

The Mollusca of Somerset

(Land, Freshwater, Estuarine and Marine).

BY

E. W. SWANTON

*Member of the Conchological Society; Author of "A Pocket Guide to the
British Non-Marine Mollusca."*



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Author of 'The Freshwater Molluscs of the British Isles' and 'The Molluscs of the British Isles'



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PREFACE.

SHELLS have been poetically designated the "Medals of Creation." They occur in rocks of all ages, and everywhere tell their own story, *e.g.*, in Somerset the huge ammonites of the oolite quarries indicate that countless years ago parts of the county were covered with a tropical sea in which cephalopods swarmed. Existing as well as fossil forms afford valuable evidence of a past order of things. The marine shells that occur in sandy and pebbly beds far inland on the moors are eloquent witnesses to the great alterations of the coast line of the county within comparatively recent times.

The myriads of shells of *Helicella barbara* (perhaps better known under its old name of *Helix acuta*), which live in the hollows of the dunes between Burnham and Berrow, do not attract the attention of the majority of pedestrians, but to the conchologist they have a special interest. Their presence there is to him a link in the chain of evidence that certain elements of our existing fauna arrived from the continent by a land connection in the south-west, of which the Scilly Isles are vestiges.

As with *Helicella barbara*, so it is with all the other mollusca, there is not a single species whose life history is devoid of interest in some way or the other. It is stimulating to have a hobby, especially if it compels one to

"Go forth under the open sky, and list
To Nature's teachings."

One of the most delightful of such hobbies is conchology, and it is never too late to start upon it. The late Mr. George Barlee, of whose fine collection of shells in the Oxford Museum it has been written, "it should be seen by all conchologists, it

will either fill them with despair or urge them to greater emulation," did not take up the study of shells before his forty-fifth birthday had passed.

There are no collections of Somerset shells likely to fill local conchologists with despair; indeed, it should not be forgotten that the County Museum is without one. It is to be hoped that a committee of Somerset conchologists will undertake the formation of such a collection.

The records set forth in the following pages indicate very clearly the wide field of investigation that still awaits future workers. Our knowledge of the marine species is particularly meagre, and will remain so, I fear, until an enthusiast can be found who will undertake systematic work with the trawl.

It is my pleasure here to acknowledge the kind help of the following correspondents in the preparation of these records:—Miss M. Tanner (Bath); the Rev. H. H. Winwood (Bath); Messrs. H. Bolton (Bristol), H. Corder (Bridgwater), H. L. F. Guermonprez (Bognor), W. Gyngell (Scarborough), N. G. Hadden (Malvern), W. Herridge (Bourton), C. D. Heginbotham (Devizes), F. A. Knight (Winscombe), W. A. Knight (Bruton), W. H. Palmer (Weston-super-Mare), J. Ponsonby (London), W. Denison Roebuck (Leeds), C. Tite (Taunton), and H. Watson (Cambridge).

I am under obligation to Dr. Roger Hutchinson, of Haslemere, and George Hutchinson, of Sidcot School, for photographs; also to the Royal Geographical Society and Mr. W. B. Crump for permission to reproduce three illustrations from Dr. Moss's monograph on "The Vegetation of Somerset."

My best thanks are due to the Council of the Somersetshire Archæological and Natural History Society for so kindly undertaking the publication of this paper, and to Mr. H. St. George Gray for his great assistance in seeing the proofs through the press.

E. W. SWANTON.

Haslemere, 1912.

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PALUDESTRINIDÆ.

PALUDESTRINA VENTROSA, *Montagu* (= *Hydrobia ventrosa*, *Montagu*).

Frequents brackish water at the mouths of rivers.

Avonmouth; *Cundall*.

Shirehampton, in ditches; *T. G. Ponton*.

Avon, at Cook's Folly; *W. W. Stoddart*.

"In marvellous abundance in a ditch near the Pill, Clevedon"; *Norman*.

Weston-super-Mare; *F. A. Knight*.

PALUDESTRINA STAGNALIS, *Baster* (= *Hydrobia ulvæ*, *Pennant*).

An inhabitant of brackish waters; abundant in many places about Weston-super-Mare and Burnham. Mr. Bolton records it from a shell-bearing deposit at Dumball Island, Avonmouth; and Mr. Corder from the Burtle Beds at Wembdon.

River mouths on the Somerset coast; *Norman*.

Weston-super-Mare, abundant; *Leipner*.

Weston-super-Mare; *F. A. Knight*.

BITHYNIA TENTACULATA, *Linné*.

Generally distributed in ditches, streams and sluggish rivers. Messrs. Kennard and Woodward record it from an alluvial deposit at Castle Cary. It was also found in the peat at the Glastonbury Lake-village.

Var. *ventricosa*, *Menke*.

Bristol; *Jeffreys*.

BITHYNIA LEACHII, *Sheppard*.

Similar situations to the above but a much more local species. Mr. Bolton found it in a shell-bearing deposit at Dumball Island, Avonmouth.

North.

"In the larger and clearer streams; abundant and fine in West Mead Rhine, Yatton"; *Norman*.

Kenn Moor; *Cundall*.

River Avon; *Stoddart*.

Weston-super-Mare; *Crotch*.

Weston district; *F. A. Knight*.

Near Clevedon; *Bristol Mus. Coll.*

Pennard Moor, near Glastonbury !
 Berrow !
 Bath ; *Clark*.
 Bristol ; *Jeffreys*.

South.

VIVIPARIDÆ.

VIVIPARA VIVIPARA, *Linné* (= *Paludina vivipara*, *Linné*).

A very local species. I have seen specimens obtained in the neighbourhood of Dunster Castle, and there are shells from the Avon Canal in the museums of Bath and Bristol.

"Found dead on the shore, others naturalised at Winscombe" ; *F. A. Knight*.

Rare in the pond at Henbury, and at Brislington, 1863 ;
T. G. Ponton.

The river at Keynsham ; *Misses Hele*.

In the Froom ; *Stoddart*.

Kennet and Avon Canal ; *Cundall*.

Var. *efasciata*, *Pickering* (= *unicolor*, *Jeffreys*).

Bath Canal ; *Bristol Mus. Coll.*

VIVIPARA CONTECTA, *Millet* (= *Paludina conlecta*, *Millet* ;
Paludina Listeri, *Forbes and Hanley*).

A very rare species, of which only one record is known at present. "The Rev. W. R. Crotch and the Curator of the Bristol Museum inform us that they have taken this species near Weston-super-Mare. The latter met with it, we believe, near the railway station" ; *Norman*. I failed to find it in the neighbourhood of Weston.

