

the usual femoral attachment of the *psoas magnus*, but its position in the trunk and the want of the trochanter minor in the Phocinæ and *Macrorhinus*, indicate that the *magnus* must wander to some other point, and it has settled on the posterior ventral spine of the ilium. The names *magnus* and *minor* do not suit the magnitudes of these muscles in the Earless Seals, for the *minor* is by far the larger, and the major along side of it is small, but it is convenient to keep the names used in human anatomy. The *tertius* is a small muscle not to my knowledge previously described in the Seals, and called the *iliacus* by Dr. Murie in *Otaria*. It is located upon the junction of the lumbar with the sacral vertebræ under cover of the other two muscles, and is directed obliquely over the pelvic brim to the femur. It exists in all the specimens excepting *Macrorhinus*. The want of a *psoas magnus* to the femur is compensated for by fibres springing from the posterior ventral spine of the ilium, or from the pectineal eminence with, in some instances, a prolongation of fibres from the *psoas magnus* into this group, or a direct offshoot from the *psoas minor*. The name *ilio-femoralis anterior* is given when the fibres are only derived from the posterior ventral spine, and *ilio-femoralis posterior* when from the pectineal eminence. In two specimens (small *Phoca vitulina* and *Phoca barbata*) an addition is required to the name *ilio-femoralis anterior*. The *psoas magnus* in them gives fibres to blend with the *ilio-femoralis anterior* and then the name *ilio-femoralis et lumbalis anterior* may be adopted. Lastly, in the large *Phoca vitulina*, the *psoas secundus* gives a group of fibres directly to the femur, and this is called the *lumbo-femoralis posterior*.

The *Psoas magnus* is called the *psoas major* and *ilio-lumbalis* by Lucae; in *Phoca vitulina* it *arises* from the sides of the ventral surface of the 3rd, 4th, and 5th lumbar vertebræ to the inner side of the *psoas tertius*, which it covers and crosses, to be *inserted* only into the posterior ventral spine of the ilium. It has no *ilio-femoralis anterior*.

In the small *Phoca vitulina* most of the fibres are *inserted* into the posterior ventral spine of the ilium. It has an extension of its fibres forming an *ilio-femoralis et lumbalis anterior*. In Humphry's account of this muscle he points out that some of the fibres pass to the inner side of the thigh; this is the group which Lucae figures as the *femoralis major* and has not described.

In *Phoca barbata* this muscle has the same *insertion* and distribution as in the last species.

In *Phoca hispida* it is *inserted* into the anterior half of the posterior ventral spine of the ilium, and slightly into the adjacent inner half of the ventral border of the outwardly directed wing of the ilium. There is a great difference between this muscle and the corresponding one in the small *Phoca vitulina*, for not one of the fibres proceeds beyond the spine. It has, therefore, no *lumbalis* fibres from the *psoas magnus*, but it has an *ilio-femoralis anterior*.

In *Macrorhinus leoninus* it is *inserted* into the posterior ventral spine of the ilium, which is fused with the pectineal eminence.

In *Arctocephalus gazella* this is much the largest of the group. In the dorsal region it *arises* by a series of muscular slips, from the posterior halves of the last four dorsal vertebræ, from their intervertebral discs, and from the ventral surfaces of the ribs and the ligaments of the rib joints. In the lumbar region it *arises* from the whole of the ventral surfaces of the 1st, 2nd, 3rd, and 4th lumbar vertebræ, and from their intervertebral discs and transverse processes. It courses directly backwards, above the *psoas minor*, to the outer side of the *tertius*, becomes narrower, and is *inserted* into the posterior ventral spine of the ilium. There is no *ilio-femoralis et lumbalis anterior*, or *ilio-femoralis anterior*, in this animal nor in *Macrorhinus leoninus*.

The *Ilio-femoralis et lumbalis anterior*, in the small *Phoca vitulina*, is the *ilio-psoas* and *ilio-*