

Balænidæ.¹ Eight bullæ, 2 to 3 inches (64 to 76 mm.) in length, somewhat resemble those of *Ziphius cavirostris*, though without the unciform lobe.² About forty specimens, 1·6 to 2·3 inches (41 to 58 mm.) in length, belong to the genus *Mesoplodon*; the two largest, in which the petrous bone was united with the tympanic, could not be determined, but the rest apparently belong to *Mesoplodon layardi*.³ Twenty-four specimens, 1 to 1·7 inches (25 to 43 mm.) in length, belong apparently to the Delphinidæ; the longest resembles the bulla of *Globiocephalus*,⁴ others belong to the genus *Delphinus*, while the smallest are like those of the common porpoise. One specimen belongs to the genus *Kogia*,⁵ and other two are closely allied to it.⁶

The larger petrous bones, the longest being 2 inches (51 mm.) in length, probably belong to the genus *Mesoplodon*, the others to the genus *Delphinus*, while two specimens are smaller than those of the common porpoise.⁷ There were fourteen specimens consisting of the petrous and a portion of the elongated mastoid element continuous with it, varying in length from 2·5 to 3·6 inches (64 to 91 mm.), belonging apparently to the Baleen whales.⁸

There were also numerous fragments of other bones, including a beak of a Ziphioid whale,⁹ measuring over 8 inches (20 cm.) in length, and three smaller fragments of beaks of Ziphioids; numerous flat fragments, portions of the brain case,¹⁰ and one or two probably bits of the shaft of a rib. An irregular mass of spongy bone 8 × 4 × 3 inches (20 × 10 × 8 cm.), not nearly so much impregnated with manganese as the rest, and two smaller fragments,¹¹ one 5 × 5 inches (13 × 13 cm.), are apparently portions of the expanded wings of superior maxillæ. Nearly two hundred small fragments, forming the nuclei of manganese nodules, exhibited evidence of bone structure.

A portion of the spongy mass of whale's bone was completely analysed by Professor Dittmar, F.R.S.,¹² with the following results:—

Moisture,	3·06
Combined water,	3·66
Phosphoric acid,	27·49
Carbonic acid,	4·14
Fluorine, 0·71 = (F ₂ - 0),	0·41
Lime,	39·00
Magnesia,	2·01
Ferrous oxide,	1·04
Ferric oxide,	4·83
Binoxide of manganese,	1·61
Alumina,	2·70
Silica and substances insoluble in hydrochloric acid,	9·08
Alkalies and loss,	0·97
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	100·00

¹ See Pl. VII. figs. 4, 5.

² Figured in Zool. Chall. Exp., pt. iv. pl. ii. fig. 12.

³ See Pl. VIII. figs. 1, 2.

⁴ See Pl. VIII. fig. 6.

⁵ See Pl. VIII. fig. 7; also figured in Zool. Chall. Exp., pt. iv. pl. ii. fig. 13.

⁶ Figured in Zool. Chall. Exp., pt. iv. pl. ii. fig. 14.

⁷ See Pl. VIII. figs. 8, 9, 14.

⁸ See Pl. VIII. fig. 3.

⁹ See Pl. X. fig. 1.

¹⁰ See Pl. X. fig. 2.

¹¹ See Pl. X. fig. 3.

¹² See Appendix III.