VALVATIDÆ.

VALVATA PISCINALIS, *Müller*.

Generally distributed in ponds and sluggish streams. Messrs. Kennard and Woodward record it from an alluvial deposit at Castle Cary, and it was found in peat at the Glastonbury Lake-village.

Var. *acuminata*, *Jeffreys*.

River Avon, Bristol ; *Jeffreys*.

Taylor records (*Journ. Conch.*, IV, 173) the finding of a specimen at Yatton, by Miss F. M. Hele, which approached the var. *albina*.

VALVATA CRISTATA, Müller.

A more local species than the preceding, but not uncommon in the northern part of the county.

North.

Worle, near Weston-super-Mare; *Bristol Mus. Coll.*

"Very local, a few specimens from a ditch in Kenn Moor, also near Wells"; *Norman.*

Kenn Moor; *Cundall.*

Bath; *Clark.*

Bratton St. Maur; *W. Herridge.*

Rejectamenta of the Brue below Castle Cary; common in rhines on the moors about Glastonbury, and of frequent occurrence in ponds and ditches in the Wincanton district!

Weston district; *F. A. Knight.*

South.

Taunton; *Crotch.*

POMATIIDÆ.

POMATIAS ELEGANS, Müller (= *Cyclostoma elegans*, Müller).

Widely distributed in the northern part of the county. The only British land mollusc with an operculated shell.

North.

Bristol district, general; *Cundall.*

"Common amongst limestone rocks at Bath, Yatton, Wrington, Brockley, Cheddar, Axbridge, Wells, Weston-super-Mare, Clevedon, etc."; *Norman.*

Stoke Trister, near Wincanton; Wadham's Down, Bratton St. Maur, a small colony; *W. Herridge.*

Abundant about Pitcombe, Bruton, and Milton Clevedon!

Weston district; *F. A. Knight.*

Jenyn's Coll., Bath Museum.

South.

Yeovil; *Ponsonby.*

Taunton and Minehead; *W. Gyngell.*

Var. *ochroleuca*, *Moquin-Tandon.*

With the type at Bratton St. Maur, Pitcombe, and Milton Clevedon!

Taunton; *W. Gyngell.*

Bath; *Kenneth McKean.*

Var. *fasciata*, *Picard.*

Bath; *Mrs. Oldroyd.*

ACICULIDÆ.

ACICULA LINEATA, *Draparnaud* (= *Acme lineata*, *Draparnaud*).

A rare species, at present known chiefly from river drift. It should be looked for under stones in moist places in woods about Bruton and Castle Cary.

North.

Rejectamenta of the Avon below Bristol; *Jeffreys*, 1833.

Rejectamenta of the Brue below Castle Cary, and the stream at Ellescombe Wood, near Bratton St. Maur!

“Mr. Cutler, who lately was a dealer in Natural History specimens at Bath, has informed us that he has procured the species in a hazel copse below Hampton Rocks”; *Norman*.

Weston district; *F. A. Knight*.

Rejectamenta of Brue, near Glastonbury. A single specimen; *J. Morland*.

South.

Wood near Luccombe!

Var. *alba*, *Jeffreys*.

Rejectamenta of the Avon, Bristol; *Jeffreys*.

Rejectamenta of streams at Ellescombe Wood, near Bratton St. Maur!

Mons. *sinistrorsum*.

Rejectamenta of Avon at Bristol; *Jeffreys*.

NERITIDÆ.

NERITINA FLUVIATILIS, *Linné*.

A local species. On stones in canals and streams. Common throughout the district (*Stoddart*, in *Leipner's Bristol list*).

North.

Avon at Bath; *Viner*.

Bath; *Jenyns*.

Bath Canal; *Bristol Mus. Coll.*

In pools near the Avon; *Miller*.

Weston-super-Mare; *Crotch*.

River Brue, near Glastonbury!

River Cale, below Wincanton; *W. Galpin*.

The Axe, Lox Yeo, Max Mills; *F. A. Knight*.

Brislington Common; *T. G. Ponton*.

Keynsham; *Misses Hele*.

South.

Bridgwater; *Crotch*.

River Yeo at Yeovil; *J. Ponsonby*.

Var. *cerina*, *Colbeau*.

There are specimens in the Bristol Museum from the Bath Canal, labelled "This rare variety of *N. fluviatilis* was discovered by Miss F. M. Hele, of Bristol, in 1882."

DREISSENSIIDÆ.

DREISSENSIA POLYMORPHA, *Pallas*.

An alien species, supposed to have been introduced into this country in or about the year 1824 with timber from Russia. Mr. Hugh Strickland, in a short paper on the naturalization of *Dreissena polymorpha* in Great Britain, contributed to the Magazine of Natural History in 1838 (vol. II, new series), remarked that it had "lately been planted by Mr. Stuchbury, of Bristol, in some waters near that place." He considered that "it appears desirable to record these particulars, because it may interest some of our field-naturalists to watch the gradual spread of this species over the kingdom. Its propagation is so astonishingly rapid, that it will probably become, in a few years, one of our commonest British shells." Ten years later it had been reported from two counties in Scotland and thirteen in England. In the census list of British non-marine mollusca, published in 1902, it is given under twenty-five English counties and four Scotch.

Its absence from the Dumball Island deposit already alluded to (p. xiii), is of some interest. Mr. Bolton writes me that "at the time when the actual deposit was being made, Dumball Island was practically part of Somerset, only a narrow shallow channel separating it from the Somerset shore, whilst a deep channel, available for ships, separated it from the Gloucester shore. This is less than 100 years ago. The deep channel afterwards silted up entirely, and Dumball Island became attached to the Gloucester shore, whilst the shallow channel deepened in a similar fashion, and is now the only channel of the river." If the silting up took place after the 'planting' of *D. polymorpha* near Bristol in 1838, it is very probable that this species would have been found there. When was it first observed at Bath? It seems to have been unknown in Wilts prior to the sixties. "The *Dreissena* is perhaps better fitted for dissemination by man and subsequent establishment than

any other fresh-water shell; tenacity of life, unusually rapid propagation, the faculty of becoming attached by a strong byssus to extraneous substances, and the power of adapting itself to strange and altogether artificial surroundings, have combined to make it one of the most successful molluscan colonists in the world." (*H. Wallis Kew*, in "Dispersal of Shells," p. 219).

