ***** | ••••• | | | ••••• | * | * | - |
| borealis, Lin | * | * | * | * | | | *? | *? | | | |
| spinifera, Mont | | * | * | * | * | * | * | * | * | * | |
| flexuosa, Mont | | * | * | * | * | | | * | * | | |
| leucoma, Turton | * | * | ••••• | * | * | * | * | * | * | - | |
| Sarsii?, Phil ferruginosa, Forbes | * | * | * | | | | | | | | |
| bullata, Reeve | | | | | | | * | | | | |
| columbella, Lamtransversa, Phil | | ••••• | | | | | | ••••• | * | | |
| digitalis, Lin | | | | | * | * | * | | Α | | |
| pecten, Lam | | ••••• | ••••• | | * | . | * | | * | * | |
| sp. ined. | | | | | | . , | | | * | * | |
| sp. ined.? | * | | | | | | | | | | |
| Cardium, Lin. erinaceum, Lam | | | | | i | | * | | | | |
| aculeatum. Lin | | | | * | | * | * | | | | |
| echinatum, Lin | * | * | * | * | * | ļ | | | * | * | |
| rusticum, Lin | | | ••••• | * | * | * | * | | * | * | |
| edule, Lin | * | * | * | * | * | * | * | * | | | |
| nodosum, Turton | | * | * | * | * | * | * | * | * | | |
| fasciatum, Mont | | * | * | * | * | * | * | 本 | * | | |
| Suecicum, Reeve | | * | * | | | | | | | | |
| Norvegicum, Spengler papillosum, Poli | | | * | * | *? | * | * | * | * | * | * |
| punctatum, Brocchi | | | | | | | * | | * | * | |
| minimum?, Phil | | ••••• | | ••••• | ••••• | ••••• | * | | | | |
| elegantulum, Müller | * | | | | | | | | | | |
| Chama, Lin. | | | | | | | | | | | |
| gryphoides, Lin | | ••••• | ••••• | ••••• | | | * | | * | | |
| Mediterranea, Lam | | | | | | | * | | * | | |
| Yoldia, Möller. | * | | | | | | | | | | |
| pygmæa, Munster lucida, Bland | * * | * | * | | | | | | | | |
| limatula, Say | * | | | | | | | | | | |
| Leda, Schumacher. | * | * | * | * | | | | | | | |
| pernula, Müller | * | * | * | * | | | | | | | |
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| Species. | Northern Scandinavia (Finmarkand Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Acephala (continued). | | | | | | | | | | | |
| Leda, Schum. emarginata, Lam, | | | | | | * | | | | | |
| striata, Lam | 100000 | | | | | * | * | | | | |
| Nucula, Lam. | | | | | | | | | | | |
| nucleus, Lin | | * | * | * | * | * | * | * | | | |
| radiata, Hanley | | *11*** | * | * | * | * | * | | | | |
| decussata, Sow | | | * | * | | ***** | * | | | | |
| tenuis, Mont | | * | * | | | | | | | | |
| corticata, Möller Limopsis, Sassi. | * | | | | | | | | | | |
| pygmæa, Phil | * | | | | | | | | | | |
| Pectunculus, Lam. | | | | | | | | | | | |
| glycimeris, Linviolascens, Lam | | ****** | * | * | * | * | * | | * | * | |
| Siculus, Reeve | | | | | | | * | | * | * | |
| pilosus, Lam | | | | | | | * | | | | |
| Arca, Lin. | | | | | | | | | | | |
| Noæ, Lintetragona, Poli | • | ••••• | * | | ****** | ***** | * | | sk: | * | |
| barbata, Lin | | | | * | , | 7 | * | | ~ | * | |
| antiquata, var. ?, Poli | | , | | | | | * | | * | | |
| lactea, Lin | ••••• | | ••••• | * | * | * | * | * | * | | |
| nodulosa, Lovén raridentata, S. Wood | * | * | * | | | | * | | | | |
| obliqua, Phil | | | | | | | * | | | | |
| navicularis, Brug | | | ••••• | | | | * | | | | |
| imbricata, Brugdiluvii?, Lam | | ***** | ••••• | | | | * | ••••• | * | | |
| sp | , | | | | | | * | | | | |
| Modiola, Lam. | | | | | | | | | | | |
| modiolus, Lin | * | * | * | * | | | | | al. | | |
| tulipa, Lam | * | * | * | * | * | ***** | * | | * | | |
| barbata, Lin | , | | | * | | * | * | * | | | |
| Petagnæ, Scacchi | | | | ••••• | | | * | | * | * | |
| sp. ined Crenella, Brown. | * | | | | | | | | | | |
| discors, Lin | * | * | * | * | | | | | | | |
| marmorata, Forbes | * | * | * | * | * | * | * | | * | | |
| nlgra, <i>Gray</i> vestita, <i>Phil</i> , | * | * | * | | | | * | | | | |
| costulata, Risso | | | | * | * | | * | * | | | |
| rhombea. Berkeley | | | | * | | | * | | * | | |
| decussata, Mont. | * | * | * | | | | | | | | |
| Lithodomus, Cuvier. dactylus, Cuvier | | | | | | | * | | | | |
| caudigerus, Sow | | | | | * | * | _ ~ | | | | |
| Mytilus, Lin. | | | | | | | | | | | |
| edulis, Lin minimus, Pali | * | * | * | * | * | * | * | * | | | |
| Afer, Gmel. | | | | | | | * | * | | | |
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| Species. | (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal, | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Acephala (continued). | | | | | | | | | | | |
| Pinna, Lin. pectinata, Lin | | | | * | 1 | | | | | | |
| muricata, Poli | | | | | | | * | | | | |
| rudis, Lin | | | | | | | ļ | , | * | * | |
| Avicula, Brug. | | | | | | | | | | | |
| Tarentina, Lam | ••••• | | • | * | * | | * | | * | * | |
| subauriculata, Mont | | * | * | * | | | * | ., | * | | |
| sulculus, Lovén | | * | * ? | ١. | 1 | | | | | | |
| Loscombii, Sowhians, Gmel. | * | * | * | * | | | * | | | | |
| fragilis, Scacchi | | | | | * | | * | . | * | * | * |
| squamosa, Lam | | | | | ••••• | | * | ••••• | * | * | |
| inflata, Lam excavata, J. C. Fab | * | * | | ••••• | | | * | | | | |
| Pecten, O. F. Müller. | | " | 1 | | | | | | | | |
| varius, Lin | | | * | * | * | * | * | | | | |
| niveus, Macgpusio, Pennant | | * | * | * | * | | * | * | | ala. | * |
| striatus, Müller | * | * | * | · | * | . ^ | * | T | * | * | * |
| tigrinus, Müller | * | * | * | * | * | | * | | | | |
| Danicus, Chem | * | * | * | | | | | | | | |
| similis, Laskey maximus, Lin | * | * | * | * | * | * | * | **** | ***** | * | |
| Jacobæus, Lin. | ••••• | | ļ. . | ···· | | | * | | 1 | | |
| opercularis, Lin | * | * | * | * | * | * | * | | * | * | |
| Islandicus, Müller polymorphus, Bronn | * | * | | | | | | | | | |
| hyalinus, Poli | ••••• | | | | ••••• | * | * | ••••• | ••••• | * | |
| sulcatus, Lam | | | | | | | * | | | | |
| glaber, Lin | | ••••• | | | | ••••• | * | | | | |
| testæ, Bivonpes-felis, Lin | ••••• | ••••• | ••••• | ••••• | ••••• | | * | Į | * | * | i |
| gibbus ?, Lin | | | | | | | * | | * | * | |
| Grænlandicus, Sow | * | | | | | | | | | | |
| corallinoides, D'Orbsp. ined | * | ••••• | ••••• | ••••• | ••••• | ••••• | •••••• | ••••• | * | * | |
| sp. ined | * | | | | | | | ĺ | | | |
| sp. ined | * | | | | | | 1 | | | | - 1 |
| Spondylus, Lin. | | | | | | | | | - 1 | | - |
| gædaropus, Lin | ••••• | ••••• | ••••• | ••••• | ••••• | ••••• | * | * | * | | |
| ephippium, Lin | * | * | * | * | * | * | * | | | * | |
| patelliformis, Lin | * | * | * | * | * | * | * | | | | |
| striata, Lovénaculeata, Müller | * | * | * | * | | | | | | | |
| Ostrea, Lin. | ^ | ~ | 7 | 1 | | | | 1 | | | |
| edulis, Lin | | | * | * | * | | * | *? | | | |
| plicatula?, Phil. | | | ••••• | | ••••• | * | * | * | * | * | 1 |
| Crania, Retzius. | * | * | * | | * | | | - | | | |
| Rhynchonella, Fischer. | | | , | | | | | | | | |
| psittacea, Chem | * | | | | | | | | | | |
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| Species. | Northern Scandinavia (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Acephala (continued). Argiope, E. Deslongchamps. decollata, Chem. Neapolitana, Scacchi. cuneata, Risso cistellula, Searles Wood Megerlia, King. | ' | | * | | | | * * | | * * | * | |
| truncata, Lin. Terebratulina, D'Orb. caput-serpentis, Lin. Waldheimia, King. cranium, Gmel. | * | * | * | * | | | * | ••••• | * | | |
| Pteropoda. Spirialis, Eydoux & Sonleyet. Flemingii, Forbes Macandrei, Forbes & II sp | , | | * | * | | •••• | | | * | | |
| columnella?, Rang | ••••• | | | | | | * * | | * * * | * | |
| Hyalea, Lam. tridentata, Lam. trispinosa, Lesueur vaginella, Cantraine sp. | | | | | | | * * * | ••••• | * * | * * * * | |
| gibbosa, Rang | | | | | | | * | ••••• | * | * | |
| Gasteropoda. Umbrella, Chem. Mediterranea, Lam. Tylodina, Rafinesque. citrina. | | | | | | | * | | * | | |
| Aplysia, Gmel. hybrida, Sow. Pattersoni ocellata | * | * | * | * | * | | | * | * | | |
| Philine, Ascanius. aperta, Lin. quadrata, Searles Wood scabra, O. Müller catena, Mont | * | * * | * * | * * | * | * | * | * | * | * | |
| punctata, Clark | | | * | * | | | *. | | | | |
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| Species. | (Finmark and Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores, |
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| Gasteropoda (continued). | | | | | | | | | | | |
| Scaphander, Montfort. | | * | * | * | * | | * | | | | |
| librarius, Lovén | * | * | • | T | 1 | | - | | | } | |
| Amphisphyra, Lovén. hyalina, Turton | * | * | * | | | | | | * | * | |
| Cylichna, Lovén. | * | * | * | | | | | ••••• | * | * | |
| cylindracea, Pen | * | * | * | * | * | | * | * | * | * | |
| truncata, Montobtusa, Mont. | *?. | | * | * | * | * | * | * | * | | |
| mamillata, Phil | | | | * | | ļ | * | | * | | |
| umbilicata, Mont | * | * | * | * | * | ····· | * | | * | | |
| alba, Lovén | * | * | | | | | * | ••••• | 1 | | |
| Akera, O. F. Müller. | | i | | | | | | | | | |
| bullata, Müll | | | * | * | * | * | | | | | |
| Bulla, Lin. | | | | | | | | | | | |
| hydatis, Lin Cranchii, Leach | | | * | * | * | * | * | | * | | |
| ovulata, Phit | | | | | | | * | ••••• | | | |
| sp. nov.? | | | | | ••••• | | | ••••• | * | | |
| sp. nov.? | | | | ••••• | | * | | | * | * | |
| striata, Brug | | | | | | * | * | | | | |
| ampulla?, Lin | ••••• | | ••••• | ••••• | ••••• | ••••• | ••••• | ••••• | * | * | |
| fasciata, Lam | * | * | * | * | * | * | * | * | | | |
| Auricula, Lam. | | | | | | | | | | | |
| alba, Jeffreys | ••••• | ••••• | * | * | | ••••• | ••••• | ••••• | | • • • • • • | * |
| Ferminii, Payr | | | | | | | | ••••• | * | | |
| Pedipes, Adanson. | | | 1 | | | | | | * | | * |
| Chiton, Lin. | ••••• | ••••• | ••••• | ••••• | | | •••• | | Ψ. | ••••• | 1 |
| fascicularis, Lin | | | * | * | * | * | * | * | * | * | * |
| Hauleyi, Bean | * | * | * | | | | | | | | |
| ruber, Lin | * | * | * | | | | | | | | |
| cinereus, Linalbus, Lin. | * | * | * | * | * | ••••• | ••••• | * | | | |
| asellus, Chem | * | * | * | * | * | | | | | | |
| cancellatus, Sow | | * | * | ••••• | * | | | | | | |
| lævis, Pen marmoreus, O. Fab | * | * | * | * | * | ••••• | * | | | | |
| fulvus, Wood | | | | | * | * | | | | | İ |
| Cajetanus, Poli Rissoi, Payr. | | ••••• | ••••• | ••••• | * | ••••• | * | | | | |
| siculus, Gray | | | | | | | * | | | | |
| Poli, Phil | ••••• | ••••• | ••••• | ••••• | ••••• | ••••• | * | | 4. | | |
| alveolus, Sars | * | * | ***** | ••••• | ••••• | ••••• | ••••• | ••••• | * | | |
| sp. ined | ••••• | | | | ••••• | | | * | * | | |
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|-----------------------------------|---|------------|---------------|------------------|---|-----------|--------------------------------------|----------|-----------------|----------|---------|
| Species. | Northern Scandinavia (Finmark and Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
| Gasteropoda (continued). | | } | | | Ì | | | | | | |
| Dentalium, Lin. | | | | | | 1 | | | | | |
| entalis, Lin. | * | * | * | * | * | * | * | * | | | |
| tarentinum, Lam | 1 | ļ | | | * | * | * | * | * | * | |
| rubescens, Desh | | | | | * | * | * | | * | * | |
| sp. ined | | | | | * | | | | | | |
| sp. ined. | * | | | | | | | | | | |
| Siphonaria, Poli. | | | | | | | | | | | |
| Algesira, Quoy | ••••• | ***** | • • • • • • • | | | | * | * | | | |
| Garnoti, Payr | | | | | | | * | | | | |
| Afer?, Gray | | | | | | | | | * | | |
| Acmæa, Eschscholtz. | | | | | | | | | | | |
| testudinalis, Müller | | * | * | | | | | | | | |
| virginea, Müller Lepeta, Gray. | * | * | * | * | * | | * | * | | | |
| ancyloides, Forbes | | | * | | | _ | | | | | |
| cæca, Müller | | * | | | | | | | | | |
| Pilidium, Forbes. | | | | | | | | | | | |
| fulvum, Müller | * | * | * | | | | | | | | |
| Patella, Lin. vulgata, Lin | * | 34. | | | | | | *? | | | *? |
| cærulea, Lam. | | * | * | * | * | * | * | *: | ••••• | | *: |
| athletica, Bean | | | * | * | | | *? | | | | |
| crenata, D'Orb | | | | | | | | | * | * | |
| guttata, D'Orb | ••••• | | | | | | | ••••• | * | * | |
| aspera, Lam Lowei, D' Orb | ••••• | ••••• | ••••• | ••••• | ••••• | ••••• | * | * ? | * | | |
| scutellaris, Lam. | | | | ••••• | | | * | *: | 不 | * | |
| Candei, D'Orb | | | | | | | | | * | * | |
| tenuis, Dillwynn | | | | | | | | | | * | |
| Gussonii, Costa | | | | | | | | | * | * | * |
| nigropunctata, Lam pellucida, Lin | * | ••••• | * | * | •••• | | * | * | | | |
| Pileopsis, Lam. | * | | * | * | * | | | * | | | |
| Hungarica, Lin | * | * | * | * | * | | * | | | | |
| Crepidula, Lam. | | | | | Į. | | | | | | |
| unguiformis, Lam | | ····· | | | | | * | | | | |
| gibbosa, Defr Calyptræa, Lam. | • • • • • • • | | ••••• | ••••• | | ····· | * | | | | |
| Sinensis, Lin | | | | | | ي يد | * | ste . | * | * | |
| Emarginula, Lam. | | | | T. | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | T. | 4 | | | |
| reticulata, Sow | * | * | * | * | * | * | * | | * | * | |
| rosea, Bell | ••••• | ••••• | ••••• | * | * | | | | | | |
| elongata, Costa | ••••• | * | * | | | | , | | J. | | |
| pileolus, Michaud | | | | | | | * | ••••• | * | | |
| sp. ined | | | | | | | | | | * | * |
| Puncturella, Lowe. | | | | | | | | | | | |
| Noachina, Lin. | * | * | * | | | | | | | | |
| Fissurella, Lam. reticulata, Don. | | | 14 | ata | * | | al. | 1 | * | * | |
| rosea, Lam. | | | * | * | * | * | * | * | * | * | |
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| Species. | Northern Scandinavia (Finmarkand Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
|-----------------------------------|--|------------|-----------|------------------|-----------------|-----------|--------------------------------------|----------|-----------------|----------|---------|
| Gasteropoda (continued). | | | | | | | | | | | |
| Fissurella, Lam. gibba, Phil. | | | | | | | | | | | |
| Ianthina, Lam. | | | ••••• | ••••• | * | * | * | ••••• | * | | |
| communis, Lam | | | | | | | | | * | * | * |
| prolongata, Blainv | | | | ••••• | | | * | ••••• | | * | |
| exigua, Lamsp.? | | | | •••• | * | ••••• | ••••• | ••••• | * | * | * |
| Scissurella, D'Orb. | ••••• | ••••• | ••••• | ••••• | | | | | | | |
| crispata. Flem. | * | * | * | | | | | | | | |
| Bertheloti, D'Orb | | ••••• | ••••• | ••••• | ••••• | | | ••••• | * | | |
| angulata, Lovén Haliotis, Lin. | * | | | | | | | | | | |
| tuberculata, Lin | | | | * | * | * | * | * | *? | *? | *? |
| lamellosa, Lamsp.? | | | ••••• | | | ••••• | * | | * | | |
| sp.? | | | | ••••• | ••••• | | ••••• | ••••• | * | | |
| subcarinatus, Mont | | | | * | * | | | * | | | |
| Margarita, Leach. | | | | | | | | | | | |
| helicina, O. Fabundulata, Sow | | * | * | | | | | | | | |
| alabastrum, Beck | | * | * | | | | | | | | |
| cinerea, Couthouy | | * | | | | | | | | | |
| Trochus, Lin. zizyphinus, Lin | | | * | * | * | * | * | *? | * | * | * |
| conulus. Lin. | | | | | | | * | ••••• | * | * | |
| granulatus, Born | | | | * | | | * | ••••• | * | * | |
| striatus, <i>Lin.</i> | | ••••• | * | * | * | * | * | ••••• | * | * | * |
| millegranus, Phil | * | * | * | * | | | * | | | | |
| exiguus, Pulteney | | | | * | * | * | * | | * | * | |
| tumidus, Mont | * | * | * | * | * | | * | * | * | * | |
| cinerarius, Lin | * | * | * | * | * | | | | | | |
| umbilicatus, Mont | | | * | * | * | * | | * | | | |
| magus, Linlineatus, Costa | • • • • • • | | * | * | * | | * | | * | * | |
| canaliculatus, Phil. | | | | | | * | * | T | =3 | | |
| fanulum, Gmel. | | | | | | | * | | | | |
| fragaroides, Lamindecorus, Phil | | | | ••••• | | | * | ••••• | * | | |
| Saulcvi, Webb & Berth, | | | | | | | | ••••• | * | | |
| Richardi, Payr | | | | | | | * | | | | |
| Laugieri, Payr | | | •••• | ••••• | * | * | * | ••••• | ••••• | ••••• | * |
| sp Vieillotti, Payr | | | | | *** | | * | | | | |
| Jussieui, Payr | | | | | | | * | | | | |
| articulatus, Lam | | | | ••••• | ••••• | * | * | | | | |
| divaricatus, Lin | | | | | | | * | | | | |
| sanguineus, Lin. | | | | | | | * | | | | |
| villicus, Phil | | | | ••••• | ••••• | | * | | * | * | 110 |
| Bertheloti (Monodonta), | | | | ••••• | ••••• | | ••••• | ••••• | * | * | * |
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| Species. | Northern Scandinavia (Finmarkand Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador, | Canary Islands. | Madeira. | Azores. |
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| Gasteropoda (continued). | | | | | | | | | | | |
| Phasianella, Lam. pullus, Lin. | | | | | | | | | | | |
| intermedia, Scacchi | | | * | * | * | * | * | * | * | * | * |
| Vieuxii, Payr | | | | | ••••• | | * | | | | |
| Turbo, Lin. rugosus, Lin | | | | | | | | | | | |
| sp. ined | | | | | * | * | * | * | * | * | * |
| Neritina, Lam. | | | | | | | | | | | |
| viridis, Lin Truncatella, Lowe. | | | • | •••• | | | * | | * | * | |
| truncatula, Drap | | | | | | | * | | * | | |
| Skenea, Flem. | | | | | | | T | ••••• | * | | |
| planorbis, O. Fab | * | * | * | | | | | | | | |
| sp | * | * | | | | | | | * | | |
| Risson, Frem. | | | ***** | | ļ | | | | * | | |
| striatula, Mont | | | | * | | | * | | | | |
| lactea, Mich | • • • • • • | ••••• | * | ••••• | * | ••••• | * | * | | | |
| crenulata, Mich | | | | * | * | | * | * | * | * | * |
| Beanii, Hantey | J | | * | | | | | | | | |
| abyssicola, Forbescalathus, Forbes & Hanley | | | * | * | * | 1 | | | | | |
| granulata, Phil | | | · | * | * | | * | | ••••• | ••••• | * |
| sculpta, Phil | | ••••• | * | * | | | | | | | |
| punctura, Mont | •••• | | | * | | | | | | | |
| striata, Mont | * | * | * | * | * | ••••• | * | ••••• | * | | |
| parva, Costa | * | * | * | * | * | * | * | * | * | | |
| interrupta, Adams s costulata, Alder | * | | _ | | | • | | * | * | | |
| rufilabrum, Alder | | | * | * | * | ••••• | * | | | | |
| labiosa, Mont | | | * | * | * | | * | | * | | |
| semistriata, Mont | | | •••• | * | | | | | | | |
| rubra, Aldercingillus, Mont | | | * | * | * | | | • • • • • • • | *; | | ٺ |
| vitrea, Mont | | | * | * | * | •••• | | •••• | •••• | | Ψ. |
| ulvæ, Pennant | | | * | * | * | | | | | | |
| Barleei, Jeffreysviolacea, Desm. | | | * | | * | | * | | * | * | |
| monodonta, Bivon | | | | | | * | * | | * | * | |
| Bruguieri, Payr | | | ••••• | | | | * | | | | |
| auriscalpium, Lin. Montagui, Payr. | | ••••• | • | ••••• | ••••• | ••••• | * | | | | |
| Desmarestii, Forbes | | | | | | | * | | | | |
| Desmarestii, Forbes Canariensis, Webb & Berth. | | | | | | | | | * | * | |
| sp. ined | | | ••••• | | ••••• | | *** | | | | |
| sp. med | | | | | | | | | | *** | |
| Lacuna, Turton. | | | | | | | | | | | |
| pallidula, Costa puteolus, Turton | | * | * | * | * | | | | | | |
| vincta, Mont. | | * | * | * | * | | | | | | |
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| Species. | Northern Scandinavia (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Gasteropoda (continued). Lacuna, Turton. labiosa, Lovén crassior, Mont. Solarium, Lam. luteum, Lam. stramineum, Gmel. pseudoperspectivum, Brocc. | * | * | * | | * | | * | | * | * | |
| Bifrontia, Desh. zanclæa, Phil Fossarus, Philippi. | | ••••• | | | ••••• | | * | | | * | |
| Adansoni, <i>Phil.</i> | | | ••••• | | ••••• | | | * | * | * | * |
| neritoides, Lin | * | * * | * * * | * * * | * * * | * * | * | * | * | * | |
| tenebrosa, Mont | * * | * * * | * * | * * * | * * * | | | | | | |
| Syriaca, PhilstriataScalaria, Lam. | | | | ••••• | * | ••••• | * | | * | * | * |
| Turtonis, Turton | | | * | * | * | | * | ••••• | ••••• | * | |
| clathratula, Mont | * | * | *: | * | * | * | * | * | * | •••• | * |
| Trevelliana, Leach | | | | * | | | * | * | * | , | |
| cochlea, Sow. Jun | | | | | | | | | * | * | |
| sp. inedsp. ined. | | | | | | | * | | **** | | |
| sp. ined | | | | ••••• | | | * | | ••••• | ** | |
| glomeratus, Lin. corneus, Forbes Cæcum, Fleming. trachea, Mont. | | | | * | | | * | | | | |
| glabrum, Montelegantissimum, Carpenter Searles-Woodii, Carpenter | | | | * | * | | * | | * | | |
| vitreum, Carpenter Aclis, Lovén. | · | | | | | | | | * | | |
| supranitida, Searles Wood sp. ined? Genus uncertain. | | | | * | * | | * | | * | | |
| sp. ined | | | | | | | * | | | * | |

