PROCEEDINGS

5.06 (42.41)

OF THE

Cotteswold Paturalists'

FIELD CLUB

FOR

1920

EDITED BY THE HONORARY SECRETARY

BRISTOL
PRINTED FOR THE CLUB BY J. W. ARROWSMITH LTD.

CONTENTS OF VOLUME XX.

PART I.	PAGE
List of Council and Officers	ii
Proceedings at the Annual Meeting, January 15th, 1918	3
Proceedings at the Ordinary Winter Meetings	6
Financial Statement, 1918	9
The Effect of the Cold Spring of 1917 on the Flowering of Plants, by Sir Francis Darwin, F.R.S	II
The Crickley Hill (Birdlip) late Celtic Finds of 1879, by the President (Plate I.)	21
Mineral Waters in and near Gloucester, with some suggestions as to how the important constituents have been formed, by George Embrey, F.I.C	29
Miserden and its Owners, by the President Notes on a Romano-British Burial-Ground (Sepulcretum) at Barnwood, near Gloucester, by Roland Austin, with Note on Pottery found there, by the President	45
(Plates II.—IV.)	59
Botanical Notes, 1918, by J. W. Haines and H. H. Knight	65
PART II.	
List of Council and Officers	iv
List of Members	v-viii
Proceedings at the Annual Meeting, January 21st, 1919.	69
Proceedings at the Ordinary Winter Meetings	72
Reports of Field Meetings	74
Financial Statement, 1919	84
Ancient Cirencester, by the President	85
Notes on the Quaternary Period in the Cotteswold-Malvern Region, by J. W. Gray, F.G.S. With Map	99
Further notes on the Land and Fresh-water Mollusca of Gloucestershire, by Charles Upton	143
The Field of the Cotteswolds and the Field of the Naturalist, by Frederick John Cullis. [Abstract.]	147
Another Deep Boring at Shipton Moyne, near Tetbury, Gloucestershire, by L. Richardson, F.R.S.E., F.G.S	151

PART II. (continued).	PAGE
Carex Tomentosa, by H. J. Riddelsdell	161
Buckman's "Botany of the Environs of Cheltenham," by H. J. Riddelsdell. Supplementary note, by Roland Austin	162
Wild Birds observed in Painswick district, 1919, by the President	165
Barnwood Gravel Pits, by the President	166
Survey Memoirs, by Roland Austin	166
A find at Wanswell, by the President	167
The County Flora, by H. J. Riddelsdell	168
PART III.	
List of Council and Members	x
Proceedings at the Annual Meeting, January 27th, 1920	171
Proceedings at the Ordinary Winter Meetings	173
Reports of Field Meetings	175
Financial Statement, 1920	184
The Silurian Rocks of May Hill, by C. I. Gardiner, M.A.,	
F.G.S. With an Appendix on two Trilobites, by Dr. F. R. Cowper Reed, M.A., D.Sc.	185
The Hepatics of Gloucestershire, by H. H. Knight, M.A	223
Additional Gloucestershire Lepidoptera, by C. Granville	223
Clutterbuck, F.E.S	235
Notes on the Flaking and Pitting of Flint Surfaces,	
communicated by J. W. Gray, F.G.S	239
Remains of Macrourous and Brachyurous Crustacea in the Inferior Oolite of the Stonesfield (Oxon.)-Burton-	2.12
Bradstock (Dorset) District, by L. Richardson	243
On Nautilus Pseudotruncatus n. sp., from the Liassic Rocks of England, by the late G. C. Crick, F.G.S	245
On some Dibranchiate Cephalopoda from the Upper Lias of Gloucestershire, by the late G. C. Crick, F.G.S	249
Critical Plants recently identified, by H. J. Riddelsdell	257
The presence of the Kite in the Cotswold Area, by W. L.	5,
Mellersh	258
Collection of Mosses, by H. H. Knight, M.A., in Cheltenham	
Museum	260

ON NAUTILUS PSEUDOTRUNCATUS N. SP., FROM THE LIASSIC ROCKS OF ENGLAND.