Jenyns Coll., Bath Museum.

Bath Canal; *Mrs. Oldroyd*.

River Avon, and Avon and Kennet Canal, Docks, etc.;

Cundall.

In the Docks at Bristol; *T. G. Ponton*.

In the Avon; *Leipner*.

Kennet and Avon Canal; *Stoddart*.

Large specimens from the Kennet and Avon Canal, near Bath, one measuring 36 mm. by 14½ mm.; *H. Watson*.

UNIONIDÆ.

UNIO PICTORUM, *Linné*.

Common in rivers Avon and Brue.

North.

Naturalised in the Weston Rhine and the Lox Yeo;
F. A. Knight. The specimens were brought from
Langport.

Kennet and Avon Canal, River Avon; *Cundall*.

Bath; *Jenyns*.

Kennet and Avon Canal, near Bath; *H. Watson*.

River Brue, near Glastonbury!

South.

Taunton Canal; *W. Gyngell*.

Var. *compressa*, *Jeffreys*.

Bath Canal; *Mrs. Oldroyd*.

Var. *radiata*, *Moquin-Tandon*.

River Avon, Bristol; *Cundall*.

Avon, Bath; *Clark*.

UNIO TUMIDUS, *Retzius*.

Frequent in the rivers Avon and Brue.

North.

Bath Canal; *Bath Mus. Jenyns Coll.*

Bristol; *Bristol Mus. Coll.*

Avon and Kennet Canal; *Cundall, Forbes and Hanley, Watson, and others.*

Avon, near Bristol; *Turton's Conchylia*, described under *Mysca solida*.

"We have found them in the Avon, many miles above and below its conflux with the Froome: at Bath they are thrown up in great abundance after floods, and commonly used for putting colours in"; *Montagu*.

"Twenty years ago, after a flood, I met with it about two miles from Bath, cast in large quantities on a riverside meadow, but I have seen none since"; *Clark*.

River Brue, near Street; *B. B. Woodward*.

Naturalised in the Weston Rhine and the Lox Yeo; *F. A. Knight*. The specimens were brought from Langport.

South.

Canal, Taunton, five specimens; *W. Gyngell*.

Var. *ovalis*, *Montagu*.

River Avon; *W. Stoddart*.

Bath; *Cundall*.

"This very strong variety is not uncommon in the Avon that runs through the north of Wiltshire and Somersetshire, inhabiting the deeper parts of the river"; *Turton*, described under *Mysca ovata*.

Var. *radiata*, *Colbeau*.

Avon and Kennet Canal; *Cundall*.

Avon, near Bath; *Clark*.

ANODONTA CYGNÆA, *Linné*.

Frequent in the rivers and the majority of the larger ponds. The largest of our fresh-water bivalves, often attaining six to seven inches in length.

North.

Fine specimens from the Bath Canal; *Bath Mus. Coll.*

Kennet and Avon Canal and Kenn Moor, etc.; *Cundall*.

Nailsea Moor and Yatton; *Bristol Mus. Coll.*

Shanks Pond, Cucklington; *W. Herridge*.

Kennet and Avon Canal, near Bath; *H. Watson*.

South.

Yeovil; *J. Ponsonby*.

Canal, Taunton, a rather peculiar broad straight variety; *W. Gyngell*.

Var. *anatina*, Linné (= *Anodonta anatina*, Linné).

Widely distributed, until quite recently was considered as a distinct species.

Avon at Bath; *Bath Mus. Jenyns Coll.*

Common in the river Brue, about Bruton and Castle Cary!

Frequent in the Cale below Wincanton!

Kennet and Avon Canal; *Cundall.*

River Brue, Lovington; *W. Herridge.*

Kennet and Avon Canal, near Bath; *H. Watson.*

Var. *arenaria*, Schröter.

Canal, Taunton; *W. Gyngell.*

Var. *radiata*, Müller.

Bath Canal; *Bristol Mus. Coll.*

Kennet and Avon Canal; *Cundall.*

SPHÆRIUM RIVICOLA, Leach.

A local species.

North.

Bath Canal; *Jenyns Mus. Coll.*

Keynsham; *Misses Hele.*

Kennet and Avon Canal; *Cundall.*

Cale at Harwood, below Wincanton; *W. Galpin.*

Kennet and Avon Canal, near Bath; *H. Watson.*

SPHÆRIUM CORNEUM, Linné.

Widely distributed in ponds, ditches, canals and rivers.

Var. *pisidioides*, Gray.

River Avon, Bath; *Jordan.*

Streams near Clevedon, rare; Streams near Weston-super-Mare; *Miss Jessie Hele.*

In the Avon; *W. Stoddart.*

Var. *scaldiana*, Norman.

Bath; *Rich.*

Var. *nucleus*, Studer.

Clevedon; *Leipner.*

Scarce in stream at Kewstoke, Weston-super-Mare; *Miss Jessie Hele.*

Ilchester; *J. Ponsonby.*

Var. *flavescens*, Macgillivray.

Clevedon; *Miss L. C. Jones.*

Bath Canal, sides of Canal; Rare in streams at Kewstoke, Weston-super-Mare; *Miss Jessie Hele.*

SPHÆRIUM LACUSTRE, Müller.

In ponds, locally abundant.

North.

Bath; *Bristol Mus. Coll.*

Bath; *Jenyms.*

Avonmouth and Ham Green; *Cundall.*

“Common in a pond on Clevedon Hill, not far from the Royal Hotel”; *Norman.*

Ponds at Bratton St. Maur!

Weston district; *F. A. Knight.*

Keynsham, in stream; *Misses Hele.*

South.

Yeovil; *Ponsonby.*

Taunton Canal; *W. Gyngell.*

Var. *ryckholti*, *Norman.*

Vauxhall, near Yeovil; *J. Ponsonby.*

SPHÆRIUM PALLIDUM, Gray.

Apparently a very rare and local species.

North.

Kennet and Avon Canal and River Avon; *B. B. Woodward.*

There are specimens from the Bath Canal in the museum at Bath. It is also recorded from the Kennet and Avon Canal by Stoddart in Leipner's list.

Weston district; *F. A. Knight.*

PISIDIUM AMNICUM, Müller.

Ponds, rivers, and canals. Locally abundant. Messrs. Kennard and Woodward record it from an alluvial deposit at Castle Cary, and I have seen it in peat at the Glastonbury Lake-village.

North.

Stream at Penselwood!

Ponds at Bratton St. Maur, and Brue below Castle Cary!