| Species. | Northern Scandinavia (Finmark and Nordland). | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Gasteropoda (continued). Turritella, Lam. | | | | | | | | | | | |
| triplicata, Brocchi | * | * | * | * | * | * | * | * | * | | |
| Mesalia, Gray. brevialis, Lam | | | | | | * | * | * | | | |
| striata, A. Ad | | | | ••••• | | | * | ••••• | ••••• | * | |
| pes-pelecani, Lin | * | * | * | * | * | * | * | | | | |
| adversa, Mont | | | * | * | * | * | * | * | * | ••••• | * |
| perversa, Brug | * | * | | | 1 | * | * | * | | * | |
| tubercularis, Mont | | | * | * | | | * | | * } | | |
| reticulatum, Costa metula, Lovén | | * | * | * | * | * | * | 峠 | * | * | * |
| lacteum, Phil | | | | | | | * | | | | |
| angustinum, Forbes vulgatum, Brug. | | | | •••• | | * | ** | | * | * | |
| vulgatum, Brug fuscatum, Costa Stylina, Flem. | | | | | | | * | | * | | |
| sp Eulima, Risso. | | ••••• | ••••• | • | | ••••• | | • | **? | | |
| polita, Lindistorta, Desh | * | * | * | * | * | •••• | * | | | | |
| subulata Donovan | | | | * | * | * | * | | | * | * |
| bilineata, Aldernitida, Lam. | | | * | | | | * | | * | * | |
| sp. ined | | | | •••• | | | | | * | * | * |
| elegantissima, Mont | | | | * | * | * | * | * | * | * | * |
| formosa, Jeff fenestrata, Forbes & Jeff | | | | * | * | * | * | | * | * | |
| fulvocincta, Thompson | | | * | * | * | * | | | | | |
| scalaris, Philrufescens, Forbes | | | * | * | * | | * | | | | |
| indistincta, Mont | | ••••• | * | * | * | | * | | * | | |
| sp. inedsp. ined | * | | | | | | *** | | | | |
| Eulimella, Forbes. | | | * | * | | | Жa | | | | |
| affinis, Phil | * | * | * | | | | | | | | |
| Odostomia, Flem. | | * | | ••••• | •••• | ••••• | * | | * | * | |
| conoidea, Brocchi | | | * | * | * | * | * | * | * | | |
| spiralis, Montinterstincta, Mont | ••••• | ••••• | * | * | | | * | | _ | | |
| conspicua, Alder | | | | | ••••• | * | * | •••• | | * | |
| plicata, Mont. | * | * | * | * | ***** | ••••• | ••••• | ••••• | *; | * | |