BY

The late G. C. CRICK, F.G.S.

Nautilus pseudotruncatus, sp. nov.

Specific Characters.—Shell composed of a few inflated, rapidly-expanding, squarish whorls; greatest thickness at a short distance from the umbilical margin a little more than two-thirds of the diameter of the shell; height of outer whorl a little more than one-half of the diameter of the shell. Whorls few; inclusion almost complete; umbilicus deep, with nearly vertical, rather convex sides and rounded margin, about onesixth of the diameter of the shell in width. Whorl trapezoidal in transverse section, about one-third wider than high; indented to a little more than one-sixth of its height by the preceding whorl; periphery flattened, broad, a little more than one-half of the corresponding diameter of the shell in width, with subangular margins; sides flattened, fairly well defined both from the peripheral area and from the umbilical zone; umbilical margin subangular; umbilical zone feebly convex, almost vertical to the plane of symmetry of the shell. Body chamber occupying at least three-eighths of the outer whorl; aperture not seen, but, judging from the growth-lines, its margin showed a broad, rather deep hyponomic sinus on the periphery, a very shallow sinus on the lateral area, and projected considerably forward at the umbilical margin. Chambers moderately deep, about one-half of the corresponding height 1 of the whorl in depth; their number to a whorl not seen; septa feebly concave; suture-line with a broad shallow sinus

¹ That is from the umbilical suture to the periphery.

on the lateral area, but almost straight on the peripheral area. Siphuncle nearly central, or a little nearer the dorsal than the ventral area. Test not very thin, with irregularly-placed obscure folds, which follow the direction of the growth-lines, and are plainly visible on internal casts; its surface covered with rather coarse growth-lines, which, rising from the umbilical suture, pass straight across the umbilical zone as far as the umbilical margin, whence they pass in a backward direction across the lateral area, making a very shallow sinus at about the middle of this area, as far as the peripheral margin, where they are deflected still farther backward so as to form on the periphery a rather deep and broad sinus corresponding to the hyponomic sinus of the apertural-margin; the test on the peripheral area apparently also with fine obscure longitudinal lines.

Measurements.

Diameter	about	99	mm.
Height of outer whorl		51	,,
Thickness of outer whorl		68	,,
Width of umbilicus			
Height of outer whorl above			
preceding whorl		42	,,
Height of umbilical wall at			
greatest diameter	about	19	,,
Width of periphery at greatest			
diameter	about	54	,,

Remarks.—This species is easily distinguished by the quadrate section of its whorls, its rather broad, flattened periphery, and the direction of its growth-lines. The measurements given above are taken from a specimen which has been submitted to me by Mr. Richardson. There are also two examples in the British Museum collection, bearing the registered Nos. 195181 and 19518m; of these the latter is 88 mm. and the former 65 mm. in diameter.

Affinities and Differences.—This species bears some resemblance to d'Orbigny's, the figure given by d'Orbigny¹ of

¹ Pal. Franç. Terr, Jurass., tom. i. (1842), pl. xxviii. See also A. H. Foord, Cat. Foss. Ceph. Brit. Mus., pt. ii. (1891), p. 219.

his *Nautilus inornatus*, but that species has less inflated whorls, a more convex peripheral area, and the septa have a much deeper sinus on the lateral area.

Horizon and Locality.—Mr. Richardson's specimen is from the Pliensbachian (valdani or "striati" hemera), Webb's Pit¹ (or the Battledown Brick Works), Cheltenham. Both the British Museum specimens are from Lias of Kilsby Tunnel, ² Northamptonshire.

¹ For description of the pit see L. Richardson, A Handbook to the Geology of Cheltenham and Neighbourhood, 1904, p. 45.

² Both "Ammonites" Ibex (belonging to the valdani hemera) and "Ammonites" Henleyi (belonging to the striati hemera) are stated by H. B. Woodward (Mem. Geol. Survey U. K., Jurassic Rocks of Britain, vol. iii., "The Lias of England and Wales (Yorkshire excepted)," 1893, p. 166) to have been recorded from this tunnel.