

In *Arctocephalus* they are *inserted* into the great trochanter to the outer side of the obturator internus.

The *Obturator internus* in *Phoca vitulina* arises from the internal surface of the obturator membrane, and from the rim of bone around it, and forms a tendon which goes over the dorsal surface of the ischial bar in its groove. The two gemelli meet over, surround, and conceal the tendon of the obturator internus; and all three are *inserted* together into the posterior border of the great trochanter.

In *Arctocephalus*, after scraping away the gemelli and isolating the tendon, the muscle is found to arise from the obturator membrane, &c., as in *Phoca*; and is *inserted* to the inner side of the insertion of the gemelli into the posterior upper end of the great trochanter of the femur.

The *Quadratus femoris* is only found in *Arctocephalus*. It is triangular, and arises from the dorsal half of the ischial bar, posterior to the gemellus inferior and anterior to the origin of the semimembranosus. It passes forwards, outwards, and downwards, and is *inserted* by a tendon into the lower half of the posterior border of the great trochanter.

These three rotate the femur outwards, bringing the thigh near the pelvis.

In *Macrorhinus* the dorsal part of the obturator externus represents the quadratus. In the Phocinæ it is fused with the obturator externus and unrecognisable as the quadratus.

THE MUSCLES FROM THE PELVIS TO THE LEG.—In the Phocinæ, *Macrorhinus leoninus*, and *Arctocephalus gazella* the gracilis, semimembranosus (in *Phoca vitulina* it has an anterior and posterior part), semitendinosus (with two heads), and biceps (which has a long head, the biceps, and a short head named the sacro-peroneus) are present.

The *Gracilis*, also called symphysis tibialis in Lucae's plate, is a flat triangular muscle in the Phocinæ, stretching from the symphysis to the tibia. It arises from the symphysis pubis, and radiates outwards to the lower leg, the superficial fibres only arising not from the bone but from the linea alba. The posterior third of the latter is continuous with the fasciculi of the opposite side over the symphysis. The anterior two-thirds is anterior to the pubic arch, the muscle of the right side is beneath and overlapped by that of the left. It is *inserted* into the posterior two-thirds of the ventral surface of the tibia, and many of the fibres end in a tendon near the shaft. The tendon of insertion is combined with that of the semimembranosus and semitendinosus. In the substance of the gracilis, near the ventral border of the tibia and parallel with it, is a long narrow tendon running at right angles to its fibres. This is an indistinct white streak close to its anterior border, which gradually widens and strengthens to a strong broadish tendon at its posterior border; at the bend of the anterior surface of the astragalus it expands, forming, with the prolongations backwards of the combined tendons of insertion of the semimembranosus and semitendinosus, and gracilis, the plantar fascia.

In *Macrorhinus leoninus* it arises from the symphysis pubis by the fibres of its deep surface, from the linea alba in front of the pubis by the intermediate fibres, and by the superficial fibres from the ligament stretching between the pubic bones. The fibres opposite the pubes are blended with those of the opposite side. It is *inserted* into the posterior half of the tibia.

In *Arctocephalus gazella* it arises from the symphysis pubis, and from the ligament between the pubic bones. The superficial fibres are continuous with those of the opposite side, and none of the fibres reach further forward than the symphysis. It is *inserted* into the middle third of the ventral