In *Arctocephalus gazella* it is beneath the peroneus quinti digiti, and *arises* from the dorsum of the head of the fibula below the peroneus longus, from the whole extent of its outer border, and from the posterior three-fourths of its dorsal surface. It has the same course as the peroneus quinti digiti, and is *inserted* into the dorsal proximal surface of the 5th metatarsal bone, but before gaining the bone it broadens considerably. In *Otaria* it is very much the same as in *Arctocephalus*. In *Trichechus* the tendon does not expand so much as in *Otaria*. In the Phocinæ it is supplied by the external popliteal nerve.

In all the specimens the peroneus tertius and the peroneus quartus are absent.

In *Trichechus* are found the peroneus tertius and the peroneus quarti digiti, which latter is diminutive. The peroneus longus is an extensor of the ankle, the peroneus brevis and the peroneus quinti digiti are flexors and abductors of the foot, and the brevis and quinti digiti expand the toes.

The INNER TIBIO-FIBULAR REGION consists of a superficial and a deep group of muscles.

The SUPERFICIAL GROUP in *Phoca vitulina*, *Phoca hispida*, *Phoca barbata*, and *Macrorhinus leonins* is formed by the gastrocnemius and plantaris. In *Arctocephalus gazella*, besides the other muscles, there is the soleus.

The *Gastrocnemius* in the Phocinæ is a two-headed muscle, and the inner head is more than double the size of the outer. The inner head *arises* from the back of the femur above the internal condyle, reaching up the shaft to the junction of the internal border with the supracondyloid ridge, from the internal surface of the same condyle above the fossa for the internal lateral ligament, from the internal lateral ligament extending to the junction of the anterior third with the posterior two-thirds of the tibia, from the anterior third of the ventral border of the shaft ventral to the lateral ligament, and from the capsular ligament of the knee-joint. The outer head *arises* from the outer surface of the external condyle in common with the plantaris muscle, slightly from the outer half of the surface of the femur above the same condyle, and by a few fibres from the back of the head of the fibula. The two heads unite opposite the junction of the middle two-thirds with the posterior third of the tibia, and form a tendon which widens near the os calcis, and is *inserted* into the anterior aspect of the tuberosity of the os calcis.

In *Macrorhinus leoninus* the inner head *arises* as in *Phoca vitulina*, but covers more of the back of the femur, also from the front surface of the internal condyle up to the patellar facet of the femur. The outer head does not *arise* from the femur, but from the inner dorsal surface of the head of the fibula. The fibres of the inner head join those of the outer head at the anterior third of the tibia, and form a strong tendon, which is *inserted* as in *Phoca vitulina*.

In *Arctocephalus gazella* it is a single-headed muscle, and *arises* from the inner surface of the internal condyle of the femur below the fossa for the internal lateral ligament, from the internal lateral ligament, from the internal border of the tibia in its upper third, and from the capsule of the knee-joint. It crosses the leg from the dorsal to the ventral side; one inch from the os calcis it forms a tendon, which widens and is *inserted* into the os calcis to the outer side of the groove for the plantaris tendon.

Humphry and Lucae give no connection with the fibula; the bony attachments are the same in *Otaria* and *Trichechus*. In the Phocinæ and *Macrorhinus* it will powerfully extend the foot when swimming; in *Arctocephalus* it also extends the foot in the water, and raises the heel in walking. In the Phocinæ it is supplied by the great sciatic nerve.