

*Spheniscus* and that of *Eudyptes*, being more rounded than in the former and less so than in the latter.

A large transverse osseous crest is developed to a greater or less extent in the temporal region of every Penguin. This crest is formed by the squamosal, parietal, and occipital bones. In every species it makes its appearance immediately above the external auditory aperture, and extends vertically upwards towards the vertex of the skull. Its relation to the latter, however, varies in different genera. In *Eudyptes* it terminates above, opposite the base of the post-orbital process, by coalescing with the posterior surface of the cerebral prominence of the skull, and consequently falls short of the cranial vertex. In *Spheniscus*, on the other hand, the temporal crest is developed to a greater extent than in *Eudyptes*, and instead of subsiding opposite the base of the post-orbital process ascends to the vertex of the skull, where it meets its fellow of the opposite side. In *Spheniscus*, moreover, unlike *Eudyptes*, the temporal crest lies altogether behind the cerebral prominence, and coalesces above with the upper part of the cerebellar portion of the skull. In *Eudyptes* the temporal crest forms the posterior boundary of a narrow groove, which is limited to the *lower half* of the lateral surface of the cranium, while in *Spheniscus* this groove is much wider and extends from the base to the vertex of the skull. In *Spheniscus mendiculus* and *Spheniscus minor* the temporal crest differs somewhat from that of other species of the genus, and presents a condition intermediate between that which is characteristic of *Spheniscus* and that met with in *Eudyptes*. In *Spheniscus mendiculus* the temporal crest scarcely reaches the vertex of the skull but as in *Spheniscus demersus* terminates superiorly by becoming coincident with the cerebellar prominence. In *Spheniscus minor*, on the other hand, the temporal crest resembles that of *Spheniscus demersus* in reaching the vertex of the cranium, but agrees with *Eudyptes* inasmuch as it becomes coalescent superiorly with the cerebral and not with the cerebellar portion of the skull.

In respect of the temporal crest, *Aptenodytes* and *Pygosceles* closely resemble one another. In both these genera the crest is less prominent than in either *Spheniscus* or *Eudyptes*, and in both the groove in front of it can scarcely be said to exist. In both the crest resembles that of *Eudyptes* rather than of *Spheniscus*, inasmuch as it coalesces above with the cerebral, and not with the cerebellar prominence, and in both it falls short of the vertex and does not extend higher than the level of the base of the post-orbital process.

The supra-orbital grooves for the reception of the nasal glands are strongly pronounced in every species of Penguin. In *Eudyptes* they are broader posteriorly than in other genera, by reason of the presence of a broad, supra-orbital ledge of bone which, projecting outwards from the external margin of the frontal bone posteriorly, contributes to the formation of the groove in question. This ledge in *Eudyptes* extends forwards nearly to the lachrymal bone, whereas in *Spheniscus demersus* and *Spheniscus*