

ulnaris. It *arises* from the outer surface of the olecranon between the middle and posterior tubercles, from the ulna posterior to the ridge running down the shaft from the middle tubercle, and from the external surface of the ulna, where the ridge ends, to 1 inch from the epiphysial line. It has also fibres of origin from the fascial expansion of the external lateral ligament, which passes beneath it to attach itself to the lower end of the ridge of the ulna. It forms a flat strong tendon, and crosses obliquely forwards and outwards to the interval between the radius and ulna. At the level of the epiphysial line it enters the annular ligament, and passes over the posterior inferior corner of the lower end of the radius. It reaches the carpus and goes between the 1st and 2nd metacarpal bones; at the middle of the 1st metacarpal it begins to expand to the outer or anterior side, the tendon crossing the head of the metacarpal. Above the wrist it is crossed by the extensor carpi ulnaris, and over the wrist by the common extensors. Upon the base of the 2nd metacarpal it crosses the posterior tendon of the extensor radialis, and then descends upon the dorsum of the head of the 1st metacarpal, over which it joins the outer side of the extensor primi internodii pollicis. It is *inserted* into the base of the 1st phalanx of the pollex, and sends a fine aponeurosis to the terminal one. The posterior capsule of the joint of the 1st and 2nd phalanges of the pollex is chiefly formed by it.

This muscle is wanting in the Phocinæ, and comes under the heading "extensor pollicis et indicis" in Dr. Murie's papers on the Pinnipedia. In *Otaria* it *arises* almost from the same locality of the ulna, and is *inserted* into precisely the same part of the pollex as in *Arctocephalus*. The surface of the ulna which gives origin to this muscle in *Arctocephalus*, *Otaria*, and *Trichechus*, is occupied by the extensor primi internodii pollicis in the Phocinæ. It is supplied by the posterior interosseous nerve.

The *Extensor ossis metacarpi pollicis* is the abductor pollicis of Lucae. It *arises* from the external flat surface of the olecranon, beginning above the tip of the olecranon, and extending along its border to where the posterior border of the ulna begins; from the anterior upper half of the outer surface of the ulna; slightly from the external lateral ligament; from the outer surface of the interosseous ligament; and by a few fibres from the middle of the posterior border of the radius. After receiving the radial fibres it forms a flat tendon which descends obliquely downwards and forwards over the outer surface of the radius, crossing the extensor carpi radialis tendon above the wrist. It enters the first division of the annular ligament and runs in the groove on the anterior border of the radius above the styloid process, then over the palmar surface of the process or tubercle of the scapholunar bone; and is *inserted* into the radial or anterior side of the proximal end of the 1st metacarpal bone.

In *Arctocephalus* it *arises* from the external surface of the middle of the shaft of the ulna, anterior to the ridge which descends from the middle tubercle, below the origin of the extensor primi internodii pollicis, which is not covered by the attachment of the fascial expansion of the external lateral ligament, from the posterior surface of the interosseous membrane, and by a small surface from the external side of the posterior border of the radius in front of the ulnar origin. It passes obliquely downwards and forwards, over the external surface of the radius, under cover of the expansion of the external lateral ligament. Crossing the tendons of the extensor carpi radialis, it enters the first division of the annular ligament on the anterior border and external surface of the lower end of the radius, and runs along the side of the carpus to the outer side of the extensor primi internodii pollicis; and is *inserted* into the radial side of the base of the 1st metacarpal.