

extends anterior to the spine for 1 inch along the vertebral border of the scapula. The posterior part is *inserted* behind the anterior part into the vertebral border of the cartilaginous plate for a slight distance; then into the ventral side of this plate, reaching nearly to the posterior angle. It closely resembles the insertion of the rhomboideus capitis of the Phocinæ, but is outside the insertion of the serratus and not inside it on the ventral side of the plate.

In *Otaria* the muscle is regarded as the rhomboideus major and minor, but from its attachment is considered more likely to be the minor. It is supplied by the dorsal and lateral intercostal nerves. The rhomboideus dorsi approximates the posterior angle to the spinal column. All the others pull forwards the anterior angle of the scapula, the rhomboideus capitis et scapularis having the greatest efficiency in this direction.

The *Cartilaginous Plate of the Scapula*.—This plate is found in many animals, and is of the greatest magnitude in younger ones; when present it gives origin and insertion to muscular fibres. As an instance of the variety in shape, take the sheep as an illustration; in it the plate extends along the entire vertebral border of the scapula, and is of equal depth throughout: it only adds another inch or so to the transverse length of the bone. In the Seals it is like a small triangle with the apex beginning a little anterior to the spine and the base in a line with the axillary border (Pl. IV. fig. 1). When removed from the scapula the vertebral border is semilunar, but when attached is almost straight and closely approaches the shape of the human vertebral border. It enlarges the scapular surface, and one must remember its presence when examining a macerated bone, otherwise the surface for muscular attachment may be undervalued.

The *Ligamentum nuchæ*.—Owing to the shortness of the neck in the Seal, especially in the Phocinæ, to the support given to the head by the water in which they spend most of their lives, to the relative lightness of the cranium, and to their not requiring much up and down movement of the head in search of food, this ligament is not the well-formed elastic band found in many animals, which relieves the muscles of the neck, but a thin septum in a line with the cervical spines. Its anterior termination is a thin fascial prolongation and ends upon the vertex of the cranium; in the cervical region it is much better marked, and altogether is not unlike this ligament in man.

The *Atlanto-humeral arises* from the aponeurotic band, which gives origin to the levator anguli scapulæ, and from the transverse process of the atlas anterior to this band. It goes towards the shoulder under cover of the cephalo-humeral; over the shoulder it emerges from beneath this muscle, and is *inserted* into the anterior surface of the great tuberosity of the humerus in its upper two-thirds. Professor Humphry does not give this muscle in his description, and it does not exist in the *Arctocephalus*.

The representative of the atlanto-humeral in *Arctocephalus gazella* is the *atlanto-scapular*. It *arises* from the ventral surface of the transverse process of the atlas, by a tendon common to it and the levator scapulæ, and from the transverse process of the 2nd cervical vertebra. The fibres pass backwards over the outer half of the dorsum of the scapula; a few of the posterior internal ones join the rhomboideus capitis. It is *inserted* into the outer half of the scapular spine along its anterior lip. A small fasciculus joins the fibres of the deltoid outside the spine of the scapula over the back of the shoulder.

In *Otaria jubata* and the Walrus the levator muscles are alike, and the insertions are the same as that of the atlanto-scapular in *Arctocephalus*. From this I gather that there is no levator