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**CLASSIFIED LIST OF ORGANIC REMAINS FROM THE ROCKS OF THE
EAST RIDING OF YORKSHIRE.**

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Notes

CLASSIFIED LIST OF ORGANIC REMAINS FROM THE ROCKS OF THE
EAST RIDING OF YORKSHIRE.

BY HENRY C. DRAKE, F.G.S., AND THOMAS SHEPPARD, F.G.S.

(*Read 4th March, 1909; Manuscript received 4th March, 1909.*)

This list has been compiled in order to aid future workers amongst the rocks of the East Riding by placing in a convenient and compact form all the various and scattered records that have been published. In addition, a number of species is now placed on record for the first time.

In the case of some of the beds which have been described, and from which lists of fossils have been published over and over again, the latest complete list in each instance has been recorded. In this way errors of former lists do not now find a place (unless the errors are indicated).

In the same way the question of nomenclature has to a large extent been simplified, as the more recent lists are usually the more up to date as regards the names. The present compilers have not, of course, attempted the almost hopeless task of endeavouring to give to each species recorded the name which, for the moment, is considered to be the correct one. Had this been done, many names in the following tables would only with difficulty be identified with those in the previously published lists.

By means of the following lists not only is it easy to ascertain whether a given species has been previously recorded for a given stratum, or in a given area, but a reference to the authority and the place of publication is also given.

By the "East Riding" the Parliamentary division is referred to, i.e., the area south of Filey ravine, south-east of York, and east of Selby.

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It would be useful if similar lists were prepared for other divisions of the county.

The lists are given under the following heads, and at the beginning of each is a bibliography :—

- 1.—Post-glacial, including beds of silt, peat, and old lacustrine deposits, resting upon the Boulder Clay.
- 2.—Glacial, including boulder clay, the basement portion of which is fossiliferous ; the so-called “ Bridlington Crag ” ; the so-called “ interglacial ” gravels of Holderness ; and the deposits at Elloughton and Bielbecks.
- 3.—Pre-glacial, the deposits beneath the Boulder Clay at Hessle and Sewerby.
- 4.—The Upper Chalk of Flamborough Head and The Wolds.
- 5.—The Middle Chalk of Flamborough Head and The Wolds.
- 6.—The Lower Chalk at Speeton, Melton Bottoms, and in the railway cuttings near South Cave.
- 7.—The Red Chalk exposed at Speeton, Melton, Welton, and the South Cave railway cuttings.
- 8.—The Speeton Clay.
- 9.—The Portlandian of Judd at Speeton.
- 10.—The Kimeridge Clay at Speeton.
- 11.—The Corallian Rocks at Langton Wold, North Grims-ton, and Settrington.
- 12.—The Oxford Clay at South Cave.
- 13.—The Kellaways Rock in the cutting at South Cave.
- 14.—The Millepore Oolite at South Cave.
- 15.—The Lias (Upper, Middle, and Lower) exposed near Market Weighton and North and South Cave.

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POST-GLACIAL.

BIBLIOGRAPHY.

1. F. W. MILLS and R. H. PHILIP's "Diatomaceæ of the Hull District," Trans. Hull Scientific and Field Nat. Soc., Vol. I., 1901, pp. 157-224.
2. CLEMENT REID'S "Geology of Holderness" (Survey Memoir).
3. J. C. HAWKSHAW. "Notes on the Peat, etc., observed during the construction of the Albert Dock, Hull," Q.J.G.S., Vol. XXVII., 1871, p. 237.
4. Professor J. PHILLIPS. "Geology of the Yorkshire Coast," 3rd Edition, 1875.
5. A. G. NATHORST. "Berättelse, afgifven till Kongl Vetenskaps-Akademien om en med understöd af allmänna medel utförd vetenskaplig resa till England," Oversigt af Kongl Vetenskaps Akad Förhandlingar, 1880.
6. E. P. BLACKBURN. "The Naturalist," 1904, p. 367.
7. T. PETCH. Hull Scientific and Field Nat. Soc. Transactions, Vol. 3, Pt. 2, 1904, p. 121.
8. E. T. NEWTON. Geol. Mag., Feb., 1901, p. 49.
9. T. SHEPPARD. "Geological Rambles in East Yorkshire," 1903.
10. Specimens in Hull Museum.
11. T. SHEPPARD. "On a Section in the Post-glacial Deposits at Hornsea," "The Naturalist," 1906, p. 420.
12. "The Lake Dwellings in East Yorkshire." Proc. Yorks. Geol. Soc., 1889.
13. Rev. W. C. HEY. "The Naturalist," Vol. 12, p. 374.
14. "The Naturalist."
15. Reports of Yorkshire Philosophical Society.
16. Collected by H. C. DRAKE, F.G.S., new dock extension, Hull, 1908.
17. Rev. E. M. COLE. "Peat Deposit at Filey," "The Naturalist," Jan., 1891, p. 17.
18. G. W. LAMPLUGH. "The Naturalist," Jan., 1910, p. 7.

POST-GLACIAL.

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NAME	INSECTA.	Other Localities and Remarks											
		Filey, 17.	3	etc.	Hull Docks.	Withernsea.	Ulrome.	Holmpton.	Sand-le-Mere.	Kelsey Hill.	Skipssea.	Bridlington.	Hornsea.
Coleoptera
<i>Donacia</i> , sp.	11	2	...	...	...	...	...	...	...	...	...	...
<i>Gyrinus</i> , sp.
<i>Pterostichus</i> , sp.
<i>Agabus</i> , sp.
CRUSTACEA.													
<i>Cypris</i> , sp.	11	2	...	...	...	...	...	...	...	...	...	...
" <i>compressa</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
" <i>gibba</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
" <i>reptans</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
<i>Cypridopsis obesa</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
<i>Candona detecta</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
" <i>albicans</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
" <i>lacea</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
<i>Limnicythere inopina</i>	...	2	2	...	...	...	...	...	...	...	...	...	...
<i>Cytheridea lacustris</i>	2	2	...	...	...	...	...	...	...	...	...	...
<i>Spongilla</i>	11	...	...	...	...	...	...	...	...	...	...	...
MOLLUSCA.													
<i>Anodonta</i> , sp.	2	5	7
" <i>aygnea</i>	11, 4, 2

Owthorne, 4; Mapleton, 7 (Unio)
Hornsea, 11; Dimlington ? 11.

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<i>Anodonta anatina</i>	...	2	5	...	2	...	2
<i>Bythina</i> , sp.	...	11, 2, 7	13, 7	2, 4, 6, 7	6	...	2, 7
" <i>tendaculata</i>
" <i>leachii</i>
<i>Bullina obtusa</i>
<i>Cochlicopa habrica</i>	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Cyclas</i> , sp.	...	2	5	...	2, 4	...	2	2	...	...	...	...	...	...	...
" <i>cornuta</i>	...	2	...	...	2, 4	...	18	...	...	...	...	...	...	...	...
" <i>lacustris</i>	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...
<i>Limnea</i> , sp...	...	2	...	...	6, 7	...	2, 7	7	7	7	7	7	7	7	7
" <i>peregra</i>	...	11, 2, 7, 9	5, 13, 2, 7	...	...	...	...	...	...	...	...	...	...	...	...
" <i>palustris</i>	...	11, 7, 9	13, 7	...	...	...	...	...	...	...	...	...	...	...	...
" <i>auricularia</i>	...	11, 7	13, 7	...	...	...	...	...	...	...	...	...	...	...	...
" <i>truncatula</i>	...	...	7, 4, 2	2, 6, 7	...	...	7	...	...	...	...	...	...	...	...
" <i>stagnalis</i>	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Pisidium fontinale</i>	...	11, 9	7, 6	...	2	...	2, 7	7	7	7	7	7	7	7	7
" <i>pusillum</i>	...	2, 11	13	6, 7	...	...	...	...	...	...	...	...	...	...	...
" <i>nitidum</i>	...	11	11	...	...	...	...	...	...	...	...	...	...	...	...
" <i>milium</i>	...	11	11	...	...	...	...	...	...	...	...	...	...	...	...
" <i>peregra</i>	...	2	...	...	6, 7	...	5	...	...	...	...	...	...	...	...
" <i>roseum</i>	...	2	...	...	5	...	7	...	...	...	...	...	...	...	...
" <i>sp.</i>	...	2	...	...	7	...	7	...	...	...	...	...	...	...	...
<i>Planorbis albus</i>	...	11	...	...	7	...	7	...	...	...	...	...	...	...	...
" <i>naufragium</i>	...	11, 2	...	...	13	...	13	...	...	...	...	...	...	...	...
" <i>parvus</i>	...	11	...	...	13	...	13	...	...	...	...	...	...	...	...
" <i>spirorbis</i>	...	11	...	...	13	...	13	...	...	...	...	...	...	...	...

Dimlington, 7;
Mapleton and At-

Withernsea, 2;
Nevill's Dyke, 7;
Atwick, 7.

South of Withern-
sea, 7; Kilnsea,
7; Atwick, Bas-
ington, Nevill's
Dyke, Mapleton,
7.

Mapleton and At-
wick, 7.

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PLANTÆ.					
<i>Tellina balthica</i>	2, 3, 16
" <i>solidula</i>	2, 3
<i>Sericocularia piperata</i>	2, 3, 16
" <i>plana</i>	2, 3, 16
<i>Mitius edulis</i>	...	...	...	...	...
<i>Pinus sylvestris</i>	...	2	...	...	2, 3 and near Burton Pidsea, 10.
<i>Alnus glutinosa</i>	...	2	...	...	2, 3
<i>Quercus robur</i>	...	2	...	...	2, 3
<i>Salix</i> , sp. ...	2, 11	...	...	...	...
<i>Prunus padus</i>	2	...	...	...	...
<i>Corylus avellana</i>	...	...	...	...	...
<i>Betula nana</i>	5	...	...	2	...
<i>Juncus</i> , sp. ...	...	...	...	2	...
<i>Carex</i> , sp. ...	11	...	...	2	...
<i>Potamogeton</i> , sp.	11, 2	5	...	2	...
" <i>ef. natans</i>	11	...	...	...	...
<i>Viola palustris</i>	11	...	...	...	...
<i>Hippuris vulgaris</i>	11	...	...	...	...
<i>Ptenella</i> , sp.	11	...	...	...	...
<i>Ranunculus</i> , sp.	11	...	...	...	...
<i>Myriophyllum</i> ?	...	5	...	...	...
<i>Hottonia</i> , sp. ?	...	5	...	2	...
<i>Chara</i> , sp. ...	11, 2	...	...	...	...
<i>Polytrichum commune</i>	Filey, 17.
<i>Sphagnum acutif. lumen</i>	Filey, 17.
<i>Musci</i> ?	sp.	Filey, 17.

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NAME.	Other Localities and Remarks.
<i>Melosira roseana</i> ...	Filey, 17.
", <i>arenaria</i> ...	Filey, 17.
", <i>granulata</i> ...	Filey, 17.
<i>Cyclotella anisiqua</i> ...	Filey, 17.
<i>Amphitearas anediluviana</i> , ...	Filey, 17.
<i>Coscinodiscus oculus iridis</i> ...	Filey, 17.
DESMIDÆ.	
<i>Calocylindrus palanguta</i> ...	Filey, 17.
", var. <i>de baryi</i> , ...	Filey, 17.
<i>Cylindrocystis diplospora</i> (?)	Filey, 17.
<i>Conteria</i> , sp. ...	Filey, 17.
<i>Penium brebissonii</i> , ...	Filey, 17.
", <i>truncatum</i> , ...	Filey, 17.
", sp. ...	Filey, 17.
<i>Cosmarium homalodermum</i> , ...	Filey, 17.
", <i>globosum</i> (?)	Filey, 17.
", <i>crenatum</i> ...	Filey, 17.
", <i>undulatum</i> ...	Filey, 17.
", <i>obliquum</i> (?)	Filey, 17.
OTHER ALGÆ.	
<i>Merismopedia glauca</i> ...	Filey, 17.
<i>Oscillaria</i> , sp. ...	Filey, 17.
<i>Conteria tenerima</i> ...	Filey, 17.
<i>Aphanocerosa</i> , sp. ...	Filey, 17.
<i>Aphenatheca</i> ? sp. ...	Filey, 17.
Hull Docks. etc.	Hull Docks. etc.
Withernsea.	Withernsea.
Ulrome.	Ulrome.
Holmpton.	Holmpton.
Sand-le-Mere.	Sand-le-Mere.
Kelsay Hill.	Kelsay Hill.
Stokesay.	Stokesay.
Bridlington.	Bridlington.
Hornsea.	Hornsea.

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GLACIAL.

BIBLIOGRAPHY.

1. CLEMENT REID, "Geology of Holderness," Memoir Geological Survey.
2. Collected by GEORGE SHEPPARD, and noted in "The Naturalist," April, 1908, p. 158.
3. G. W. LAMPLUGH, in Quart. Journ. Geol. Soc., August, 1891, p. 384.
4. Dr. SORBY. "Foraminifera collected from Bridlington Crag," Geol. Mag., August, 1864.
5. J. R. DAKYNS and C. FOX STRANGWAYS. Memoirs Geological Survey.
6. Yorkshire Philosophical Society Reports.
7. Professor J. PHILLIPS. "Geology of Yorkshire Coast," 3rd Edition, 1875.
8. T. SHEPPARD. "Interglacial Gravels of Holderness," Proc. Yorks. Geol. Soc., 1895, p. 1.
9. Hull Museum.
10. T. SHEPPARD. "Geological Rambles in East Yorkshire," 1903.
11. "Naturalist," 1907-1908.
12. S. P. WOODWARD. "On the Bridlington Crag," Geol. Mag., 1864.
13. EDWARD TINDALL, Geol. Mag., Sept., 1864, and T. SHEPPARD, "The Naturalist." May, 1904, p. 142.
14. SEARLES V. WOOD, jun. "The Bridlington Crag," Geol. Mag., Nov., 1864.
15. Report British Association, 1907, p. 327.
(See also Kendall and Lydekker, in "Victoria History of Yorkshire," Vol. 1.)

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NAME.	Kelcay Hill.	Burstwick.	Brandeburton.	Elloughton.	Biebeck.	Other Localities.
VERTEBRATA.						
<i>Elephas primigenius</i> (mammoth)	...	1	8, 10	1	9, 10	7
" <i>antiquus</i>	9, 10	...
" sp. ?	15
<i>Cervus tarandus</i> (reindeer)	...	1	...	9, 10	...	
" <i>megaceros</i> (Irish "elk")	
" <i>elaphus</i> (red deer)	8, 10	...	7	
" sp.	8, 10	...	9	Pocklington, 6.
<i>Bison priscus</i>	9, 10	15
<i>Bos primigenius</i>	1, 9	9	7	Middleton, 6.
" <i>taurus</i> (ox)	8, 10	...	9, 10	9, 15
" sp. ?	8, 10	...	...	...
<i>Equus caballus</i> (horse)	15
" sp. ?	9, 10	9
<i>Rhinoceros leptocephalus</i>	1	...	7	Settrington, 6.
" <i>tichorhinus</i> (= <i>antiquitatis</i>)	
<i>Felis spelaea</i> (lion)	9
<i>Canis lupus</i> (wolf)	7	
<i>Hyena</i> sp.	
<i>Trichechus rosarius</i> (wairus)	1, 9	
INSECTA (Coleoptera).						
<i>Chrysomela</i> sp.	7
<i>Donacia</i> sp. ?	15
<i>Hister</i> sp. ?	15

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NAME.	Other Localities.			
	Bridlington.	Dimlington.	Kelsey Hill.	Burtonwick.
VERTEBRATA.				
(Probably those at Bridlington and Dimlington are derived from Crag, Eocene, or older Rocks).				
<i>Carcharodon</i> (teeth), and other sharks	1, 3	...	...	...
<i>Chrysophris</i> (teeth)	1, 3	...	...	...
<i>Lamna subulata</i> , Ag. (teeth)	1	...	...	...
" sp. " "	1, 3	...	...	...
<i>Myllobatis</i> (teeth)	1, 3	...	...	...
<i>Noiodamus microdon</i> , Ag. (teeth)	1, 3	...	...	...
<i>Ocyrhina</i> (teeth)	1, 3	...	...	...
<i>Platix woodwardi</i> ? Ag.	1, 3	...	...	...
<i>Raia batis</i> , Mont. (teeth)	1, 3	...	...	...
Otoliths of Gadoid fish	1, 3	...	...	...
Fish vertebrae...	1, 3	...	1, 9	...
" "	1, 3	...	...	...
<i>Plesiosaurus</i> ...	1	...	...	...
Ruminant, fragment of tooth	1, 3	...	...	...
<i>Ursus arctos</i> ...	1, 13, 9	...	...	...
ECHINODERMATA.				
Undetermined spines, &c. " "	3, 1, 4	1	2	...
<i>Echinocardium</i> (<i>Amphidetus</i>) <i>cordatum</i> , Penn.	6
<i>Strongylocentrotus drobachiensis</i> , Müller	6

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Cheela of crab	CRUSTACEA.	
	CIRRIFEDIA.	EXTROMOSTRACA.							
<i>Balanus crenatus</i> , Brug.	3, 1	1	1	1	8	1	Barf Hill.
" <i>Nameri</i> , Asc.	3, 1	1	1	1	...	1	Barf Hill.
" <i>porcatus</i> , da'C.	3, 1	1	2, 1	...	...	5	Kell, 1 Barf Hill.
<i>Verrica strömia</i> , Müll.	3, 1	...	...	...	...	...	...
<i>Cythere annulata</i> , G. O. Sars									
" <i>concinna</i> , Jones	4, 1	1	1	1	...	...	...
" <i>costata</i> , Brady	3, 1	1	1	1	...	...	...
" <i>cirrosa</i> , B., C. & R.	4, 1	1	1	1	...	...	...
" <i>dunelmensis</i> , Norman	3, 4, 1	1	1	1	...	...	...
" <i>emarginata</i> , G. O. Sars	4, 1	1	1	1	...	...	...
" <i>fimbriata</i> , Norman	4, 1	1	1	1	...	...	...
" <i>globulifera</i> , Brady	4, 1	1	1	1	...	...	...
" <i>honesii</i> , Baird, var. <i>ceratoptera</i>	1	1	1	...	...	...
" <i>leidderma</i> , Norman	4, 1	1	1	1	...	...	...
" <i>mc ochesneyi</i> , B. & C.	4, 1	1	1	1	...	...	...
" <i>mirabilis</i> , Brady	3, 4, 1	1	1	1	...	...	...
" <i>tuberculata</i> , G. O. Sars	3, 4, 1	1	1	1	...	...	...
" <i>vellosa</i> , G. O. Sars	3, 4, 1	1	1	1	...	...	...
<i>Cytheridea elongata</i> , Brady									
" <i>papillosa</i> , Bosquet	3, 4, 1	1	1	1	...	...	...
" <i>punctilata</i> , Brady	4, 1	1	1	1	...	...	...
" <i>sorbyana</i> , Jones	3, 4, 1	1	1	1	...	...	...
<i>Cytheropteron angulatum</i> , B. & R.									
" <i>latisinum</i> , Norman	3, 4, 1	1	1	1	...	...	...
" <i>nodosum</i> , Brady	4, 1	1	1	1	...	...	...
<i>Cytherura clathrata</i> , G. O. Sars									
<i>Eucythere argus</i> , G. O. Sars	4, 1	1	1	1	...	...	...
<i>Krithe glacialis</i> , B., C. & R.	3, 4, 1	1	1	1	...	...	...
<i>Paradoxozonoma ensiforme</i> , Brady	4, 1	1	1	1
" <i>pyriforme</i> , B., C. & R.	4, 1	1	1	1
<i>Sclerochilus contortus</i> , Norman	4, 1	1	1	1

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NAME.	Bridlington.	Dymington.	Kelsey Hill.	Burscough.	Other Localities.
PORYPODA.					
Undetermined
An Escharoid Polyzoan
BRACHIOPODA.					
<i>Crania</i> sp.	4, 1	...
<i>Rhynchonella pritacea</i> , Chemn.	2
<i>Terebratula caput-serpentis</i>
LAMELLIBRANCHIATA.					
<i>Anomia ephippium</i> , L.	3, 1, 5, 7	1	2, 4
" " var. <i>aculeata</i>	3, 1, 5	...	...
" " var. <i>squamula</i>	3, 1, 5	...	...
<i>Astarte borealis</i> , Chemn.	3, 5, 1, 7	1	1
" " var. <i>madabie</i>	3, 5, 1, 7	1	8
" " var. <i>whithami</i>	3, 5, 1, 7	1	...
" " <i>compressa</i> , Mont.	3, 5, 1, 7	1	...
" " var. <i>striata</i>	3, 5, 1, 7	1	...
" " <i>depressa</i> , Brown	5, 1	1	...
" " <i>suicata</i> , da C.	3, 5, 1, 7	1	...
" " var. <i>elliptica</i>	3, 5, 1, 7	1	...
<i>Axonopsis orbicularis</i> , G. O. Sars	3, 5, 1	...	...
<i>Cardita borealis</i> , Conrad = <i>Cyclocardia borealis</i>	3, 5, 1, 7	2	...
<i>Cardium echinatum</i> , L.	5, 7, 1	1	8
" <i>edule</i> , L.	5, 7, 1	2, 1	...
" <i>granulatum</i> , Chemn.	3, 6, 1	1	...

