

view is not different from the above. Murie does not notice it in the text or the drawings of *Otaria* and *Trichechus*. From the position of this muscle, reaching from the spinal column over the gluteal muscle to the outer side of the knee, it must act as a flexor of the thigh and a rotator outwards of the thigh and leg.

The *Sartorius* in *Phoca vitulina* is an elongated slip. It *arises* from the ventral anterior spine of the ilium, descends backwards, forwards, and slightly inwards, lying to the inner side of the tensor fasciæ femoris. It is *inserted* into the upper edge of the patella. In *Phoca hispida* it *arises* also from a small part of the lower lip of the iliac crest, and is *inserted* as in *Phoca vitulina*, but the fibres are also attached to the inner edge of the patella, into the ventral edge of the ligamentum patellæ, a few fibres descending along the inner side of the ligament to the head of the tibia. In *Phoca barbata* it has the same relations as in *Phoca vitulina*.

In *Macrorhinus leoninus* it *arises* from the lower edge of the ventral anterior spine of the ilium, which is a continuation of the outer lip of its crest, and from half an inch of the outer lip of the ilium. Its course is as in *Phoca vitulina*, but it is adherent to the rectus above the patella, and is joined on the dorsal edge by the tensor fasciæ femoris. The tendon is broad, and is *inserted* into the outer edge, and into the outer two-thirds of the superior edge of the patella. The tendon unites with that of the rectus and goes with it to the tibia.

In *Arctocephalus gazella* there was a second sartorius, much smaller than the proper one and posterior to it. The proper or anterior *arises* from the ventral anterior spine of the ilium, and from the ventral border behind the ventral anterior spine for a slight distance; it passes downwards and outwards, and is *inserted* into the inner edge of the patella, sending a fascial expansion to the fascia over the internal condyle to the head of the tibia. The posterior muscle *arises* from the middle of the venter of the ilium by a slender tendinous slip, descends to the knee, and is *inserted* over the internal border of the fascial expansion of the anterior one. Lucae only recognises part of the external oblique as its analogue. It appears in Murie's drawings of *Otaria* and *Trichechus* but not in the descriptions. It flexes the thigh, and may slightly adduct and evert it.

A very noticeable fact is the uncertainty as to the precise insertion of this muscle, its tendency to variation, and the fixity of the origin. Some may be in favour of regarding the tensor vaginæ femoris and the sartorius in the Phocinæ as offshoots from the external oblique, but the dissections appear to me to indicate that they are distinct from it. I look upon the external oblique as a progressive muscle, increasing in size and carried backwards in adaptation to the crawling movement of the Seals along the ground. In *Arctocephalus* where there is no crawling the external oblique follows the ilium and pubes. In the Phocinæ it is supplied by the anterior crural nerve.

The *Rectus femoris* in *Phoca vitulina* is a single-headed muscle, and *arises* from the ventral fourth of the anterior border of the outer surface of the ilium, from the outer surface between the anterior ventral spine and the origin of the gluteus minimus on the outer side, which is about the ventral half of the outer surface, and from below the capsule of the hip-joint, anterior to the middle of the acetabulum. Thus it springs from the outer surface of the ilium, from a surface bounded anteriorly by the anterior border of the ilium, posteriorly by the capsule of the hip-joint, where it is attached to the ilium on the dorsal side by the origin of the gluteus minimus, and on the ventral side by the ventral posterior spine of the ilium. The fibres form a rectangular band, which is partly behind the sartorius and the tensor fasciæ femoris. After passing downwards, forwards, and slightly outwards, it is *inserted* into the upper edge of the patella, and is united with