Weston district; *F. A. Knight.*

Bath; *Kenneth McKean.*

Clevedon and Nailsea; *Misses Hele.*

Bath; *Jenyms Coll.*

Ditches about Shapwick!

South.

No records forthcoming.

PISIDIUM HENSLOWIANUM, *Sheppard*.

Rare ?

*North.*Leigh Woods ; *Wheeler*.Kennet and Avon Canal ; *Stoddart*.Clevedon ; *Norman*.

Bratton St. Maur !

PISIDIUM SUBTRUNCATUM, *Malm* (= *Pisidium fontinale*, *Jeffreys*).

This species is probably not so rare as the records would lead one to expect.

*North.*Weston district ; *F. A. Knight*.Bath Canal ; *Kenneth McKean*.*South.*

Ditch near Minehead !

PISIDIUM PULCHELLUM, *Jenyns*.

Rare, except in the extreme north of the county.

There are specimens in the Museum at Bath that were collected by *Jenyns* in the vicinity of that city."In the larger and clearer of the rhines not uncommon ; fine in West Mead Rhine, Yatton" ; *Norman*.PISIDIUM PUSILLUM, *Gmelin* (= *Pisidium fontinale*, *Draparnaud*, of continental authors).

A small species which is probably often passed over for young of larger ones, and is presumably more widely distributed than the records indicate. Mr. Bolton found it in a shell-bearing deposit at Dumball Island, Avonmouth.

North."Common in grassy ditches, ponds and rhines. We have taken it of a very large size in the moor that stretches from Clevedon towards Portishead" ; *Norman*. (It may be inferred that the large specimens were the variety *grandis* ; *Adams*).Avonmouth and Bedminster ; *Cundall*.Bath ; *Jenyns*.

Rhines about Highbridge and other places on the Levels ! Penselwood !

Weston district ; *F. A. Knight*.

South.

Ditches at Dunster and Minehead ; *L. E. Adams and Charles Oldham.*

Dulverton ; *H. Watson.*

PISIDIUM NITIDUM, *Jenyns.*

Lakes and ponds. Local.

North.

"A large pond by the side of the railway at the third (?) bridge from Clevedon" ; *Norman.*

River Brue at Street ; *B. B. Woodward's List.*

Weston district ; *F. A. Knight.*

South.

Between Minehead and Watchet ; *Adams and Oldham.*

PISIDIUM OBTUSALE, *Pfeiffer.*

Shallow ponds and in ditches.

North.

Avonmouth ; *Cundall.*

"In a ditch near the Pill, Clevedon ; also in the pond near the Royal Hotel" ; *Norman.*

Kennet Canal ; *Stoddart.*

South.

Yeovil ; *J. Ponsonby.*

PISIDIUM GASSIESIANUM, *Dupuy* (= *Pisidium roseum*, *Jeffreys non Scholtz* ; = *Pisidium milium*, *Auctt. non Held*).

Ponds and pools. Uncommon.

North.

"In rhines near Burtle and also in a spring on Rowberrow Warren, near the south foot of Dolbury Camp ; *F. A. Knight.*

Weston district ; *F. A. Knight.*

In the larger rhines about Shapwick, Highbridge, etc. !

South.

Between Minehead and Watchet ; *Adams and Oldham.*

Ditch at Dunster in association with *P. fontinale* ; *Adams and Oldham.*

MARINE.

NUCULIDÆ.

NUCULA NUCLEUS, *Linné.*

Weston and Burnham. Frequent !
Clevedon ; *J. W. Cundall.*

ANOMIIDÆ.

ANOMIA EPHIPIUM, *Linné.*

A variable species. "In consequence of the lower valve being moulded on the extraneous bodies to which it is attached by the plug, the upper valve partakes of a corresponding impression, and the result is that the shell puts on a Protean variety of shape. Bouchard-Chautereaux says that out of two hundred specimens it is almost impossible to find two exactly alike. When a specimen is affixed to a Pecten, Astarte, or other ribbed shell, it is similarly sculptured. No less than thirty-four species have been made out of the one now described ; and naturalists of every country have had a hand in this wholesale manufacture" ; *Gwyn Jeffreys.*

Weston, Burnham, Minehead !

ARCIDÆ.

GLYCYMERIS GLYCYMERIS, *Linné* (= *Pectunculus glycymeris*, *Linné*).

The "Dog-cockle" of Da Costa. A gregarious species, generally diffused on sandy shores ; not common on the Somerset coast.

Between Brean and Burnham !

MYTILIDÆ.

MYTILUS EDULIS, *Linné.*

The common mussel. A favourite article of food in this and many other maritime countries. Frequent in the raised beaches and in the Burtle deposits. Mr. H. Corder reports its occurrence in the Burtle Beds at Perry Green, Wembdon.

About Weston-super-Mare and Burnham !

VOLSELLA BARBATA, *Linné* (= *Mytilus barbatus*, *Linné*).

Distinctive in the byssus, which resembles a bundle of fine tow.

Minehead. Uncommon!

Occasionally washed ashore between Brean and Burnham!

PTERIIDÆ.

PINNA FRAGILIS, *Pennant* (= *Pinna rudis*, *Linné*).

The "fan mussel" is one of our largest native shells, sometimes fifteen inches long and eight inches in breadth. I found a single specimen of moderate size amongst the débris on the foreshore beyond Birnbeck Cove, Weston-super-Mare, in June, 1910.

OSTREIDÆ.

OSTREA EDULIS, *Linné*.

The common oyster. It has been found in the raised beach at Woodsprings Hill, Weston, and Mr. Corder has notified its presence in the Burtle Beds at Perry Green, Wembdon. The dead shells, often bored by a species of sponge (*Cliona*), are frequent throughout the coast. Some more or less cylindrical forms which have been observed near Minehead come near to the variety *deformis*, *Lamarck*.

PECTINIDÆ.

PECTEN MAXIMUS, *Linné*.

The "grand-pélerine" or "palourde" of the fish markets of Northern France. Jeffreys remarks of it: "If the oyster is the king of the mollusks, this has a just claim to the rank and title of prince."

Coast between Brean and Berrow. Rare!

PECTEN PUSIO, *Linné*.

An odd valve on the shore at the extremity of Brean Down!

PECTEN VARIUS, *Linné*.

