

time that it elevates it. In this respect it is the direct antagonist of the latissimus dorsi.

*Relations.*—The muscle is in part subcutaneous, and rests upon the shoulder joint. Its anterior margin lies in contact with the pectoralis major. Its posterior border is concealed by the long head of the triceps. The tendon of insertion of this muscle contributes, along with that of the pectoralis major, to the formation of the alar aponeurotic sheath described along with the last-named muscle (see page 80).

*Nerve supply.*—A branch from the trunk of the musculo-spiral. This branch winds round the inner side of the neck of the humerus, and enters the posterior border of the muscle.

*Variations.*—In *Pygosceles tæniatus*, as well as in *Aptenodytes longirostris*, the tensor patagii longus is divisible into two portions—a superficial and a deep. The superficial part (detoïdeus postérieur of Gervais and Alix, p. 23) arises from the dorsal, recurved extremity of the clavicle, between the articulation of the latter with the coracoid and with the scapula. It is inserted into the posterior margin of the humerus, immediately above the insertions of the two tendons of the latissimus dorsi. The deeper portion of the muscle corresponds exactly to the tensor patagii longus as above described, and is inserted in a similar manner into the anterior or radial border of the humerus. In *Aptenodytes longirostris*, moreover, there is an accessory slip to the tensor patagii, the presence of which I could not substantiate in any other species of Penguin. It arises from the outer surface of the sterno-clavicular aponeurosis, immediately in front of the origin of the pectoralis medius, and passing through the foramen bounded by the three bones forming the shoulder girdle, is inserted along with the deeper fibres of the tensor patagii longus into the anterior or radial border of the humerus.

*Remarks.*—Schoepss figures the tensor patagii longus in the Penguin as consisting of two bellies, an anterior and a posterior. Gervais and Alix also describe in *Eudyptes chrysolophus* a “deltoïde postérieur,” which evidently corresponds to the superficial portion of the tensor patagii longus above referred to as occurring in *Aptenodytes longirostris* and in *Pygosceles tæniatus*. Meckel describes the tensor longus in the Penguins as consisting of two bellies, one of which can with difficulty be separated from the pectoralis major. One of these evidently corresponds to the superficial, the other to the deeper portion of the tensor patagii longus above noticed as occurring in *Aptenodytes* and in *Pygosceles*. Possibly this is the normal arrangement in all species of Penguin, although I failed to identify it in any excepting *Aptenodytes* and *Pygosceles*. It must be remembered, however, that all the specimens examined had been submitted to the action of preservative fluids, which may have prevented the separation and identification of two portions of this muscle in any but the two species above mentioned.

The accessory slip above described in *Aptenodytes* does not appear to have been