<i>Cardium islandicum</i> , L.	...	...	3, 5, 1, 7	1	...	...	...	1 Barf Hill, Burghall.
" <i>exiguum</i> , Gmel.	...	...	3, 5, 1, 7	...	1	...	...
<i>Corbula gibba</i> , Oliv.	...	...	3, 5, 1	...	...	...	...
" <i>pusilla</i> , Philippi.	...	...	3, 5, 1	...	...	...	...
<i>Crenella decussata</i> , Mont.	...	...	3, 5, 1	1	...	...	...	5 Brandesburton, etc., Kelk, Kilham, and Keyingham.
<i>Cyprina islandica</i> , L.	...	...	3, 5, 1, 7	1	1	1	8	
<i>Cyrena (Corbicula) thominialis</i> , Müll.	...	...	5, 7, 1	...	1	1	...	
<i>Donax vitreus</i> , da'C.	...	...	3, 5, 1	...	...	...	...
<i>Leda intermedia</i> , M. Sars	...	...	3, 5, 1	...	...	...	...
" <i>lenticula</i> , Mol.	...	...	3, 5, 1	...	...	...	...
" <i>lemairei</i> , SAY.	...	...	3, 5, 1, 7	...	...	...	...
" <i>minuta</i> , Müll.	...	...	3, 5, 1, 7	...	...	...	...
" " <i>var. buccata</i>	...	...	5, 1, 7	...	...	...	...
" <i>pernuta</i> , Müll.	...	...	5, 1	1	...	...	...
" <i>tenuis</i>	...	...	3, 5, 1	...	...	...	...
<i>Lutraria elliptica</i> , Lam.	...	...	3, 5, 1, 7	1	1	1	8	
<i>Mactra solida</i> , L. var. <i>elliptica</i>	...	...	3, 5, 1, 7	...	1	1	8	
" <i>subtruncata</i> , da'C.	...	...	3, 5, 1, 7	...	...	...	...
" <i>ovata</i>	...	...	3, 5, 1	...	...	...	...
" <i>ovalis</i>	...	...	3, 5, 1	...	...	...	...
<i>Montacuta dawsoni</i> , Jeffreys	...	...	3, 1, 5, 7	...	...	...	...
<i>Mya arenaria</i> , L.	...	...	5, 7	...	...	...	...
" <i>truncata</i> , L.	...	...	3, 5, 1, 7	1	1	1	8	5 Kelk, Nafferton, Barf Hill.
" " <i>var. vadavallensis</i>	...	...	3, 5, 1	...	...	...	...
<i>Mytilus edulis</i> , L.	...	...	3, 1, 5, 7	1	1	1	8	5 Kilham, Nafferton.
" <i>modicus</i> , L.	...	...	5, 1, 7	1	1	1	8	
<i>Nucula cochlidiae</i> , Leethes	...	...	3, 1, 5, 7	1	1	1	8	
" <i>tenuis</i> , Mont.	...	...	5, 1, 7	...	...	...	...
" " <i>var. inflata</i>	...	...	5, 1	...	...	...	...
<i>Pecten islandicus</i> , Müller	...	...	3, 1, 5	1	1	1	8	
" <i>opercularis</i> , L.	...	...	3, 1, 5, 7	...	...	...	...
" <i>pes-latre</i> , L.	3, 1, 5	
<i>Pectunculus glycmeris</i> , L.	3, 1, 5, 7	1	1, 2	1	8	
<i>Pholas crispata</i> , L.	3, 1, 5, 7	1	1	1	8	

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NAME.	Bridlington.	Drimlington.	Krelsey Hill.	Burstwick.	Other Localities.
<i>Sarcava norvegica</i> , Spengler	5, 1, 7 5, 1, 7	1 1	...	...
" <i>riugosa</i> , L.	
" <i>arctica</i> , L.	1	...	
<i>Solen ensis</i> , L.	
" <i>siliqua</i> ? L.	3, 5	...	
<i>Tellina balthica</i> , L.	
" <i>calcaria</i> , Chennai.	...	3, 5, 1, 7	1	...	
" <i>obliqua</i> , J. Sow.	...	5, 1	1	...	
" <i>pusilla</i> , Philippi	...	3, 1, 5	...	...
<i>Tapes decussata</i> , L.	
<i>Thracia pretensis</i> , Pult.	...	5, 1, 7	...	...
" <i>pubescens</i> , Pult.	...	5, 1	1	...	
<i>Venus fluviosa</i> , Gould	...	5, 1, 7	...	...
" <i>gallina</i> , L.	1	...	
" <i>ovata</i> , Pennant	...	3, 1, 5	...	...
<i>Ostrea edulis</i> , L.	
<i>Scrobicularia plana</i> , da C.	1	...	
SOLENCONCHTA.					
<i>Dentalium endis</i> , L.	...	3, 1, 7	1	1	8
" <i>striatum</i> , Stimpson	...	3, 1, 7	1
GASTROPODA.					
<i>Admete viridula</i> , Fabr.	...	3, 1, 5, 7
<i>Amaura sulcosa</i> , Leche	...	3, 1, 5

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NAME.	Bridlington.	Dilmington.	Kelsby Hill.	Burtonwick.	Other Localities.	
					Bridlington.	Dilmington.
<i>Natica lacea</i> , Goulding	3, 1, 5, 7	2
" <i>islandica</i> , Gmel.	3, 1, 5, 7	...
" <i>causa</i> , B. & S.	5, 7, 1	1
" <i>monaculus</i> , Forbes	3, 5, 1	2
" <i>Odosomia conspicua</i> , Alder
<i>Puludaeatina ulvae</i> , Pen.
<i>Pleurotoma bicarinata</i> , Couth.	3, 5, 1	...
" <i>decussata</i> , Couth.	3, 5, 1, 7	...
" var. <i>violacea</i>	3, 5, 1	...
" var.	5, 1	...
" <i>elegans</i> , Möll.	3, 5, 1, 7	...
" <i>exarata</i> , Möll.	3, 5, 1, 7	...
" <i>harpularia</i> , Couth.	5, 7, 1	...
" <i>multistriata</i> , Jeffr.	3, 5, 1	...
" <i>nebulosa</i> , Mont.	1
" <i>pyramidalis</i> , Str.	5, 7, 1	1, 2
" <i>simplex</i> , Midd.	3, 1, 5	...
" <i>trevetiana</i> , Turt.	5, 1, 7	...
" <i>turricula</i> , Mont.	3, 1, 5, 7	1, 2
" var. <i>dowsoni</i>	5, 1	...
<i>Patella vulgata</i> , L.	2
<i>Puncturella noachiana</i> , L.	3, 1, 5, 7	...
<i>Purpura lapillus</i> , L.	3, 1, 5, 7	1, 2
<i>Reticula oblonga</i> , Mont.	2
<i>Rissoa subperforata</i> , Jeffr.	3, 5, 1	...
" <i>striata</i> , Adams	3	...
" <i>semistriata</i> , Mont.	3	...
" <i>parva</i> , da Costa, and var. <i>interrupta</i>	3, 1, 5	...
" <i>cortata</i> , Adams	3	...
" <i>wyville-thomsoni</i> , Jeffr.	3, 1, 5	...

5 Kelk, 1 Barf Hill.

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 25

<i>Rissoa virville-thomsoni</i> , var.	...	...	1, 5	...	...	...	...	...
" <i>lapiose</i> , Mont.	...	...	3, 1, 5, 7	1	1	1	1	8
<i>Scalaria greenlandica</i> , Chemn.	...	...	3, 1, 5, 7	...	...	...	...	...
<i>Trichotropis borealis</i> , B. & S.	...	...	3, 1, 5, 7	...	...	...	...	...
<i>Trochus conereus</i> , Couth.	...	...	3, 1, 5	...	1	1	1	...
" <i>cinerarius</i> , L.	...	...	3, 1, 5	...	...	...	...	...
" " <i>greenlandicus</i> , Chemn.	...	...	3, 1, 5	...	...	...	...	...
" " <i>varicosus</i> , M. & A.	...	...	3, 7, 1, 5	...	...	...	...	...
" " <i>zizyphinus</i> , L.	...	...	3, 1, 5	...	...	...	...	...
<i>Trophon clathratus</i> , L. (= <i>Boreotrophon</i>)	...	...	3, 1, 5, 7	...	...	...	2, 1	...
" " var. <i>gunneri</i>	...	...	3, 1, 5	...	...	...	...	...
" " var. <i>truncata</i>	...	...	3, 1, 5, 7	...	...	...	...	...
" " <i>anatus</i> , L.	...	...	...	...	...	...	...	8
" " <i>bomfus</i> , Mont. = <i>truncatus</i>	...	...	...	...	...	...	...	...
" " <i>fabricii</i> , Beck.	...	...	5, 1, 7	...	...	...	...	...
" " <i>gracilis</i> , da C.	...	...	...	...	...	...	...	...
" " <i>laeviscus</i> , Mill.	...	...	5, 1, 7	...	...	...	...	...
" " <i>scalariformis</i> , Gould. = <i>clathratus</i>	...	...	...	...	...	...	...	8
<i>Turritella erosa</i> , Couth.	...	...	3, 1, 5, 7	1	1	1	1	...
" " <i>terebra</i> , L.	...	...	5, 1, 7	1	1	1	1	8
<i>Turritella parva</i> , da Costa = <i>Rissoa parva</i>	...	...	...	...	2	2	2	...
<i>Utriculus constrictus</i> , Jeffr.	...	...	3, 1, 5	...	...	...	...	...
" " <i>obtusus</i> , Mont., var. <i>pertenuis</i>	...	...	6, 1, 3	...	1	1	1	...
<i>Volutina undata</i> , J. Smith	...	...	...	...	...	...	...	...
FORAMINIFERA.								
<i>Biloculina elongata</i> d'Orb.	...	...	1, 5	...	...	...	...	...
" " <i>ringens</i> Lam.	...	...	1, 3, 5, 12	1	1	1	1	...
<i>Buymina marginata</i> d'Orb.	...	...	...	...	...	...	...	...
<i>Cassidinina crassa</i> , d'Orb.	...	...	1, 5	1	1	1	1	...
" " <i>laevigata</i> , d'Orb.	...	...	1, 3, 4, 5, 12	1	1	1	1	...
<i>Cornuspira foliacea</i> , Ph.	...	...	1, 4, 5, 12	...	...	...	...	...
<i>Cristellaria culturata</i> , Mont.	...	...	1, 5, 12	1	1	1	1	...
" " <i>acutauricularis</i> , F. & M.	...	...	4	...	...	...	...	...
<i>Dentalina brevis</i> , d'Orb.	1, 5, 12	1	1	1	1	...
" " <i>communis</i> , d'Orb.	1, 3, 4, 5, 12	1	1	1	1	...
" " <i>paupera</i> , d'Orb.	1, 5

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NAME.	Bridlington.	Drimington.	Felsey Hill.	Burstwick.	Other Localities.
<i>Gaudryina papoidea</i> , d'Orb.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
<i>Glandulina levigata</i> , d'Orb.	... var. <i>rotundata</i>	... var. <i>aqualis</i>	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
" "	"	"	"	"	"
<i>Globigerina bulloides</i> , d'Orb.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
<i>Lagenia globosa</i> , Mont.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
" <i>levigata</i> , Reuss.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
" <i>levis</i> , Mont.	... 1, 5	... 1, 5	... 1, 5	... 1, 5	... 1, 5
" <i>squamosa</i> , Mont.	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12
" <i>sulcata</i> , W. & J.	... 1, 5	... 1, 5	... 1, 5	... 1, 5	... 1, 5
<i>Miliolina seminulum</i> , L.	... 4	... 4	... 4	... 4	... 4
" <i>oblonga</i> , Mont.	... 1, 5	... 1, 5	... 1, 5	... 1, 5	... 1, 5
<i>Nonionina depressula</i> , W. & J.	... 1, 3, 4, 5	... 1, 3, 4, 5	... 1, 3, 4, 5	... 1, 3, 4, 5	... 1, 3, 4, 5
" <i>orbicularis</i> ? Brady	... 1, 5, 12	... 1, 5, 12	... 1, 5, 12	... 1, 5, 12	... 1, 5, 12
" <i>scapha</i> , F. & M.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
<i>Polymorphina compressa</i> , d'Orb.	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12	... 1, 3, 5, 12
" <i>lacea</i> , W. & J.	... 4	... 4	... 4	... 4	... 4
" <i>thorini</i> , d'Orb.	... 1, 5	... 1, 5	... 1, 5	... 1, 5	... 1, 5
<i>Polytomella crista</i> , L.	... 1, 3, 4, 5, 12	... 1, 3, 4, 5, 12	... 1, 3, 4, 5, 12	... 1, 3, 4, 5, 12	... 1, 3, 4, 5, 12
" <i>striato-punctata</i> , F. & M.	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5	... 1, 3, 5
<i>Polytynia karsenia</i> , Reuss	... 3, 1, 6, 12	... 3, 1, 6, 12	... 3, 1, 6, 12	... 3, 1, 6, 12	... 3, 1, 6, 12
<i>Quinqueloculina seminulum</i> , L.	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12
" <i>triangularis</i> , d'Orb.	... 1	... 1	... 1	... 1	... 1
<i>Rotalia beccarii</i> , L.	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12	... 5, 1, 12
<i>Triloculina oblonga</i> , Mont.	... 1	... 1	... 1	... 1	... 1
<i>Uvigerina angulosa</i> , Roemer	... 1	... 1	... 1	... 1	... 1
" <i>legumen</i> , L.	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12
<i>Truncatulina lobatula</i> , W. & J.	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12	... 3, 4, 5, 12

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 27

PRE-GLACIAL.

BIBLIOGRAPHY.

1. G. W. LAMPLUGH. "The Drifts of Flamborough Head," Quart. Journ. Geol. Soc., Vol. 47, 1891, p. 384.
2. G. W. LAMPLUGH. Report British Association, 1888.
3. G. W. LAMPLUGH. Proc. Yorks. Geol. Soc., 1903, p. 91.
4. T. SHEPPARD. "Geological Rambles in East Yorkshire," 1903.
5. T. SHEPPARD. "The Naturalist," 1908.

NAME.	Sewerby.	Hessle.	Speeton.
MAMMALIA.			
<i>Elephas (? primigenius)</i> ...	2	4	...
" <i>antiquus</i> ...	1	...	...
<i>Rhinoceros leptorhinus</i> ...	1	...	...
" sp. ...	...	4	...
<i>Hippopotamus amphibius</i> ...	1	...	...
<i>Equus caballus</i> ...	...	4	...
" sp. ...	2	...	...
<i>Cervus elaphus</i> ...	...	4	...
" <i>tarandus</i> ...	...	4, 5	...
" (? <i>megaceros</i>) ...	1	...	...
<i>Bison</i> sp. ...	1	...	...
<i>Hyæna crocata</i> var. <i> spelæo</i> ...	1	...	...
" sp. ...	...	4	...
<i>Arvicola amphibius</i> ...	1	...	...
AVES.			
Birds ...	1	...	...
REPTILIA.			
Snake ...	2	...	...
PISCES.			
<i>Gadus morrhua</i> (cod) ...	1	...	...
MOLLUSCA.			
<i>Helix hispida</i> ...	1	...	...
" <i>pulchella</i> ...	1	...	...
" sp. ...	3	...	...
<i>Pupa marginata</i> = <i>P. muscorum</i> ...	3	...	...
<i>Zua lubrica</i> = <i>Z. subcylindrica</i> ...	1	...	...
<i>Purpura lapillus</i> ...	1	...	...
<i>Littorina littorea</i> ...	1	...	1
" <i>rudis</i> ...	...	...	1
<i>Ostrea edulis</i> var. ...	1	...	...
<i>Mytilus edulis</i> ...	1	...	1
<i>Pholas</i> ...	1	...	...
<i>Saxicava</i> ...	1	...	...
<i>Tellina balthica</i> ...	...	...	1
<i>Scrobicularia piperata</i>	1
<i>Cardium edule</i>	1
<i>Hydrobia ulvae</i>	1
<i>Utriculus obtusus</i> var. <i>pertenuis</i>	1

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THE UPPER, MIDDLE AND LOWER CHALK.

BIBLIOGRAPHY.

