

ulnaris; and is *inserted* into the inner side of the base of the 1st phalanx. In *Arctocephalus* it *arises* from the tendon of the flexor carpi ulnaris, from the pisiform bone, and from the tendon of the palmaris profundus. It is well formed and is *inserted* into the ulnar side of the head of the 5th metacarpal; and into the same side of the entire length of the 1st phalanx. Lucae names it the M. flexor brevis digiti V. In *Otaria* Murie designates it the flexor brevis minimi digiti, and in describing *Trichechus* says "there is no trace whatever of the flexor brevis minimi digiti so well developed in *Otaria*, *Phoca fetida*, and *Phoca vitulina*." The origin and insertion coincide with those of the corresponding human muscle, and the function is the same, being chiefly an abductor and a flexor. The human muscle sometimes has accessory heads from the flexor carpi ulnaris and the palmaris longus, and since a part of the origin in the Phocinæ is from the former, and in *Arctocephalus* from the palmaris profundus and the flexor carpi ulnaris, there is much to support the name abductor.

In *Trichechus* there is an opponens pollicis, and also a palmaris brevis.

THE OUTER OR EXTENSOR SURFACE OF THE FOREARM.—In *Phoca vitulina*, *Phoca barbata*, and *Phoca hispida* the following muscles lie in this region:—Anconeus externus, supinator longus, extensor carpi radialis, extensor communis digitorum, tensor fasciæ, extensor carpi ulnaris, supinator brevis, extensor ossis metacarpi pollicis, extensor primi internodii pollicis.

In *Arctocephalus*, besides the above muscles, there is an extensor proprius pollicis, and out of the extensor communis is formed the extensor minimi digiti. The tensor fasciæ is absent. All the specimens want the dorsal interossei and the pronator quadratus.

The *Anconeus externus* is a narrow slip and *arises* from the back of the external condyle of the humerus, a little above the condyle; it is *inserted* into the outer side of the tip of the olecranon beside the inner head of the triceps, and into the upper half of the outer side of the quadrilateral surface behind the sigmoid cavity.

In *Arctocephalus* it *arises* from the posterior part of the supracondyloid ridge, and also, as in the Phocinæ, from the back of the external condyle; and is *inserted* into the olecranon on the external lip, between the 1st and 2nd tubercles. In *Arctocephalus* it did not run into the triceps so intimately as in the Phocinæ. It is an extensor and lateral supporter of the elbow-joint. It is supplied by the musculo-spiral nerve.

The *Supinator longus* is the most anterior of the extensors. It *arises* from the upper two-thirds of the external border of the humerus, above the musculo-spiral groove on the outer border. Below the head of the humerus it is covered by the external head of the triceps. After it crosses over the external surface of the shaft of the humerus, it lies along the anterior border of the radius, and is *inserted* into its anterior border, half an inch from the wrist, above the groove for the muscle of the pollex.

In *Arctocephalus* it *arises* from the external border as in *Phoca*, above, where the musculo-spiral nerve turns round the supracondyloid ridge, lying to the outer side of the extensor carpi radialis, from the neck of the humerus, and from the capsule of the shoulder-joint beneath the external head of the triceps. The extent of origin from the neck is from the external border to the outer border of the greater tuberosity. The fibres descend between the outer head (part one) of the brachialis anticus, and the extensor carpi radialis along the anterior border of the radius. At the middle of the anterior border it forms a round tendon, which is *inserted* into the external