Not common. A form of this species was at one time given specific rank under the name of *P. niveus*; *Macgillivray*. Gwyn Jeffreys wrote: "I believe this varietal difference arises from habitat. The strong and few-ribbed *P. varius* lives on oyster-banks and rough ground on an exposed coast; while

the delicate and many-ribbed *P. niveus* is only found in sheltered locks and arms of the sea, moored by its strong byssus to the upper surface of the broad and smooth fronds of *Laminaria*." He also thought that the "variety *purpurea* forms another link in the chain of specific identity."

The type and both varieties occur on the Somerset coast about Minehead and Weston-super-Mare.

Mr. J. T. Marshall records in the *Journal of Conchology*, VIII, 340, the occurrence of the var. *purpurea* in the Bristol Channel, measuring three inches in length and $2\frac{1}{2}$ inches in breadth.

Type, coasts about Weston. Rare; *F. A. Knight*.
About Burnham and Berrow, rare, odd valves only!

PECTEN OPERCULARIS, *Linné*.

The commonest representative of the genus on our coast; easily distinguished from either of the preceding by its circular form, almost equal ears, and greater stature.

Burnham, Minehead, Weston. Uncommon!

ASTARTIDÆ.

ASTARTE SULCATA, *Da Costa*.

I found what appeared to be a worn valve of this species on the shore near Birnbeck Cove, Weston-super-Mare. It is not common in the south, excepting Milford Haven.

CYPRINA ISLANDICA, *Linné*.

Sands about Brean and Burnham!

LUCINIDÆ.

LORIPES LACTEUS, *Linné*.

A characteristic species of our muddy and sandy coasts.
Weston-super-Mare and Burnham!

LUCINA BOREALIS, *Linné*.

Another lover of muddy gravel and sand.
Burnham. Uncommon!

THYASIRA FLEXUOSA, *Montagu* (= *Axinus flexuosus*, *Montagu*).

Frequents soft mud and sand. "Young shells are globular, and the principal fold on the posterior side is visible in every

stage of growth. . . . The attachment of the ligament to the hinge is slight, which accounts for single valves being so frequently thrown up on the shore, or taken by the dredge in sandy bays"; *G. Jeffreys*.

Coasts about Burnham and Weston-super-Mare!

LEPTONIDÆ.

LASÆA RUBRA, *Montagu*.

Birnbeck Cove!

SCROBICULARIIDÆ.

SYNDOSMYA ALBA, *Wood* (= *Scrobicularia alba*, *Wood*).

Weston-super-Mare!

It is not infrequent in the Burtle Beds.

SCROBICULARIA PLANA, *Da Costa* (= *Scrobicularia piperata*, *Bellonius*).

Frequent at low-water mark in mud and clay. Mr. Herbert Bolton found it in a holocene deposit at Dumball Island, Avonmouth.

Weston-super-Mare; *F. A. Knight*.

Between Berrow and Burnham!

TELLINIDÆ.

TELLINA CRASSA, *Gmelin*.

Between Brean and Berrow!

TELLINA TENUIS, *Da Costa*.

Abundant along the coast in many parts. It occurs in the raised beach at Birnbeck Cove.

About Burnham and Berrow flats!

Weston-super-Mare; *F. A. Knight*.

MACOMA BALTHICA, *Linné* (= *Tellina Balthica*, *Linné*).

This is one of the commonest shells on the sands at Weston and between Brean and Burnham. It also occurs in the raised beaches at Woodspring Hill. Mr. Bolton has recorded it from a holocene deposit at Dumball Island, Avonmouth; and Mr. H. Corder informs me that he has found it in the Burtle Beds exposed by a roadside ditch at Perry Green, Wembdon.

According to the Conchological Society's List of British Marine shells, the type as it now stands is the var. *attenuata* of Jeffreys (see Vol. II, "British Conchology," p. 376), and what was formerly considered as the type is the var. *carriaria*, Pennant. The colour is very variable, "of all hues and shades, from milk-white to yellow or crimson, often relieved by narrow zones or concentric belts of a deeper tint, rarely pink in the earlier stages of growth and abruptly becoming white afterwards."

The var. *nivea*, Jeffreys, shell smaller and more compressed than the type, snow-white, is not infrequent on the coast about Weston-super-Mare.

MACTRIDÆ.

SPISULA SOLIDA, Linné (= *Mactra solida*, Linné).

Weston-super-Mare. Uncommon!

LUTRARIA ELLIPTICA, Lamarck.

Frequent in soft and slushy sand. The following observations by Montagu may be useful to those who wish to obtain living specimens:—"It is rarely obtained alive, except by digging, and that only when the tide is unusually low: their place of concealment is generally known by a dimple on the surface, through which they eject water to a considerable height, though the shell is frequently buried two feet beneath."

About Weston, and the coast between Brean and Burnham!

VENERIDÆ.

LUCINOPSIS UNDATA, Pennant.

About Burnham. Rare!

DOSINIA LUPINA, Linné (= *Venus linctæ*, Pulteney).

Same locality as the preceding. Rare!

VENUS GALLINA, Linné.

Between Burnham and Brean. Rare!

TAPES VIRGINEUS, Linné.

Burnham, Weston-super-Mare!

CARDIIDÆ.

CARDIUM ECHINATUM, *Linné*.

About Burnham and Minehead !

CARDIUM EDULE, *Linné*.

Our commonest representative of the genus. It occurs in all the raised beaches about Weston-super-Mare, and Mr. Corder reports its occurrence in the Burtle deposit at Wembdon.

Weston-super-Mare ; *F. A. Knight*.

About Berrow Sands and Burnham, Minehead, etc. !

GARIDÆ.

GARI DEPRESSA, *Pennant* (= *Psammobia vespertina*, *Chemnitz*).

The name *vespertina* is derived from the resemblance of the radiating coloured streaks on the shell to the rays of the setting sun. It is both regrettable and absurd that this well-established name is not allowed to stand.

Weston-super-Mare. Uncommon !

MYIDÆ.

CORBULA GIBBA, *Olivi*.

Gregarious in sand and mud.

About Burnham and Weston-super-Mare !

SOLENIIDÆ.

ENSIS ENSIS, *Linné* (*Solen ensis*, *Linné*).

The lesser razor-shell, described by Gwyn Jeffreys as "resembling in shape a French bean with the ends cut off"; he was alluding to the pod, not a single bean.

I have seen a few valves on the flats near Burnham.

ENSIS SILIQUA, *Linné* (= *Solen siliqua*, *Linné*).

The common razor-shell, so called from its shape ; frequent on all sandy shores.

About Burnham and Weston-super-Mare !