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| Species. | Northern Scandinavia | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal, | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
| Gasteropoda (continued) Odostomia, Flem. obliqua, Alder glabrata, Muhlfeldt unidentata, Mont. tricincta, Jeff. Velutina, Flem. lævigata, Lin. | * | | * | * * * | * | | * | | * * * | * * | |
| dexilis, Mont. Lamellaria, Mont. tentaculata, Mont. perspicua, Lin. prodita, Lovén sp. ined. Sigaretus, Lam. | * | * | * | * | * | | * * ? | | *? | * | |
| haliotideus, Lin Natica, Lam monilifera, Lam nitida, Don sordida, Phil helicoides, Johnston pusilla, Gould Montagui, Forbes | * * * | * * * | * * * * * * | * * | * | * | * * | | | | |
| clausa, Sow. aperta, Lovén. intricata, Don. textilis, Reeve olla, M. De Serres. millepunctata, Lam. Guilleminii, Payr. | * | | | | | * | * * * * | | * | •••• | *? |
| macilenta, Phil. porcellana, Webb & Berth Sagrana, D'Orb. sp. ined. sp. ined. Ovulum, Lam. patulum, Pen. | | | | | | * | * | * | * * * * | * | |
| \$pelta, Lin | | | * * | * | * | * | * * * | | * | | |
| pulex, Solander | ••••• | ••••• | | | | | * * * ? | | * * * * * * * * | * | * |
| miliacea, Lam. clandestina, Brocchi guancha, D'Orb | | | | ••••• | | | * | * | * * | * * | |

