

The W. B. Carpenter Collection of Foraminifera: a catalogue

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ABSTRACT—This collection, housed in the Royal Albert Memorial Museum, Exeter, comprises 2113 slides mainly of Recent forms but including Tertiary, Cretaceous and Palaeozoic representatives. Fifty five specimens can be matched with published illustrations.

THE CARPENTER COLLECTION

A short note drawing attention to the Carpenter Collection of Foraminifera, housed in the Royal Albert Memorial Museum, Exeter, was published in 1971 (Murray, 1971). During 1983 the collection has been examined in detail and catalogued. The acquisition number is 263/1903 and the slides are numbered 1 to 2113. Specimens of organisms other than Foraminifera have been separated off and have not been catalogued. These include *Parkeria*, a sponge (Carpenter & Brady, 1870), *Dactylopora*, a calcareous alga (Carpenter *et al.*, 1962) and sundry other items. Thus, the original estimate of 3000 slides (Murray, 1971), which included these items, was too high.

Table 1 gives a summary of the collection and relates suites of slides to individual publications. The generic names listed are those used by Carpenter. In Table 2 those specimens which can be matched with published illustrations have been arranged in numerical order and the name given is that on the slide. It should be noted that in some cases the illustrations are mirror-images of the specimens while in others the same illustration appears in 'normal' and 'reversed' states (e.g. Carpenter, 1856a, pl. VIII, fig. 9, and Carpenter *et al.*, 1862, pl. IV, fig. 26). In some cases, the section mounted on the slide is less complete than the illustration shows (e.g. slide 263/1903. 1798; Carpenter, 1861a, pl. XVII, fig. 2). In the 'Introduction to the study of Foraminifera' (Carpenter *et al.*, 1862), many illustrations from his earlier papers are reproduced but these have been omitted from Table 2.

Carpenter's collection of large agglutinated Foraminifera from the 'Porcupine' cruises of 1869, upon which he reported briefly (Carpenter *et al.*, 1870), was used by Brady (1884) in the preparation of the 'Challenger' Report. In addition, Brady obtained unwashed samples of dried sediment from the 'Porcupine' cruises from the Rev. A. Norman. The majority of specimens illustrated by Brady (1884) appear to be from the latter source rather than from the Carpenter collection.

Copies of the Catalogue are housed in the British Museum (Natural History), Protozoa Section, and the Linnean Society.

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Table 1. Summary of the Carpenter Collection of Foraminifera

Slide numbers	Area/Genus	Reference
1– 251	North Atlantic, 'Porcupine'	Carpenter, <i>et al.</i> , 1870; Brady, 1884
252– 307	North Atlantic, 'Lightning'	Carpenter, 1868
308– 369	North Atlantic, 'Valorous'	Carpenter, 1877
370– 396	Sundry, British	—
397– 428	Sundry, Norway	—
429– 458	Sundry, North Atlantic	—
459– 518	Mediterranean, 'Porcupine'	Carpenter & Jeffreys, 1871
519– 546	Sundry, Mediterranean	—
547– 618	Aegean	—
620– 625	Red Sea	—
626– 638	Philippines	—
639– 648	Australia	—
649– 759	Unknown	—
760– 811	Tertiary	—
812– 923	Cretaceous	—
924–1395	<i>Orbitolites</i> , (<i>complanata</i> , <i>marginalis</i> , duplex, simple)	Carpenter, 1849, 1883a
1396–1474	<i>Nummulina</i>	Carpenter, 1849
1475–1549	<i>Orbitoides</i>	Carpenter, 1849
1550–1585	<i>Orbiculina</i>	Carpenter, 1856b
1576–1606	<i>Alveolina</i>	Carpenter, 1856b
1607–1627	<i>Cyclocypeus</i>	Carpenter, 1856b
1628–1654	<i>Heterostegina</i>	Carpenter, 1856b
1655–1684	<i>Peneroplis</i>	Carpenter, 1860
1685–1751	<i>Operculina</i>	Carpenter, 1860
1752–1790	<i>Amphistegina</i>	Carpenter, 1860
1791–1846	<i>Polystomella</i>	Carpenter, 1861
1847–1882	<i>Calcarina</i>	Carpenter, 1861
1883–1921	<i>Tinoporus</i>	Carpenter, 1861
1922–1940	<i>Carpenteria</i>	Carpenter, 1861
1941–1963	<i>Fusulina</i>	Carpenter, 1870b
1964–1988	<i>Orbitolites tenuissima</i>	Carpenter, 1883b
1989–1997	<i>Orbulina</i>	—
1998–2103	Karrer Collection, Vienna basin	—
2104–2113	<i>Polytrema</i>	Carpenter, 1876a

Table 2. Illustrated Specimens (References are to Carpenter except for items 54 and 56).