1. Professor J. PHILLIPS. "Geology of the Yorkshire Coast," 3rd Edition, 1875.
2. J. F. BLAKE. "On the Chalk of Yorkshire," Proc. Geol. Asso., 1878.
3. A. J. JUKES BROWNE and W. HILL. Memoir of Geological Survey. "The Cretaceous Rocks of England; the Upper Chalk," Vol. III., 1904.
4. G. W. LAMPLUGH. "The Yorkshire Chalk," Proc. Yorks. Geol. Soc., 1895.
5. A. W. ROWE and C. D. SHERBORN. "The Chalk of the Yorkshire Coast," Proc. Geol. Asso., Feb., 1904.
6. In the collection of J. W. STATHER.
7. In the collection of J. R. MORTIMER, Driffield.
8. In the collection of H. C. DRAKE.
9. Collected by T. SHEPPARD.
10. "The Naturalist," 1906-7-8.
11. Professor BARROIS. "Recherches sur le Terrain Cretace de l'Angleterre et de l'Irlande."
12. Collected by C. THOMPSON and Dr. WALTON.
13. Collected by G. SHEPPARD.
14. HENRY WOODS. "Monograph of the Cretaceous Lamellibranchiata," Palæ. Soc., 1899-1908.
15. Collected by Mr. A. J. MOORE, and now in the Hull Museum.

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UPPER CHALK.

NAME.	Sewerby to High Stacke	Flamborough inland to Nafferton.	Driffield and Wolds.	Beverley District.
REPTILIA.	5	...	...	...
<i>Mosasaurus</i> sp. ... ...	...	...	...	...
PISCES.	...	...	2	...
<i>Ptychodus latissimus</i> , Ag. ...	3	...	...	...
<i>Scapanorhynchus raphiodon</i> , Ag. ...	5	...	...	...
<i>Oxyrhina mantelli</i> , Ag. ...	5	...	...	...
<i>Lamna appendiculata</i> , Ag. ...	5	...	...	...
<i>Notidanus microdon</i> , Ag. ...	9	...	...	...
Vertebræ of fish ...	...	...	...	...
CEPHALOPODA.				
<i>Ammonites (Desmoceras) pseudo-gardeni</i> , Schlüt. ...	...	...	...	6
" <i>(Haploceras) leptophyllus</i> ...				
" ? Sharpe	5, 6	...	...	...
" sp.	4	...	...	...
" <i>lewesiensis</i> ...	...	...	2	...
<i>Aptychus of Ammonite</i> ...	5	...	...	...
<i>Hamites</i> sp.	6, 3	10	6	...
<i>Scaphites binodosus</i> ? Römer ...	6, 3, 5, 1	9, 6, 8	...	...
" <i>inflatus</i> ? Defr. ...	3, 5	6, 10	...	...
<i>Nautilus</i> cf. <i>darupensis</i> , Schlüt. ...	6	...	...	...
" <i>laevigatus</i> ...	...	...	2	...
" <i>grossouvrei</i> ...	...	...	7, 10	...
<i>Crioceras williamsoni</i> , Phil. ...	1	...	...	...
<i>Belemnistella granulata</i> , Sow. ...	1	...	6	6
" <i>mucronata</i> , * Blainv. ...	1	...	...	...
<i>Actinocamax granulatus</i> , Blain. ...	5, 6, 8, 9	11, 6, 10	...	6
" <i>verus</i> , Miller ...	6, 5, 11	11	10	6
GASTEROPODA.				
<i>Pleurotomaria perspectiva</i> , Mantell. ...	5, 6	7	2	...
LAMELLIBRANCHIATA.				
<i>Avicula tenuicostata</i> , Römer ...	5, 6	...	7, 14	...
" sp.	1, 6	...	...	...
<i>Inoceramus brongniarti</i> , Sow. ...	1, 3, 5	2	7	...
" <i>digitatus</i> , Sow. ...	...	...	2, 7	...
" <i>involutus</i> , Sow. ...	...	...	7, 2	...
" <i>lingua</i> , Goldf. ...	5, 11, 6	...	6, 2	6
" <i>mytiloides</i> , Schloth. ...	5, 3, 6, 1	...	7	...

* Apparently recorded in error.

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NAME.	Sewerby High Stacks	Flamborough: inland to Nafferton.	Driffield and Wolds.	Beverley District.
<i>Inoceramus lamarcki</i> , Park.	5	..	..	..
" <i>undulatus</i> , Mantell.	5	..	..	..
" <i>cuneiformis</i> , d'Orb.	5	..	..	..
" sp.	5, 3	..	..	..
" <i>cuvieri</i> , Sow.	1, 5	..	..	..
" <i>lobatus</i> , Sch.	8	9	..	..
<i>Lima hoperi</i> , Sow.	5, 3, 6	..	..	..
" <i>granosa</i> , Goldf.	5	..	..	..
<i>Ostrea acutirostris</i> , Nilss.	3, 6	..	..	..
" <i>vesicularis</i> , Lam.	3, 5, 11	..	..	..
" <i>hippopodium</i> , Nilss.	5	..	..	..
" <i>wegmanniana</i> , d'Orb.	5, 6	..	..	..
" <i>proboscidea</i> , d'Arch.	5	..	..	..
<i>Spondylus latus</i> , Sow.	5, 6	..	2, 7	..
" <i>dutempleanus</i> , d'Orb.	5	..	..	..
" <i>truncatus</i> ? d'Orb. ....	..	..	2, 7	..
" <i>gibbosus</i>	1, 4	..	..	..
<i>Pecten cretosus</i> , Defr.	5	..	..	..
<i>Plicatula sigillina</i> , Woodward	5	..	..	..
<i>Anomia</i> sp. ....	..	..	..	..
<i>Dianchora striata</i> , Sow.	1	..	..	..
BRACHIOPODA.				
<i>Crania egnabergensis</i> , Retz.	6, 5	..	..	..
<i>Thecidia</i> sp.	5	..	..	..
<i>Kingena lima</i> , Defr.	6, 5	..	7	..
<i>Terebratulina striata</i> , Davidson	5, 1	..	..	..
" <i>gracilis</i> , Schloth.	5	..	..	9
<i>Terebratula semiglobosa</i> , Sow.	6, 5, 3, 1	10	7, 2	..
" <i>carnea</i> , Sow.	11, 1, 5, 6, 3	..	..	..
<i>Rhynchonella plicatilis</i> , Sow.	11, 3, 6	..	..	..
" <i>limbata</i> , Schloth.	6, 5	..	..	..
" <i>reedensis</i> , Etherid.	6, 8, 5	..	..	..
" <i>cuvieri</i> , d'Orb.	5, 6, 3	..	2	..
" <i>mantelliiana</i> ....	..	..	2	..
ANNELIDA.				
<i>Serpula ampullacea</i> , Sow.	5	..	..	..
" <i>fluctuata</i> , Sow.	5	..	..	..
" <i>granulata</i> , Sow.	5, 6	..	..	..
" <i>ilium</i> , Sow.	5	..	..	..
" <i>turbinella</i> , Sow.	5	..	..	..
" <i>plana</i> , S. Woodward	5	..	..	..
CRUSTACEA.				
<i>Scalpellum maximum</i>	5	..	..	..
<i>Balanus</i> sp.	5	..	..	..

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 31

NAME.	Sewerby to High Stacks.	Fliamborough Inland to Nafferton.	Driffield and Wolds.	Beverley District.
ECHINODERMATA.				
<i>Cardiaster ananchytis</i> , Leske. || (<i>granulosus</i>) 6, 3, 5	8	... 7	...	...
<i>Cardiaster pillula</i> , Lam. 5	6	...	...	...
" <i>cotteani</i> , d'Orb. 5	...	...	...	...
<i>Cidaris clavigera</i> , König. 6, 5	...	...	...	...
" <i>hirudo</i> , Sorig. ... 3	...	...	...	...
" <i>septifera</i> , Mantell. ... 6, 5	...	...	...	...
" <i>subvesiculosa</i> , d'Orb. ... 3	2	...	...	...
" sp. 8	...	...	...	...
<i>Cyphosoma königi</i> , Mantell. ... 3, 1	2	...	...	...
" <i>radiatum</i> , Sorig. ... 6, 5	...	...	...	...
" <i>corollare</i> , Klein 5	...	...	...	...
<i>Salenia granulosa</i> , Forbes ... 5	2	...	...	...
<i>Zeuglopleurus rowei</i> , Greg. ... 5	...	...	...	...
<i>Echinocorys scutatus</i> , Leske. (= <i>vulgaris</i> , Breyne.) ... 8, 6	7	7	...	...
<i>Ananchytes ovatus</i> , Leske. (<i>Echinocorys scutatus</i> , Leske) ... 1, 6, 5, 8	...	...	...	...
" <i>hemisphaericus</i> , Cuv. 1	...	...	...	...
(<i>Echinocorys scutatus</i> , Leske.) 1	...	...	...	...
<i>Echinoconus subrotundus</i> , Mant. ...	...	...	...	Hessle 1
" <i>albogalerus</i> , Klein ...	...	...	...	...
<i>Micraster cor-anguinum</i> , Leske. ... 1, 6, 5, 3	2	7	...	...
" <i>cor-testudinarium</i> ? Goldf. 3, 5, 6	2	7	...	...
" <i>leskei</i> , Desm. (= <i>brevis</i> - <i>porous</i>) 5	...	...	...	...
" <i>precursor</i> 5	...	...	...	...
<i>Holaster planus</i> , Mantell. 6, 5	...	...	...	...
" <i>placenta</i> , Ag. 5	...	...	...	...
" <i>hemisphaericus</i> , Phil. ... 1	...	...	...	...
" <i>trecensis</i> 2	...	...	...	...
<i>Offaster pillula</i> , Lam. (= <i>Cardiaster</i>) 5	...	7	...	...
<i>Infulaster excentricus</i> , Forbes ... 6, 2	...	...	...	...
" <i>rostratus</i> , Forbes ... 6, 5, 2	...	...	...	...
<i>Hemiaster minimus</i> , Ag. ... 5	...	...	...	...
<i>Pentagonaster</i> (ossicles) ... 6	...	...	...	...
<i>Marsupites testudinarius</i> , Miller (= <i>ornatus</i>) ... 6, 5, 8, 1	...	...	...	6
" <i>levigatus</i> 2	...	...	...	...
<i>Uintacrinus westfalicus</i> , Schl. [?] ... 6, 5, 8	...	...	...	...
<i>Bourgueticrinus ellipticus</i> , Miller ... 3, 6, 5, 1	2
" sp. 2
<i>Pentacrinus</i> sp. 5, 8
<i>Asteroidea</i> sp. 5
<i>Ophiura</i> sp. 5

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NAME.	Sewerby to High Stacks.	Flamborough inland to Knaresborough.	Driffield and Wolds.	Beverley District.
ACTINOZOA.				
<i>Cæloesmia laxa</i> , E. and H.	5	...	...	...
<i>Parasmilia centralis</i> , Mantell.	5, 6, 1	...	...	...
" <i>fittoni</i> , E. and H.	5	...	...	...
" <i>cylindrica</i> , E. and H.	5, 6	...	...	...
" (<i>=Caryophyllia</i>)	5	...	...	...
" <i>granulata</i> , Duncan	5	...	...	...
" <i>monilis</i> , E. and H. ....	...	...	...	...
<i>Axogaster cretacea</i> , Lonsdale	5	...	...	...
PORIFERA.				
<i>Bolospongia constricta</i> , Hinde ...	3	...	...	...
" <i>globata</i> , Hinde ...	8	...	...	...
<i>Camerospongia capitata</i> , Toulmin Smith	1, 3	...	2	...
<i>Cæloptychium agaricooides</i> , Goldf....	3, 5	...	...	...
<i>Ioraphina texta</i> , Römer	3, 8	...	...	...
<i>Manon marginatum</i> , Phil.	1, 3	...	...	...
<i>Jerecia clava</i> , Lee	3	...	...	...
<i>Pachinion scriptum</i> , Hinde...	3, 8	...	...	...
<i>Pachastrella convoluta</i> , Hinde ...	3, 8	...	...	...
<i>Phymatella reticulata</i> , Hinde ...	3, 8, 6	8	...	...
<i>Porosphaera globularis</i> , Phil.	1, 8, 6, 5, 3	...	...	...
" <i>pileolus</i> , Lam.	1, 8, 6, 5, 3	...	...	...
<i>Scyphalia fastigiata</i> , Lee ...	3, 6, 8	...	...	...
" <i>radiciformis</i> , Phil.	3, 6, 8, 1	...	...	...
" <i>terebrata</i> , Phil.	3, 1	...	...	...
<i>Scyphia pedunculata</i> , Römer	3	2	...	...
<i>Seliscothon planum</i> , Phil.	1, 6, 5, 8, 3	6, 7	7	...
" <i>explanatum</i> , Römer	3	...	...	...
<i>Stichophyma tumidum</i> , Hinde	3	...	...	...
<i>Tethyopis cretaceus</i> , Hinde	3	...	...	...
<i>Turonia variabilis</i> , Mich.	3	...	...	...
<i>Verruculina astrea</i> , Hinde	3	...	...	...
" <i>miliaris</i> , Reuss	3, 8	...	...	...
" <i>papillata</i> , Hinde	3, 8, 6	...	...	...
" <i>plicata</i> , Hinde	3, 8	8	...	...
" <i>pustulosa</i> , Hinde	3, 8	...	...	...
" <i>reussii</i> , McCoy	3	...	...	...
<i>Ventriculites cribrosus</i> , Phil.	3, 5, 1, 8	6	...	...
" <i>infundibuliformis</i> , S.	3, 8	8, 2	8	6
" <i>Wood</i>	3, 8	...	...	...
" <i>radiatus</i> , Mantell.	3, 8, 6	...	...	...
" <i>impressus</i> , T. Smith....	3	...	...	...
" <i>convolutus</i> , Hinde	3	...	...	...
" <i>decurrens</i> , T. Smith....	3	...	...	...
<i>Placoscyphia convoluta</i> , T. Smith....	5, 8, 9	...	...	...

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 33

NAME.	Sewerby High Stacks.	Flamborough inland to Nafferton.	Driffield and Wolds.	Beverley District.
<i>Porochonia simplex</i> , T. Smith ...	5	...	...	...
<i>Coscinospora infundibuliformis</i> , Goldf. ...	5	...	...	...
<i>Guettardia stellata</i> , Mich. ...	5	...	...	...
<i>Leptophragma murchisoni</i> , Goldf. ...	5	...	...	...
<i>Callopegma obconicum</i> , Hinde ...	5	...	...	...
<i>Heterostinia obliqua</i> , Benett ...	5	...	...	...
<i>Siphonia königi</i> , Mantell ...	5, 8	...	...	...
<i>Stellata inclusa</i> ? Hinde ...	5	...	...	...
<i>Oliona cretacea</i> , Portlock ...	5	...	...	...
<i>Porosphaera globularis</i> and var. <i>nuciformis</i> , Hinde ...	5, 8, 6, 9	...	...	...
" <i>pileolus</i> var. <i>patelliformis</i> , Hinde ...	5, 8, 6	...	...	...
" <i>pileolus</i> var. <i>arrecta</i> , Hinde ...	5	...	...	...
<i>Spinopora dixoni</i> , Lonsdale ...	5	2	...	...
<i>Branchiolites</i> sp. ...	...	2	...	...
BRYOZOA.				
<i>Cellepora zenobia</i>? ...	...	2	...	...
<i>Alecto longiscata</i>? ...	...	2	...	...
<i>Siphoniotypillus plumatus</i> ...	...	2	...	...
FORAMINIFERA.				
Zone of <i>Holaster planus</i> .				
<i>Rhizammina</i> sp. ...	...	...	3	...
<i>Ammodiscus</i> sp. ...	...	...	3	...
Zone of <i>Micraster cor-testudinarium</i>				
<i>Ammodiscus</i> sp. ...	...	...	3	...
" with shorter tube lengths ...	...	...	3	...
<i>Rhizammina</i> sp. ...	...	...	3	...
Zone of <i>Micraster cor-anguinum</i> .				
<i>Ammodiscus</i> sp. ...	...	...	...	3
<i>Textularia</i> sp. ...	...	...	...	3
<i>Globigerina</i> sp. ...	...	...	...	3
Zone of <i>Marsupites</i> .				
<i>Rhizammina indivisa</i> ...	...	3	...	...
<i>Rheophax</i> sp. ...	...	3	...	...
<i>Ammodiscus incertus</i> ...	...	3	...	...
<i>Haplophragmium</i> sp. ...	...	3	...	...
<i>Textularia</i> sp. ...	...	3	...	...
<i>Globigerina</i> sp. ...	...	3	...	...

34 DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS.

NAME.	Sewerby to High Stacks.	Flamborough Inland to Nafferton.	Driffield and Wolds.	Beverley District.
Zone of <i>Actinocamax quadratus</i> .				
<i>Ammodiscus incertus</i> ...	3	...	...	...
<i>Verneuilina triquetra</i> ...	3	...	...	...
<i>Bulimina brevis</i> ...	3	...	...	...
" <i>obtusa</i> ...	3	...	...	...
<i>Cristellaria rotulata</i> ...	3	...	...	...
<i>Truncatulina ungeriana</i> ...	3	...	...	...
<i>Anomalina ammonoides</i> ...	3	...	...	...
<i>Pulvinulina micheliniana</i> ...	3	...	...	...
<i>Rotalia exculpta</i> ...	3	...	...	...
<i>Rhizammina algaeformis</i> ...	3	...	...	...

MIDDLE CHALK.

NAME.	Flamborough Head and District.	Other Places.
T.G. = Zone of <i>Terebratulina gracilis</i> .		
R.C. = Zone of <i>Rhynchonella cuvieri</i> .		
PISCES.		
<i>Ichthyodectes</i> or <i>Portheus</i> sp. ...	...	Hessle 15
<i>Ptychodus mammillaris</i> , Ag. (R.C.) ...	...	9; 2, 6
CEPHALOPODA.		Lund
<i>Belemnite</i> (<i>Actinocamax</i> sp.) (T.G.) ...	...	8
LAMELLIBRANCHIATA.		
<i>Inoceramus brongniarti</i> , Sow. (T.G.) ...	3, 2, 5	...
" <i>cuvieri</i> , Sow. (T.G.) ...	3, 2	Beverley 6
" <i>mytiloides</i> , Sow. (R.C.) ...	3, 2	Wallerby 8, 13
" <i>undulatus</i> , Mantell. (T.G.) ...	3, 2	...
" <i>lamarcki</i> , Park (R.C.) ...	5	...
<i>Ostrea vesicularis</i> , Lam. (T.G.) ...	3	...
" <i>hippopodium</i> , Nilss. (T.G.) ...	3	...
" <i>proboscidea</i> , d'Arch. (T.G.) ...	5	...
<i>Spondylus fimbriatus</i> , Goldf. (T.G.) ...	3, 2	Beverley 6

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 35

NAME.		Flamborough Head and District.	Other Places.
GASTEROPODA.			
<i>Pleurotomaria perspectiva</i> (T.G.)	... ...	...	6
BRACHIOPODA.			
<i>Rhynchonella cuvieri</i> , d'Orb. (R.C. and T.G.)		3, 5, 2	6
" <i>reedensis</i> ", Eth. (T.G.)	...	5	...
<i>Terebratula semiglobosa</i> , Sow. (R.C. and T.G.)		2, 3, 5	6
" <i>carnea</i> ", Sow. (T.G.)	...	5	...
<i>Terebratulina striata</i> , Dav. (T.G.)		2, 3, 5	...
" <i>gracilis</i> ", Schloth. (and var. <i>lata</i>) (T.G.)	... ...	2, 3, 5	Mkt. Weight'n 9
<i>Crania egnabergensis</i> , Retz. (T.G.)	... ...	5, 6	Willerby 8, 13
<i>Kingena lima</i> , Defr. (T.G.)	... ...	5	...
PORIFERA.			
<i>Ventriculites</i> sp. (T.G.)	... ...	...	South Cave 6, 8, 9
<i>Porosphaera globularis</i> (T.G.)	... ...	5	...
Species undetermined	... ...	...	6, 8, 9
ECHINODERMATA.			
<i>Bourgueticrinus ellipticus</i> , Mil. (T.G.)	... ...	3, 5	...
<i>Conulus subrotundus</i> , Mantell. (T.G.)	... ...	3	Hessle 13
<i>Holaster planus</i> , Mantell. (T.G.)	... ...	3	...
<i>Salenia granulata</i> , Forbes (T.G.)	... ...	3, 2	...
<i>Micraster precursor</i> ? (T.G.)	... ...	...	Willerby and Mkt. Weight'n 13, 6, 8
<i>Echinocorys scutatus</i> (<i>Ananchytes ovatus</i>), Leske (T.G.)	... ...	...	13, 6, 8, 9
<i>Astroidea</i> (T.G.)	... ...	5	...
POLYZOA.			
Two species on <i>Micrasters</i>	... ...	...	Willerby 13, 8
FORAMINIFERA.			
<i>Rhizammina indivisa</i> , Brady	Hessle 3
<i>Ammodiscus incertus</i> , d'Orb.	3
" <i>gordialis</i> ", J. and P.	3

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LOWER CHALK.

