

of the latter genus. In *Spheniscus* the inferior inter-ramal space narrows gradually from base to apex of the lower jaw-bone, and the depression which represents the anterior of the two foramina in the lower jaw of *Eudyptes*, more pronounced than in that genus, forms a well-marked longitudinal groove, which, however, is not perforated. In *Spheniscus*, moreover, the dentary suture is much more oblique from before backwards than in *Eudyptes*, and the posterior angular process is relatively longer and more prominent in the former than in the latter genus.

Spheniscus minor, however, differs from its congeners inasmuch as the posterior angular process much more closely resembles that of *Eudyptes* than that of any other species of its own genus, being shorter and more stunted than in these.

Pygosceles and *Aptenodytes* agree with one another and with *Eudyptes* in the form of the lower jaw-bone. This resemblance is, however, to some extent masked by the greatly elongated form of the lower jaw of these two genera as compared with that of *Eudyptes*. Still, the form of the jaw as a whole agrees more closely with that of *Eudyptes* than with that of any species of *Spheniscus*. In both *Pygosceles* and *Aptenodytes* the dentary suture is more oblique than in *Eudyptes* but less so than in *Spheniscus*; in both the anterior ramal foramen presents the form of an elongated slit which completely perforates the ramus, and in both the angular processes resemble those of *Eudyptes* rather than those of *Spheniscus*. In *Pygosceles*, however, the posterior angular process is relatively less prominent than in *Aptenodytes*.

The Hyoid Bone.¹—The hyoid bone of every species of Penguin much resembles that of the common fowl, and is composed of similar elements.

The glosso-hyal element is entirely cartilaginous in the Penguins. It is triangular in form, and is prolonged posteriorly into two processes which represent the cerato-hyals, and lie on either side of the first basi-branchial bone.

The first or anterior basi-branchial element is completely ossified, and is prolonged anteriorly into a pointed process which articulates with the glosso-hyal element. The posterior extremity of the anterior basi-branchial is immovably connected with the anterior extremity of the second basi-branchial element which in the Penguins presents the form of an elongated, pointed, cartilaginous style, and occupies the interval between the thyro-hyoid muscles of opposite sides. The anterior basi-branchial bone is expanded posteriorly, and is furnished with two lateral facets which articulate with the proximal extremities of the cerato-branchial elements.

The latter are ossified throughout. They are long slender bones, which diminish in thickness from their anterior to their posterior extremities.

The epibranchials in the Penguins are strongly curved to adapt them to the posterior surface of the skull. They diminish in thickness from their anterior to their posterior extremities. They are ossified in the greater part of their extent, but, close to their

¹In describing the separate elements of the hyoid bone, I have adopted the terminology used by Professor W. Kitchen Parker in his work on the "Morphology of the Skull."