

The *Obturator externus* in the Phocinæ covers the outer surface of the obturator membrane. It *arises* from the outer surface of this membrane, from the outer surface of the pubic bar to half an inch posterior to the front of the obturator foramen, from the outer surface of the ischial bar, from the outer surface of the ischial tuber, and from the anterior half of the rami of the ischium and pubes, posterior to the obturator foramen. The fibres pass upwards and forwards below the capsule of the hip-joint in four slips, which are closely attached but easily distinguished. The ventral or first slip comes from the pubic bar, the dorsal or fourth from the ischial bar, and the other two from the surface of the large obturator membrane. It is *inserted* into the obturator pit, and into the outer half of the posterior or dorsal border of the great trochanter to the external border of the femur. The slip from the ischial bar may be looked upon as the *quadratus femoris*, but it is indistinguishably blended with the obturator externus. This conclusion is based upon the continuation upon the great trochanter of the insertion of the large obturator.

In *Macrorhinus leoninus* it is very different from the former three muscles in its origin. It *arises* in two parts. The *dorsal* part (or *quadratus femoris*) from the posterior half of the ischial bar to where it turns down, from the outer surface of part of the ischial tuber, slightly from the obturator membrane next the bar, and from the ischial bar posterior to the obturator foramen. It is partially blended with the anterior part, and the part along the dorsal border, forming a strong broad tendon, which gives off a tendinous slip from its ventral side. This slip joins the adductor brevis, and is *inserted* along with it. The larger remaining part of the muscle goes along the under surface of the neck of the femur, and is *inserted* into the whole of the dorsal or posterior border of the great trochanter. The *anterior part* (or *obturator externus proprius*) *arises* from the outer surface of the ischial bar from opposite the middle of the obturator foramen to behind the acetabulum, from the same extent of the pubic bar, but only from its dorsal half, from the obturator membrane lying next the bony origins, and from the posterior half of the concave surface behind the acetabulum. It crosses the joint-capsule, and is *inserted* by a strong tendon into the upper half of the posterior surface of the great trochanter. The insertion of this part is like that of the obturator externus, while the dorsal is similar to the *quadratus femoris*.

In *Arctocephalus gazella* it *arises* from the entire outer surface of the obturator membrane; slightly from the capsule of the hip-joint; and from the inner half of the pubic and ischial bars surrounding the foramen. It passes forwards and upwards, and is *inserted* into the digital fossa on the back of the great trochanter by a strong tendon. In *Otaria* it is inserted into the lesser trochanter. This muscle acts as a powerful rotator of the upper end of the femur. It rolls the thigh backwards and inwards to the side of the pelvis. Humphry describes the obturatores as large, and says the *quadratus femoris* is not a distinct muscle. I believe it is indistinguishably blended with the externus in the Phocinæ.

In the Phocinæ the digital pit is well marked, in *Arctocephalus* it is like a groove, and in *Macrorhinus* there is none. In the Phocinæ the obturator externus covers all the ischial and pubic bars and the obturator membrane to a little behind the foramen ovale. There is a slight attempt at division into four slips, the slip over the pubic bar resembling the origin of the adductor longus in the other Seals, and the ischial origin the *quadratus femoris*. In *Macrorhinus* the surface of bone and membrane corresponding to the surface covered by the fibres in the Phocinæ is shared by the obturator externus, *quadratus femoris*, adductor longus and brevis. In *Arctocephalus* the same divisions exist but are not so simple. The muscle around and over the obturator membrane in