

longus hallucis, the plantaris giving a slip apart from the usual tendons to the distal end of the 5th metatarsal.

The *Plantar fascia* in the Phocinæ is formed out of the tendons of the gracilis, semimembranosus, and semitendinosus, which are prolonged into the foot, while the tendon of the plantaris muscle is interposed between it and the combined tendon of the flexor, and does not form a plantar fascia, but strengthens the common tendon, and forms part of the flexors of the digits. In the foot three layers are got from this modification, the first by the gracilis, &c., the second by the plantaris, and the third by the flexor longus hallucis and flexor longus digitorum.

The *Lumbricales* in the Phocinæ and *Macrorhinus* may be represented by the anterior tendons from the combined tendon going into the sheath of the digits.

The *Lumbrical muscles* in *Arctocephalus gazella* are five in number. The first lies between the long flexor tendons for the 1st and 2nd digits, coming out of the ventral main division. It *arises* from the adjacent sides of these tendons and forms a small tendinous slip, which is *inserted* into the distal dorsal side of the 1st metatarsal. The second *arises* from the surface and ventral side of the long flexor tendon for the 3rd digit, and is *inserted* by muscular fibres into the tunnel in the superficial flexor tendon formed out of the plantaris muscle. The third *arises* from the surface of the deep tendon for the 4th digit, and ends upon it near the distal end of the 4th metatarsal bone, like the last. The fourth *arises* from the dorsal side of the deep tendon for the 4th digit, passes beneath the deep tendon for the 5th digit, and is *inserted* by a small tendon into the ventral side of the distal end of the 5th metatarsal. The fifth comes from the tendon of a different muscle. The superficial tendon for the 5th digit from the plantaris gives origin upon its surface to a lumbrical muscle, which ends on the same tendon lower down. From the description of these slender fusiform muscular slips it will be seen that there are five, four from the combined tendons of the flexor longus digitorum and the flexor longus hallucis, and the fifth from the plantaris tendon. In *Otaria* there are six, the sixth is derived from the outermost tendon of the flexor longus digitorum, but there are no other differences.

The *Accessorius* is the *M. caro-quadrata* of Lucae. In *Phoca vitulina*, *Phoca hispida*, and *Phoca barbata* it is a triangular muscle, with its base directed outwards, and *arises* from the dorsal surface and posterior end of the os calcis to the inner side of the groove for the long peroneal tendon. The fibres pass inwards and obliquely backwards over the dorsal border of the hindward corner of this bone, forming a fine tendon which is *inserted* into the outer side of the tendon of the plantaris, before this muscle reaches the combined tendon. In *Macrorhinus leoninus* it was wanting, but most probably had decayed. In *Trichechus* it is absent, and was not noticed in *Otaria*.

The *Tibialis posticus* in the Phocinæ and in *Macrorhinus leoninus* is triangular, and lies to the outer side of the flexor longus digitorum. It *arises* from the inner side of the interosseous membrane, from the anterior two-thirds of the inner surface of the tibia, from the anterior third of the ventral edge of the fibula near the interosseous membrane, and from the inner side of the dorsal tuberosity of the tibia beneath the place of fusion of the tibia and fibula. It forms a strong tendon which passes beneath the flexor longus digitorum on its ventral side, and enters the ventral division of the groove on the outer surface of the distal extremity of the tibia.

In *Phoca*, near the tubercle of the scaphoid, it gives off a slip which becomes the middle slip of the abductor hallucis; to the inner side of the abductor slip it gives off another in which the