

bundle near the posterior angle of the scapula; this is partly tendinous on its outer side, and is *inserted* into the vertebral border of the cartilaginous plate at the posterior angle, posterior to the insertion of the rhomboideus dorsi, which sends a few fibres to it. The five cervical slips and the five anterior thoracic are *inserted* into the inner lip of the vertebral border, from 1 inch posterior to the anterior angle of the scapula to the posterior angle, and into the ventral side of the cartilaginous plate, with the exception of a small piece which is for the insertion of the rhomboideus dorsi, and joins with the insertion into the posterior angle. The cervical digitations are distinct, while those from the anterior thoracic region are not quite so, but touch each other from their origin to their insertion. The posterior slip interdigitates with the latissimus dorsi, the five anterior to this one with the external oblique.

The origins of the serratus in the Phocinæ and in *Arctocephalus* differ in the number of the digitations from the trunk; in the latter there are two more coming from the 10th and 11th ribs. In the Phocinæ it only interdigitates with the external oblique, whereas in *Arctocephalus* it interdigitates with it and the latissimus dorsi.

By the greater size of the cartilaginous plate in the Phocinæ a change in the two insertions is brought about. The plate in *Arctocephalus* is only a narrow bar, but in the Phocinæ it is very wide. In the Phocinæ the cervical slips fix themselves upon the anterior vertebral border of the bone and anterior end of the cartilaginous bar; the anterior thoracic slips follow the junction of the bar with the bone from the termination of the cervical slips to the posterior angle, and the posterior thoracic begin where the last ended, and follow the vertebral border of the plate to its anterior end. By this arrangement a circle of fibres surrounds the cartilage, and a clear space is left in the centre. The rhomboidei cervicis, capitis, and dorsi are fixed to it in this order from before backwards. In *Arctocephalus* the cervical and the anterior thoracic are attached to the scapula and ventral surface of this plate as far as the posterior angle, leaving uncovered a small part of the vertebral border of the plate near the posterior angle for the rhomboideus dorsi. The posterior thoracic slips go to the posterior angle. In *Otaria* it arises from ten ribs, and in *Trichechus* from eight.

The digitations of the cervical serratus are in a plane with the digitations of the levator anguli scapulae, and are so combined in many Mammals that one muscle is the result. The slips are not so closely approximated in the Phocinæ and *Arctocephalus* as to prevent a natural division. Professor Humphry states that it forms a continuous sheet with the levator, and Dr. Murie says in *Otaria* "that the serratus digitations were tolerably fused together, so that they formed but one continuous sheet." In *Otaria* he makes special reference to its "two upper nuchal slips which are inserted quite on the dorsal surface of the scapula," and in the *Trichechus* explains that "the highest, as in *Otaria*, is more or less separate, and is inserted into the dorsum of the scapula between the angle and spine on the vertebral border." When the levator anguli scapulae is not well developed and is absorbed by the serratus, and the fusion has not been absolute, then the serratus must be scrutinised closely to discover what has become of it. The difference in its anterior part in *Otaria* and *Trichechus* by the outer slips going to the dorsum of the scapula, and the want of perfect fusion of the slips, makes it doubtful as to the highest being serratus. The atlanto-scapular in *Arctocephalus* is the levator anguli scapulae of Dr. Murie in the *Otaria* and *Trichechus*. To justify this observation, the myological researches of the various investigators on the Phocinæ in which there is no atlanto-scapular must be quoted. Professor Humphry describes a levator anguli scapulae inserted into the base of the scapula. Professor Lucae in the same animal gives, in one of his plates, a