Macrorhinus has divided into three masses, the longus occupying the pubic bar and adjacent membrane, the quadratus femoris, the ischial and adjacent membrane, and the obturator externus the front of the obturator foramen and the pubic and ischial bars on either side. The adductor brevis is isolated and is almost upon the pelvic brim, and there is a large space in the centre of the obturator foramen with no fibres. In *Arctocephalus* the obturator externus covers all the membrane and bone surrounding the foramen. The brevis is on the pubic bar and the longus is behind the brevis and runs round the posterior aspect of the obturator externus to the ischial bar, while the quadratus femoris is anterior to its termination. The function of this area of bone posterior to the acetabulum in the Seals is to give attachment to fibres which will rotate the femur outwards, adduct, and flex at the hip-joint. In *Arctocephalus* there are separate muscles for these various movements, in addition there is an adductor magnus, and each is separately *inserted* into the femur. In *Macrorhinus* there is no magnus, the brevis is insignificant in comparison with the same in *Arctocephalus*, and on the femur it is receding to the obturator extensor insertion. The longus is confined to the internal border of the femur, whereas in *Arctocephalus* it crosses obliquely the back of the femoral shaft. The quadratus femoris though separate at its origin in *Macrorhinus* is combined with the externus at the insertion. In the Phocinæ all the fibres of the externus go to the digital fossa near it. Though the origins in *Macrorhinus* are nearly like those in *Arctocephalus* the insertions are not, but slightly resemble those of the Phocinæ as regards the quadratus and obturator externus, and those of *Arctocephalus* as regards the brevis, and are like neither in the longus. The movements of the thigh in the Phocinæ are the most imperfect, and this combined mass is sufficient for them. In *Macrorhinus* a higher stage is reached as indicated by the separation into muscle bundles, and in *Arctocephalus* there is sufficient differentiation of the muscular mass to enable the animal to walk as well as swim.

The GLUTEAL REGION of the Phocinæ and *Macrorhinus* contains the gluteus maximus, medius, minimus, pyriformis, obturator internus, and gemelli.

In *Arctocephalus* in addition to these there is the quadratus femoris.

The *Gluteus maximus* in *Phoca vitulina* is the most superficial muscle of the gluteal region, and is triangular in form. The base rests upon the vertebral spines and the apex upon the femur. The dorsal head *arises* from the crest of the ilium between the two lips, extending from the ventral anterior spine to the dorsal posterior spine; between the dorsal posterior spine and the spine of the last lumbar vertebra it takes origin from the fascia covering the erector spinæ, and also from the spines of the last lumbar, all the sacral, and the 1st caudal vertebra, by the fascia which is an extension backwards of the lumbar aponeurosis, from the tendinous expansion over the back of the sacrum, and from the dorsal sacro-iliac ligament. The ventral head is a narrow riband-shaped fasciculus about an inch broad. It *arises* beneath the great division opposite the level of the 3rd sacral vertebra, from the side of the dorsal sacro-iliac ligament. The fibres of the dorsal division pass from their origin to the great trochanter and the external border of the femur. Those coming from the crest of the ilium go backwards to the lower and outer part of the anterior border of the great trochanter. The portion lying between the dorsal posterior spine and the three sacral vertebræ passes almost horizontally outwards, and the remainder between the 3rd sacral and the 2nd caudal go forwards and outwards to join the femur. The dorsal part is *inserted* into the outer third of the anterior border of the great trochanter, goes obliquely