NAME.	Speeton.	South Cave Cutting.	Other Places.
A.V.=Zone of <i>Ammonites varians</i> H.S.= " <i>Holaster subglobosus</i> A.P.= " <i>Actinocamax plenus</i>			
PISCES.			
Fish remains (all three zones) ...	3	3	Melton 8
CEPHALOPODA.			
<i>Acanthoceras rotomagensis</i> , Defr. (A.V.) ...	...	3	...
" <i>lacticlavius</i> , Sharpe (H.S.) ...	3	...	...
<i>Pachydiscus peramplus</i> (A.V.) ...	1	...	Garrowby 2
<i>Ammonites</i> sp. ? ...	...	...	Wharram 7
<i>Schlænbachia varians</i> , Sow. (A.V.) ...	2, 11	...	...
<i>Nautilus bouchardianus</i> (A.V.) ...	...	...	2
<i>Baculites baculoides</i> , Sow. (A.V.) ...	3	...	...
<i>Turrilites tuberculatus</i> , Bosc. (A.V.) ...	...	3	3
<i>Actinocamax plenus</i> , Blain (A.P.) ...	...	...	Melton 12
" <i>lanceolatus</i> , Sow. (H.S.) ...	...	3	...
<i>Belemnites minimus</i> (A.V.) ...	3	...	...
LAMELLIBRANCHIATA.			
<i>Ostrea vesicularis</i> , Lam. (all zones) ...	3	3	3
<i>Avicula lineata</i> , Römer (H.S.) ...	...	...	3, 2
<i>Aucellina gryphaeoides</i> , Sow. (A.V.) ...	3	...	3
<i>Plicatula inflata</i> , Sow. (A.V. and H.S.) ...	3	3	3
<i>Pecten orbicularis</i> , Sow. (H.S.) ...	3	3	3
<i>Lima echinata</i> , Eth. (A.V. and H.S.) ...	3	3	...
" <i>globosa</i> , Sow. (H.S.) ...	...	3	...
<i>Inoceramus latus</i> , Mantell. (A.V. and H.S.) ...	3	3	...
" <i>curveri</i> , Sow. (A.V. and H.S.) ...	3	3	3
" <i>striatus</i> , Mantell. (A.V.) ...	2, 11	...	...
<i>Spondylus latus</i> , Sow. (H.S.) ...	...	3	...
" <i>dutempleanus</i> , d'Orb. (H.S.) ...	...	3	...
" <i>striatus</i> , Sow. (H.S.) ...	...	3	...
BRACHIOPODA.			
<i>Kingena lima</i> , Defr. (all zones) ...	3, 11	3	3
<i>Rhynchonella graciana</i> , d'Orb. ...	...	3	...
" <i>lineolata</i> , Phil. ...	3	...	3
" <i>mantelliana</i> , Sow. ...	3	...	...

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 37

NAME.	Speeton.	South Cave Cutting.	Other Places.
<i>Terebratula biplicata</i> , Sow. 3, 11, 2	3	3	3
" var. <i>faba</i> , Sow. 3	3	...	...
" <i>semiglobosa</i> 3, 11, 2	3	3	3
" var. <i>subundata</i> , Sow. 3, 11	...	...	...
" <i>squamosa</i> , Sow. 3	3	...	...
" <i>suicifera</i> , Morris 3	3	...	...
" <i>subundata</i> , Sow. 3	3	...	...
<i>Terebratulina gracilis</i> var. <i>nodulosa</i> , Eth. 3	3	...	...
" <i>triangularis</i> ? Eth.... 3	3	...	...
CRUSTACEA.			
<i>Glyphaea cretacea</i> ? McCoy ....	...	3	...
ANNELIDA.			
<i>Serpula antiquata</i> , Sow. 3	3	3	...
" <i>umbonata</i> , Sow. 3	3	3	...
ECHINODERMATA.			
<i>Cidaris dissimilis</i> , Forbes 3	...	...	...
" <i>vesiculosus</i> , Goldf. 3	3	...	...
<i>Cyphosoma</i> sp. 3	3	...	...
<i>Discoidea cylindrica</i> , Lam. 3	3	3	3
<i>Holaster larvis</i> 3, 8	...	...	...
" <i>subglobosus</i> , Leske 3	3	3	3
" <i>trecentus</i> ? Leym. 3	3	...	...
" <i>rotundus</i> 3	3	3	3
<i>Peltastes stellulatus</i> , Ag. 3	3	...	...
<i>Pseudodiadema</i> sp. 11	...	...	...
FORAMINIFERA.			
<i>Rhizammina indivisa</i> , Brady 3	...	...	...
<i>Rheophax nodulosa</i> , Brady 3	3	...	...
<i>Haplophragmium glomeratum</i> , Brady 3	3	...	...
<i>Ammodiscus incertus</i> , d'Orb. 3	3	...	...
" <i>charoides</i> , J. and P. 3	3	...	...
<i>Trochammina</i> sp. 3	3	3	...
<i>Lituola placentula</i> , Chap. 3	3	...	...
<i>Gaudryina pupoides</i> , d'Orb. 3	3	...	...
" <i>rugosa</i> , d'Orb. 3	3	...	...
sp. nov. 3	3	...	...
<i>Bulimina brevis</i> , d'Orb. 3	3	...	...
" <i>preeli</i> , Reuss. 3	3	...	...
" <i>affinis</i> , d'Orb. 3	3
" <i>obtusa</i> , d'Orb. 3	3
<i>Truncatulina lobatula</i> (W. and S.)... 3	3
<i>Pleurostomella</i> sp. 3	3	3	...

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RED CHALK.

BIBLIOGRAPHY.

1. W. HILL. "The Lower Beds of the Upper Cretaceous Series in Lincolnshire and Yorkshire," Q.J.G.S., August, 1888.
2. J. F. BLAKE. "The Chalk of Yorkshire," Proc. Geol. Asso., January, 1878. "Notes on the Red Chalk in Yorkshire," Geol. Mag., 1874.
3. In the collection of J. W. STATHER.
4. In the collection of J. R. MORTIMER, Driffield.
5. Prof. J. PHILLIPS. "Geology of the Yorkshire Coast," 1875.
6. Collected by R. H. PHILIP.
7. Collected by F. LAMPLough, and now in Hull Museum.
8. Hull Museum.
9. Collected by H. C. DRAKE.
10. A. J. JUKES-BROWNE and W. HILL. "The Cretaceous Rocks of England," Vol. I. "Gault and Upper Greensand of England," 1900.
11. Prof. BARROIS, *loc. cit.*
12. "The Naturalist" (various dates).
15. T. WILTSHIRE. "The Red Chalk of England," Proc. Geol. Asso., 1859.
Geol. Asso., 1859.

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RED CHALK.

NAME.	Speeton.	South Cave.	Other Places.
REPTILIA.			
Tooth of Saurian	15
PISCES.			
<i>Oxyrhina mantelli</i> (tooth)	7	...	...
<i>Notidanus</i> (tooth)	6	...	...
<i>Lamna</i> sp. (vertebræ)	4, 8, 12	...	...
<i>Pachyrhizodus</i> sp. (vertebræ)	4, 12	...	...
CEPHALOPODA.			
<i>Pachydiscus peramplus</i> (see P.G.A., Jan., 1878, p. 247) ...	...	...	Garrowby Pk. 2
<i>Hoplites deshayesi</i> , Leym. ...	...	...	2
„ <i>auritus?</i> Sow. ...	...	...	Wharram Gr. & Givendale 1
<i>Schlænbachia rostrata</i> , Sow. ...	...	1	...
„ <i>? varicosa</i> , Sow. ...	8	...	...
<i>Belemnites minimus</i> , Lister ...	1, 3, 15, 12	1, 2, 3, 9	1, 2, 3
„ <i>listeri</i> , Phil. ...	5, 15	...	...
„ <i>attenuatus</i> , Phil. ...	5	...	...
„ <i>ultimus</i> ...	15	...	...
<i>Nautilus elegans</i> , Sow. (? <i>albensis</i>) ...	...	...	Wharram Gr. 1
„ sp. (? <i>bouchardianus</i> , d'Orb.) ...	...	...	Burdale Gar- rowby Pk. &c. 2
LAMELLIBRANCHIATA.			
<i>Avicula gryphaeoides</i> , Sow. ...	1, 5, 15	1	2
<i>Exogyra raudiniana</i> , d'Orb. (<i>Ostrea</i> , Phillips)	10, 5	...	...
<i>Ostrea canaliculata</i> , Sow. ...	10, 5	...	...
„ <i>vesicularis</i> , Sow. ...	10	...	...
„ <i>vesiculosus</i> , Sow. ...	5, 10	...	...
<i>Pecten beaveri</i> , Sow. ...	5, 15	...	1
<i>Plicatula pectinoides</i> , Sow. ...	...	...	2, 10
<i>Inoceramus crispus</i> , Mantell. ...	1	...	...
„ <i>sulcatus</i> , Park. ...	10	1	1, 2
„ <i>tenuis</i> , Mantell. ...	11	...	...
„ <i>coquandinus</i> , Phil. ...	5, 15
„ <i>laeviusculus</i> ...	15
<i>Spondylus gibbosus</i> , d'Orb. ...	5, 10
„ <i>striatus?</i> Sow. ...	11
„ <i>latus</i> ...	15

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NAME.	Speeton.	South Cave.	Other Places.
BRACHIOPODA.			
<i>Kingena lima</i> , Defr. 11	...		Wharram Gr. 1
<i>Rhynchonella lineolata</i> , Phil. 11	...		Burdale 2
" <i>sulcata</i> , Park. 10	...		Burdale 1
" <i>wiestii</i> , Blake 10	...		2
" <i>latissima</i> (? <i>sulcata</i>) ... 5	...		10, 2
<i>Magas pumila</i> , Sow. 1	1		Burdale 1, 2
<i>Terebratula biplicata</i> , Sow. 1	1		1
" var. <i>dutempleana</i> ... 1	...		Burdale 1, 2
" <i>capillata</i> , d'Arch. 11	1		Burdale 1, 2
" <i>semiglobosa</i> , Sow. 1, 5, 15	1, 9		Burdale 1, 2
" <i>sulcifera</i> ? Morris 10	...		10, 2
" <i>subundata</i> 5
<i>Terebratulina gracilis</i> , Schloth. (Q.J.G.S., 1888) ... 1	...		Burdale 1
" <i>triangularis</i> , Eth. 10	...		10
" <i>striata</i> , Wahl. (<i>T. pentagonalis</i> , Phil.) 10, 5
" <i>rigida</i> , Sow. 5
POLYZOA.			
<i>Proboscina dilatata</i> , d'Orb. 10, 5
<i>Ceripora spongites</i> , Goldf. 10, 5, 15
<i>Idmonea dilatata</i> 15
CRUSTACEA.			
<i>Pollicipes unguis</i> , Sow. 10, 5
<i>Cytherella ovata</i> , Römer 10, 5, 15
ECHINODERMATA.			
<i>Cidaris gaultina</i> , Forbes 11, 3, 5	...		2
<i>Torynocrinus rugosus</i> , Seeley 10, 3	...		2
<i>Holaster (Cardiaster) suborbicularis</i> , Defr. 10	...		Wharram Gr. 1
<i>Discoidea cylindrica</i> , Lam. 5
<i>Pentacrinus fittoni</i> , Aust. 10, 5, 3	...		2
<i>Peltastes stellulatus</i> , Ag. 5
ANNELIDA.			
<i>Serpula concava</i> , Sow. 10
" <i>umbonata</i> , Sow. 10, 5
" <i>solitaria</i> , Phil. 5
<i>Vermicularia elongata</i> , Bean MS. 15

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 41

NAME.	Speeton.	South Cave.	Other Places.
FORAMINIFERA.			
<i>Ammodiscus gordialis</i> , J. and P. ...	10	...	...
" <i>incertus</i> , d'Orb.	10	...	...
" <i>tenuis</i> , Brady	10	...	...
<i>Anomalina ammonoides</i> , Reuss.	10	...	...
" <i>grosserugosa</i> , Gümb	10	...	...
<i>Bolivina textilarivoides</i> , Reuss.	10	...	...
" <i>beyrichii</i> , Reuss., var. <i>alata</i>	10	...	...
<i>Bulimina affinis</i> , d'Orb.	10	...	...
" <i>presli</i> , Reuss.	10	...	...
<i>Cristellaria cultrata</i> , Montf.	10	...	...
" <i>rotulata</i>	5	...	...
" <i>cymboides</i> , d'Orb.	10	...	...
" <i>gibba</i> , d'Orb.	10	...	...
" <i>italica</i> , Defr.	10	...	...
" <i>lata</i> , Reuss.	10	...	...
" <i>marcki</i> , Reuss.	10	...	...
" <i>multisepta</i> , Reuss.	10	...	...
" <i>variabilis</i> , Reuss.	10	...	...
<i>Frondicularia biformis</i> , Marsson.	10	...	...
" <i>gaulteria</i> , Reuss.	10	...	...
<i>Gaudryina pupoides</i> , d'Orb.	10	...	...
<i>Globigerina bulloides</i> , d'Orb.	10	...	...
" <i>cretacea</i> , d'Orb.	10, 5	...	...
" <i>linnaeana</i> , d'Orb.	10	...	...
<i>Lagena apiculata</i> , Reuss.	10	...	...
" <i>var. emaciata</i> , Reuss.	10	...	...
" <i>cincta</i> , Leg.	10	...	...
" <i>globosa</i> , Mont.	10	...	...
" <i>laevis</i> , Mont.	10	...	...
<i>Lingulina nodosaria</i> , Reuss.	10	...	...
<i>Marginulina glabra</i> , d'Orb.	10	...	...
" <i>inequalis</i> , Reuss.	10	...	...
" <i>variabilis</i> , Neug.	10	...	...
<i>Nodosaria abnormis</i> , Reuss.	10	...	...
" <i>brevis</i> , d'Orb.	10	...	...
"(<i>Glandulina</i>) <i>candela</i> , Egger.	10	...	...
" <i>calomorpha</i> , Reuss.	10	...	...
"(<i>Dentalina</i>) <i>communis</i> , d'Orb.	10	...	...
"(<i>Glandulina</i>) <i>cylindracea</i> , Reuss.	10	...	...
"(<i>Dentalina</i>) <i>filiformis</i> , d'Orb.	10	...	...
"(<i>Glandulina</i>) <i>laevigata</i> , d'Orb.	10	...	...
" <i>limbata</i> , d'Orb.	10	...	...
" <i>longiscata</i> , d'Orb.	10	...	...
"(<i>Glandulina</i>) <i>marginulinoides</i> , Reuss.	10	...	...
"(<i>Dentalina</i>) <i>mucronata</i> , Neug.	10	...	...
" <i>obtusissima</i> , Reuss.	10	...	...
"(<i>Dentalina</i>) <i>obscura</i> , Reuss.	10
" <i>oligostega</i> , Reuss.	10
" <i>prismatica</i> , Reuss.	10
" <i>radicula</i> , L., var. <i>jonesi</i> , Reuss.	10

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NAME.	Speeton.	South Cave.	Other Places.
<i>Nodosaria soluta</i> , Reuss.	10
<i>Orbulina universa</i> , d'Orb.	10
<i>Pleurostomella alternans</i> , Schw.	10	...	...
" <i>subnodososa</i> , Reuss.	10	...	...
<i>Polymorphina compressa</i> , d'Orb.	10	...	...
" <i>fusiformis</i> var. <i>horrida</i> , Reuss.	10	...	...
" <i>gibba</i> , d'Orb.	10	...	...
" <i>lactea</i> , W. and J.	10	...	...
" <i>sororia</i> , Reuss.	10	...	...
<i>Polystomella macella</i> , F. and M.	10	...	...
<i>Pulvinulina menardi</i> , d'Orb.	10	...	...
<i>Ramulina aculeata</i> , Wright	10	...	...
<i>Rhabdogonium excavatum</i> , Reuss.	10	...	...
" <i>tricarinatum</i> var. <i>acutangul-</i> <i>tum</i> , Reuss.	10	...	...
<i>Sphaeroidina bulloides</i> , d'Orb.	10	...	...
<i>Spiroloculina papyracea</i> , B. and B.	10	...	...
" <i>tenuis</i> , Czjzek.	10	...	...
<i>Spiroplecta biformis</i> , P. and J.	10	...	...
<i>Textularia agglutinans</i> , d'Orb.	10	...	...
" <i>attenuata</i> , Reuss.	10	...	...
" <i>complanata</i> , Reuss.	10	...	...
" <i>gramen</i> , d'Orb.	10	...	...
" <i>minuta</i> , Berth.	10	...	...
" <i>prolonga</i> , Reuss.	10	...	...
" <i>trochus</i> , d'Orb.	10	...	...
" <i>turris</i> , d'Orb.	10	...	...
<i>Truncatulina variabilis</i> , d'Orb.	10	...	...
<i>Vaginulina arguta</i> , Reuss.	10	...	...
" <i>legumen</i> , Lin.	10	...	...
" <i>recta</i> , Reuss.	10
" <i>truncata</i> , Reuss.	10
<i>Verneuillina propinqua</i> , Brady	10
" <i>triquetra</i> , Münst.	10

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SPEETON CLAY.