| Species. | Northern Scandinavia (Finmarkand Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spam and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
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| Gasteropoda (continued). |] | | | | | | | | | | |
| Marginella, Lam. secalina?, Phil | | - } | 1 | 1 | | | * | | * | 1 | |
| glabella, Lin | | | | ••••• | ••••• | | ~ | ٠٠٠٠٠٠ | * | | |
| sp. ined | | | | | | | | * | - | ł | |
| Mitra, Lam. | 1 | | | | | | | | | | |
| columbellaria, Scacchi | | | | | | | * | | * | | |
| ebeneus, Lam | | | | | | | * | * | | | |
| Savignii, Payr. | ••••• | | ••••• | •••••• | ••••• | | * | | | į | |
| fusca, Swains | | | | | | ••••• | ***** | ••••• | * | * | * |
| zebrina, D'Orb | | | | ••••• | ••••• | | * | ٠ | * | * | * |
| sp. ined | | | | | | | | * | * | * | 不 |
| sp | | | | | | * | | | | | |
| Cymba, Brod. | | | | | | | | | | | |
| olla, Lin | | | | | | * | * | | * | | |
| Lachesis, Risso. | ł | | | | | ì | | | | | |
| minima, Mont | • | | | * | * | | * | * | | * | |
| Defrancia, Millet. | | | | 1 | | i | | | | | |
| pyramidalis, Stromlinearis, Mont | * | 14 | | * | | | * | | | * | |
| purpurea, Mont. | * * | * | * | * | * | ***** | * | * | * | * | |
| Phileberti, Michaud | | | | | 1 | | * | 1 | * | * | |
| Lefroyii, Mich | | | * | | | | * | | * | | |
| reticulata, Brown | | | | | | | * | 1 | ļ | | |
| Bela, Leach. | | | | | | | 1 | | | | |
| turricula, Mont | | * | * | * | ļ | | | 1 | | | |
| Trevelliana, Turton | | * | * | | | | | | | | |
| mitrula, Lovén | * * | * | | | ļ | | ì | | | | |
| rosea, Śars | * | | * | * | } | | | | | i | |
| rufa, Montseptangularis, Mont | . * | | * | * | * | | * | | l l | | *? |
| Mangelia, Leach. | | | T | 1 | 1 | 1 | 1 | | | | * . |
| ?Holbollii, Möller | . * | * | | | | | | | | | |
| ?nana, Lovén | . * | * | * | | | | | | | | |
| teres, Forbes | | * | * | * | | | * | | * | * | |
| gracilis, Mont | • | ••••• | * | * | | | * | | * | * | |
| nebula, Mont. | | | * | * | ***** | •••••• | * | * | * | * | 1 |
| lævigata, Phil brachystoma, Phil | | | Ψ | * | * | | * | * | 1 | | |
| striolata, Scacchi | | | | * | * | * | * | 1 | . * | * | |
| costata, Pen. | | | * | * | * | * | " | } | * | 1 | |
| attenuata, Mont | | | | * | * | * | * | | | | |
| elegans, Scacchi | | | | | * | * | * | | * | | |
| Vauquelina, Payr | • | | | | | | * | | * | * | |
| secalina, Phil | | • | | | | • | * | ***** | | * | |
| grana, Phil | | | ••••• | | | • | * | | | | |
| ruguiosa, Pnu | | • | • • • • • • | | | • • • • • • | * | | | | |
| crienata (metat | | 1 | | | | • | * | | | | |
| rudis. Phil. | | | | 1 | | | * | 1 | | | |
| rudis, Philsp. ined | | | | | | | * | | | | |
| sp. ined | | | | | | | | | * | * | 1 |
| sp. ined | | | | | | | | | * | | 1 |
| | | J | <u> </u> | | 1 | 1 | | | L | | <u></u> |

