

as far back, a similar membranous prolongation exists. The most anterior part of the palato-maxillary suture was in one specimen opposite the 4th pair of post-canines, and in another opposite the last molar; a pair of small ossicles was situated in the middle of this suture. The palate bones formed a smaller proportion of the hard palate than the superior maxilla. The premaxillæ had well-marked naso-palatine canals and in one specimen a pair of ossicles was situated behind the maxillo-premaxillary suture. The posterior edge of the vomer resembled that of *Arctocephalus gazella*, and the articulation of the præ- and post-sphenoids was visible.

In the female and young male the tympanic bullæ were swollen and marked by an anterior and a posterior low ridge. In the adult males these ridges were stronger and the posterior one projected downwards as a definite tubercle. Alisphenoid canals and mastoid processes were present. The occipital condyles generally resembled those of *Arctocephalus gazella*. The supra-occipital foramen was not visible. The carotid canal opened independently of the jugular foramen. The basi-occipital was not perforated mesially, and the paroccipitals were only distinct in the male skulls.

The lower jaw of *Arctocephalus australis* in its general form resembled that of *Arctocephalus gazella*, but it was, especially in the adult males, more massive, and the hollowing out of the ramus in the region of the masseter muscle was much deeper.

The hyoid consisted of a transversely elongated basi-hyal, which was articulated at each extremity, both with a thyro-hyal and a kerato-hyal. The kerato-hyal though not so long was thicker than the thyro-hyal. Both the epi-hyal and stylo-hyal were ossified and jointed together, so that nine distinct bones formed the hyoid apparatus.

I do not consider it necessary to give a separate description of the spine and the other bones of the trunk and of the limbs of the Kerguelen Island and South American Fur-Seals, as they are in most respects so much alike that one description will, in a great measure, suffice for both, and such differences as occur can easily be included in it. As one of the Messier Channel specimens was a fully ossified male, the leading description has been written from *Arctocephalus australis*.

*Spine.*—The vertebral formula was C 7, D 15, L 5, S 3, Cd 11 = 41.

The *cervicals* had, as a rule, a foramen at the root of each transverse process. The 7th cervical was, however, peculiar, for in the adult male from the Messier Channel each of its transverse processes was perforated by a small foramen, but in the other three skeletons from the same place there was no foramen. In both skeletons of *Arctocephalus gazella* the right transverse process was perforated but not the left. In the atlas the transverse process was broad, plate-like and elongated downwards and outwards; in the axis it was much shorter and styloid; in the 3rd cervical the inferior lamella was flattened out into a plate which increased in magnitude in the other cervical vertebræ down to the 6th; in the 7th this lamella was absent except in those specimens in which the transverse process was perforated, when it was a thin, horizontal plate of