

for the pollex. The posterior group gives origin to one muscle in all, and this is the extensor proprius pollicis in *Arctocephalus*, the extensor pollicis et indicis in *Otaria* and *Trichechus*; but as these three are exactly alike in their mode of insertion, practically they are the same, and all might be as correctly named extensor proprius pollicis. In the Phocinæ the muscle is called the extensor primi internodii pollicis, but only provisionally, for its origin is exactly as in all the others, but its insertion is half that of the proprius and half that of the extensor primi internodii, for a part of the insertion crosses the base of the 1st phalanx of the pollex, and the other half is continued down the radial side like the extensor primi internodii; thus it has a compound action.

The anterior group in the Phocinæ and *Otaria* is similar, forming the extensor ossis metacarpi only; in *Arctocephalus* two muscles come from this group owing to its division into an upper and a lower half. The upper half is the extensor primi internodii pollicis, the lower the extensor ossis metacarpi pollicis. In *Trichechus* there are three muscular elements—the extensor ossis metacarpi pollicis, the extensores primi et secundi internodii, all combined at their origin, and indistinguishable from the common mass of fibres. This affords evidence of a distinct portion of a bony surface being reserved for a muscle discharging a special function with respect to a certain digit. The area of origin in all these animals remaining constant and not increasing in size, whether there is a single tendon or more, is probably novel. It leads to the conception that there must be a method in the formation of distinct muscles out of common masses of fibres, though it may not always be traceable. These muscles have the usual actions.

#### MYOLOGY OF THE HIND LIMB.

The ILIO-FEMORAL REGION includes the psoæ and iliac muscles, with a varying set of muscles in connection with the former. The following shows the various accessory muscles found in each specimen. The meaning of the names is explained further on:—

The *Psoas magnus* or *primus* is present in the large *Phoca vitulina*; in the small *Phoca vitulina* with an ilio-femoralis et lumbalis anterior; in *Phoca barbata* with an ilio-femoralis et lumbalis anterior; in *Phoca hispida* with an ilio-femoralis anterior; in *Macrorhinus*; and in *Arctocephalus*.

The *Psoas minor* or *secundus* is found in all the above specimens and in the large *Phoca vitulina*, on the right side, with a lumbo-femoralis posterior.

The *Psoas tertius* is common to all but *Macrorhinus*, and it has an ilio-femoralis posterior.

The *Iliacus* is found in all the specimens.

Before entering upon the details of the psoæ, it is well to understand upon what grounds the names are given, as well as to point out what peculiarities each muscle possesses, and the similarities and dissimilarities in each dissection. As much interest in the anatomy of the Seals centres around this group of muscles the localisation of the fibres is of importance. Upon the lumbar vertebræ ventrally there are two longitudinal fleshy masses, each including a psoas magnus and parvus. As one of these muscles is attached in all the specimens, though with some modifications in detail, to the pectineal eminence, I regard it as the equivalent of the psoas parvus of human anatomy, called the secundus or minor in the text. The other muscle, lying to the outer side of the minor, has not