

It receives no fibres from the inner side of the coronoid process, for the upper end of the internal condyle is at a greater distance from the coronoid and of greater length than in the human subject. The bones of the forearm being naturally placed midway between pronation and supination, a rotation of a quarter of a circle makes the hand prone. The mode of insertion in the Phocinæ and *Arctocephalus* is very different; in the latter it is as is in human anatomy, but in the former it is almost circular, and extends halfway across the inner surface of the radius near the lower extremity. This strengthens the statement as to the absence of a pronator quadratus, for the surface where it should be is partially occupied by the insertion of this muscle. In all the specimens it is supplied by the median nerve, and has the usual action.

The *Pronator quadratus*.—No evidence was got of its presence in the Phocinæ and *Arctocephalus*, although Humphry states that he found it but small, and Lucae inconsiderable. There is none in the *Otaria*, but in the Walrus it is fairly developed. If I had only dissected young specimens I should be sceptical as to its absence in the Phocinæ, but in an adult Seal no fibres were seen where the above writers have described it. The dissection in this specimen was done by turning aside the structures without removing any tissue.

The *Flexor carpi ulnaris* arises from the inner surface of the ulna where the posterior border joins the olecranon, and from the posterior border of the bone in its upper three-fourths, and is inserted into the pisiform bone, from which the tendon passes on expanding and attaching itself to the bases of the 3rd, 4th, and 5th metacarpal bones by joining the deep fascia adherent to them.

In *Arctocephalus* it arises from the inner side of the 3rd or posterior tubercle of the olecranon, to the slightest extent from the commencement of the posterior border of the ulna below the tubercle, and from the remainder of the upper half of the posterior border by an aponeurosis common to it and the deep palmar muscle. It lies posterior to the deep palmar, with which it is united so closely that no division is seen in the bellies of the combined muscles. It is covered anteriorly by the tendon common to the deep palmar, and posteriorly by the aponeurosis of origin from the posterior border of the ulna. About an inch from the lower end of the ulna it forms a strong tendon, which is inserted into the pisiform bone as in the Phocinæ, and into the strong fascia over the base of the 5th metacarpal. In *Otaria* and *Trichechus* it is very like the corresponding muscle in *Arctocephalus*.

All are agreed as to the pisiform being the chief point of insertion, but there are variations in the ending of the tendon. From human anatomy we learn that there is close relationship between the annular ligament and the flexor carpi ulnaris, and that the tendon terminates at the base of the 5th metacarpal, and this is nearly the arrangement I found in the Earless Seals; in the Eared forms I am not certain of the connection with the annular ligament. As the outer three digits in the Phocinæ give insertion to the flexor carpi radialis, and the bases of the three inner have this muscle fixed to them, the whole series of metacarpal bases have each a flexor of the forearm acting upon them. Owing to the posterior border of the ulna being arched with the concavity on the same side, and this muscle passing in a direct line from the two extremities, the manus and bones of the forearm form two sides of a triangle, with the pisiform as the apex. Hence this muscle must draw the hand to the inner side, and also turn it a little to the outer side, as well as flex the manus. In all specimens it is supplied by the ulnar nerve. It has the customary actions, and is in addition a powerful supinator of the manus.

The *Abductor minimi digiti longus*.—Humphry names it flexor minimi digiti; Lucae, abductor