SAXICAVIDÆ.

SAXICAVA RUGOSA, *Linné*.

"On every part of our coast, from the Shetland to the Channel Isles, where there is limestone, chalk, or new-red

sandstone, all of which this species excavates. . . . The extent of its geographical range is almost unparalleled in the history of the Mollusca. It appears to have spread over the greater part of the globe, from one pole to the other"; *Gwyn Jeffreys*. An insignificant looking species, but of great interest on account of its boring propensities.

Clevedon and Minehead !

PHOLADIDÆ.

PHOLAS DACTYLUS, *Linné*.

This species bores into chalk, slate rock, new-red sandstone, marl, peat and submarine wood in the South of England, Bristol Channel, etc., burying itself 8, 10, or even 12 inches.

Clevedon !

BARNEA CANDIDA, *Linné* (= *Pholas candida*, *Linné*).

Differs from the preceding in being more convex and thinner, and having a single shield instead of four.

Weston-super-Mare ; *F. A. Knight*.

TEREDINIDÆ.

TEREDO MEGOTARA, *Hanley*.

This species is found not infrequently in floating timber (fir) washed ashore during the equinoctial gales on various parts of our coast, including the Bristol Channel.

DENTALIIDÆ.

DENTALIUM VULGARE, *Da Costa* (= *D. tarentinum*, *Lamarck*).

Weston-super-Mare !

PATELLIDÆ.

PATELLA VULGATA, *Linné*.

The common limpet. On rocks and stones between tide-marks ; one of the commonest and most plentiful of British marine shells. Much prized as an article of food by pre-historic man : shells are abundant in "kitchen middens" on the coast in many parts of Britain. Mr. St. George Gray records it from the excavations at Wick Barrow, Stogursey. Mr. Joseph Sinel records¹ some experiments which he carried

1. "Outline of the Natural History of our Shores," p. 203.

out with a view to ascertain the actual force with which a limpet clings to the rock: "It was found that limpets with the base one inch and a quarter by one inch—that is, giving an area of somewhat less than a square inch—came off at a pull of *seventy pounds!* Larger and smaller examples at the same proportion—that is, that the force by which they hold is nearly five times what would be the case if they held by suction only. Whether the rock was smooth (water-worn basalt) or somewhat rough (disintegrating granite) made no difference whatever."

Weston-super-Mare, Burnham, Clevedon, etc.!

PLEUROTOMARIIDÆ.

FISSURELLA GRÆCA, *Linné*.

Called, by Petiver, the "thimble limpet," possibly from its being open at the top, like a tailor's thimble.

Clevedon!

TROCHIDÆ.

GIBBULA CINERARIA, *Linné* (= *Trochus cinerarius*, *Linné*).

Mr. Corder records it from the Burtle Beds at Perry Green, Wembdon.

Weston-super-Mare!

GIBBULA UMBILICATA, *Montagu* (= *Trochus umbilicatus*, *Montagu*).

Burnham!

CALLIOSTOMA ZIZYPHINUS, *Linné* (= *Trochus zizyphinus*, *Linné*).

Clevedon!

LITTORINIDÆ.

LACUNA PARVA, *Da Costa* (= *Lacuna puteolus*, *Turton*).

On small seaweeds at low-water mark. Jeffreys records it for the Bristol Channel.

Clevedon!

LITTORINA OBTUSATA, *Linné*.

Mr. H. Bolton records its occurrence in the shell-bearing gravel at Dumball Island, Avonmouth.

Weston-super-Mare; *F. A. Knight*.

About Burnham, Minehead, etc.!

LITTORINA NERITOIDES, *Linné*.

Gwyn Jeffreys observes concerning this common species, that it is probably the only kind of *Littorina* common to the north and extreme south of Europe. Mr. Corder records it from the Burtle Beds at Perry Green, Wembdon.

Between Burnham and Breau, Minehead, etc. !

LITTORINA RUDIS, *Maton*.

Common, very plentiful on stony beaches. Mr. Bolton found it in the holocene deposit at Dumball Island, Avonmouth.

Weston-super-Mare ; *F. A. Knight*.

Minehead !

LITTORINA LITTOREA, *Linné*.

One of the commonest representatives of the genus. Jeffreys observes that the old English name of "periwinkle" is supposed to have been a corruption of petty winkle or wilk. Mr. H. Corder records it from the Burtle Beds at Perry Green, Wembdon.

Weston-super-Mare ; *F. A. Knight*.

RISSOIDÆ.

RISSOA PARVA, *Da Costa*.

Minehead !

ONOA STRIATA, *J. Adams* (= *Rissoa striata*, *J. Adams*).

Common under stones and amongst seaweeds.

Weston-super-Mare ; *F. A. Knight*.

ASSIMINEIDÆ.

PALUDESTRINA STAGNALIS, *Baster* (= *Hydrobia ulvæ*, *Pennant*).

This species occurs in extraordinary numbers on the mud flats at the mouths of all our tidal rivers. Mr. Corder records it from the Burtle Beds at Wembdon ; and Mr. Bolton, from a shell-bearing gravel at Dumball Island, Avonmouth.

Weston-super-Mare ; *F. A. Knight*.

"River mouths on the Somerset coast" ; *Norman*.

PALUDESTRINA VENTROSA, *Montagu* (= *Hydrobia ventrosa*, *Montagu*).

Abundant in brackish waters.

“Avonmouth, Shirehampton and Cook’s Folly”; *Cundall*.
 “In marvellous abundance in a ditch near the Pill, Clevedon”; *Norman*.
 Weston-super-Mare; *F. A. Knight*.

HOMALOGYRIDÆ.

HOMALOGYRA ATOMUS, *Philippi*.

Shell resembling in shape that of *Planorbis corneus*, but very minute.

Weston-super-Mare!

CYPRÆIDÆ.

TRIVIA EUROPÆA, *Montagu* (= *Cypræa europæa*, *Montagu*).

The European cowry. In the young state the shell is spiral. Frequent on stony ground. Shells have been rarely found on the coast about Weston-super-Mare; these, like the majority of the shells found on this coast, are dead ones washed in from the laminarian zone.

Weston-super-Mare. Rare; *F. A. Knight*.

NATICIDÆ.

NATICA CATENA, *Da Costa*.

Mr. H. Corder lists it from the Burtle Beds at Perry Green, Wembdon, near Bridgwater.

Near Burnham!

LAMELLARIIDÆ.

LAMELLARIA PERSPICUA, *Linné*.