| Species, | Northern Scandinavia (Finnark and Nordland) | Droutheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Mogador. | Canary Islands. | Madeira. | Azores. |
|---|--|------------|-----------|---|-----------------|-----------|--------------------------------------|----------|-----------------|----------|---------|
| Gasteropoda (continued). | | | | | | | | | | | |
| Mangelia, Leach. | | | | | | | | | | | |
| sp. ined nivalis, <i>Lovén</i> | * | ••••• | ••••• | | ••••• | ••••• | | ••••• | | ** | - |
| balteata, Beck | | | | | | | * | | * | | |
| Conus, Lin. | | | | | | at. | * | | | | |
| Mediterraneus, Brug papilionaceus, Brug | | | ••••• | ••••• | ••••• | * | * | | * | | |
| Columbella, Lam. | | | | ,,,,,, | | | | | | | |
| rustica, Lin | ••••• | •••••• | | | | * | * | ••••• | * | * | * |
| scripta, Lin | | | ••••• | ••••• | | | * | * | * | * | |
| cribraria, Lin. | | | | ••••• | | | | ···· | * | * | |
| Broderipii, Sow. | | | ••••• | | | | | * | * | | |
| sp. inedsp. ined | | ••••• | ••••• | | ••••• | | ••••• | ••••• | ••••• | ** | * |
| Dolium Iam | | | | | | • | | | | | |
| galea, Lin | | | | • • • • • • | | | * | | * | | |
| Cassidaria, Lam. echinophora, Lin | | | | | | | * | | | | |
| Cassis, Lam. | | | | ••••• | | ••••• | , r | | | | |
| sulcosa. Lam | | | | | | | * | ••••• | * | * | |
| saburon, Lam | ••••• | | ······ | •••• | * | * | | | | | |
| Purpura, Lam. lapillus, Lin | * | * | * | * | * | | | } | | | |
| hæmastoma, Lin. | | | | | * | * | * | * | * | * | * |
| viveratoides, Webb & Berth | ••••• | | ••••• | ••••• | | | | | * | | |
| Ringicula, Desh. auriculata, Mont | | | | | | | * | * | * | * | |
| Nassa, Lam. | | | ••••• | ••••• | T | 1 | | T | | | |
| reticulata, Lin | | * | * | * | * | * | * | * | * | | |
| incrassata, Müller pygmæa, Lam | * | * | * | * | * | * | * | | * | * | * |
| variabilis. Phil. | | | | | * | . | * | * | * | * | |
| variabilis, Phil | | | | | | | * | | * | * | |
| mutabilis, Lin | • | | | • | ••••• | | * | | | | |
| grana Lam | | | | | | | * | | | | |
| mutabilis, Lin. neritea, Lin. graua, Lam. trifasciata, A. Ad. | | | | | * | * | * | * | | | |
| glaberrima, Gmel | | •••• | | ••••• | | | * | * | * | | |
| corniculum, Olivi Terebra, Lam. | | | | | * | | * | * | Į | | |
| sp | | | | | | | | | * | | |
| Buccinum, Lin. | | 1 | | | | | | | | | |
| undatum, Lin | * | * | * | * | | | | | | | |
| Humphreysianum, Bennet | | | * | | | 1 | | | | | |
| fusiforme, Brod | . * | * | 1 | | | | | | | | |
| cyaneum, Müllersp. ined | * | | | | | | ļ | * | * | | |
| Fusus, Lam. | 1 | | | | | | | 1 | | | |
| Islandicus, Chem | | | | | | | | | | | |
| gracilis, Costa | * | * | * | * | | | | | | | |
| propinquis, Amer | | | * | * | 1 | 1 | l | 1 | l | | |

