

In *Arctocephalus* it is a triangular muscle and *arises* from the supraspinous fossa, to within half an inch from the glenoid cavity. Overhanging it upon the anterior border is the episubscapularis, separated by a deep furrow. In considering this origin the configuration of the scapula must be grasped. The supraspinous fossa is divided into two by a well-marked ridge, or diminutive spine, anterior to which the suprascapular muscle is thick, whilst posterior it is thin; at the outer third of the ridge there is a trench between the fibres arising anterior and posterior to it, but no division in the fibres internal to this. From the ridge and the partial trench, it is seen that this muscle is a double one and consists of two parts, an anterior lying in front of the ridge, and a posterior behind it. The *anterior* part goes to the great tuberosity of the humerus, and is *inserted* into the capsule over the superior surface of the joint, into the pit on the anterior and upper surface of the upward prolongation of the great tuber, into its upper anterior half and into the posterior surface; a fasciculus crosses from the great tuber to the tip of the lesser tuber, and is *inserted* into the outer side of it, forming a narrow muscular bridge over the transverse ligament and the biceps; it joins the fibres of the pectoral below the great tuberosity. The *posterior* part lying posterior to the ridge and above the spine is *inserted* into the pit or impression on the outer side of the great tuberosity, above the pit for the infraspinatus, and into the capsule of the joint superiorly. In *Otaria* and *Trichechus* it has a single insertion.

Upon the great humeral tuberosity of the young *Arctocephalus* there are three depressions for tendons, comparable in this respect with the human great tuberosity. In the human subject these are for the supraspinatus, infraspinatus, and teres minor, but in the adult specimens the two lower are fused and the upper and lower extremities of this combined depression are deeply pitted, showing that the fibres going to either end act somewhat independently. As pointed out, the spines of the scapulae in the Phocinae and *Arctocephali* are in very different positions upon their respective bones. The accessory spine or ridge of bone in *Arctocephalus* bears the same relation to its scapula as the only spine in the Phocinae. The origin of the posterior part of the supraspinatus in the former, disregarding the spines, is from the same site as the infraspinatus in the latter, and both are *inserted* into the same part of the major tuberosity. The actions of the posterior part are those of an infraspinatus, so it may be regarded as a transposed muscle; and the infraspinatus in *Arctocephalus* is functionally a large teres minor. If the infraspinatus were placed above the spine in the Phocinae, and the spine changed to a lower latitude, then there would be almost the same arrangement of these muscles in both. In the Phocinae it is supplied by the suprascapular nerve from the 6th cervical; in *Arctocephalus* by the suprascapular.

In the Phocinae it carries the fore-limb forwards, and in *Arctocephalus* the anterior part raises the fore-limb with the episubscapularis and turns it slightly inwards. The posterior part with the insertion, like the human infraspinatus, is a feeble elevator of the limb, but a powerful rotator outwards, bringing the fore-limb backwards to the side.

The *Infraspinatus* lies beneath the deltoid and is similar to it in form. It *arises* from the posterior border of the spine of the scapula; from the scapula between the spine, and the origins of the triceps posteriorly, and the deltoid internally. It goes towards the shoulder; a little beyond the spine its fibres blend with the tendon of insertion of the supraspinatus. Over the dorsum of the neck of the scapula, it is between the supraspinatus and the teres minor. It is *inserted* into the outer side of the great tuberosity of the humerus; and into the capsule of the shoulder-joint, lower than the supraspinatus.