Minehead!

VELUTINA LÆVIGATA, *Pennant*.

Minehead!

CERITHIIDÆ.

BITTIUM RETICULATUM, *Da Costa* (= *Cerithium reticulatum*, *Da Costa*).

Clevedon!

CERITHIOPSIS TUBERCULARIS, *Montagu*.

Clevedon and Minehead!

SCALIDÆ.

SCALA CLATHRUS, *Linné* (= *Scalaria communis*, *Lamarck*).

An inhabitant of the Bristol Channel. Dead shells are occasionally washed on the Somerset shore.

Clevedon!

PYRAMIDELLIDÆ.

ODOSTOMIA UNIDENTATA, *Forbes and Hanley*.

Minehead!

ODOSTOMIA PLICATA, *Montagu*.

Clevedon!

TURBONILLA LACTEA, *Linné* (= *Odostomia lactea*, *Linné*).

Birnbeck Cove, Weston-super-Mare!

EULIMIDÆ.

EULIMA POLITA, *Linné*.

A common species in muddy sand.

Weston-super-Mare, and about Burnham!

TURRITELLIDÆ.

TURRITELLA COMMUNIS, *Lamarck* (= *T. terebra*, *Linné*).

Weston-super-Mare!

BUCCINIDÆ.

BUCCINUM UNDATUM, *Linné*.

The common whelk. Common, in "every kind of ground, in all parts of the British seas, from the shore to the greatest known depth." Frequent in the raised beaches about Weston, and in the Burtle Beds at Wembdon and elsewhere.

Weston-super-Mare; *F. A. Knight*.

Burnham, Minehead, etc.!

MURICIDÆ.

OCINEBRA ERINACEA, *Linné* (= *Murex erinaceus*, *Linné*).

Mr. Corder has found it in the Burtle Beds at Perry Green, Wembdon.

Weston-super-Mare; *F. A. Knight*.

Burnham and Clevedon!

PURPURA LAPILLUS, *Linné.*

Mr. H. Corder records it from the Burtle Beds at Perry Green, Wembdon.

Weston-super-Mare ; *F. A. Knight.*

Burnham, Clevedon, Minehead, etc. !

The var. *elongata*, *S. Wood* (= *gracilis*, *Jordan*), has been recorded from Burnham by Bell, Jordan and others.

J. T. Marshall, in *Journ. Conch.*, vol. XIII, p. 195-196.

NASSIDÆ.

NASSA RETICULATA, *Linné.*

The "small lattic'd whelk" of old authors. Common in sand at low-water mark throughout the British coasts. Mr. Corder records it from the Burtle Bed deposit at Perry Green, Wembdon.

Weston-super-Mare, Burnham, Clevedon, etc. !

PLEUROTOMIDÆ.

BELA TURRICULA, *Montagu* (= *Pleurotoma turricula*, *Montagu*).

Weston-super-Mare !

BELA RUFÆ, *Montagu* (= *Pleurotoma rufa*, *Montagu*).

Weston-super-Mare and Clevedon !

HAEDROPLEURA COSTATA, *Da Costa* (= *Pleurotoma septangularis*, *Montagu*).

Clevedon !

MANGILIA GRACILIS, *Montagu* (= *Defrancia gracilis*, *Montagu*).

Weston-super-Mare !

TORNATINIDÆ.

TORNATINA TRUNCATULA, *Brugière* (= *Utriculus truncatulus*, *Brugière*).

Clevedon !

TORNATINA OBTUSA, *Montagu* (= *Utriculus obtusus*, *Montagu*).

Frequent in muddy estuaries and brackish waters. Mr. Corder reports it from the Burtle deposit at Perry Green, Wembdon.

Weston-super-Mare and Burnham !

Clevedon ; *J. W. Cundall.*

SCAPHANDRIDÆ.

SCAPHANDER LIGNARIUS, *Linné*.
Weston-super-Mare!

BULLINELLA CYLINDRACEA, *Pennant* (= *Cylichna cylindracea*, *Pennant*).

This species frequent in muddy sands on all our coasts is the *Cylindrella alba* of Swainson.

Weston-super-Mare!

PHILINIDÆ.

PHILINE APERTA, *Linné*.

This well-known British species is said by Gwyn Jeffreys to attain its largest dimensions in the Bristol Channel.

AURICULIDÆ.¹

LEUCONIA BIDENTATA, *Montagu* (= *Melampus bidentatus*, *Montagu*).

This species, the *Conorulus bidentatus* of Forbes and Hanley (IV, p. 191), is not uncommon at the mouth of the Avon.

"Banks of the Avon near Pill"; *Cundall*.

Var. *alba*, *Turton*.

Banks of the Avon near Pill; *Cundall*.

ALEXIA DENTICULATA, *Montagu* (= *Melampus denticulatus*, *Montagu*).

It is the *Melampus myosotis*, *Draparnaud*, var. *ringens*, *Turton*, which has been juggled into the above name! Forbes and Hanley record that "it is found in many localities, especially on the southern and western coasts of England," and mention the Avon, near Bristol.

"Banks of the Avon near Pill"; *Cundall*.

Var. *myosotis* *Draparnaud* (= *Melampus myosotis*, *Draparnaud*).

"Banks of the Avon near Pill"; *Cundall*.

1. The brackish-water members of this family are included by the Conchological Society in both their published lists of British Mollusca (marine and non-marine), but under different generic names! See *Auriculidæ* in the non-marine section of this paper, and note the absurd juggling of names! It is unfortunately a matter of common knowledge that these farcical re-christenings are taking place constantly in all departments of natural science.

INTRODUCED SPECIES.

UNSUCCESSFUL attempts have been made from time to time to introduce *Helix pomatia* into Somerset. Mr. Francis Knight informs me that he brought specimens from Bavaria in 1878 and turned them out in three places on Mendip. In his "Seaboard of Mendip" he observes that *H. pomatia* was "found in 1902 on Callow and near Cross. Perhaps descendants of specimens introduced in 1878." Specimens in the museum at Weston-super-Mare are said to have been taken in Weston Wood, but it cannot be doubted that they had been introduced there.

Many years ago I brought many specimens of *H. pomatia* and *H. cantiana* from Doddington, Kent, and turned them out on the Inferior Oolite at Bratton St. Maur. None of the latter were observed the following year or afterwards, and two years later only a dead shell of *H. pomatia* was forthcoming from the hedgebank in which they were placed. It is curious that *H. cantiana* did not survive, as it is abundant in some parts of the county.

