

ADDITIONAL NOTES ON FOSSILS AT FAREHAM AND SOUTHAMPTON.

(Continued from Part II, page 31, and Part III, page 43.)

BY J. W. ELWES.

In continuation of some former remarks the following notes are added with regard to:—

I. FOSSILS OF THE LONDON CLAY AT FAREHAM.

Mr. R. B. Newton, of the British Natural History Museum, has kindly given much help in preparing the following list, the shells having been named chiefly from the Edwards collection. Mr. H. Keeping has also been so good as to add the names of several of which the author was unable to secure specimens.

With the object of comparing the faunas, the St. Denys species exhibited in the Hartley Institution have been added, some corrections of the list which was published in the *Geol. Mag.* (Dec., 1884) having been made. The *Pleurotomac* from the well on Southampton Common, which were not described when Mr. Prestwich published the list (*Q.J.G.S.*, vol. 3, 1847, have been placed in the last column. The collection from Crowd Hill, near Bishopstoke, was made by Mr. Rhodes, of the Geological Survey, and the author. The lists of fossils from Portsmouth Docks (Meyer, *Q.J.G.S.*, 1871—Beds with *Lingula* and *Dentalium*) should also be compared with the above.

The *Polyzoa* include a *Flustra*-like species, and another with a cylindrical branching stem; the latter bears two incrusting forms. These were found in the pebble bed, and appear to be new and undescribed.

The *Terebratula* is the subject of a communication to the *Yorkshire Phil. Soc. Rep.* (1888), by Mr. J. F. Walker, M.A., F.G.S.

The *Ostrea*, abundant at the pebble-bed, is referred with some doubt to *gryphovicina*.

The *Turritellae*, which abounded in bed 4, show a remarkable tendency to vary. Varieties of *T. imbricata*, with a marked ridge near the anterior margin of the whorl were frequent, affording a series of links with forms which approach closely to *T. carinifera* and *bicincta*.

One of the species of *Chrysodomus* has not been determined, and is perhaps new. The shell is thick and strongly built, with a row of large tubercles on the shoulder, and others less marked on the anterior portion of the whorl.¹

(1) FOSSILS OF THE LONDON CLAY AT			FAREHAM.				ST. DENYS	CROWD HILL	SO'TONWELL
			2	3	4	Sta.			
<i>Serpula</i>	..		*	*					
<i>Ditrupa plana</i> ..	Sby.		..	*	*	*	*	*	
<i>Membranipora Lecroixii</i>	Savig.		*	*					
<i>Polyzoa</i> , 4 sp. ..	..		*						
<i>Lingula tenuis</i> ..	Sby.		..	..	..	*			
<i>Terebratula bisinuata</i> ..	Lmk.		*	..	..	..	*		
<i>Anomia tenuistriata</i> ..	Desh.		..	..	..	*			
<i>Ostrea gigantea</i> ..	Sol.		..	..	..	*			
<i>O. gryphovicina</i> ..	S. Wood		*	..	..	..	*		
<i>O. flabellula</i> ..	Lmk.		..	*					
var. <i>modicella</i> ..	S. Wood		..	*	..	..	*		
<i>Pinna affinis</i> ..	Sby.		*	..	..	*	..	*	
<i>Arca tumescens</i> ..	Edw. M.S.		*						
<i>Arca</i> sp. .. .	..		*						
<i>Pectunculus brevirostris</i>	Sby.		..	..	..	*	*		
<i>P. decussatus</i> ..	Sby.		..	..	..	*			
<i>Nucula gracilentia</i> ..	S. Wood		*						
<i>Leda sub-striata</i> ? ..	Morris		..	*					
<i>Astarte tenera</i> ..	Sby.		..	..	..	*			
<i>Cardita Brogniartii</i> ..	Mantell		..	*	..	..	*	*	
<i>Corbula Arnouldii</i> ? ..	Nyst.		*						
<i>Panopæa intermedia</i> \ ..	Sby.		*	..	..	*	*	*	
<i>Pholadomya margaritacea</i>	Sby.		*	*	..	..	*	*	
<i>Teredo</i>	..		*	..	*	..	..	*	
<i>Protocardium plumstea</i>									
dianum	Sby.		..	..	..	*			
<i>P. Hornesi</i>	Desh.		..	*					
<i>Tellina</i>	..		..	..	..	*			
<i>Cyprina scutellaria</i> ..	Lmk.								
(planata Sby.)									
<i>C. Morrisii</i>	Sby.		..	..	*				
<i>Cytherea orbicularis</i> ..	Desh.		..	..	..	*			

¹ This form, however, is closely allied to a shell figured in Brown's Atlas of Fossil Conchology, and named *Murex torosus*.

(1) FOSSILS OF THE LONDON CLAY AT FAREHAM.

