anterior narial apertures considerably exceed in relative length even those of *Eudyptes* itself.

The intermaxillary suture is entirely obliterated in every species of *Eudyptes* and *Spheniscus*. In *Pygosceles* and *Aptenodytes* it is clearly visible in the upper two-thirds of its length.

With regard to the relative dimensions of the various portions of the upper jaw, there is a considerable amount of variation in the different genera. In *Eudyptes*, *Pygosceles*, and *Aptenodytes* the frontal processes of the intermaxillary bones, together with the applied processes of the nasal bones which together form the bridge of the nose are relatively narrow, and form a bony bar which, when the skull is viewed from below, does not completely fill the interval between the lateral portions of the upper jaw. In *Spheniscus*, on the other hand, with the single exception of *Spheniscus minor*, the bridge of the nose is relatively broader, and completely fills up the interval between, and indeed slightly overlaps the lateral bars of the upper jaw. *Spheniscus minor* in this respect, as in several others, seems to hold an intermediate position between *Eudyptes* and *Spheniscus*. In it the bridge of the nose fills up the interval between the lateral bars of the upper jaw, but does not overlap them to the same extent as in other species of *Spheniscus*.

The upper jaw, as a whole, differs in form in *Eudyptes*, *Spheniscus*, and *Aptenodytes*. In *Eudyptes* it is elongated-oval in form, being broadest at the middle, and narrowing both towards its base and apex. In *Spheniscus*, *Pygosceles*, and *Aptenodytes* the basal portion of the upper jaw is the broadest part, and from it the beak narrows gradually to a point in front. The very elongated form of the beak in *Pygosceles* and *Aptenodytes* at once distinguishes these from the other genera of Penguins. In *Pygosceles*, *Aptenodytes*, and *Spheniscus*, moreover, the lateral bar of the upper jaw is relatively narrow, while in *Eudyptes* it is proportionally broader and stronger.

The occipital condyle is sessile in every species of Penguin, and the articular surface is almost globular in form. Immediately in front of the condyle the basi-occipital bone presents a deep circular depression into which the musculi recti capitis antici are inserted.

The basi-sphenoidal rostrum is triangular in form, and narrows in breadth from behind forwards. It is altogether destitute of basi-pterygoid processes in every species of Penguin.

The pterygoid bones are triangular in form and much flattened from above downwards. Their anterior internal angles articulate both with the basi-sphenoidal rostrum and with the posterior extremities of the palate bones. In *Eudyptes* the pterygoid bones are relatively shorter and broader than in either *Spheniscus*, *Pygosceles*, or *Aptenodytes*, in all of which the posterior extremities of the bones are slender and elongated.

The palate bones are oval in form. They articulate behind with the pterygoid bones and coalesce in front with the intermaxillaries. There is no trace of an intermaxillary suture in the adult of any species of *Eudyptes* or *Spheniscus*. In *Pygosceles* and *Apteno-*