

indeed than about one-third the size of the corresponding bones of the *Balæna australis*. The British Museum, the Museums of the Royal College of Surgeons, and the University of Edinburgh, do not contain any specimens similar in size and form, or marked with similar furrows. Whether they belong to existing species or to some extinct cetacean must for the present be left undetermined, though, from their scanty coating of manganese as compared with the thick covering possessed by others of the bones, obtained from the same station, it is not likely that they were so ancient as the more thickly coated forms.

The *third* group consisted of eight bullæ, from $2\frac{1}{2}$ to 3 inches in length. Only one specimen, which was unfortunately not entire, could be freed from manganese, so as to enable one to see its form. It was 2·6 inches long. It had a certain similarity in form with the tympanic bone of the *Ziphius cavirostris* referred to in a former part of this report as having been obtained from Shetland. It differed from it, however, in several particulars. It was not only longer, but generally more massive, and did not possess the somewhat unciform lobe at the posterior end of the under surface seen in *Ziphius cavirostris* (Pl. II. fig. 12); on the outer surface a faint concavity extended in the longitudinal direction instead of being slightly convex, as in *cavirostris*. The inferior surface, again, was more rounded, and not raised into a feeble roughened ridge as in the Shetland specimen (Pl. II. fig. 9). For the present this bone must be left undetermined.

The *fourth* group consisted of about forty specimens, generally from 1·6 to 2 inches long, although one was 2·3 inches, and another 2·2 inches. In all, the posterior end of the under surface had the bilobed character of the bulla. The two largest specimens (Pl. VIII. figs. 1, 2, Mr Murray's Report) were compared both with Professor Flower's figures of the petro-tympanic bones of *Berardius arnouxi*¹ and with the bones themselves, to which they approximated somewhat in size. They differed, however, from the tympanic bullæ in that animal in having the external posterior lobe more boss-like, and in possessing a much wider furrow between that lobe and the internal posterior lobe; moreover, the inferior surface in them was not so irregularly roughened as in *Berardius*. In appearance they corresponded closely with the tympanic bullæ of *Mesoplodon layardi*, described in an earlier part of this report, but they were on a larger scale, for not only was the larger of the two bullæ half an inch longer; but its greatest width was 1·5 inch, whilst that of *Mesoplodon layardi* was 1·3 inch. They should, I believe, be referred to the genus *Mesoplodon*, though probably to a larger species than *layardi*, for although my specimen of *Mesoplodon layardi* was from an immature animal, yet the petro-tympanic bones in the Cetacea assume their full dimensions at a comparatively early period of life. In both these specimens the petrous bone was united with the tympanic. It closely resembled in shape that of *layardi*, but was somewhat bigger, for its length was 2·2 inches, whilst that of *layardi* was 1·9 inch.

¹ Trans. Zool. Soc., vol. viii.