BIBLIOGRAPHY.

1. Professor JUDD. "On the Sub-divisions of the Speeton Series," Quart. Journ. Geol. Soc., 1868.
2. G. W. LAMPLUGH. "On the Speeton Series in Yorkshire and Lincolnshire," Quart. Journ. Geol. Soc., 1896, p. 179, and "The Sub-divisions of the Speeton Clay," Quart. Journ. Geol. Soc., 1889, and "On the Neocomian Clay at Knapton," "The Naturalist," 1890.
3. C. G. DANFORD. "The Naturalist," 1906, Transactions of Hull Geological Society, 1901-1905, Proc. Yorks. Geol. Soc., 1906.
4. Professor PHILLIPS. "Geology of the Yorkshire Coast," 3rd edition, 1875.
5. HENRY WOODS. "A Monograph of the Cretaceous Lamellibranchiata of England," Memoirs of the Palaeontographical Society, 1899.
6. J. S. GARDNER. Quart. Journ. Geol. Soc., 1884.
7. In the collection of H. C. DRAKE.
8. J. W. STATHER. Transactions of Hull Geological Society, Vol. III., 1895, and collection.
9. Professor PAVLOV. "Etudes sur la couches jurassiques," I. Jurassique superior et Cretace Inferior de la Russie et Angleterre, Moscou, 1889.
10. JOHN LECKENBY. "Note on the Speeton Clay of Yorkshire," "The Geologist," 1859, p. 9.
11. E. HAWKESWORTH. "On Fish Remains in the Speeton Clay," "The Naturalist," August, 1906.
12. C. G. DANFORD. Proc. Yorks. Geol. and Poly. Soc., 1906.
13. H. WOODS. Palaeontograph. Monograph, 1909.

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SPEETON CLAY.

NAME.	Speeton.	Knapton.
THE UPPERMOST BED.		
PISCES.		
Scales of Fish	2	...
CEPHALOPODA.		
<i>Belemnites minimus</i> , List.	2, 3	...
" <i>attenuatus</i> , Sow.	2, 3	...
" <i>ultimus</i> , d'Orb.	2, 3	...
" <i>ewaldi</i> , Strom.	3	...
<i>Hoplites interruptus</i> , Brug.	3, 7	...
" <i>deshayesi</i>	8	...
" <i>plana</i>	8	...
<i>Crioceras</i> ? <i>fassicostatum</i> , Römer	3	...
LAMELLIBRANCHIATA.		
<i>Inoceramus concentricus</i> , Park.	2	...
" <i>sulcatus</i> var. ? Park.	2	...
" sp. (larger form)	2	...
<i>Ostrea</i> sp.	2	...
<i>Avicula rauhiniana</i> ? d'Orb.	2	...
<i>Nucula pectinata</i> ? Sow.	2	...
BRACHIOPODA.		
<i>Lingula</i> sp.	2	...
ANNELIDA.		
<i>Vermicularia elongata</i>	2	...
ECHINODERMATA.		
<i>Echinospatangus cordiformis</i> , Breyn	2	...
<i>Cidaris</i> (spines)	2	...
<i>Foraminifera</i> sp.	2	...
Wood	2	...
Zone of <i>Belemnites semicanaliculatus</i> .		

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NAME.		Speeton.	Knapton.
Fish remains	...	2	...
PISCES.			
"	"		
CEPHALOPODA.			
<i>Belemnites semicanaliculatus</i> ? = (<i>B. brunsvicensis</i>),			
Stromb.	...	2, 3, 1, 9	...
(resembling <i>sulcatus</i>)	...	2	...
" <i>jaculum</i> , Phil.	...	2, 1	...
" sp. (extreme form of <i>jaculum</i> ?)	...	2	...
" sp. (resembling <i>lateralis</i> , but distinct species)	...	2, 1	...
" <i>speciosus</i> , Stromb.	...	2	...
" <i>absolutiformis</i> , Pavlov	...	2	...
" <i>jasikowi</i> , Lahus	...	2	...
" <i>obtusirostris</i> , Pavlov	...	2	...
<i>Ammonites</i> (<i>Olcostephanus</i> = <i>Simbirkites</i>) <i>discofalcatus</i>			
or <i>Phillippsii</i>	...	3	...
(<i>Olcostephanus</i> = <i>Oppelia</i>) <i>nisoidea</i>	...	3	...
" <i>Hoplites</i> <i>deshayesi</i> , Leym.	...	2, 3	2
" <i>(Amaltheus) bicurvatus</i> , Mich.	...	2	...
" <i>nucleus</i> ? Phil.	...	2, 1	...
<i>Crioceras strombecki</i> , von Könen	...	3	...
" <i>matheroni</i> , Pavlov	...	3	...
<i>Ancycloceras</i> sp. (? <i>grandis</i>)	...	3, 2, 9	...
sp. ...	...	3, 2	...
<i>Toxoceras royeri</i> , d'Orb.	...	3	...
<i>Scaphites constrictus</i> ? d'Orb.	...	3	...
<i>Hamites</i> sp.	...	2	...
<i>Nautilus</i> sp.	...	2	...
GASTEROPODA.			
<i>Rostellaria philippssii</i> , Römer = <i>R. parkinsoni</i> , Phil.	...	2	...
<i>candidula</i> , Forbes MS.	...	2	...
" <i>bicarinata</i> , Leym., Judd	...	2	...
<i>Pleurotomaria</i> sp.	...	2	...
" <i>provincialis</i> , d'Orb.	...	1	...
<i>Turbo</i> sp.	...	2	...
<i>Trochus</i> sp.	...	1	...
<i>Dentalium lavigatum</i>	...	1	...
LAMELLIBRANCHIATA.			
<i>Ostrea</i> sp.	...	2	...
<i>Exogyra (sinuata</i> , Sow. of Judd) varieties	...	2, 4, 1	...
<i>Pecten orbicularis</i> , Sow.	...	2	...
<i>Lima</i> , sp.	...	2, 1	...
<i>Pinna tetragona</i> , Sow. (? <i>gracilis</i> , Phil.)	...	2	...
" <i>robinaldina</i> , d'Orb.

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NAME.		Speeton.	Knaption.
<i>Cucullaea securis</i> , Leym. (<i>Grammatodon securis</i> , Leym.)	2	...	
<i>Nucula</i> (similar to <i>menkii</i> , Römer) ...	2	...	
" <i>subangulata</i> ...	2	...	
" <i>impressa</i> , Sow. ...	2	...	
<i>Mya</i> ? <i>phaseolina</i> , Phil. ...	2	...	
<i>Isocardia angulata</i> , Phil. (= <i>Corbula angulata</i>) ...	2, 5	...	
<i>Astarte laevis</i> , Phil. ...	2	...	
<i>Panopaea neocomiensis</i> , Leym. ...	2	...	
<i>Pholadomya martini</i> , Forbes ...	2	2	
" <i>speetonensis</i> ...	13	...	
<i>Lima subrigida</i> , Römer ...	5	...	
" <i>(acea)</i> <i>longa</i> , Römer ...	5	...	
" <i>(Mantellum) parallelia</i> , Sow. ...	5	...	
BRACHIOPODA.			
<i>Terebratula seeleyi</i> , Walker ...	2	...	
<i>Rhynchonella sulcata</i> , Park. ...	2, 1	...	
ANNELIDA.			
<i>Serpula plexus</i> ? Sow. ...	2	...	
" <i>antiquata</i> , Sow. ...	2	...	
<i>Vermicularia Sowerbyi</i> , Phil. ...	2	...	
Zone of <i>Belemnites jaculum</i> .			
PISCES.			
Vertebrae and teeth of fish ...	2, 11	...	
CEPHALOPODA.			
<i>Belemnites jaculum</i> , Phil. ...	3, 1, 10	...	
" <i>jasikovi</i> , Lahus. ...	3	...	
" <i>pistillirostris</i> , Pavlov ...	3	...	
" <i>cristatus</i> , Pavlov ...	3	...	
" <i>subquadratus</i> , d'Orb. ...	3	...	
" <i>jaculum</i> var. <i>pistilliformis</i> , Blainv. ...	2	...	
" resembling <i>sulcatus</i> , Mill. ...	2	...	
" <i>explanatoides</i> , Pavlov ...	3	...	
<i>Ammonites</i> (<i>Olcostephanus</i> = <i>Simbirskites</i>) <i>decheni</i> , Römer ...	3	...	
" " " <i>umbonatus</i> , Lahus ...	3	...	
" " " <i>discofalcatus</i> , Lahus ...	3, 7	...	

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NAME.		Speeton.	Knpton.
<i>Ammonites</i> (<i>Olcostephanus</i> = <i>Simbirskites</i>) <i>speetonensis</i>	G. and B.	3	...
" "	" <i>progrediens</i> , Lahus....	3	...
" "	" <i>concinus</i> , Phil. ...	3, 7, 10	...
" "	" cf. <i>carteroni</i> , d'Orb....	3	...
" (<i>Olcostephanus</i> = <i>Holcodiscus</i>) <i>rotula</i> , d'Orb.	3, 10	...	...
" <i>cryptoceras</i> , d'Orb.	1	...	...
" <i>crassicostatus</i> , d'Orb.	1	...	...
" (<i>Olcostephanus</i> = <i>Simbirskites</i>) <i>subinversus</i> ,	Pavlov...	2, 7	...
" "	" <i>inversus</i> , Pavlov...	2, 7	...
" "	" <i>payeri</i> , Toula.	2	...
" "	" <i>versicolor</i> ? Trautsch.	2	...
" "	" <i>phillipsii</i> ...	2	...
" (<i>Olcostephanus</i> = <i>Astieria</i>) <i>astieri</i> , d'Orb....	2	...	...
" "	" <i>sulcosus</i> , Pavlov	2	...
" "	" <i>atherstoni</i> , Sharpe...	2	...
" "	" <i>spitiensis</i> , Blanford	2	...
" (? <i>Desmoceras</i>) cf. <i>cassidoides</i> , Uhl.	2	...	...
" <i>noricus</i> , Schloth. (and varieties)...	2, 1	2	...
" <i>speetonensis</i> , Y. and B., var. <i>concinus</i> ,	2, 1, 9, 10	...	...
" Phil.	2, 1, 10	...	...
" <i>speetonensis</i> var. <i>venustus</i> Phil.	2, 1, 10	...	...
" <i>nitus</i> ? d'Orb. (<i>planus</i> , Phil.)	2, 1	...	...
" <i>nucleus</i> , Phil.	2, 1	...	...
" <i>angulicostatus</i> , d'Orb.	2, 1	...	...
" <i>marginatus</i> , Phil.	2, 1	...	...
" <i>astierianus</i> , d'Orb.	2, 1	...	...
" <i>hystrix</i> ? Phil.	2, 1	...	...
" (<i>Hoplites</i>) <i>regalis</i> , Bean...	2, 7	...	...
" " <i>amblygonius</i> , N. and U.	2, 7	...	...
" " <i>roubaudi</i> (<i>munitus</i>), d'Orb.	2	...	...
" " cf. <i>enthymi</i> , Pictet.	2	...	...
" " <i>heterptychus</i> , Pavlov	2	...	...
" " <i>mortelletii</i> , Pictet and Lor.	2, 3	...	...
" <i>bipinnatus</i>	9	...	...
" <i>multiplicatus</i>	9	...	...
<i>Crioceras</i> cf. <i>matheroni</i> , d'Orb.	2, 3	...	...
" <i>capricornus</i> , Römer	3, 2	...	...
" <i>duvali</i> , d'Orb. (<i>Ancylloceras</i> , Léveille)	3, 2, 1	...	...
" <i>semicinctum</i> , Römer	3, 2	...	...
" <i>puzosianum</i> ? d'Orb. = <i>lignatus</i> , Bean MS.	3, 2	...	...
" <i>raricinctum</i> , von Könen	3
" <i>emericii</i> , Léveille (<i>Ancylloceras</i>)	1
<i>Hamites intermedius</i> , Phil.	3

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NAME.	Speeton.	Knapton.
GASTEROPODA.		
<i>Rostellaria phillipsii</i> , Römer = <i>R. parkinsoni</i> , Phil....	2, 1	...
" <i>bicarinata</i> , Leym.	1	...
" sp.	2	...
<i>Cerithium aculeatum</i> , Forbes	2	...
" <i>phillipsii</i> ? Leym.	1	...
<i>Pleurotomaria</i> sp.	2	...
<i>Trochus pulcherimus</i> , Phil.	2	...
<i>Dentalium</i> sp.	2	...
" <i>lævigatum</i> , Bean MS.	2	...
LAMELLIBRANCHIATA.		
<i>Ostrea</i> ? <i>frons</i> , Park.	2, 1	...
" sp.	2	...
<i>Exogyra sinuata</i> , Sow.	2, 1	...
<i>Pecten lens</i> , Sow. var. <i>morini</i> , de Lor.	2	...
" <i>cinctus</i> , Sow.	2, 1	...
" sp.	2	...
" sp.	2	...
<i>Lima</i> (<i>Mantellum</i>) <i>parallela</i> , Sow.	2, 1, 5	...
" <i>gaultina</i> , Sow.	5	...
<i>Plicatula</i> sp.	2	...
<i>Avicula</i> sp.	2	...
<i>Inoceramus venustulus</i> , Bean MS.	2	...
" <i>imbricatus</i> , Bean MS.	2	...
<i>Nucula</i> <i>subangulata</i> ? Forbes MS.	2	...
" <i>subcurva</i> , Phil.	2	...
" <i>vibrayana</i> , d'Orb.	2	...
<i>Nuculana speetonensis</i> (= <i>Nucula equilateralis</i>), Bean MS....	2	...
" (<i>Yoldia</i>) <i>scapha</i> (= <i>Leda scapha</i> , Gardner)	5, 2	...
" <i>seeleyi</i> = <i>Leda seeleyi</i> , Gardner	2	...
<i>Aucella keyserlingiana</i> , Trautschold (= <i>Perna imbricata</i> and <i>venustula</i>), Bean MS. and J. Phillips	5	...
<i>Iseocardia angulata</i> , Phil. (= <i>Corbula angulata</i>)	2, 5	...
<i>Mya</i> ? <i>phaseolina</i> , Phil.	2	...
<i>Panopaea</i> (? <i>neocomiensis</i> , Desh. sp. Judd.)	2, 1	...
<i>Thracia phillipsii</i> , Römer (= <i>Mya depressa</i>)	2, 1, 8	...
<i>Pholadomya martini</i> , Forbes	2, 1	2
<i>Lucina sculpta</i> , Phil.	1	...
" <i>crassa</i> , Sow	1	...
BRACHIOPODA.		
<i>Terebratula depressa</i> , Lam.	2, 1	...
" <i>sellata</i> , Sow.	2	...
" <i>moutoniana</i> , d'Orb.	2	...
" sp.	2	...
<i>Rhynchonella sulcata</i> , Park.	2, 1	...
" <i>speetonensis</i> , Dav.	2	...
<i>Terebratulina martiniana</i> , d'Orb.	2	2
<i>Waldheimia celtica</i> , Morris, Dav. (Judd.)	4, 1	...
" <i>faba</i> , d'Orb.	4	...

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NAME.		Speeton.	Knapton.
ANNELIDA.			
<i>Serpula articulata</i> , Sow.	...	2, 1, 9	...
" <i>antiquata</i> , Sow.	...	2, 1	...
" <i>gastrochænoides</i> , Leym.	...	1	...
<i>Vermicularia phillipsei</i> , Römer	...	2, 1	...
ECHINODERMATA.			
<i>Pentacrinus angulatus</i> , Römer	...	1	...
<i>annulatus</i> , Römer	...	2, 1	...
<i>Echinospatangus cordiformis</i> , Breyn. = <i>Toxaster complanatus</i> , Ag.	...	2	...
<i>Cidaris</i> (spines)	...	2	...
ACTINOZOA.			
<i>Trochocyathus conulus</i> , Phil.	...	2	...
CRUSTACEA.			
<i>Meyeria ornata</i> , Phil. = <i>Astacoides falcifer</i> , Bell	...	2	...
<i>Palinuridia scarburgensis</i>	...	2	...
<i>Hoploparia prismatica</i> , McCoy	...	2	...
" sp. (<i>chelæ</i>)	...	2	...
Foraminifera	...	2	...
Wood	...	2	...
PORIFERA.			
Sponges sp.	...	1	...
<i>Clionæ</i> (crypts)	...	1	...
Zone of <i>B. lateralis</i> .			
REPTILIA.			
<i>Plesiosaurus</i> sp. (vertebræ and paddles)	...	1	...
<i>Teleosaurus</i> (skull)	...	1	...
Saurian remains	...	1, 3, 2	...
PISCES.			
<i>Gyrodus minor</i> , Ag. (Vertebræ and teeth)	...	4	...
<i>Hybodus</i> sp.	...	4	...
<i>Macropoma</i> (<i>Eurypona</i>) <i>egertoni</i> , Ag. (Vertebræ & teeth)	...	4	...
sp.	" "	2	...
<i>Lamna</i> sp.	" "	1	...

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NAME.	Speeton.	Knapton.
CEPHALOPODA.		
<i>Ammonites</i> (<i>Olcostephanus</i> = <i>Holcodiscus</i>) <i>rotula</i> , Sow. " " = <i>Polyptychites</i> <i>bidichoto-</i> " " " " <i>mus</i> , Leym. " " " " <i>keyserlingi</i> , " " " " N. and U. " " " " <i>gravesiformis</i> , " " " " Pavlov " " " " <i>lamplughi</i> , " " " " Pavlov " " " " <i>ramadicosta</i> , " " " " Pavlov " " " " <i>beani</i> , Pavlov " " " " <i>triplopty-</i> " " " " <i>chus</i> , Pavlov " " " " <i>polyptychus</i> , " " " " Key " " = <i>Craspedites</i> <i>fragilis</i> , " " Trautsch. " " " " cf. <i>subditus</i> , " " Trautsch. " " " " <i>okensis</i> " " " " <i>plicomphalus</i> " (<i>Hoplites</i>) <i>regalis</i> (Bean) Pavlov ... " " <i>amblygonius</i> , N. and U. " " (<i>A. noricus</i>) 3 ... " " <i>hystrix</i> , Phil. 3 ... " " <i>roubandi</i> , d'Orb. 3 ... " " <i>heteroptychus</i> ? Pavlov ... 3 ... " " <i>oxygonius</i> 3 ... " " sp. 3 ... " " <i>oxynoticeras</i> cf. <i>catenulatum</i> , Fischer ... 3 ... " " <i>gravesianus</i> , d'Orb. (<i>O. keyserlingi</i> , N. and U.) 2 ... " " <i>noricus</i> , Schloth. (and varieties) ... 2 ... " " <i>rotula</i> (<i>kashpuricus</i> , Trautsch.) ... 2 ... <i>Nautilus</i> <i>plicatus</i> , Sow. 1 ... " " <i>pseudo-elegans</i> d'Orb. 1 ... " " <i>radiatus</i> , Sow. 1 ... <i>Belemnites</i> <i>lateralis</i> , Phil. 3, 2, 4 ... " " <i>russiensis</i> , d'Orb. 3 ... " " <i>subquadratus</i> , d'Orb. 3 ... " " <i>explanatooides</i> , Pavlov 3 ... " " <i>explanatus</i> ? Phil. 3 ... " " <i>absolutus</i> , Fischer 3 ... <i>Crioceras</i> (<i>Ancyloceras</i>) <i>grande</i> , Forbes sp. ... 1 ... " " sp. 2 ... " " sp. 2 ... GASTEROPODA. <i>Aphorhais</i> sp. (<i>Rostellaria</i> , Phillips) 1, 4 ... <i>Avellana</i> (<i>Auricula</i>) <i>obsoleta</i> , Phil. 2, 1 ... <i>Rostellaria parkinsoni</i> , Phil. non Sow. 1, 4 ...		

