from the plantar surface before the peroneal groove of the cuboid to the base of the metatarsal of the 5th digit, and finally enters the groove on the plantar surface of the cuneiform bones. It is *inserted* into the base of the proximal extremity, on the plantar and dorsal side of the metatarsal of the hallux, the ligaments of the foot forming a channel for it by bridging over the grooves. The high origin of this muscle from the femur will give support to the knee, and make up for the absence of the external lateral ligament.

In Arctocephalus gazella it is situated on the outer side of the leg, and arises from the external condyle of the femur, out of the same tendon which gives origin to the popliteus and plantaris muscles; and from the tibia and fibula at the tibio-fibular ankylosis, as in *Phoca*. It courses backwards between the extensor communis digitorum and the dorsal malleolus, turns outwards over the inner border of the fibula and gains the dorsal surface, enters the outer groove of this surface, runs over the tendons of the peronei brevis and quinti digiti, traverses the inner groove on the dorsal surface of the os calcis, and turns down into the groove of the cuboid bone, descending obliquely forwards over the cuneiform bones to the proximal extremities of the metatarsals. It is *inserted* into the dorsal proximal extremity of the 1st metatarsal bone. In *Otaria* and *Trichechus* it has origin from the femur, and is inserted into the head of the 1st metatarsal, and joins the fascia to that of the 4th. In the Phocinæ it extends the ankle and turns the dorsal border of the foot outwards; in *Arctocephalus* only it will raise the heel in walking. Humphry and Lucae describe no tibial fibres. In the Phocinæ it is supplied by the musculo-cutaneous nerve.

The Peroncus quinti digiti in the Phoeinæ and Macrorhinus is a flat band-like muscle which arises from the outer surface of the peroneus brevis, upon which it is planted, and from the outer surface of the head of the fibula, dorsal to the peroneus longus. It passes backwards to the posterior end of the fibula, and is closely adherent to the peroneus brevis, from which it is with difficulty separated. About the lower third of the outer side of the fibula it forms a small tendon, which passes through the annular ligament behind the malleolus in front of the tendon of the peroneus brevis. It goes in this order over the inferior groove of the os calcis, and is *inserted* into the outer and dorsal surfaces of the distal end of the 5th metatarsal, and the proximal end of the 1st phalanx of the 5th digit.

In Arctocephalus gazella it lies on the peroneus brevis, and arises from the head of the fibula below the soleus, and from the anterior quarter of the dorsal surface of the fibula. It is adherent to the peroneus brevis, passes backwards in the inner groove on the dorsal surface of the fibula upon the tendon of the brevis, then it enters the groove of the os calcis which is on its outer surface, and proceeds backwards upon the dorsal side of the 5th metatarsal bone to be *inserted* into the proximal dorsal extremity of the 1st phalanx of the 5th digit, expanding before reaching it. In the Phoeinæ it is supplied by the external popliteal nerve.

The *Peroneus brevis*, the peroneus secundus of Lucae, in the Phoeinæ and *Macrorhinus leoninus* is the largest of the group, and *arises* from the outer surface of the head of the fibula; and from the anterior three-quarters of the outer surface of this bone, the fibres arising from the anterior half being dorsal to the outer border, and the remaining fourth of the muscle dorsal to the ventral border. Near the malleolus it forms a strong tendon, which goes with the peroneus quinti digiti but to its upper side through the annular ligament, and in this order enters the inferior groove on the os calcis, and is *inserted* into the dorsal surface and distal end of the 5th metatarsal.