| Species. | Northern Scandinavia (Finmark and Nordland) | Drontheim. | Scotland. | British Channel. | North of Spain. | Portugal. | South of Spain and Mediterranean. | Megador. | Canary Islands. | Madeira. | Azores. |
|-----------------------------------|--|-------------|-------------|------------------|-----------------|-----------|--------------------------------------|-------------|-----------------|----------|---------|
| Gasteropoda (continued). | | | | | | | | | | | |
| Fusus, Lam. | | | | | | | | | | | 1 |
| Berniciensis, King | | | * | | | | | 1 | | | |
| antiquus, Lam | | * | * | * | | | 1 | | 1 | | |
| contrarius, Lam. | * | | * | | 1 * | | | i . | | | |
| Syracusanus, Lin | | 1 | | | | | * | | | | Į. |
| corneus, Lin | | | | | | | * | | | | |
| pulchellus, Phit | | | | | | | * | | . * | | |
| rostratus, Olivi | | | | | | | * | | . * | | |
| craticulatus, Phil | | | | | | | * | Ì | | | |
| moroccanus | | | | | | | ļ | | * | ł | |
| sp | | | | | ••••• | | * | į | | i | } |
| Trophon, De Montfort. | | | | ł | | | | | | ļ | |
| clathratus, Lin | * | * | * | | | | | | i | | |
| muricatus, Mont | | * | * | * | * | | 1 | ł | | | |
| Gunneri, Lovén | | * | * | 1 | | } | | | | ł | |
| craticulatus, Fab | | T | | | | | | | ĺ | | |
| Trichotropis, Brod. | | | | | | | | | | | |
| borealis, Sow | * | * | * | | | | | i | | | |
| Cancellaria, Lam. | | | | | Į | | | | | | 1 |
| cancellata, Lam | | | | | | | * | | | | |
| assimilis, Sow | | | | | | | * | | | } | |
| sp. ined | | | | | | ••••• | * | | * | * | |
| sp. ined | | | •••• | | ••••• | ••••• | | | * | * | |
| viridula (Admete), O'Fab | * | | | | | | | | | | |
| Triton, Lam. | | | | | * | * | * | | 1 | | |
| nodiferus, Lam | | ••••• | ••••• | ***** | * | * | * | • • • • • • | * | | * |
| corrugatus, Lam | | | ••••• | | * | * | * | | | | |
| olearius?. Lin | | | | | | T | * | | 1 | | |
| scrobiculatus, Lam | | | | | | | * | | | | * |
| pilearis, Lam | | | | | | | | | * | * | |
| tuberosus, Lam | | | | | | | | | * | | * |
| Ranella, Lam. | | | | | | | | | | | |
| lævigata, Lam | | • • • • • • | • • • • • • | ••••• | ••••• | ••••• | | | * | | |
| Pisania, Biron. | | | | | | | | | | | |
| D'Orbignii, Payr maculosa, Lam | | ••••• | • • • • • • | • • • • • • • | ••••• | ••••• | * | | | | |
| Typhis, Montf. | ••••• | ••••• | ••••• | | ••••• | | * | ••••• | ***** | | * |
| Sowerbii, Brod | | | | | | | * | | | | |
| Murex, Lin. | | | | | | | | | | | |
| erinaceus, Lin | | | * | * | * | * | * | | * | * | |
| trunculus, Lin | | | | | | * | * | | | | |
| brandaris, Lin | | | | | | * | * | | * | | |
| corallinus, Scacchi | | | | | * | * | * | * | * | * | * |
| Edwardsii, Payr | ••••• | | | | * | * | * | | * | * | |
| cristatus, Brocchi | | | •••••• | ••••• | ••••• | ••••• | * | | ••••• | * | |
| torosus, Lamsp. ined | ••••• | ••••• | ••••• | | ••••• | | | * | nte. | - | |
| sp. meu | ••••• | | ••••• | | ••••• | | | ••••• | * | * | |
| Cephalopoda. | | | | | | | | | | | - |
| Spirula, Lam. | | | | | | | | | | | |
| Peronii, Lam. | | | | | * | | * | | * | | * |
| | | | | | | | 1 | | | | |
| | - (| (| | | | - l | | | | | |

Number of species enumerated :-

Acephala, 275; Pteropoda, 14; Gasteropoda, 460: Total 750.

Number of species obtained in the most northern district (Finmark and Nordland):— 88 Acephala, 100 Gasteropoda; total 188 species, of which

```
72 Acephala, 88 Gasteropoda = 160, were found as far south as North Drontheim.
64
                                =135
                                                                      Scotland.
               71
                        ,,
                                                 ,,
                                                          ,,
50
              43
                                = 93
                                                                      British Channel.
        ٠.
                        ,,
                                                 ,,
                                                          12
37
                                    73
                                                                      North of Spain.
                                _
        22
                        22
                                                 22
                                                          ,,
35
              25
                                    60
                                                                      Portugal.
        17
                        ,,
                                                 ,,
                                                          ,,
35
              24
                                    59
                                                                      S. of Spain & Mediterranean.
                                                          ,,
```