		FAREHAM.				ST. DENYS.	CROWD HILL	SOTONWELL
		2	3	4	Sta.			
<i>C. obliqua</i>	.. ..	Desh.						
<i>C. suessoniensis</i>	.. ..	Desh.	*	*				
(<i>tenuistriata</i> Sby.)								
<i>Dentalium nitens</i>	.. ..	Sby.	..	*				
<i>Bulla</i>	.. ..		*					
<i>Phorus extensus</i>	.. ..	Sby.	*					
<i>Rimella lucida</i>	.. ..	Sby.	*	*	..	*	*	
<i>Vermetus Bognoriensis</i>	.. ..	Sby.	..	..	..	*		
<i>Trochita aperta</i>	.. ..	Sol.	*	..	..	*		
<i>Turritella terebellata</i>	.. ..	Lmk.	..	*	..	*	*	
<i>T. imbricata</i>	.. ..	Lmk.	*	*	*	..	*	
and vars.	.. ..		..	*				
<i>Aporrhais Sowerbyi</i>	.. ..	Mantell	..	..	..	*		
<i>Cypraea oviformis</i>	.. ..	Sby.	*					
<i>Solarium bistratum</i>	.. ..	Desh.	..	..	..	..	*	
<i>Natica subdepressa</i>	.. ..	Morris	*	*	..	*	*	
<i>N. labellata</i>	.. ..	Lmk.	*	*	*	..	*	
<i>N. 2 sp.</i>	.. ..							
<i>Pyrula Smithii</i>	.. ..	Sby.	*	*	..	*		
<i>Triton Morrisii</i>	.. ..	Edw. M.S.						
<i>Cassidaria nodosa</i>	.. ..	Sol.	*					
<i>C. striata</i>	.. ..	Sby.						
<i>Voluta elevata</i>	.. ..	Sby.	*	*				
<i>V. denudata</i>	.. ..	Sby.	..	..	..	*		
{ <i>Leiostoma globatum</i>	.. ..	Desh.	..	*				
{ <i>L. attenuatum</i>	.. ..	Edw. M.S.						
<i>Chrysodomus bifasciatus</i>	.. ..	Sby.	..	*				
<i>C. crebrilinea</i>	.. ..	Edw. M.S.	*	*	..	..	*	
<i>C. sp. nov?</i>	.. ..							
<i>Trophon tuberosum</i>	.. ..	Sby.	..	*				
<i>Pisania Morrisii</i>	.. ..	Edw. M.S.	*	..	*	..	*	
<i>P. sublamellosa</i>	.. ..	Desh.	..	*	..	..	*	
<i>P. cymatodis</i>	.. ..	Edw. M.S.	..	*	..	..	*	
<i>P. transversaria</i>	.. ..	Edw.	..	*	..	..	*	
<i>Cominella</i>	.. ..							
<i>Cancellaria laevinscula</i>	.. ..	Sby.	*	..	*	..	*	
<i>Murex subcristatus</i>	.. ..	D'Orb.						
<i>M. spinulosus</i>	.. ..	Desh.	*	..	..	*	..	
<i>Pleurotoma stena</i>	.. ..	Edw.	..	*	..	*	..	*
<i>P. teretrium</i>	.. ..	Edw.	*	*	..	*	..	*
<i>P. Keelei</i>	.. ..	Edw.	..	..	?	..	..	*
<i>P. terebralis</i>	.. ..	Lmk.						
var. <i>gyrata</i>	.. ..	Edw.	*	*	..	..	*	*
<i>P. near to granata</i>	.. ..	Edw.	*					
<i>P. simillima</i>	.. ..	Edw.	..	*	..	..	..	*
<i>P. flexuosa</i>	.. ..	Münster	..	*	..	..	..	*
<i>P. near to Wetheralli</i>	.. ..	Edw.	..	*	..	..	..	*
<i>P. crassa</i>	.. ..	Edw.	..	*	..	*	..	*
<i>Nautilus</i>	.. ..							
<i>Otolith</i>	.. ..		..	*				
<i>Lamna teeth</i>	.. ..							

II. FOSSILS OF THE BRACKLESHAM BEDS AT SOUTHAMPTON.

Cerithium Dixoni Desh. was omitted from the list published in the paper on the Dock Excavation (H.F.C. Proc. No. III), and the following species were found later in the *Sanguinolaria* bed:—*Pleurotoma goniaea* Edw., *Metula juncea*, Sby. *Voluta scabricula* Sol., and a small *Mitra*. The occurrence of *P. goniaea* is of interest, as it has been found at Stubbington (bed f).

A collection has lately been added to the Hartley Museum from the bed at Freemantle, including *Nummulites laevigatus*. Mr. J. E. LeFeuvre is the donor, and the specimens were obtained many years ago when the railway was being made.

The following association of species in the Dock beds, reminding one of a similar assemblage in the Headon beds, seems worth noting. *Cantharus polygonus* is closely related to the rare *C. subcostatus* of the Headon; *Ostrea zonulata* is scarcely distinct from *O. velata*; *Cerithium Dixoni* represents *C. pyrgotum*, etc. The *Voluta spinosa* of the Headon beds (sometimes referred to *V. depauperata*) is a variety which frequently retains the colour markings, rarely found in the *V. spinosa* of the Bracklesham. The *Sanguinolariæ* (*Hollowaysii* and *compressa*) are nearly related, and other such examples might be quoted. The descendant species and varieties and their probable ancestors are thus associated at different periods of time.
