

In a large specimen of *Arctocephalus gazella* this muscle could probably be divided into two. It *arises* from the outer hindward ventral half of the pubic bar, behind the obturator foramen, from all the surface between the origins of the obturator externus, and the gracilis and adductor magnus, and from the hindward quarter of the ischial bar to the origin of the quadratus femoris. It is *inserted* obliquely across the back surface of the femur, from the lower end of the great trochanter to the middle of the inner surface of the shaft of the femur, ending at the junction of the anterior surface with the inner. The adductor longus primus and secundus of *Otaria* form the adductor longus of *Arctocephalus*. In *Trichechus* the adductor longus has only one head. It adducts the thigh in *Macrorhinus*, but in *Arctocephalus* besides adducting, the fibres upon the posterior surface rotate it outwards, those on the inner surface inwards.

From the lower end of the great trochanter in *Arctocephalus*, crossing the back of the femur, and terminating at the middle of the junction of the posterior with the inner surface, is a ridge of bone resembling the linea aspera of human anatomy and giving attachment throughout its entire length to the adductor longus. This is a faint ridge in *Macrorhinus*, but it lies midway between the upper and lower ends of the great trochanter, and terminates in the middle of the back of the shaft at the junction of the upper third and lower two-thirds of the femur, the pectineus touching it. In *Phoca grænlandica* there is a similar ridge to the last, but it ends at the middle of the inner border of the femur; the pectineus also lies above and on it. Humphry describes the adductors in a general way. The name as he uses it is not altogether unsuitable, for the muscles have this action. His adductor magnus I take to be the semimembranosus. Of his other two adductors, one is the pectineus and the other probably the ilio-femoralis.

The *Adductor brevis* in *Macrorhinus leoninus*. If the pubic bar be divided into fourths, the adductor brevis *arises* from the second fourth behind the pectineal muscle, near the ilio-pectineal eminence outside the brim of the pelvis, and slightly from the outer surface dorsal to this. It passes upwards and outwards, and is *inserted* into the middle of the posterior surface of the femur, outside the insertion of the pectineus. The exact spot is found by drawing a line from the lower end of the great trochanter, across the back of the femur, when the middle of this line is the insertion surface.

In *Arctocephalus gazella* it *arises* from the pubic bar outside the brim, and from the ventral half of it behind the origin of the pectineus. It lies between the adductor longus and the pectineal muscles. It is *inserted* obliquely across the posterior surface of the femur, from the lower end of the great trochanter to the insertion of the pectineus behind the small trochanter, and higher than the longus which is upon the linea aspera. Murie describes this muscle as a primus and secundus, but I think the primus is the pectineus and the secundus the above-mentioned muscle. What he gives as the pectineus is inserted into the internal condyle of the femur, and the primus below the neck and trochanteric fossa, which is the usual insertion of the pectineus. It rotates outwards and flexes the thigh.

The *Adductor magnus* is called primus and secundus by Murie and is only found in *Arctocephalus gazella*. It *arises* from the outer rim of the innominate bone, dorsal to the symphysis, extending to the commencement of the dorsal border of the ischial bar. It passes forwards and outwards from the pelvis to the knee, and is *inserted* into the lower half of the shaft of the femur at the junction of the inner with the front surface, across the internal condyle, into the tibia immediately behind it, and into the capsule of the knee-joint on the inner side. It adducts both the femur and the tibia. It is a single muscle in *Trichechus*.