19 15 34 Mogador. ,, ,, ,, 8 8 16 Canary Islands. 29 ,, ,, 6 4 10 Madeira. 11

Of 83 Acephala and 93 Gasteropoda=176 species from the coast of North Drontheim-

77 Acephala and 80 Gasteropoda=157 found as far south as Scotland.
60 , 51 , =111 ,, British Channel.

| 45 | ., | 43 | | = 88 | | North of Spain. |
|----|----|----|----|------|----|----------------------------|
| | " | 30 | ,, | = 71 | " | |
| 41 | 12 | | " | | " | Portugal. |
| 41 | ,, | 29 | " | = 70 | " | Mediterranean. |
| 23 | ,, | 18 | 75 | = 41 | ,, | Mogador. |
| 16 | " | 11 | ,, | = 27 | ,, | Canary Islands. |
| 10 | " | 8 | ** | = 18 | ,, | Madeira. |
| 69 | ,, | 82 | " | =151 | | h as Nordland and Finmark. |
| | | | | | | |

Of 117 Acephala, 1 Pteropod, and 142 Gasteropoda = 260 species found on the coasts of Scotland —

```
97 Acephala, 103 Gasteropoda = 200, extend south to the British Channel.
81
                86
                                 =167
                                                              North of Spain.
       ,,
                         ,,
76
                69
                                 =145
                                                              Portugal.
       ,,
                        27
76
                65
                                 =141
                                                              Mediterranean.
       37
                         ,,
47
                46
                                    93
                                                              Mogador.
       ,,
                         22
                                                 22
36
                36
                                    72
                                                              Canary Islands.
       ,,
                         ,,
                                                 ,,
                25
                                    51
                                                              Madeira.
       ,,
                        27
70
                83
                                 = 153 extend as far north as Drontheim.
       ,,
                                                              Nordland and Finmark.
59
                72
                                 =138
                         "
```

Of 122 Acephala, 136 Gasteropoda=258 species from the south coast of England—

```
103 Acephala, 114 Gasteropoda = 227, are found as far south as the North of Spain.
 98
                                   =192
                                                                           Portugal.
                 94
                          73
                                                 ,,
         22
 98
                 90
                                   =188
                                                                           Mediterranean.
                                                 ,,
                                                               22
         22
                          ,,
 59
                 59
                                   =118
                                                                           Mogador.
         ,,
                          ,,
                                                 ,,
                                                               ,,
 45
                 48
                                   = 93
                                                                           Canary Islands.
         ,,
                          ,,
                                                 ,,
                                                               2.0
 30
                 33
                                      63
                                                                           Madeira.
                          ,,
                                                 ,,
         27
 91
                 99
                                   =190
                                                             north as
                                                                           Scotland.
         ,,
                          ,,
                                                 ,,
                 49
                                   =107
                                                                           Drontheim.
         ,,
                          "
                                                 ,,
                 42
                                   = 88
                                                                           Nordland and Finmark.
 46
                                                 "
                                                               ,,
```

Of 94 Acephala, 123 Gasteropoda=217 from the north coast of Spain, including Vigo-

```
88 Acephala, 95 Gasteropoda = 183, are found as far south as Portugal.
              89
                                =171
                                                                    Mediterranean.
86
       ,,
              61
                                =110
                                                                    Mogador.
49
                        ,,
                                              ,,
                                                          "
                                                                    Canary Islands.
35
              46
                                = 81
       ,,
                        "
                                              "
                                                          ,,
                                = 56
                                                                    Madeira.
              34
       22
                        ,,
                                              27
                                =172
                                                                   South of England.
81
              91
                                                        north as
       ..
                        ,,
                                              **
                                                                   Scotland.
              66
                                =128
       27
                        "
                                              22
                                                          11
                                                                   North Drontheim.
38
              38
                                   76
       32
                       33
                                             22
              33
                                   63
                                                                   Nordland and Finmark.
30
                                             33
       31
                       11
                                                          22
```

Of 90 Acephala, 74 Gasteropoda=164 species of Mollusca from the coast of Portugal-

```
88 Acephala, 65 Gasteropoda =153, extend to the S. of Spain and Mediterranean.
54
              47
                               =101
                                                 as far south as Mogador.
                                          27
                       "
       ,,
              40
                               = 77
                                                                Canary Islands.
37
                       ,,
                                          ,,
       **
                                                                Madeira.
24
              27
                               = 51
       ..
                       22
                                          22
                                                 as far north as North of Spain.
75
              54
                               =129
                       ,,
       29
67
              38
                               =105
                                                                South of England.
       22
                       ,,
                                          ,,
                                                         ,,
                                                                Scotland.
45
                               = 72
                                          ,,
                                                         ,,
       22
28
              14
                                  42
                                                                North Drontheim.
                       29
                                          "
                                                         "
       "
                                                                Nordland and Finmark.
21
              11
                                  32
                       ,,
                                          22
```

Of 184 Acephala, 7 Pteropoda, 233 Gasteropoda, I Cephalopod=425 species from south of Spain and Mediterranean—

91 Acephala, 6 Pteropoda, 116 Gasteropoda, 1 Cephalopod = 214, extend S.to Mogador. 6 100 =176Canary Islands. 69 " ,, 22 ,, •• 46 6 64 =117Madeira. ,, 27 " 22 22 " N. to Portugal. 122 120 =24322 22 22 ,, 109 103 =213North of Spain. ,, 99 " 12 =181S. of England. 99 82 " . . ,, 22 12 " =130Scotland. 73 57 22 " ,, ,, 22 North Drontheim. 26 = 6142 . . 22 . . ,, ,, 22 22 20 = 53Nordland & Finmark. 33 33 ,,

Of 44 Acephala, 64 Gasteropoda=108 species obtained at Mogador—
20 Acephala, 38 Gasteropoda=58 extend southward to the Canary Islands.

27 =37 are found in Madeira. 10 ,, 22 =80 extend North to the Mediterranean. 43 45 12 " Portugal. 36 34 =70,, " 99 31 =63North of Spain. ,, " South of England. 27 24 =5I22 22 =37Scotland. 21 22 11 =21North Drontheim. 14 22 11 Nordland and Finmark. =1611 22 22

Of 78 Acephala, 9 Pteropoda, 179 Gasteropoda, and 1 Cephalapod=267 species of Mollusca obtained in the Canary Islands—

10 Applied 5 Pterenada 86 Gesteranada - 130 were found in Madeira

| 48 | Acephala. | 5 | Pteropoda | a, 86 | Gastero | p | oda = 139 , | were fo | ound 11 | i Madeir | a. |
|----|-----------|-----|-----------|-------|---------|-----|---------------|---------|---------|----------|----------------------|
| 73 | ,, | 6 | ,, | 108 | ,, | ı (| Cephalapo | d = 188 | reach | Nwd. to | Mogador. |
| 73 | | 6 | | 104 | ,, | | 1, | =184 | | 11 | Mediterranean. |
| 53 | | ٠. | " | 67 | " | | " | =121 | | 12 | Portugal. |
| 49 | · " | | | 60 | ,, | | " | =110 | | " | North of Spain. |
| 45 | | | ** | 46 | ,, , | | " | = 91 | | 11 | South of England, |
| 33 | , " | | • | 32 | ,, . | | | = 65 | | | Scotland. |
| 16 | | • • | | 13 | | | " | = 29 | | " | North Drontheim. |
| | | • • | ,, | 10 | ,, • | | " | = 19 | | " N | ordland & Finmark. |
| 10 |) | | ** | 9 | 11 * | | 22 | - 19 | | 32 17 | orthand of Fininain. |

Of 56 Acephala, 6 Pteropoda, 107 Gasteropoda=169 species from Madeira-

48 Acephala, 5 Pteropoda, 86 Gasteropoda = 139, are found in the Canary Islands. 10 27 = 37Mogador. ,, 22 22 =116Mediterranean. 6 64 46 ,, 22 22 27 = 51Portugal. 24 . . " 22 ,, 22 North of Spain. 34 22 . . 33 ,, " South of England. 30 33 63 99 22 " 25 51 Scotland. 26 " 23 North Drontheim. 10 8 18 . . " 10 Nordland and Finmark. 4

To judge of the marine Mollusca of the Azores from the few species received from thence, they appear to be generally identical with those of the Mediterranean, except a very few species not identified, and several littoral species, such as *Littorina striata*, *Mitra fusca*, *Mitra zebrina*, *Pedipes*, which are not European, but common to Madeira and the Canary Islands.

