

of the fifth metatarsal bone. The close association of this muscle, with the abductor ossis metatarsi minimi digiti seems to indicate that it is a development from the latter. Murie, however, points out with truth that if the fibrous structures into which it is inserted be raised (artificially) from the base of the fifth metatarsal, it passes uninterruptedly into the fleshy belly of the outer head of the flexor brevis minimi digiti—the two thus forming a digastric muscle. Upon these grounds he classes it with the short flexor of the minimus.

I am confirmed, however, in my opinion that this muscle is a third abductor of the minimus (which as we have seen is by no means an unusual occurrence) by a study of the corresponding muscle as exhibited in Dr. Murie's drawing of the intrinsic pedal muscles of *Otaria jubata* (Trans. Zool. Soc., vol. vii. pl. lxiii. fig. 38). In this animal the muscle gains an independent insertion into the outer side of the base of the first phalanx of the minimus. Dr. Murie terms it, "flexor brevis minimi digiti." Both heads of the short flexor, however, are likewise present, and these he names the "fifth double interosseus."

The second muscular bundle is very deeply placed, and lies obliquely in the sole (f^1t). It arises from the plantar surface of the middle cuneiform bone and tapering as it proceeds inwards joins the rounded tendon of the abductor hallucis about an inch and half from its origin. This muscle is evidently the inner head of the flexor brevis hallucis, displaced from its neighbour. Dr. Murie's account is somewhat different. He says, "The two short extra and deeply situated muscles met with in the sole of *Otaria jubata* are exactly similar in appearance and situation in *Trichechus rosmarus*. From position and attachments, though covered (and, indeed, entirely hidden), by the deep plantar fascia, they nevertheless may be the homologues of a double adductor hallucis, though it is still more likely that the tibial division is a flexor brevis hallucis, and the fibular one above an adductor." I cannot agree with Dr. Murie, in regarding either of these muscles as the adductor hallucis. The nerve supply shows this, if indeed any other evidence is necessary, beyond the presence of the true and undoubted adductor itself. In my specimen the muscle in question was single and supplied by the internal plantar nerve. Both slips I believe should be associated with the abductor hallucis, and inner head of the flexor brevis hallucis.

Nervous arrangements.—The abductor ossis metatarsi minimi digiti, and the muscular slip associated with it receive their nerve twigs from the trunk of the external plantar nerve (*e.p.n.*). The abductor minimi digiti is supplied by a branch from the superficial division of this nerve (*s.*). The deep division (*d.*) of the external plantar turns inwards under cover of the fibrous adductor minimi digiti and the adductor hallucis, and gives branches to all the intrinsic muscles, with the exception of the flexor brevis and the abductor hallucis. It ends in the substance of the inner head of the flexor brevis indicis. The outer head of the flexor brevis hallucis, the abductor hallucis, and the small deep belly representing the inner head of the flexor brevis hallucis are supplied by twigs