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NAME.	Speeton.	Knapton
<i>Rostellaria bicarinata</i> , Leym.	1, 4	...
<i>Cerithium clementinum</i> var. d'Orb.	1, 9	...
<i>Turritella laevigata</i> , Leym.	1, 4	...
<i>Solarium ? tabulatum</i> , Phil.	1, 4	...
<i>Trochus pulcherrimus</i> , Phil. sp.	1, 4	...
" <i>granulatus</i> "	1, 4	...
<i>Delphinula ? sp.</i> (<i>inconspicua</i> , Phillips)	1, 4	...
<i>Emarginula neocomiensis</i> , d'Orb.	1, 4	...
<i>Dentalium ellipticum</i> ? Sow. (casts)	1, 4	...
<i>Pleurotomaria</i> sp.	3	...
LAMELLIBRANCHIATA.		
<i>Ostrea leymeriei</i> , d'Orb.	1	...
" <i>frons</i> ", Parkinson	1	...
" <i>sp.</i> "	2	...
<i>Exogyra sinuata</i> , Sow. (normal form)	1, 2	...
" <i>parvula</i> ", Leym.	1	...
" <i>sp. nov.</i> "	1, 2, 3	...
<i>Plicatula placnea</i> , Lam.	1, 5	...
<i>Avicula inequivivalvis</i> , Sow. = (<i>Pteria cornueliana</i>)	1, 2, 4	...
<i>Placunopsis</i> sp.	4, 1	...
<i>Pecten elongatus</i> , Lam.	1, 4	...
" <i>orbicularis</i> ", Sow.	1, 4	...
" <i>cinctus</i> ", Sow.	1, 4, 3	...
" <i>interstriatus</i> ", Leym.	1, 4	...
" <i>striato-punctatus</i> ", Römer	1, 4	...
<i>Lima</i> sp. nov.	1	...
" <i>sp. nov.</i> "	1	...
" <i>undata</i> ", Deshayes	1	...
" <i>elegans</i> ", Duj.	1	...
<i>Inoceramus venustulus</i>	1	...
" <i>concentricus</i> ", Sow. (small var.)	1	...
" <i>imbricatus</i> "	1	...
<i>Pinna gracilis</i> , Phil.	4, 1	...
<i>Arca</i> sp. (casts)	2	...
<i>Nucula ovata</i> , Leckenby, Phillips (<i>planata</i> , Deshayes)	2, 6	...
" <i>subrecurva</i> ", Phil.	2, 6	...
" <i>lamplughii</i> ", H. Woods	5	...
" <i>obtusa</i> ", Sow.	2	...
" <i>sp. (casts)</i> "	2	...
<i>Leda spathulata</i> , Forbes (<i>L. pandata</i>)	2	...
" <i>seeleyi</i> "	6	...
" <i>scapha</i> ", d'Orb.	6	...
<i>Corbis</i> sp.	2	...
<i>Astarte senecta</i>	5	...
" <i>(Eriphylla) laevis</i> ", Phil.	5	...
" <i>laticosta</i> ", Deshayes	4	...
<i>Pteria</i> (<i>Oxytoma</i>) <i>cornueliana</i> , d'Orb. = <i>A. vicula</i>	5	...
" <i>inequivalvis</i> " (G. W. Lamplugh)	5	...
<i>Iseocardia angulata</i> , Phil.	4, 2	...
"? sp."	2	...
<i>Trigonia spinosa</i> , Park.	4, 2	...

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NAME.		Speeton.	Knapton.
<i>Mya?</i> <i>phaseolina</i> , Phil....	...	2	...
<i>Thetis sowerbyi</i> , Römer (var. <i>major</i>)	...	2	...
" (var. <i>minor</i>)	...	2	...
<i>Protocardia</i> sp....	...	5	...
<i>Panopaea plicata</i> ....	...	2	...
" <i>neocomiensis</i> , Desh. sp....	...	2	...
" <i>gurgitis</i> ....	...	13	...
<i>Thracia phillipsii</i> , Römer ? var.	...	2	...
" <i>depressa</i> , Sow. ....	...	2	...
" sp. (var. of <i>phillipsii</i>) ....	...	2	...
<i>Pholadomya martini</i> , Forbes ....	...	2	...
" (sp. two rare) ....	...	2	...
" <i>speetonensis</i> ....	...	13	...
<i>Gervillia anceps</i> , Desh. ....	...	4	...
<i>Perna mulleti</i> , Desh. ....	...	4, 5	...
" <i>imbricata</i> ....	...	4	...
" <i>venustula</i> ....	...	4, 1	...
<i>Pholas</i> (= <i>Martesia</i>) <i>constricta</i> , Phil. ....	...	2, 13	...
<i>Lithodomus</i> sp....	...	2	...
<i>Teredo</i> sp....	...	2	...
BRACHIOPODA.			
<i>Terebratula depressa</i> , Lam. ....	...	1, 2	...
" <i>hippopus</i> , Römer (Judd.) ....	...	1, 2	...
" <i>sella</i> , Sow. ....	...	1, 2	...
<i>Terebratulina striata</i> var. <i>pentagonalis</i> , Wahl.	...	1, 2	...
" <i>martiniana</i> , d'Orb. ....	...	4	4
<i>Rhynchonella sulcata</i> , Park. ....	...	1	...
" <i>lineolata</i> , Phil. sp....	...	1	...
" sp. ....	...	1	...
<i>Lingula truncata</i> , Sow. ....	...	4, 1	...
<i>Discinia</i> sp. nov. ....	...	1	...
ECHINODERMATA.			
<i>Cidaris</i> sp....	...	1	...
<i>Pseudodiadema</i> sp....	...	4	...
<i>Toxaster argillaceus</i> , Phil. ....	...	1	...
" <i>complanatus</i> , Ag. ....	...	2, 4	...
<i>Pentacrinus annulatus</i> ? Römer ....	...	1	...
" <i>angulatus</i> , Römer ....	...	1	...
" sp. ....	...	...	...
ACTINOZOA.			
Coral growing on <i>Serpula</i> ....	...	2	...
<i>Lichenopora</i> ....	...	2	...
<i>Trochocyathus conulus</i> , Phil. ....	...	1, 4, 12	...
" ? <i>calcaratus</i> , Tomes.	12	...
" <i>wiltshirei</i> , Duncan	12	...
<i>Smilothrochus cylindricus</i> , Duncan	12	...

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NAME.		Speeton.	Knapton
CRUSTACEA.			
? <i>Meyeria rectensis (ornata)</i> , Phil.	1, 2, 3	...
Obscure crustacean remains	1	...
<i>Cirripede</i> plate	... ... ...	1	...
Wood	... ... ...	3	...
COPROLITE BED (Mr. LAMPLUGH).			
CEPHALOPODA.			
<i>Ammonites</i> (<i>Olcostephanus = Virgatites</i>) cf. <i>panderi</i> , d'Orb.		3	...
" " cf. <i>scythicus</i> , Mich.		3	...
" " cf. <i>chernuichevi</i> , Mich.		3	...
" " cf. <i>dorsoplanus</i> , Mich.		3	...
<i>Belemnites</i> cf. <i>absolutus</i> , Fischer	... ... ...	3	...
" <i>magnificus</i> , d'Orb.	... ... ...	3	...
COPROLITE BED (Messrs. LECKENBY AND JUDD, Q.J.G.S., 1868).			
REPTILIA.			
<i>Plesiosaurus</i> sp.	... ... ...	1	...
Saurian remains	... ... ...	1	...
PISCES.			
Fish remains	... ... ...	1	...
CEPHALOPODA.			
<i>Ammonites gigas</i> , Niet.	... ... ...	1	...
" <i>rotundus</i> , Sow.	... ... ...	1	...
LAMELLIBRANCHIATA.			
<i>Lucina portlandica</i> , Sow.	1	...
<i>Arca</i> sp. (casts)	1	...
<i>Nucula</i> sp. (casts)	1	...
<i>Lithodomus</i> (crypts)	1	...
Wood	1	...

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KIMERIDGE CLAY.

BIBLIOGRAPHY.

1. Professor PHILLIPS. "Geology of the Yorkshire Coast," 3rd edition, 1875.
2. Professor JUDD. "On the Speeton Series," Quart. Journ. Geol. Soc., 1868.
3. G. W. LAMPLUGH. "The Sub-divisions of the Speeton Clay," Quart. Journ. Geol. Soc., 1889, and "The Speeton Series in Yorkshire and Lincolnshire," Quart. Journ. Geol. Soc., May, 1896.
4. C. G. DANFORD, Proc. Yorks. Geol. Soc., 1906, and Transactions of the Hull Geological Society, 1905, etc.
5. C. FOX STRANGWAYS. "Jurassic Rocks of Yorkshire," Memoirs of Geological Survey, Vol. I., 1892.
6. T. SHEPPARD. "Geological Rambles in East Yorkshire," 1903.
7. JOHN LECKENBY. "Note on the Speeton Clay of Yorkshire," "Geologist," 1859, p. 9.
8. "The Naturalist," 1907, pp. 132, 165, 277.

KIMERIDGE CLAY.

NAME.	Speeton.	Other Places.
REPTILIA.		
<i>Plesiosaurus</i> sp. ... ... ... ... ...	...	South Cave. 6
<i>Pliosaurus</i> sp.	5	...
<i>Ichthyosaurus thyreospondylus</i> sp.	6	...
" <i>Steneosaurus</i> sp.	5	...
" <i>Steneosaurus</i> sp.	4, 8	...
PISCES.		
<i>Euryptoma egertoni</i> , Ag.	5, 7	...
<i>Gyrodus cuvieri</i> , Ag.	5	...
Fish discovered by Mr. Danford (belonging to the <i>Eugnathidae</i>)	4	...

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 55

NAME.	Speeton.	Other Places.
CEPHALOPODA.		
<i>Belemnites trotskyanus</i> , d'Orb.	4, 5, 1	...
" <i>porrectus</i> , Phil.	4	...
" <i>puzosi</i> , d'Orb.	4	...
" <i>obeliscoides</i> , Pavlov	4	...
" <i>magnificus</i> , d'Orb.	4	...
" aff. <i>magnificus</i> ?	4	...
" cf. <i>absolutus</i> , Fischer	4	...
" sp. ?	4	...
" sp. ?	4	...
" <i>oweni</i> , Pratt	5	Elloughton.
" <i>nitidus</i> , Doll.	5, 1	5
" <i>lateralis</i> , Phil.	5	South Yorks. 5
" <i>abbreviatus</i> , Mill.	5	N. Grimston. 5
<i>Ammonites (Perisphinctites) lacertosus</i> , Del. F. =		Settrington. 5
<i>A. bplex</i> , Sow.	1,2,3,4,7,8	
" (<i>Cardioceras</i>) <i>alternans</i> , von Buch....	1	N. Grimston. 5 Acklam Leavening.
" <i>cordatus</i> , Sow.	5	5
" <i>berryeri</i> , Lesueur	1, 5, 2	Settrington.
" (<i>Hoplites</i>) <i>eudoxus</i> = <i>A. evadus</i>	4	5
" <i>pseudomutabilis</i> , Loriol	4	...
" <i>subundore</i> , Pavlov	4	...
" (<i>Olcostephanus</i> = <i>Virgatites</i>)	cf.	
" <i>miatchkoviensis</i> (Michel.)	4	N. Grimston. 5
" <i>eudoxus</i> , d'Orb. = <i>Hoplites</i>	5	N. Grimston.
" <i>eumelus</i> ? d'Orb.	5	5
" <i>longispinus</i> , Sow.	5, 1	...
" <i>marantianus</i> ? d'Orb.	5, 1, 2	...
" <i>mutabilis</i> , Sow.	5, 2	Kirby Misperton. 1 N. Grimston. 5
" <i>plicomphalus</i> , Sow.	5	Kirby Moorside. 1 N. Grimston.
" <i>rotundus</i> , Sow.	5	5
" <i>trifidus</i> , Sow.	5	...
" <i>triplicatus</i> , Sow.	5, 1, 2	...
" <i>jo</i> ? d'Orb.	5, 1, 2	N. Grimston.
" <i>acanthicus</i>	...	5
" <i>gravesianus</i> , d'Orb.	5	...
<i>Ancyloceras</i> sp.	...	...
LAMELLIBRANCHIATA.		
<i>Avicula aedilignensis</i> , Blake	5	...
" <i>expansa</i> , Phil.	5	...
<i>Exogyra nana</i> , Sow.	5, 1, 2	...

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NAME.	Speeton.	Other Places.
<i>Exogyra virgula</i> , Defr.	5, 2	...
" <i>sinuata</i> , Sow. (normal form)	2	Elloughton.
<i>Ostrea deltoidea</i> , Sow.	5	5
		Welton.
" <i>gibbosa</i> , Lesueur	5	1
" sp.	2	...
<i>Pecten subtextorius</i> , Münst.	5	...
" sp.	2	...
<i>Pinna granulata</i> , Sow.	5, 1, 2	...
<i>Astarte lineata</i> , Sow.	5	...
<i>Cardium striatum</i> , Sow.	5, 2	...
<i>Ceromya excentrica</i> , Ag.	5, 1, 2	...
<i>Cucullaea</i> sp.	5	...
<i>Leda</i> sp.	5, 1, 2	...
<i>Lucina minuscula</i> , Blake	5	...
" <i>portlandica</i> , Sow.	5	...
<i>Modiola bipartita</i> , Phil. (non Sow.)	5, 2, 1	...
<i>Myacites oblates</i> , Sow.	5	...
" sp.	5, 2	...
<i>Thracia depressa</i> , Sow.	5, 1, 2	...
<i>Pholadomya decussata</i> , Phil.	5, 2, 7	...
<i>Anatina minuta</i> , Blake	3	...
<i>Inoceramus</i> sp.	2	...
<i>Plicatula</i> sp.	2	...
GASTEROPODA.		
<i>Alaria trifida</i> , Phil.	5	...
" <i>mosensis</i> , Buvig.	5	...
BRACHIOPODA.		
<i>Rhynchonella inconstans</i> , Sow.	2, 5, 1	1
" sp.	2, 5	...
" <i>subvariabilis</i> ? Dav.	5	...
<i>Discinia humphriesiana</i> , Sow....	5	...
" <i>latissima</i> , Sow.	2, 5	...
<i>Lingula ovalis</i> , Sow.	5, 2, 1	...
ANNELIDA.		
<i>Serpula tetragona</i> , Sow.	5	...
CRUSTACEA.		
<i>Pollicipes hausmanni</i> , K. and D.	5	...
ECHINODERMATA.		
<i>Pentacrinus</i> sp.	2, 5	...
PORIFERA.		
Sponges	2	...
Wood	2	...

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PORTLANDIAN.

BIBLIOGRAPHY.

1. Professor JUDD. "On the Speeton Series," Q.J.G.S., 1868.
2. C. FOX STRANGWAYS. Memoirs of the Geological Survey,, Yorkshire, Vol. I., 1892.
3. Professor PHILLIPS. "Geology of the Yorkshire Coast," 3rd edition, 1875.

FOSSILS OF THE PORTLANDIAN.

	NAME.		Speeton.	Knpton.
	REPTILIA.			
<i>Plesiosaurus</i> sp.	...	...	1	...
	PISCES.			
Fish remains	...	...	1	...
	CEPHALOPODA.			
<i>Belemnites</i> sp.	...	...	1	...
"	<i>lateralis</i>	...	2	...
<i>Ammonites</i> <i>gigas</i> , Niet.	...	...	1, 3	...
"	<i>giganteus</i> , Sow. ?	...	1, 3	...
"	<i>gravesianus</i> , d'Orb.	...	1	...
"	<i>irius</i> , d'Orb.	...	1, 3	...
"	<i>rotundus</i> , Sow.	...	1	...
"	(<i>Hoplites</i>) <i>deshayesi</i> (<i>knaptonensis</i>)	...	2	...
"	(<i>"</i>) <i>amblygonius</i> (= <i>noricus</i>), N. & U.	...	2	...
"	<i>Perisphinctes lacertosus</i> , D. and F. = <i>A. bplex</i> , Phil.	...	3	...
	LAMELLIBRANCHIATA.			
<i>Avellana obsoleta</i> , Phil.	...	...	2	...
<i>Avicula obsoleta</i> , Phil.	...	...	2	...
<i>Exogyra sinuata</i> , Sow.	...	...	2	...
<i>Pecten lens</i> , Sow. var. <i>morini</i> , de Lor.	...	...	2	...
<i>Area</i> sp.	...	...	2, 1	...
<i>Astarte senecta</i>	...	...	2	...
<i>Nucula</i> sp.	...	...	2, 1	...
<i>Lucina portlandica</i> , Sow.	...	...	3, 2, 1	...
<i>Lithodomus</i> sp.	...	...	2, 1	...
	BRACHIOPODA.			
<i>Rhynchonella inconstans</i> , Sow.	2	...
<i>Lingula ovalis</i> , Sow.	2	...
Wood	2, 1	...

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CORALLIAN ROCKS.

Including Upper Calcareous Grit, Coral Rag and Upper Limestone, Middle Calcareous Grit, Lower Limestone.

BIBLIOGRAPHY.

1. HUDDLESTON and BLAKE. "The Jurassic Rocks of Yorkshire," Proc. Geol. Asso., 1878, etc., "The Corallian Rocks of England," Quart. Journ. Geol. Soc., 1877.
2. C. FOX STRANGWAYS. "The Jurassic Rocks of England," Memoirs of Geological Survey, Vol. I., Yorkshire, 1892.
3. In the collection of H. C. DRAKE.
4. Collected by G. LETHER, now in Hull Museum.
5. "Fossil Sponges (British)," a Monograph by G. J. HINDE, Palaeontological Society, 1893, Part III.
6. Proc. Yorks. Geol. and Poly. Soc., 1900.

CORALLIAN ROCKS.

Embracing the Zones of *Ammonites perarmatus* and *Ammonites plicatilis*.

