

removed from the palmar fascia, to which it is closely adherent. In *Phoca barbata* the origin was partly destroyed, but the fragment appeared the same; the insertion is similar. *b.* The second part is a narrow tendinous slip, and *arises* from the internal condyle between the flexor carpi radialis and the flexor communis digitorum (first head), and is *inserted* into the deep fascia over the ulnar side of the wrist.

Humphry does not separate this muscle into its divisions, but our descriptions are very much the same. Lucae's insertion is not anything like what Professor Humphry and I make it to be.

In *Arctoccephalus* there are three palmar muscles—the Palmaris longus, superficialis, and profundus.

*a.* The *Palmaris longus*, the palmaris longus primus of Murie, has a fascial and a bony origin. It *arises* from the internal surface of the internal condyle by a tendinous slip, also by a muscular slip which is blended for a short distance with the flexor carpi radialis, and from the convex side of a fascial band for 1 inch, and blends with the superficial palmar for half an inch on the inner side. This slender muscle ends in a fine tendon at the junction of the upper third with the lower two-thirds of the radius, and at the lower end of the radius the tendon dips beneath the broad tendon of the deep palmar, upon the under surface of which it expands on both sides, forming a triangle with the apex as the continuation of the tendon; over the base of the 1st metacarpal it is moored to the under surface of the tendon of the deep palmar muscle, and ends over the 1st metacarpal.

*b.* The *Palmaris superficialis*, the palmaris longus secundus of Murie, is a slender broad layer of muscular fibres lying upon the deep palmar. It *arises* from the convex side of a fascial band, with the exception of that portion on its anterior side which gives origin to the palmaris longus. This band stretches from the internal condyle over the deep palmar to which it is closely bound, and ends upon the anterior edge of the dorsi-epitrochlear. Below the band on the posterior side its fibres are blended with the dorsi-epitrochlear for half an inch, and on the anterior with the palmaris longus for the same distance. It crosses the deep palmar muscle; and is *inserted* into the skin opposite the ulnar border of the base of the 5th metacarpal; the bulk of the tendon lies along the ulnar border of the 5th metacarpal, and is attached to the head of this bone, and to the ulnar side of the whole of the 1st phalanx.

*c.* The *Palmaris profundus* is the palmaris longus tertius of Murie, and has an extensive origin. It *arises* from the internal surface of the olecranon; from the inner edge of the quadrilateral surface behind the sigmoid cavity; from the capsule of the elbow-joint; from the internal concave surface of the ulna in its upper half, posterior to the ridge running down the shaft from the sigmoid cavity; and from the upper half of the posterior border of the ulna by an aponeurosis. At the level of the junction of the olecranon and the posterior border of the ulna on the surface of the muscle is a slender aponeurosis which covers its whole breadth, and as it descends upon the muscle towards the lower end of the shaft it becomes thick and strong. The muscle-fibres terminate abruptly on its posterior surface, parallel with the posterior border of the lower half of the ulna. This tendon is also common to the flexor carpi ulnaris. By its posterior border below, it is attached to the pisiform bone, and to the anterior border of the flexor carpi ulnaris; it gives a tendinous slip to the radial side of the base of the 5th metacarpal, and another strong broad one to the base of the 1st phalanx of the 5th digit; from the tendon to the 1st phalanx a slip joins the transverse ligament, *i.e.*, the metacarpo-phalangeal; the rest of the broad tendon crosses the wrist obliquely from