

deltoid. These muscles for rotating the humerus have more leverage by being removed from the shaft by a vertical plate.

The brachialis anticus muscle in the Phocinae is single, and divides into two for insertion into the radius and ulna. Lucae gives the division for the ulna as in combination with the biceps, but Humphry and I find it quite apart. In *Otaria* as in *Arctocephalus* it has two heads of origin, but in the former the outer head joins the inner head on the outer side of the elbow, whereas in *Arctocephalus* the head from the surface of the deltoid eminence divides into two, one going to each bone of the forearm, and the outer has also two divisions for both bones. In the Phocinae it is supplied by the musculo-cutaneous and musculo-spiral. In *Arctocephalus* it is supplied by the musculo-cutaneous. It is a flexor of the forearm on the upper, and, like the biceps, will rotate the forearm outwards when the manus is prone.

The POSTERIOR BRACHIAL REGION in the Phocinae and *Arctoccephali* consists of the *triceps*, which has four heads—(a) the *dorsi-epitrochlear*, (b) the *long head*, (c) *external head*, and (d) *internal head*. There is no subanconeus.

The *Triceps*, first head, or the *dorsi-epitrochlear*,¹ is a thin muscle partially covered by the deltoid, and *arises* from the dorsum of the scapula by a broad sheet-like tendon, extending from the vertebral border of the cartilaginous plate to a spot posterior to and in a line with the middle of the scapular spine. This tendon is continuous with the tendon of origin of the long head of the triceps, and it is placed between the origin of the infraspinatus anteriorly and the teres major posteriorly. Above the olecranon of the ulna it collects into a small muscular band, which runs over the border of the olecranon, near its junction with the posterior border on the internal surface of the ulna. After receiving a few fibres from the long head it is *inserted*, or rather moored by its lower edge, to the junction of the olecranon with the posterior border of the ulna, and to one inch of the posterior border below this junction. The band passes to the flexor minimi digiti, blends with it, and terminates at the junction of the middle and upper third of this muscle. In *Phoca barbata* the *insertion* overlapped both sides of the olecranon.

In *Arctocephalus gazella* it is of a triangular shape, and *arises* from the dorsal rim of the inferior costa of the scapula, by a sheet-like tendon which is one inch long, and extends transversely from the posterior angle to the middle of the dorsal rim of the posterior costa of the scapula. It is placed between the infraspinatus anteriorly, and the teres major and subscapularis posteriorly. It becomes cylindrical over the olecranon, slightly overrides both sides of it, and there receives a few fibres from the external head on its outer side, and is *inserted* into the olecranon from the middle tubercle to the posterior, and into the posterior and outer upper third of the flexor carpi ulnaris.

The difference in this muscle in *Phoca vitulina* and *Arctocephalus* according to my dissections is well marked. In the former the origin is far removed from the axillary border by the extensive surface for the origin of the teres major, which in the latter is adjacent to this border. The insertion in *Phoca* blends with the flexor minimi digiti, and in *Arctocephalus* with the flexor carpi ulnaris.

The statement by Professor Humphry that the muscle reaches the paddle finds no support from Lucae, and in none of the specimens did I see this; perhaps the flexor minimi digiti was included with it in his description. Lucae gives its insertion into the fascia of the front arm, &c.,

¹ This is Humphry's first division; Lucae (*op. cit.*, pl. ix. fig. 1) calls it the "triceps pars longa," and in his text "portio longa tricipitis."