NAME.	North Grimston.	Settring- ton.	Langton Wold.
REPTILIA.			
<i>Pliosaurus teretideus</i> , Owen M.S. = <i>P. brachydeirus</i> , Owen (teeth) 1, 2, 3, 4
<i>Teleosaurus</i> sp. (teeth) 1, 3, 4
PISCES.			
<i>Hybodus</i> cf. <i>grossiconus</i> , Ag. (teeth) ... 1, 3, 4
" <i>obtusus</i> , Ag. (teeth) ... 1, 3, 4
<i>Gyrodus punctatus</i> , Ag. 1, 3
<i>Lepidotus</i> sp. (scales and teeth) 1, 3, 4
<i>Ischyodus egertoni</i> , Ag. 3
CEPHALOPODA.			
<i>Ammonites (Perisphinctes) varicostatus</i> , Buck....	1, 2	...	1, 2
" " <i>decipiens</i> , Sow. 1, 2	1, 2
" " <i>plicatilis</i> , Sow. 1
" " <i>biplex</i> , Sow. ... 1

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NAME.	North Grimston.	Settring- ton.	Langton Wold.
<i>Ammonites (Cardioceras) vertebralis</i> , Sow....	1
" <i>alternans</i> , von Buch.	1	...	...
" <i>cortonensis</i> , B. & H.	1	...	...
" <i>cordatus</i> ....	...	1	...
" <i>berryeri</i> , Lesueur	1, 2	...	...
" <i>achilles</i> ?	...	1	...
" <i>trifidus</i>	1, 2	...	1, 2
<i>Nautilus aganicus</i> , Schloth.	1, 2	...	1, 2
<i>Belemnites abbreviatus</i> , Miller	1, 3, 4	1	1
" <i>nitidus</i> , Dollf. (<i>B. explanatus</i> , Phil.) ...	...	...	1
" <i>cf. owenii</i> , Pratt	...	1	...
" <i>semisulcatus</i> ? Münster.	1, 2	...	1, 2
" <i>hastatus</i> ?	2	...	1, 2
GASTEROPODA.			
<i>Purpuroidea nodulata</i> , Y. and B....	1, 4	1	1
<i>Natica buccinoidea</i> , Hud. ...	1	...	1
" <i>clymenia</i> , d'Orb. ...	1, 3, 4	...	...
" <i>clytia</i> , d'Orb.	1, 3, 4	...	...
<i>Chemnitzia heddingtonensis</i> Sow.	1	1, 3	1
" <i>pollux</i> , d'Orb. ...	1	...	...
" <i>langtonensis</i> , B. and H. ....	...	...	1
<i>Nerinæa moreana</i> , d'Orb.	1	...	...
" <i>römeri</i> , Goldf.	1, 3	1, 3	1
" <i>allongiuscula</i> ? Bean	1	...	1
" <i>fasciata</i> ....	...	1	...
<i>Littorina muricata</i> , Sow.	1, 3	1	1
" var. <i>pulcherrima</i> , Dollf.	1, 4	...	...
" (<i>Encyclus</i>) <i>buvignieri</i> , d'Orb.	1	...	...
<i>Nerita</i> sp.	1	...	...
<i>Neritopsis guerrei</i> , H. and D.	1, 4	...	...
" <i>decussata</i> , Münster.	1	...	...
<i>Trochus</i> sp.	1	...	...
<i>Turbo corallensis</i> , Buvig.	1, 2, 3, 4	...	1
" <i>funiculatus</i> , Phil.	1, 4	1	...
" <i>erinus</i> , d'Orb. = <i>Turbo laevis</i> , Buvig.	1	...	1
" <i>pellati</i> , De Lor. = (<i>Delphinula</i> sp.)	1, 4	...	1
<i>Pleurotomaria reticulata</i> , Sow.	1, 3	...	1
" <i>agassizii</i> , Münster.	1	...	...
<i>Trochotoma tornatilis</i> , Phil.	1, 3	...	1
<i>Alaria</i> sp. (cf. <i>tridactyla</i>), Buvig.	1	...	1
<i>Patella rugosa</i> , Sow.	1, 2	...	1, 2
LAMELLIBRANCHIATA.			
<i>Ostrea duriuscula</i> , Phil.	1	...	...
" <i>bullata</i> , Sow. (<i>Gryphaea</i>)	1
" [<i>subgibbosa</i> , B. and H.	1
" <i>gregaria</i> , Sow.	1	1	1
<i>Exogyra nana</i> , Sow.	1, 2	1	1, 2
" sp.	1

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NAME.	North Grimston.	Settring- ton.	Langton Wold.
<i>Anomia radiata</i> , Phil.	1
<i>Plicatula</i> sp. (cf. <i>fistulosa</i> , L. and M.)	1
<i>Pecten vimineus</i> , Sow.	1, 2	...	1, 2
.. <i>inaequicostatus</i> , Phil.	1	1	...
.. <i>demissus</i> , Phil.	1, 2	...	1, 2
.. <i>midas</i> , d'Orb. ....	...	...	1
.. <i>intertectus</i> , Römer	1	1	...
.. <i>lens</i> , Sow.	1, 2	...	1, 2
.. <i>qualicosta</i> , Et.	1	1	...
.. <i>fibrosus</i>	1, 2	1	1, 2
<i>Hinnites</i> sp. near to <i>H. fallax</i> , Dollf.	1	...	...
<i>Lima laeviuscula</i> , Sow. var.	1	...	1
.. <i>rigida</i> , Sow.	1	...	1
.. <i>pectiniformis</i> , Schloth.	1	...	1
.. <i>rudis</i> , Sow.	1	...	1
.. <i>elliptica</i> , Whit. var.	1	...	1
.. <i>subantiquata</i> , Römer	1	...	1
<i>Avicula ovalis</i> , Phil. var. <i>obliqua</i> ....	...	...	1
.. <i>adilignensis</i> , Blake	1	...	...
<i>Trichites plotii</i>	1	...	...
<i>Mytilus ungulatus</i> , Y. and B.	1	...	...
<i>Modiola inclusa</i> , Phil.	1	...	1
.. <i>cancellata</i> , Römer	1, 2	...	1, 2
<i>Arca quadrivalvis</i> , Sow.	1	...	1
.. <i>pectinata</i> , Phil.	1	...	1
<i>Perna subplana</i> , Et.	1	...	...
.. <i>mytiloides</i> , Lam.	1, 2	...	1, 2
<i>Cucullaea elongata</i>	1	...	...
<i>Nucula</i> sp.	1	...	1
<i>Trigonia costata</i>	1, 2	...	...
.. <i>clavellata</i> , Sow.	1	...	1, 2
<i>Protocardium isocardiaoides</i> , B. and H.	1	...	1
<i>Uniscardium depresso</i> ....	...	1	...
<i>Cardium debilatum</i> ? De Lor.	1, 2	...	1, 2
<i>Tancredia curtansata</i> , Phil. ....	...	1	...
.. cf. <i>planata</i> , M. and L. ....	...	1	...
<i>Lucina aliena</i> , Phil.	1	1	...
.. cf. <i>aspera</i> , Buvig.	1	...	1
.. <i>substriata</i> , Römer	1	...	...
<i>Opis virdunensis</i> , Buvig.	1	...	1
.. <i>lunulata</i> , Römer	1	...	1
.. <i>phillipsei</i> ....	...	1	...
<i>Astarte rhomboidalis</i> , Phil.	1	...	1
.. <i>ovata</i> , Smith	1	1	1
<i>Homomya crassiuscula</i> , L. and M.	1	...	1
.. <i>tremula</i> , Buvig.	1	...	...
.. (<i>grimstonensis</i>)	1	...	...
<i>Thracia depressa</i> , Sow.	1	...	1
<i>Pholadomya</i> cf. <i>concentrica</i> , Römer	1	...	1
<i>Panopaea gigantea</i>	1	...	1
<i>Myacites</i> sp.	1	...	1
<i>Pleuromya</i> sp. (<i>tellina</i>)	1, 2	...	1, 2
.. <i>voltzii</i> , Ag.	1, 2	...	1, 2

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 61

NAME.	North Grimston.	Settring- ton.	Langton Wold.
<i>Goniomya v-scripta</i> , Sow. ...	1	...	...
" <i>marginata</i> , Ag. ...	...	...	1
" <i>literata</i> ...	1, 2	1	1, 2
<i>Corbicella</i> sp. ...	1	1	...
<i>Pinna</i> sp. ...	1, 2	...	1, 2
<i>Gryphaea subgibbosa</i> ...	1, 2	...	1, 2
<i>Gervillia angustata</i> , Römer ...	1, 2	...	1, 2
BRACHIOPODA.			
<i>Terebratula insignis</i> var. <i>maltonensis</i> , Oppel	1	...	...
" <i>gesneri</i> ...	3	...	...
<i>Discinia elevata</i> , Blake ...	1, 2	...	1, 2
ANNELIDA.			
<i>Serpula squamosa</i> , Phil. ...	...	...	1
" <i>intestinalis</i> , Phil. ...	1, 2	...	1, 2
" <i>tetragona</i> , Sow. ...	1, 2	...	1, 2
ECHINODERMATA.			
<i>Cidaris florigemma</i> , Phil. ...	1, 3, 4	1, 3, 4	1, 2
" <i>smithii</i> , Wright ...	1	1, 3, 4	1
<i>Hemicidaris intermedia</i> , Flem. ...	1, 2, 3, 4	1	1
<i>Pseudodiadema hemisphaericum</i> , Ag. ...	1, 2, 3, 4	1, 3	1
<i>Stomachinus gyratus</i> , Ag. ...	1	...	...
<i>Pygaster umbrella</i> , Ag. ...	1, 4	...	1
<i>Collyrites bicordata</i> , Leske. ...	1	...	1
<i>Echinobriessus scutatus</i> , Lam. ...	1, 3, 4	...	1
<i>Millericrinus echinatus</i> , Goldf. ...	1, 3	1, 3, 4	...
<i>Apiocrinus polycyphus</i> , Merian. ...	1	...	...
<i>Pentacrinus</i> sp. ...	1	...	...
ACTINOZOA.			
<i>Stylna tubulifera</i> , Phil. ...	1	...	...
<i>Montlivaltia dispar</i> , Phil. ...	1, 3, 4	...	...
<i>Thecosmilia annularis</i> , E. and H. ...	1, 3, 4	1, 3	...
<i>Goniocora socialis</i> , Römer ...	...	...	1
<i>Iastraea explanata</i> , Phil. ...	1, 3, 4	1, 3, 4	...
<i>Thamnastraea concinna</i> , Goldf. ...	1, 3, 4	1, 3	...
" <i>arachnoides</i> , Park. ...	1, 3, 4	3	...
<i>Latimæandra decorata</i> ...	...	...	6
<i>Protoseris waltoni</i> , E. and H. ...	...	6	...
PORIFERA.			
<i>Holcospongia glomerata</i> , Quenst. ...	...	...	5, 4
<i>Raxella perforata</i> , Hinde	5	...
<i>Corynella chadwicki</i> , Hinde	5	5
" <i>langtonensis</i> , Hinde	5, 4

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1. C. FOX STRANGWAYS. "The Jurassic Rocks of Yorkshire," Memoirs of Geological Survey, Vol. I., 1892.
2. KEEPING and MIDDLEMISS. "Sections at Cave, Yorkshire," Geological Magazine, 1883, p. 215.
3. T. SHEPPARD. "Geological Rambles in East Yorkshire," 1903.
4. Collected by H. C. DRAKE.

OXFORD CLAY.

NAME.								South Cave.
REPTILIA.								
<i>Plesiosaurus</i> sp.	...	...	...	...	...	...	...	1, 2, 3
CEPHALOPODA.								
<i>Ammonites (Cosmoceras) elizabethae</i>	...	...	...	...	...	...	...	1
" <i>comptoni</i>	...	...	...	...	...	...	...	1
<i>Belemnites hastatus</i>	...	...	...	...	...	...	...	1, 2
" <i>owenii</i>	...	...	...	...	...	...	...	1, 2, 3, 4
" <i>abbreviatus</i>	...	...	...	...	...	...	...	1, 2, 4
LAMELLIBRANCHIATA.								
<i>Ostrea dilatata</i> = <i>Gryphaea dilatata</i>	...	...	...	...	...	...	...	1, 2, 3, 4
" <i>gregaria</i>	...	...	...	...	...	...	...	1
<i>Pecten</i> sp.	...	...	...	...	...	...	...	1

Wood	...	...	...	...	...	...	...	2, 4

Wood

2. 4

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 63

KELLAWAYS ROCK.

BIBLIOGRAPHY.

1. KEEPING and MIDDLEMISS. "On some New Railway Sections and other Rock Exposures in the District of Cave, Yorkshire," Geological Magazine, 1883, p. 215.
2. Collected by T. SHEPPARD, and now in Hull Museum.
3. Collected by H. C. DRAKE.
4. Professor PHILLIPS. "Geology of Yorkshire Coast," 3rd edition, 1875.
5. C. FOX STRANGWAYS. "The Jurassic Rocks of England." Memoirs Geological Survey, Vol. I., Yorkshire, 1892.
6. "Geology of Country between York and Hull," Memoirs of Geological Survey, 1886.

FOSSILS OF THE KELLAWAYS ROCK.

NAME.	Drewton Cutting.	Other Places.
REPTILIA.		
<i>Cryptocleidus</i> sp.	2	2, Brough Mill Hill
<i>Plesiosaurus</i> sp.	1	...
CEPHALOPODA.		
<i>Ammonites</i> (<i>Kepplerites</i>) <i>gowerianus</i> , Sow. ...	1, 3	...
" <i>calloviensis</i> , Sow. ...	3, 2	...
" <i>modiolaris</i> , Hind ...	1, 2, 3	...
" <i>duncani</i> , Sow. ...	1	...
" (<i>Siemiradzki</i>) <i>königi</i> , Sow. ...	1, 2, 3	...
" (<i>Quenstedtoceras</i>) <i>Mariae</i> , d'Orb. ...	1	...
" (<i>Macrocephalites</i>) sp. Schloth. ...	3, 2	...
" <i>sublaevis</i>	6	...
<i>Belemnites</i> <i>owenii</i> , Pratt	1, 2, 3	3, 5, Newbald
" varieties	2, 6	2, Brough

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NAME.	Drewton Cutting.	Other Places.
GASTEROPODA.		
<i>Turbo sulcostomus</i> , Phil.	1, 4	...
„ sp.	1, 2	...
<i>Cerithium cullenii</i> , Leckenby	1	...
„ sp.	1, 2	...
<i>Alaria bispinosa</i> , Phil.	3, 1	...
<i>Pleurotomaria</i> sp.	1	...
BRACHIOPODA.		
<i>Rhynchonella socialis</i> , Phil.	1, 2, 3	2, 5, Newbald
<i>Waldheimia ornithocephala</i> , Sow.	1	...
LAMELLIBRANCHIATA.		
<i>Gryphaea bilobata</i> , Sow.	1, 2, 3	2, 5, 6, Newbald
„ <i>bullata</i> .... .... ....	...	2, Brough
<i>Pecten demissus</i> , Phil.	1	...
„ <i>lens</i> , Sow.	1, 2, 3	...
„ <i>fibrosus</i> , Sow.	1, 2, 3	...
„ large ribbed species	1	...
<i>Avicula braamburiensis</i> , Phil.	1	...
„ <i>inæquivalvis</i> , Sow.	1, 3	...
„ <i>expansa</i>	4	...
<i>Perna rugosa</i> , Goldf.	1	...
<i>Pinna mitis</i> , Phil.	1, 4	...
<i>Modiola</i> sp.	1, 2, 3	2, Newbald
„ <i>cuneata</i> , Sow.	4	...
„ <i>pulchra</i> , Phil.	1	...
<i>Trigonia rupellensis</i> , d'Orb.	1	2, Newbald
„ <i>corallina</i> , Damon	1	...
„ sp.	1	...
„ <i>concinna</i>	4	...
<i>Arca</i> sp.	1	...
<i>Cardium crawfordii</i> , Leckenby	1	...
„ <i>cognatum</i> , Phil.	1	...
<i>Isocardia minima</i>	1, 2, 3	...
„ sp.	1	...
<i>Cyprina</i> (two or three species)	1, 4	...
<i>Astarte unguilata</i> ? Lyett.	1	...
„ <i>carinata</i> , Phil.	4	4, Newbald
„ sp., small ribbed species	1	...
<i>Unicardium depressum</i> , Phil.	1	...
<i>Corbicella ovalis</i> ? Phil. (<i>lævis</i>)	1, 4	...
<i>Pholadomya ovulum</i> , L. and M. (<i>ovalis</i> , Sow.)	1	...
„ <i>heraulti</i> , Ag.	1	...
<i>Gresslyya peregrina</i> , Phil.	1, 3	...
<i>Goniomya v-scripta</i> , Sow.	1, 2	...
<i>Anatina undulata</i> , Sow.	1	...
<i>Myacites decurtatus</i> , Phil.	1	2, 5, Newbald
„ sp.	1	...

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THE MILLEPORE BED.

BIBLIOGRAPHY.

1. KEEPING and MIDDLEMISS. "Sections at Cave, Yorkshire," Geological Magazine, 1883.
2. T. SHEPPARD. "The Geology of Brough, East Yorkshire," "Naturalist," 1901, and "Geological Rambles in East Yorkshire," 1903.
3. Professor J. PHILLIPS. "The Geology of the Yorkshire Coast," 3rd edition, 1875.

FOSSILS OF THE MILLEPORE.

NAME.	South Cave.	Brough.
PISCES.		
<i>Hybodus</i> sp.	2	...
GASTEROPODA.		
<i>Chemnitzia</i> sp.	2	...
<i>Cerithium</i> sp.	2	...
<i>Turbo</i> sp.	2	...
LAMELLIBRANCHIATA.		
<i>Lima pectiniformis</i> , Schloth.	2, 1	2
<i>Trigonia conjungens</i> , Lycett.	2, 1	...
<i>Avicula</i> sp.	2	...
<i>Modiola</i> sp.	2	...
<i>Pinna cuneata</i>	3	2
<i>Pecten lens</i>	2	2
" <i>demissus</i>	2	2
<i>Myacites</i> sp.	2	2
<i>Cardium</i> sp.	2	2
BRACHIOPODA.		
<i>Rhynchonella crossi</i>	2	2
<i>Terebratula</i> sp.	2	2
ANNELIDA.		
<i>Serpula</i> sp.	2	...
ECHINODERMATA.		
<i>Hyboclypus</i> sp.	1	...
Echinoderm remains	2	...
<i>Pentacrinus</i> sp.	2	...
POLYZOA.		
<i>Spiropora (Cricopora) straminea</i>	2, 1, 3	...

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THE LIAS.

Upper, Middle, and Lower.

BIBLIOGRAPHY.

1. TATE and BLAKE. "The Yorkshire Lias," 1876.
2. C. FOX STRANGWAYS, "The Jurassic rocks of Yorkshire," Vol. I., 1892, Memoirs of the Geological Survey.
3. Collected by H. C. DRAKE.
4. T. SHEPPARD. "The Geology of Brough," "Naturalist," May, 1901, "Geological Rambles," 1903.
5. KEEPING and MIDDLEMISS. "Sections at Cave, Yorkshire," Geological Magazine, 1883.
6. Collected by T. SHEPPARD.
7. DAKYNS, FOX STRANGWAYS, and CAMERON. "Geology of Country between York and Hull," Memoirs of Geological Survey, 1886.