Concluding Observations.

The acephalous or bivalve Mollusca possess generally a capacity to exist through a greater bathymetrical range than univalves, several species of the former being to be found in all the zones of depth from the margin of the sea to a hundred or more fathoms, and it is these same species which are most widely distributed geographically, as might indeed be reasonably inferred, it being evident that the depths of the ocean can be comparatively but slightly affected by changes of temperature and of climate, and that, consequently, a species removed to a distance northward or southward from its most congenial habitat, would encounter less change in climatal conditions by seeking a greater depth.

Those species which inhabit a great vertical range, such as Saxicava arctica, Venus striatula, Venus ovata, Lucina borealis, &c., have generally their maximum of development and attain their greatest dimensions in shallow water; and I call the attention of geologists to this fact as it may occasionally be of service in determining the depth at which strata have been deposited. Another important point, deserving attention on account of its bearing on geology, is the modifications of growth, incident to all the individuals taken from a great depth, as compared with individuals of the same species taken from a moderate depth. Some of these vary in different species, but the general characteristics of deep-water specimens are deficiency of colour and of solidity, and small-

ness of size.

Northern species generally diminish greatly in size as they approach southern latitudes; but the converse of the rule cannot be so generally applied to southern species, for while some of these are smaller, others increase in dimensions as they approach the northern limit of their range. As examples of the latter, I may mention Ringicula auriculata and Mactra rugosa, which attain their maximum size in Vigo Bay, Haliotis tuberculata in Guernsey, and Tellina balaustina in the West of Ireland and the Hebrides.

To give an idea of the comparatively small number of species existing in high northern latitudes, I may mention that I obtained 50 per cent. more of species in the Canary Islands than in the northern provinces of Norway, although I bestowed at least thrice the amount of time and labour in dredging the latter, under more favourable circumstances, and through a greater range

of latitude.

The correct division of the marine Mollusca into provinces, or as they are called "Faunas," is a subject deserving consideration, as it may be of assistance to us in our endeavours to become acquainted with the laws regulating

the distribution of species.

The Arctic and Tropical faunas are tolerably well defined by the zones after which they are named, except that the former, on the European side of the Atlantic, recedes a few degrees within the Arctic Circle, in consequence of the current which sets northward along the coast of Norway. It is the division of the temperate zone into the Boreal, Celtic, and Lusitanian or Mediterranean provinces, which offers some difficulty, and I take the liberty

of submitting the following suggestions with reference to it.

Two sets of Mollusca of very different type advance from the sub-arctic and sub-tropical regions towards each other. In the course of their progress each loses by the way many of its most characteristic members, which one after another become extinct, so that when they reach their point of contact, the species are comparatively few in number, and not the most characteristic of their northern or southern origin. In order to remedy this state of things and to accomplish an equable distribution of Mollusca throughout the temperate zone, it is necessary that there should exist an *intermediate* fauna, pervading more or less the ground occupied by both the others, and having

its principal development at their point of meeting, and this I believe to be neither more nor less than what actually occurs. The point at which the north temperate or boreal, and the south temperate faunas meet, I conceive to be about lat. 50°, or at the British Channel, which marks the limit of some of the most characteristic northern forms, viz. Buccinum undatum, Fusus antiquus, Cuprina Islandica, &c., as well as of the genera Haliotis, Lachesis, Calyptræa, Venerupis, Gastrochæna, Auricula, and numerous species of southern type. Supposing my view to be correct, it is at once seen why there can be no peculiar species in the Celtic (or as I would rather call it), the English or intermediate fauna. It is difficult to lay down an exact line of division between one animal province and another, the transition being gradual; but I would consider the "intermediate" fauna to be contained between the 45th and 55th parallels of latitude, which will include the larger portion of the Bay of Biscay and a considerable part of the North Sea. species which attain their maximum of development within these limits I would consider legitimately to belong to it, and among the most characteristic of these may be mentioned Purpura lapillus, Natica monilifera and N. nitida, Trochus zizuphinus, Lacuna puteolus, L. pallidula, all the British Pholades, Mactra solida, Tellina crassa, Pecten opercularis, P. pusio, and Venus striatula.

Although, as already stated, the transition from one fauna to another takes place gradually, the change is much greater at certain geographical points than at others, and the neighbourhood of Cape St. Vincent is remarkable as the northern limit on the Atlantic coast of about a hundred southern species, including the following genera:-

Solemva. Siphonaria. Ranella. Conus and

Cardita. Sigaretus. Mitra. Cypræa (except the Crepidula. Columbella. sub-genus Trivia). Chama.

Cancellaria. Pollia. Spondylus.

Though Cardita and Mitra reappear in the Polar seas represented each by a single species, and Cancellaria under the form Admete. Cymba extends to the neighbourhood of the rock of Lisbon; Ringicula to Vigo; Triton, Turbo, Cassis, and Lithodomus to Asturias; Adeorbis, Haliotis, Calyptræa, Lachesis, Gastrochana, Venerupis, Galeomma, and Avicula to the south coast of England.

The circumstance of so many characteristic forms disappearing at Cape St. Vincent, may perhaps be accounted for by the change which there takes place in the direction of the coast and consequent set of the current. It will be noticed that the disappearance of species is all in one direction, and that the point in question is not known to form the southern limit of a single species; also that nearly all the genera enumerated as not passing it are to be found

six or seven degrees further north in the Mediterranean.

A circumstance analogous to what occurs at Cape St. Vincent takes place about the South of Scotland with reference to northern forms of Mollusca. Of 135 Norwegian species which extend to Scotland, no less than 42 are absent from the South of England; and this fact is, I conceive, to be explained by the change in the nature of the sea-bottom, which may also account for the circumstance that many species, and among them the peculiarly northern forms of Trichotropis, Cemoria, and Pilidium, are common to the coast of Norway and the Hebrides, and even extend as far south as the Clyde, while they are altogether absent from, or but very rarely found upon the east coast of Scotland.

The Mediterranean fauna may be considered a branch of the north temperate Atlantic, agreeing with it in its general character, though possessing

some peculiarities, a natural result of its isolated condition.