

of which it sinks. In the male it is entirely expended in the supply of this muscle, but in the female *Thylacine* it soon emerges from midst the muscular fibres of the cremaster, and is continued upon the superficial aspect of the muscle through the external abdominal ring, and under cover of the sphincter muscle of the marsupium to the region of the nipples, where it breaks up into a series of fine terminal twigs (Pl. IV. fig. 4, *g.c.n.*). These are doubtless for the supply of the mammary gland, which in the specimen I dissected (evidently a young virgin) could not be detected.

The external cutaneous (Pl. V. figs. 5 and 6, *e.c.*) is distributed to the skin on the outer aspect of the thigh. It pierces the abdominal wall near the crest of the ilium, and in the *Cuscus* it was observed to give several fine twigs to the panniculus carnosus.

The anterior crural<sup>1</sup> (Pl. IV. fig. 1, *a.c.n.*, and Pl. V. figs. 5 and 6, *a.c.*) in the *Thylacine* arises in common with the obturator from the 3rd and 4th lumbar nerves, whilst in the *Cuscus* it has an independent origin by two roots from the 3rd, 4th, and 5th nerves. In both it proceeds backwards in the interval between the psoas parvus and magnus, and, entering the thigh, at once breaks up into a large number of muscular and cutaneous branches.

During its course within the abdomen it gives a plentiful supply of twigs to the psoas and iliacus muscles, and in the *Cuscus* a long slender twig (Pl. V. fig. 6, *s.*) was observed to spring from it, which pierced the abdominal wall to reach the sartorius. In the thigh muscular branches are distributed to the sartorius, the pectineus, and the various parts of the quadriceps extensor muscle. The cutaneous branches are the long saphenous nerve and three or four twigs to the skin upon the anterior and inner aspects of the thigh.

The long saphenous nerve (Pl. IV. fig. 1, *c.c.n.*) is a very constant nerve in all mammals, although it varies very considerably in bulk and in its area of distribution. It descends upon the inner aspect of the thigh and leg in company with the vein of the same name, and dispenses numerous twigs to the skin. In the *Thylacine* its terminal twigs are lost in the integuments over the internal ankle. In the *Cuscus*, however, it is continued downwards in front of the inner malleolus for the supply of the skin on the dorsal aspect of the broad opposable hallux (Pl. VI. fig. 8, 3). Here it is joined by a twig from a special nerve to the hallux (Pl. VI. fig. 8, 4) (derived from the internal popliteal), and breaks up into three filaments; of these one runs along each margin of the digit, whilst the third proceeds along its middle line. On the dorsum of the foot it effects a communication with the musculo-cutaneous nerve.

A glance at the beautiful figures which accompany Ruge's paper<sup>2</sup> upon The Group of

<sup>1</sup> In the Ass, in which the lumbar nerves are six in number, the anterior crural nerve springs from the 3rd, 4th, 5th, and 6th nerves; and in the Fox, in which the lumbar nerves are seven in number, it takes origin from the 4th, 5th, and 6th (Swan's Comparative Anatomy of the Nervous System).

<sup>2</sup> Morphol. Jahrbuch, 1878.—Untersuchung über die Extensorengruppe am Unterschenkel und Fusse der Säugethiere von Dr. Georg Ruge, Heidelberg.