FOSSILS OF THE LIAS.

NAME.	Market Weighton District.	Other Localities.
REPTILIA.		
<i>Ichthyosaurus intermedius</i> , Conybear (L.L.* sp.	1, 2, N. Cliff.. ..	1, Givendale ..
<i>Plesiosaurus rugosus</i> (tooth), Owen (L.L. " <i>brachycephalus</i> , Owen (L.L. " sp. undet (L.L.)	1, Cliff .. 1, " .. 6 "	... .. ..
PISCES.		
<i>Dapedius</i> sp. (L.L.)	1, 2, Cliff ..	...
<i>Hybodus minor</i> , Ag. (L.L.)	1, 2 ..	...
<i>Acrodus minimus</i> , Ag. (L.L.)	1, 2 ..	...
CEPHALOPODA.		
<i>Ammonite (Psiloceras) planorbis</i> , Sow. ...	1, 2, Cliff ..	...
" <i>johnstonei</i> , Sow. ...	1, 2, 4 ..	...
" <i>(Schlotheimia) angulata</i> , Schloth	1, 2 ..	1, Millington 2, Ridingsbeck

*L.L. = Lower Lias.

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 67

NAME.	Market Weighton District.	Other Localities.
<i>Ammonite (Arietites) macdonnelli</i> , Portlock	...	1, Warter
" <i>conybeari</i> , Sow. ...	1, 2 Cliff ...	...
" <i>bucklandi</i> , Sow. ...	...	1, Millington
" <i>sauzeanus</i> , d'Orb. ...	...	1, "
" <i>semicostatus</i> , Y. & B. ...	...	1, Nunthorpe
" <i>(Aegoceras) gagatum</i> , Y. and B. ...	1, Cliff ...	1, Warter
" <i>obsoletum</i> , Simp. ...	...	1, Londesboro'
" <i>densinodum</i> ...	...	1, Warter
" <i>longipontinum</i> , Oppel ...	1, 2 Cliff ...	1, Millington
" <i>nanum</i> ? Martin ...	1 "	...
" <i>armatum</i> , Sow. ...	...	1, Garrowby and Warter
" <i>(Oxynoticeras) oxynotum</i> , Quenst. ...	1, Cliff ...	...
" <i>(Amblycoceras) capricornus</i> ...	4, 5, Cliff ...	3, Everthorpe
" <i>(Amaltheus) spinatus</i> , Burg. ...	1, 4, 5, Mkt. Weighton	1, Hotham
" <i>(Stephanoceras) annulatum</i> , Sow. ...	...	1, Millington
" <i>(Lytoceras) cornucopia</i> , Y. and B. ...	...	1, "
" <i>(Harpoceras) serpentinum</i> , Rein. ...	...	1, "
" <i>(Dachylioceras) commune</i> , Sow. ...	...	1, Sancton
" <i>(Hildoceras) bifrons</i> , Brug. ...	...	1, "
" <i>(Coroniceras) bisulcatus</i> , Brug. ...	...	2, Ridingsbeck
" <i>mangenestii</i>? ...	...	2, "
<i>Nautilus striatus</i> , Sow. ...	1, 2, 4, Cliff ...	...
<i>Belemnites infundibulum</i> , Phil. ...	1	1, Warter
" <i>acus</i> , Miller ...	1, Mkt.W.dist.	1, Millington
" <i>penicillatus</i> , Sow. ...	...	1, Warter
" <i>araris</i> , Dumont. ...	...	1, "
" <i>breviformis</i> , Voltz. ...	1, Mkt.W.dist.	1, Hotham
GASTEROPODA.		
<i>Hydrobia krausseana</i> , Dunker. (L.L.) ...	1, Mkt.W.dist.	...
<i>Euomphalus liassianus</i> = <i>Discohelix liassinus</i> , Dunker ...	1 "	...
<i>Actaeonina fragilis</i> , Dunker (L.L.) ...	1, 2 "	...
<i>Discohelix striata</i> (L.L.) ...	...	...
" <i>semiclausa</i> (L.L.) ...	...	...
" <i>liassinus</i> , Dunker (L.L.) ...	2, Cliff ...	...
<i>Pleurotomaria concava</i> ? Martin (L.L.) ...	1, Mkt.W.dist.	...
" <i>obesula</i> (L.L.) ...	...	...
" <i>similis</i> = <i>P. anglica</i> , Sow. (L.L.) ...	1, 4, 6, Cliff ...	1, Leppington
" <i>concava</i> , Martin ...	2 "	...
<i>Cryptenia solaroides</i> , Sow. (L.L.) ...	1 "	1, Millington
" <i>rotellaformis</i> , Dunker (L.L.) ...	1 "	...
" <i>nucleus</i> , Terquem. (L.L.) ...	1 "	...
<i>Phasianella morencyana</i> , Piette (L.L.) ...	1 "	...
<i>Turbo solarum</i> , Piette (L.L.) ...	1 "	1, Millington
" <i>tenuis</i> , Terquem. (L.L.) ...	1, 4, 2, 6 "	...
" <i>philemon</i> , d'Orb. (L.L.) ...	1 "	...
<i>Encyclia elegans</i> , Münster. (L.L.) ...	1 "	...
" <i>acuminatus</i> , C. and D. (L.L.) ...	1 "	...
<i>Turritella dunkeri</i> , Terquem. ...	1, "	...

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NAME.	Market Weighton District.	Other Localities.
<i>Chemnitzia transversa</i> , Blake ...	1, Cliff
" <i>unicingulata</i> , Terquem. ...	1 " ...	...
" <i>blainvillei</i> , Münst. ...	... ...	1, Kirby Underdale
<i>Cerithium gratum</i> , Terquem. ...	1, Cliff ...	...
" <i>semeni</i> , d'Orb. ...	1 " ...	...
<i>Hydrobia solidula</i> , Dunker. ...	... ...	1, Warter
LAMELLIBRANCHIATA.		
<i>Avicula inaequivalvis</i> , Sow. ...	1, 3, Cliff ...	...
" <i>pattersoni</i> , Tate ...	1 " ...	...
<i>Monotis fallax</i> , Pflücker (<i>Avicula</i>) ...	1,2 " ...	...
<i>Ostrea liassica</i> , Strickland ...	1,3,2,4 " ...	1, Acklam 3, Hotham
" <i>irregularis</i> ...	1 " ...	...
" <i>ungula</i> , Münster. ...	1 " ...	...
" <i>semiplicata</i> , Münst. ...	1 " ...	...
" <i>sportella</i> , Dumort ? ...	... ...	1, Warter
" <i>obliquata</i> , Sow. ...	... ...	1, Kirby Underdale
" <i>submargaritacea</i> , Brauns. ...	1, Cliff ...	1, Hotham
<i>Pecten aequalis</i> , Quenst. ...	1,2 " ...	...
" <i>pollux</i> , d'Orb. ...	1,2 " ...	...
" <i>textilis</i> , Münster. ...	1 " ...	...
" <i>punctatissimus</i> , Quenst. ...	1 " ...	...
" <i>textorius</i> , Schloth. ...	1 " ...	...
" <i>calvus</i> , Goldf. ...	1, Mkt. W. ...	...
" <i>priscus</i> , Schloth. ...	1 " ...	1, Warter
" <i>hehlii</i> ...	... ...	1, Kirby Underdale
" sp. ...	5, Mkt. W. ...	1, Everthorpe
" <i>lunularis</i> , Römer ...	1, " ...	1, Hotham
" <i>aequivalvis</i> , Sow. ...	1, " ...	1 "
" <i>verticillatus</i> ...	... ...	1 "
" <i>sublaevis</i> ...	7, Mkt. W. ...	...
<i>Astarte obsoleta</i> , Dunker. ...	1, 2, Cliff ...	1, Millington
" <i>oppelei</i> ...	... ...	1 "
" <i>striato-sulcata</i> , Römer ...	... ...	1, 3, Hotham
<i>Cardinia ovalis</i> , Stutchberry ...	1,2,3,Mkt. W. ...	1, Millington
" <i>listeri</i> , Sow. ...	1, 4, Common	1, Common
" <i>crassiuscula</i> , Sow. ...	1 " ...	1, Millington, &c.
" <i>deshayesi</i> , Terquem. ...	1 " ...	...
" <i>desoudini</i> , Terquem. ...	1 " ...	...
" <i>listeri</i> var. <i>hybrida</i> ...	1, Mkt. W. ...	...
<i>Protocardium phillipianum</i> , Dunker. ...	1, 2, Common	1, Common
" <i>oxynoti</i> , Quenst. ...	1, Mkt. W. ...	1, Warter
" <i>truncatum</i> , Sow. ...	1 " ...	...
<i>Lima gigantea</i> , Sow. ...	1, 4, 3 " ...	1, Millington & Pocklington
" <i>terquemi</i> , Tate ...	... ...	1 "
" <i>succinata</i> , Schloth. ...	1, Mkt. W. ...	...
" <i>punctata</i> , Sow. ...	1 " ...	...

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 69

NAME.	Market Weighton District	Other Localities.
<i>Lima pectinoides</i> , Sow.	1 Mkt. W. ...	2, Ridingsbeck
" <i>hettangiensis</i> , Terquem. ... ...	... ...	1, Millington & Pocklington
<i>Limea blakeana</i> , Tate	1, Cliff ...	... ...
" <i>acuticosta</i> , Münster.	1, Mkt. W. ...	1, Kirby Underdale
<i>Macrodon hettangiensis</i> , Terquem. ...	1, 2, Mkt. W.D and Cliff ...	... ...
" <i>naviculus</i> , Terq. and Piette. ...	1, Cliff ...	1, Garrowby
" <i>intermedius</i> , Simpson ...	... ...	1, Kirby
" <i>pulchellus</i> ... ...	... ...	Underdale
<i>Modiola minima</i> , Sow.	1, 2, Mkt. W. 4, 3, Cliff ...	1, 3, Leavening Acklam, and Hotham
" <i>laevis</i> , Sow.	1, 2, Mkt. W. ...	... ...
" <i>hillana</i> , Sow. ... ...	... ...	1, Millington
" <i>numismalis</i> , Oppel. ...	... ...	1, Kirby Underdale
<i>Pleuromya croucombeia</i> , Moore ...	1, 2, Mkt. W. 4, Cliff ...	1, 3, Hotham, Acklam, etc.
" <i>ovata</i> , Römer ...	1, Mkt. W. ...	... ...
" <i>costata</i> ...	1, Cliff ...	2, Ridingsbeck
<i>Ceromya infraliassica</i> , Terq. ...	1 " ...	1 "
<i>Pholadomya glabra</i> , Ag. ...	1, 3 " ...	... ...
" <i>ambigua</i> , Sow. ...	1, Mkt. W. ...	... ...
<i>Gryphaea arcuata</i> = <i>G. incurva</i> , Lam. ...	1, 3, Common	1, Common
" <i>obliquata</i> , Sow. ...	1, Mkt. W. ...	... ...
<i>Anomia alpina</i> Wisch. ...	... ...	1, Millington
" <i>striatula</i> , Oppel. ...	... ...	1, "
<i>Plicatula lriasina</i> , Terq. ...	... ...	1 "
" <i>spinosa</i> , Münst. ...	1, Mkt. W. ...	... ...
<i>Perna infraliassica</i> , Quenst. ...	1 " ...	... ...
<i>Pinna hartmanni</i> , Zieten. ...	1 " ...	... ...
" <i>folium</i> , Y. and B. ...	... ...	1, Garrowby and Warter
<i>Hippopodium ponderosum</i> , Sow. ...	1, Mkt. W. ...	... ...
<i>Leda renevieri</i> , Oppel. ...	1 " ...	... ...
" <i>texturata</i> , Terq. ...	1 " ...	... ...
" <i>galathea</i> , d'Orb. ...	... ...	1, Warter
" <i>minor</i> , Simpson ...	... ...	1 "
<i>Cardita heberti</i> , Terq. ...	1, Mkt. W. ...	1, Millington
<i>Lucina limbata</i> , Terq. ...	1 " ...	... ...
<i>Saxicava arenicola</i> , Terq. ...	1 " ...	... ...
<i>Myoconcha inclusa</i> , Terq. ...	... ...	1, Millington
" <i>psilonoti</i> , Quenst. ...	1, Mkt. W. ...	... ...
<i>Unicardium cardioides</i> , Phil. ...	1 " ...	... ...
<i>Monotis inaequivalvis</i> , Sow. ...	1 " ...	... ...
<i>Nucula cordata</i> , Goldf. ...	... ...	1, Warter
<i>Arcomya vetusta</i> , Phil.	1, Warter and Kirby Underdale
" <i>longa</i> , Buvig. ...	1, Mkt. W.
<i>Gresslyia intermedia</i> , Simpson ...	1 "

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NAME.	Market Weighton District.	Other Localities.
BRACHIOPODA.		
<i>Waldheimia sartacensis</i> , d'Orb. ...	1, Mkt. W. ...	1, Garrowby
" <i>resupinata</i> ...	5 " ...	1, Everthorpe
<i>Rhynchonella plicatissima</i> , Quenst. ...	1 " ...	1, Millington, etc
" <i>furcillata</i> , von. Buch. ...	... " ...	1, Kirby Underdale
" <i>variabilis</i> , Schloth. ...	... " ...	1, Warter
" <i>tetrahedra</i> , Sow. ...	1, 5, Mkt. W.	1, Hotham
<i>Terebratula punctata</i> , Sow. ...	1 " ...	1 " ...
" <i>edwardsii</i> ...	7 " ...	...
ANNELIDA.		
<i>Galeolaria socialis</i> , Goldf. ...	1, 3, Mkt. W. ...	...
<i>Serpula plicatilis</i> , Goldf. ...	1 " ...	...
<i>Ditrypa capitata</i> , Phil. ...	1 " ...	...
ECHINODERMATA.		
<i>Cidaris edwardsii</i> , Wright ...	1, 2, Mkt. W. ...	9, Cliff
<i>Hemipedina tomesii</i> , Wright ...	1, 2 " ...	...
<i>Pentacrinus psilonotus</i> , Quenst. ...	1, 2 " ...	...
" <i>britannicus</i> ...	2 " ...	...
<i>Holothuria</i> sp. ...	1 " ...	...
CRUSTACEA.		
<i>Bairdia liassica</i> , Brodie ...	1, 2, Mkt. W. ...	1, Millington, etc
" <i>elongata</i> ...	... " ...	1 " ...
<i>Oythere blakei</i> , Jones ...	1, 2, Mkt. W. ...	...
" <i>moorei</i> , Jones ...	1, 2 " ...	...
" <i>terquemi</i> , Jones ...	1, 2 " ...	...
" <i>translucens</i> ...	1 " ...	...
INSECTA.		
<i>Libellula</i> sp., Tate and Blake ...	1, Mkt. W. ...	...
<i>Chauliodites minor</i> , Blake ...	1, 2 " ...	...
ACTINOZOA.		
<i>Montlivaltia haimei</i> , C. and D. ...	1, 2, Mkt. W. ...	1, Millington
" <i>polymorpha</i> , Terq. ...	2 " ...	...
<i>Septastraea excavata</i> , From. ...	1, 2 " ...	...
PLANTÆ.		
<i>Alethopteris</i> sp. ...	... " ...	1, Givendale

DRAKE AND SHEPPARD: CLASSIFIED LIST OF ORGANIC REMAINS. 71

NAME.		Market Weighton District.	Other Localities.
FORAMINIFERA.			
<i>Cornuspira infirma</i> , Strickland	...	1, Cliff	...
<i>Miliola scheibersii</i> , d'Orb.	...	1 "	...
<i>Trochammina irregularis</i>	...	1 "	...
<i>Lituola globata</i>	...	1 "	...
<i>Lagenia levis</i> , Montfort.	...	1 "	...
" <i>natrii</i>	...	1 "	...
" <i>elongata</i> , Ehrenburg	...	1 "	...
" <i>ovata</i> , Terq.	...	1 "	...
<i>Glandulina paucicosta</i> , Römer	...	1 "	...
<i>Lingulina tenera</i> , Bornemann	...	1 "	1, Millington and Warter
<i>Nodosaria radicula</i> , L.	...	1 "	1, Warter
" <i>raphanus</i> , L.	...	1 "	...
" <i>raphanistrum</i> , L.	...	1 "	...
" <i>nitida</i> , d'Orb.	...	1 "	...
<i>Dentalina funiculosa</i> , Terq.	...	1 "	1, Warter
" <i>burgundiae</i> , Terq.	...	1 "	1
" <i>communis</i> , d'Orb.	...	1 "	1, Millington
" <i>breoni</i> , Terq.	...	1 "	...
" <i>oligostegia</i> ? Terq.	...	1 "	1, Millington
" <i>planata</i> ...	...	1 "	...
" <i>pauperata</i> , d'Orb.	...	1 "	...
" <i>brevis</i> , d'Orb.	...	1 "	...
" <i>tecta</i> , Terq.	...	1 "	...
" <i>nodosa</i> , d'Orb.	...	1 "	...
" <i>monilis</i> , Cornuel.	...	1 "	Millington
" <i>glandulosa</i> , Terq.	...	1 "	...
" <i>nummulina</i> , Gümbel.	...	1 "	1, Millington
<i>Marginulina raphanus</i> , L.	...	1, Cliff	1, Warter 1, Millington
" <i>picta</i> , Terq.	...	1 "	...
" <i>römeri</i> , Reuss.	...	1 "	...
" <i>depressa</i>	...	1 "	...
" <i>unicostata</i> , Terq.	...	1 "	...
" ? <i>pauliniæ</i> , Terq.	...	1 "	...
<i>Cristellaria pauperata</i> , Jones and Parker	1	...	1, Millington
" <i>recta</i> , d'Orb.	...	1 "	1, Warter
" <i>major</i> , Bornemann	...	1 "	1, Millington and Warter
" <i>cuspidula</i> , Ficht.	...	1 "	1, Millington
" <i>bronnii</i> , Römer	...	1 "	1 "
" <i>varians</i> , Bornemann	...	1 "	1 "
" <i>globifera</i>...	...	1 "	1 "
" <i>rotulata</i> , Lam.	...	1 "	1 "
<i>Flabellina rugosa</i> , d'Orb.	...	1 "	...
<i>Frondicularia complanata</i> , Defr.	...	1 "	...
" <i>sulcata</i> , Bornem.	...	1 "	...
" <i>nodosaria</i> , Terq.	...	1 "	...
<i>Polymorphina fusiformis</i> , Römer	...	1 "	...
" <i>compressa</i> , d'Orb.	...	1 "	...
" <i>problema</i> , d'Orb.	...	1 "	...
" <i>simplex</i> , Terq.	...	1 "	...
" <i>distincta</i> , Terq.	...	1 "	...
<i>Pulvinulina elegans</i> , d'Orb.	...	1 "	1, Millington