Miss Hele informed Mr. John Taylor in 1881 that *Helicigona arbustorum* "is a difficult species to introduce into a fresh district,—I have again and again taken them from Bath and liberated them in different hedges round Bristol, but always unsuccessfully."

Mr. F. Knight brought *Unis tumidus* and *Unis pictorum* from Langport and turned them out on Western and at Maxmills; he also brought *Neritina fluviatilis* from the Brue to Weston Moor, and informs me that *Vivipara vivipara* is naturalised at Winscombe.

There are examples of *Physa heterostrophu*, Say, in the Jenyns Collection at Bath Museum, which were taken from a pond near that city. This species is an alien closely allied to if not identical with *Physa acuta*, Draparnaud, another alien which flourishes in one of the lily tanks at Kew, in warm water from a mill at Aberdeen, and a few other localities.

Concerning unsuccessful attempts at colonisation, Mr. H. Wallis Kew observes ("Dispersal of Shells," p. 183):—"It must be remembered that when thus carried by man they are generally put down in districts already well stocked, and the creatures in such cases are obviously less likely to survive than those which happen to be transported by natural means to poorly stocked regions or to newly formed and unoccupied islands."

ERRONEOUS RECORDS.

THE author of the article on Mollusca in the *Victorian History of Somerset* (1, 71) writes:—"Amongst records which cannot be accepted are those of *Vertigo substriata*, *V. alpestris*, *Succinea oblonga*, and *Assiminea grayana*. The last-named form is strictly confined to the Thames estuary, and its occurrence in a Somerset list must be due to a mis-identification. *Succinea oblonga* has only been doubtfully recognised amongst rejectamenta of the Brue, and if correct the specimen probably came from a Pleistocene deposit. *Vertigo substriata* is a mistaken identification of Miller's record of *Turbo sexdentatus*, which is *Vertigo antivertigo*, while *V. angustior* comes from a Gloucestershire locality."

If *V. angustior* is to be excluded on those grounds then we must also leave out *V. pusilla*, for both were obtained by Gwyn Jeffreys from rejectamenta of the Avon at Bristol. Certainly *Vertigo substriata* must be omitted. Through carelessness in not carefully looking up the record, I gave this species a place in my paper on Somerset Mollusca in the *Journal of Conchology*. For note concerning *Succinea oblonga* see p. 44.

Assiminea grayana is recorded for the Weston district by Mr. Francis Knight, and appears in many of the old lists of Somerset mollusca. Apparently Leipner was the first to assert that this species occurs in the Somerset Avon (see his list in which he gives it for ditches at Avonmouth). Cundall thought its inclusion to have been "in all probability the result of accident or error." I wrote to Mr. Knight about the Weston record and he replied: "With reference to *Assiminea grayana*, which I notice you do not admit except from the Thames, I had specimens from the shore at Uphill which were identified by a good conchologist, the late William Robinson, who, by the way, certainly obtained them elsewhere than the Thames estuary." In a further communication he remarked: "My reputed Uphill ones have not survived, and it will probably be wise not to accept them without more confidence." All the evidence is against the occurrence of this species in the West. It must be excluded.

A very curious *Arion*, which I found on a lawn at Wainsgrove, Grosvenor Square, Southampton, was figured and described by W. E. Collinge as a new species under the name of *Arion elongatus*, in the *Annals and Mag. of Nat. Hist.*, 1894,

p. 66, pl. 5A. Unfortunately the author stated that it was found at Wainsgrove, Somerset. The locality is rightly given in my paper on the variation and distribution of British Slugs in the second volume of the *Naturalists' Journal*, but it seems to have escaped the notice of subsequent writers on the British *Arionidæ*, and the error has been most unfortunately perpetuated by Taylor in his *Monograph* (II, 215), where it is recorded from Somerset under the name of *Arion hortensis*, var. *fasciata*, form *elongata*: and by Woodward, in the list in the *Victoria History of Somerset*, in which its specific rank is retained.

The appearance of *Cylichna alba*, a northern species, in Mr. F. Knight's list of Weston shells is probably due to a confusion of names. I imagine *Cylindrella alba*, Swainson (= *Cylichna cylindracea*, Pennant), is intended.

ADDENDA.

MR. H. L. F. GUERMONPREZ, of Bognor, writes :—" I find a list of Mollusca in a Clevedon Guide, copied from the *Clevedon Mercury* by Miss Lily Grey. It enumerates—

- Bithynia tentaculata*, ditches.
Planorbis corneus.
 „ *vortex*.
 „ *marginatus*.
Limnæa peregra.
Helix aspersa.
 „ *arbustorum*.
 „ *lapicida*, Walton Village.
 „ *virgata*, Court Hill.
 „ *caperata*.
 „ *ericetorum*.
 „ *revelata*.
Buliminus obscurus.
Zua lubrica.
Cyclostoma elegans.
Anodonta cygnæa.
Littorina rudis.
 „ *littoralis*, Clevedon Pill.
Cardium edule.
Buccinum undatum.
Purpura lapillus, under Church Hill."

The list is noteworthy in one particular, *viz.*, the record of *Hygromia revelata* for Somerset. This is a Lusitanian species occurring only (as far as Great Britain is concerned) in Devon and Cornwall. Wishing to obtain confirmation of the record I wrote to the Editor of the *Clevedon Mercury*, who replied : "The *Helix revelata* is mentioned in a Clevedon Guide published 30 years ago, the writer of which has been dead for some considerable time. Presumably 'Lily Grey,' who communicated this information to the *Clevedon Mercury* previous to that date, is dead also. Anyway we do not know her present address." It is probable that the shell in question was *Hygromia fusca*, for it is very unlikely that *H. revelata* occurs in North Somerset.

Vitrea radiatula was taken by Mr. Norman G. Hadden near Buncombe Roads in September, 1911.

There are small specimens of *Helicigona lapicida* (=var. *minor*, Moquin-Tandon) from Weston-super-Mare, in the British Museum.

Mr. John Taylor, in Part 19 of his *Monograph*,¹ describes and illustrates under the name of *fasciata* a new variety of *H. lapicida*, in which the shell shows spiral banding. In one form of it the band is single, and below the periphery (=subvar. *infraciata*), Taylor gives an illustration of a specimen found by the Rev. S. Spencer Pearce at Wells. The same form was taken in 1878 by Miss F. M. Hele in Leigh Woods.

1. Published February 16th, 1912. See p. 409.

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