No.	Name	References	Remarks
54	<i>Rhabdammina abyssorum</i>	Brady, 1884, Pl. XXI, fig. 2	middle specimen
56	<i>Rhabdammina abyssorum</i>	Brady, 1884, Pl. XXI, fig. 6	bottom specimen
69	<i>Saccamina spherica</i>	?1875, p. 532, fig. 272 abc	
252	<i>Astrorhiza arenaria</i>	1876b, Pl. XIX, fig. 11	bottom specimen mirror image
264	<i>Rhabdammina abyssorum</i>	1875, p. 531, fig. 271 C	bottom specimen mirror image
279	<i>Hormosina carpenteri</i>	1875, p. 531, fig. 271 f	second specimen from left
966	<i>Orbitolites</i>	1856a, Pl. V, figs. 5, 10	
		1883a, Pl. VI, fig. 8	
981	<i>Orbitolites complanata</i>	1856a, Pl. VII, fig. 4	
		1883a, Pl. VI, fig. 3	
983	<i>Orbitolites complanata</i>	1856a, Pl. VII, fig. 3	
		1883a, Pl. VI, fig. 1	
1000	<i>Orbitolites complanata</i>	1883a, Pl. VIII, fig. 2	
1007	<i>Orbitolites complanata</i>	1883a, Pl. VIII, fig. 1	middle right
1329	<i>Orbitolites marginalis</i>	1856a, Pl. VIII, fig. 9	
1331	<i>Orbitolites marginalis</i>	1856a, Pl. VIII, fig. 8	
1332	<i>Orbitolites marginalis</i>	1856a, Pl. VIII, fig. 4	
1389	<i>Orbitolites</i>	1856a, Pl. VIII, fig. 10	
1391	<i>Orbitolites</i> -simple type	1856a, Pl. IX, fig. 10	row 3, specimen 3
1409	<i>Nummulina laevigata</i>	1849, Pl. III, fig. 2	
1496	<i>Orbitoides Mantelli</i>	1849, Pl. VI, figs. 20, 21	
1537	<i>Orbitoides Fortisii</i>	?1849, Pl. VIII, fig. 35	referred to as <i>O. Prattii</i> in text
1566	<i>Orbiculina</i>	1856b, Pl. XXVIII, fig. 11	
1584	<i>Alveolina bosicii</i>	?1856b, Pl. XXIX, fig. 6	
1657	<i>Heterostegina</i>	1856b, Pl. XXXI, fig. 7	right hand specimen
1664	<i>Peneroplis</i>	1860, Pl. II, figs. 1, 1a	row 4, specimen 3 (centre of slide)
1665	<i>Peneroplis</i>	1860, Pl. II, fig. 3, 7	row 2, specimen 4
			row 5, specimen 3
1669	<i>Peneroplis</i>	1860, Pl. II, figs. 13, 13a	row 3, specimen 3
1706	<i>Operculina</i>	1860, Pl. III, fig. 8	
1710	<i>Operculina</i>	1860, Pl. V, fig. 1	row 1, specimen 2
1723	<i>Operculina</i>	1860, Pl. VI, fig. 4	
1729	<i>Operculina</i>	1860, p. 22, fig. VII D	ringed section
1730	<i>Operculina</i>	1860, p. 22, Fig. VII C, E	top section 2nd from top
1748	<i>Operculina</i>	1860, Pl. III, fig. 3	row 1, specimen 1
1798	<i>Polystomella craticulata</i>	1861, Pl. XVII, fig. 2	
1811	<i>Polystomella craticulata</i>	1861, Pl. XVII, fig. 6	left hand specimen
1812	<i>Polystomella craticulata</i>	1861, Pl. XVII, fig. 8	
1819	<i>Polystomella craticulata</i>	1861, Pl. XVII, fig. 1 a, b	row 1, specimen 2
1834	<i>Polystomella craticulata</i>	1861, Pl. XVIII, fig. 12	
1851	<i>Calcarina</i>	1861, Pl. XX, fig. 2	
1852	<i>Calcarina</i>	?1861, Pl. XX, fig. 5	top left section
1855	<i>Calcarina</i>	1861, Pl. XX, fig. 7	left section – added to drawing
1859	<i>Calcarina</i>	?1861, Pl. XX, fig. 1	bottom section
1872	<i>Calcarina</i>	1861, p. 550, fig. 2 G	row 1, specimen 2
1874	<i>Calcarina</i>	1861, p. 550, fig. 1 A	central specimen
1875	<i>Calcarina</i>	1861, Pl. XIX, fig. 2	row 2, specimen 1

Table 2. continued

No.	Name	References	Remarks
1876	<i>Calcarina</i>	p. 556, figs. 4 A B C D E F	row 5, specimen 2 row 5, specimen 3 row 5, specimen 1 row 4, specimen 2 row 4, specimen 4 row 2, specimen 6
1880	<i>Calcarina</i>	1861, Pl. XIX, fig. 8	row 5 specimen 4
1883	<i>Tinoporos baculatus</i>	1861, Pl. XVIII, figs. 2, 6	row 4, specimen 4 row 2, specimen 2
1889	<i>Tinoporos baculatus</i>	1861, Pl. XXI, fig. 6	viewed from underside
1891	<i>Tinoporos baculatus</i>	1861, Pl. XXI, fig. 11	circled section
1904	<i>Tinoporos laevis</i>	1861, Pl. XXI, fig. 3	lower section
1906	<i>Tinoporos laevis</i>	1861, Pl. XXI, fig. 1 a, b	row 3, specimen 1
1919	<i>Tinoporos baculatus</i>	1861, Pl. XVIII, fig. 8 9 10	row 1, specimen 2 row 2, specimen 2 row 2, specimen 2
1972	<i>Orbitolites tenuissima</i>	1883 a, b, Pl. I, fig. 7	central specimen
1975	<i>Orbitolites tenuissima</i>	1883 a, b, Pl. I, figs. 3, 4, 5	fragments are similar
1978	<i>Orbitolites tenuissima</i>	1883 a, b, Pl. II, figs. 1, 2, 4, 5	
1988	<i>Orbitolites tenuissima</i>	1883 a, b, Pl. I, fig. 6	Composite, of two specimens on two slides

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