The Popliteus in the Phocinæ is a triangular muscle with a round tendon. It arises from within the capsule of the knee-joint, from a shallow fossa situated below the termination of the external supracondyloid ridge on the lateral surface of the external condyle. The tendon of origin turns round to the back of the external condyle throughout its posterior surface. It crosses the back of the knee-joint obliquely from without inwards, and is inserted into the upper third of the ventral border of the tibia, into the inner part of the ventral tuberosity, into the whole extent of the dorsal side of the internal lateral ligament, and into the inner surface of the tibia anterior to the feebly marked oblique line posterior to this ligament.

In Macrorhinus leoninus the tendon arises below a slight depression on the lateral side of the external condyle; otherwise as in *Phoca vitulina*. It is inscrted into the well-marked triangular surface anterior to the oblique line of the tibia; otherwise as in *Phoca*.

In Arctocephalus gazella it is larger than in the Phocinæ. It arises from the external surface of the external condyle by a strong round tendon, which forms part of the capsule of the knee-joint, and by the same origin as the plantaris from the femur. The latter origin at once becomes muscular and covers the round tendon. The two heads blend over the back of the knee-joint, and cross between the outer condyle of the femur and the head of the fibula. It is inserted into the anterior two-thirds of the inner surface of the tibia dorsal to the internal lateral ligament and ventral to the popliteal line. The internal lateral ligament only extends backwards to the middle of the shaft. It bends the knee and rolls the leg inwards.

There is in all the specimens a groove upon the external condyle of the femur for the tendon of the popliteus. The oblique line runs from the junction of the external and internal tuberosities on the inner surface of the tibia, backwards and downwards to join the ventral border of the tibia. This is very different from human anatomy, where it runs from the fibular facet of the tibia to the internal border. The oblique line in *Macrorhinus* is more like what is seen in man. In the Phocinæ the muscle is supplied by the great sciatic nerve.

The Flexor longus hallucis is the flexor digitorum of Humphry; in Phoca vitulina it is an elongated fusiform mass of fibre, and is the largest of the deep flexors of the back of the leg. It arises from the inner surface of the fibula, going backwards to its posterior extremity, from the inner surface of the head, and from the interosseous membrane. It just overhangs the ventral border of the fibula, and does not encroach far upon the interosseous space. The flexor longus digitorum touches its border and the tibialis posticus lies to its ventral side. Anterior to the inner surface of the ankle-joint it forms a tendon which is broad, flat, and strong; this runs in a groove on the backward projection of the astragalus through a fascial tunnel formed by the annular ligament. In Phoca hispida and in Phoca barbata the origins and insertions are similar to those in Phoca vitulina, but the development is much more perfect in the two former than in the latter, the bellies being much larger and more fusiform. It can with safety be said that the bellies were enormous for the size of these two animals.

In Macrorhinus it is like that in Phoca vitulina, but in addition there was a dense fascia over its anterior surface. The belly was the same as in Phoca vitulina, but only of moderate size.

In Arctocephalus gazella it arises from the inner surface of the head of the fibula, from the inner surface of the anterior fourth of the shaft, and by an aponeurosis from the tibia, which gradually passes from its dorsal border to the short inner border on the posterior two-thirds of the shaft. Near the ankle it forms a tendon, which runs beneath the annular ligament in the groove on the