

no fibres from the popliteal surface of the femur. Half-way down the leg, it gives place to a narrow tendon which has an independent insertion into the back of the os calcis (*b'*). The outer head has the same origin as in the *Thylacine*, with two exceptions, viz., (1) it has no tendinous slip attached to the outer aspect of the external condyle of the femur, and (2) it springs from the posterior aspect of the fibula in its upper two thirds through the medium of the intermuscular septum which intervenes between it and the peronei muscles. It is inserted by a strong tendon into the tuber of the os calcis, under cover of the tendon of the inner head (*a'*).

The fibular origin of the outer head of the gastrocnemius points very clearly to the fact that it is a compound muscle, and contains in its midst the fibres of the absent soleus. That the plantaris lies under cover of this muscle, is no proof against this view, and is certainly not evidence sufficient to lead one to look for the lost soleus amongst the deep muscles of the calf.¹ The plantaris is subjacent only to the inner part of the compound muscle, and does not lie under cover of the outer part which represents the soleus (Pl. V. fig. 2, *c*).

Plantaris.—In *Thylacinus* this muscle arises in common with the outer head of the gastrocnemius, and remains fused with its under surface for a considerable distance. It ends in a strong tendon which proceeds downwards along the inner side of the tendo achillis to the heel, where it expands, and, passing superficially to the tendo achillis, enters the sole. Here it spreads out in the form of a plantar fascia, which divides into three slips for the index, medius, and annularis. The plantar fascia is not attached to the subjacent muscles, and each of its terminal slips bifurcates to embrace the metatarso-phalangeal joint, and is attached to the ligamentous structures around this articulation.

In the *Cuscus* (Pl. V. fig. 2, *c*) the plantaris is a large muscle quite distinct from the soleo-gastrocnemius, although it lies under cover of its inner part. It arises from the sesamoid bone attached to the head of the fibula, and, passing over the tuber of the os calcis, it is inserted into a plate of cartilage in the sole which replaces the plantar fascia, and takes the place of the true heel.

This plantar cartilage (Pl. VI. fig. 5, *p.c.*) possesses very definite relations. Internally it is attached to a sesamoid bone which glides upon the internal cuneiform, and gives attachment to some of the short muscles of the hallux; externally it is fixed to the under surface of the cuboid, and here it gives origin to some of the short muscles of the minimus; posteriorly the plantaris tendon (*p.t.*) is inserted into it; whilst in front it is prolonged forward in the form of fascial slips, to the roots of the digits.

The plantaris is almost invariably present amongst the Marsupials. It is absent however in the Wombat.²

¹ Young, Muscular Anatomy of the Koala, p. 237, Jour. Anat. and Phys., vol. xvi.

² Macalister, *loc. cit.*, p. 3.