

tiguous sides of the body of the seventh and eighth dorsal vertebræ, but not to any transverse process. In *Mesoplodon sowerbyi*¹ the anterior seven ribs were articulated by both heads and tubercles to their appropriate vertebræ, whilst the eighth, ninth, and tenth ribs had each only a single articulation with the transverse process from the side of the body of the corresponding dorsal vertebra. In *Mesoplodon australis*, again, the anterior six ribs were articulated by head and tubercle to body and transverse process; the eighth and ninth only to the transverse process from the side of the body of the corresponding vertebræ; whilst the seventh left rib was attached by the former method and the seventh right by the latter only.² In my specimen of *Mesoplodon layardi*, as in *Mesoplodon australis*, the seventh dorsal vertebra with its pair of ribs was the vertebra of transition.

Sternum.—The sternum consisted of three bony segments articulated together by intermediate bands of cartilage. A band of unossified cartilage about 1 inch deep was attached to the anterior border of the manubrial segment. Between the manubrial and second segment was a mesial foramen about $1\frac{1}{2}$ inch long and $\frac{3}{4}$ ths of an inch wide, and a similar hole was between the second and third segments. The manubrium was 5 inches long by $4\frac{3}{4}$ inches in its greatest transverse diameter; its inferior surface had a faint mesial ridge, its superior surface was concave. Its inferior border had a mesial notch. The second segment was $3\frac{3}{4}$ inches long and notched both at its anterior and posterior borders, where it contributed to form the boundaries of the mesial sternal foramina. The third segment was $2\frac{1}{2}$ inches long and notched only at its upper border. The sternum articulated with four pairs of ribs. The first with the cartilaginous band at the anterior border of the first segment; the second with the plate of cartilage between the first and second segments; the third with the corresponding band between the second and third segments; the fourth with the sides of the posterior border of the third segment (Pl. I. fig. 4).

In von Haast's specimen the sternum consisted of four segments, of which the fourth was divided into a right and left portion. It also articulated with five pairs of ribs. In *Mesoplodon australis* four segments articulating with five pairs of ribs were also present, and in the immature sternum of *Mesoplodon grayi* four segments were recognised by Professor Flower. In *Mesoplodon sowerbyi* five segments are figured by MM. Van Beneden and Gervais,³ the last being divided into two lateral halves. It is very probable, that in the immature skeleton of *Mesoplodon layardi* I am now describing, the fourth segment had not been ossified.

Hyoid bone.—The only representatives of the hyoid apparatus consisted of the pair of stylo-hyals, each of which was broken, but the articular surface apparently at the cranial end was preserved.

¹ Van Beneden and Gervais, *Ostéographie des Cétacés*, pl. xxii. fig. 1.

² See Flower in *Trans. Zool. Soc.*, 1878, p. 431.

³ *Ostéographie des Cétacés*, pl. xxii. fig. 2.