

described by Dr. Young in the Koala¹) is very evident. The upper thick fleshy mass is fixed on the one hand to the posterior surface of the tibia and on the other to the antero-internal border of the fibula. A few very oblique and superficial fibres arising from the external lateral ligament of the knee-joint evidently represent the popliteus proper, the rest of the muscle being the pronator tibiæ of Humphry. The lower thickening of the muscle is fixed to the antero-external surface of the tibia.

The movements of the fibula upon the tibia at the tibio-fibular joints cannot in any respect be compared to those of pronation and supination in the forearm. Young, in his admirable paper upon The so-called Movements of Pronation and Supination in the hind-limb of certain Marsupials,¹ has already pointed out that the "tibio-fibular articulations admit of movements in the antero-posterior directions only; these movements are simply those of gliding and coaptation." He also shows how the attachment of the interosseous muscle on different planes affects this movement; the upper portion of the muscle producing "a backward and inward movement of the upper end of the fibula," whilst the lower fibres by their contraction draw the lower end of the bone inwards and forwards, or in other words, when the whole muscle contracts, the fibula is "thrown obliquely across the tibia" and approximated to it. From a study of the pronator tibiæ muscle, and the tibio-fibular articulations in the *Cuscus*, I can verify Dr. Young's results.

In the *Thylacine* the movement of the fibula upon the tibia is extremely limited, but of precisely the same character as in the *Cuscus*. The pronator tibiæ muscle is, however, very well developed, but owing to the close apposition of the bones, the fibres are exceedingly short. It shows the same thickening in its upper and lower portions, and below it is chiefly seen from the anterior aspect of the limb, owing to the tibial attachment of the fibres being so far forward upon the bone.

As in the Koala, the tibia and fibula in the *Cuscus* are separated at the lower tibio-fibular articulation by a fibro-cartilage, which juts upwards between them from the ankle-joint. In *Thylacinus*, however, the lower ends of the bones are in direct apposition, and both surfaces are coated with encrusting cartilage.

ANTERIOR AND OUTER ASPECTS OF THE LEG.

In the *Cuscus* there are three well-defined muscles upon the anterior aspect of the leg, viz., the tibialis anticus, the extensor longus hallucis, and the extensor longus digitorum. These muscles occupy the same relative position as in man. In *Thylacinus* the extensor longus hallucis is absent.

Tibialis anticus (Pl. V. fig. 3, *f*).—This is a very powerful muscle in both animals; it

¹ Jour. Anat. and Phys., vol. xv. p. 393.