

medius. According to Macalister¹ the two muscles are hardly separable in the Wombat and *Sarcophilus*. As a general rule, however, in Marsupialia they are quite distinct. It is a wide thin muscle which arises in both instances from the dorsum ilii and from the ischium as far back as the gemelli. It thus almost completely covers the superior aspect of the hip-joint (Pl. III. fig. 1, *en.g.*, and Pl. IV. fig. 5, *en.g.*). In the *Cuscus* its anterior border is blended with the corresponding margin of the gluteus maximus. It narrows towards its insertion, and all its fibres converge to be attached to the anterior border of the great trochanter of the femur.

Gluteus quartus.—In *Thylacinus* this muscle is well developed (Pl. IV. fig. 2, *g.q.*). Somewhat triangular in shape it springs by a pointed origin from the margin of the acetabulum close to the reflected tendon of the rectus femoris (*r.f.*²). Expanding as it proceeds downwards over the anterior aspect of the capsule of the hip-joint, it enters the interval between the vastus externus and vastus internus, and is inserted into the front of the shaft of the femur immediately below the neck. In the *Cuscus* the gluteus quartus is also present, but it is very feebly marked, and consists of a single delicate muscular slip.

In neither case was I able to make out with precision the nerve supply. Until this is done the homologies of this minute muscle cannot be considered as established. Although usually grouped with the gluteal muscles it seems to have a closer relationship to the extensor muscles. It is generally present in Marsupialia. Macalister¹ describes it in the Wombat, *Sarcophilus*, Giant Kangaroo, Bennett's Kangaroo, the *Phalanger*, and the Opossum. Neither Macalister² nor Young³ mention it as existing in the Koala.

Pyriformis.—This is a strongly-marked triangular muscle, which lies upon the posterior part of the gluteus minimus behind the gluteus medius (Pl. III. fig. 1, *p.*; and Pl. IV. fig. 5, *p.*). It springs from the lower surface and outer margin of the sacrum, and is inserted by a rounded tendon into the posterior part of the summit of the great trochanter. It is identical in both animals. Macalister¹ states that it is "undistinguishable from the gluteus medius in the *Phalangista*."

Ischio-femoral (Pl. III. fig. 1, *i.f.*, and Pl. IV. fig. 5, *i.f.*).—This muscle is commonly described as the quadratus femoris, but it lies on a different plane, viz., superficial to the gemelli, the true quadratus and the adductor magnus. It seems to me therefore that it must be regarded as a separate muscle, the precise nature of which is doubtful. It is an exceedingly thin fleshy band which arises from the great sacro-sciatic ligament, and is inserted into the posterior aspect of the femur below the great trochanter between the insertions of the ecto-gluteus and the adductor magnus. It is more strongly marked in the *Thylacine* than in the *Cuscus*, and its deep surface is partially fused with the subjacent adductor magnus.

¹ Myology of the Wombat and Tasmanian Devil, Ann. and Mag. Nat. Hist., vol. v., 4th series, p. 167.

² Muscular Anatomy of Koala, Ann. and Mag. Nat. Hist., vol. x., 4th series.

³ Young, Anatomy of Koala, Jour. of Anat. and Phys., vol. xvi.