

latter towards the index. The flexores breves of the medius and annularis which are merely represented by tibial heads act no doubt like the first and second plantar interossei in man by antagonising the action of the third and fourth dorsal interossei. The index presents the anomaly of being provided with four intrinsic muscles, viz., (1) an adductor, (2) the tibial head of a flexor brevis (antagonistic to the adductor), and (3) two dorsal interossei (antagonistic to each other). So far as I am aware, this disposition of muscles is quite unique.

In Cuvier and Laurillard's plates<sup>1</sup> the abductor and the flexor brevis hallucis are alone figured (pl. cclxiii. fig. 1).

Rapp<sup>2</sup> merely describes the abductor minimi digiti, and states that the interossei lie in the intervals between the toes.

From a careful study of the account given by Professor Humphry<sup>3</sup> of the intrinsic muscles in the foot of the *Manis* (*Manis dalmani*), it seems to me that in their arrangement they closely resemble those of the *Tamandua*. Thus the plantar layer is composed of—(1) an adductor hallucis, (2) an adductor minimi digiti, (3) an adductor indicis, and (4) a transversus indicis, all of which are inserted in a similar manner to the corresponding muscles in *Tamandua*. These muscles Professor Humphry terms plantar interossei, and he classes with them two additional muscles, which he remarks are "situated on rather a deeper plane, nearer to the metatarsals, and pass, one to the fibular side of digit 3, and one to the fibular side of digit 4." These latter appear to me to be the fibular heads of the flexor brevis medii and flexor brevis annularis. With regard to the intermediate flexores breves it is evident that he includes three members of this group amongst the dorsal interossei, viz., the tibial head of the flexor brevis medii, the tibial head of the flexor brevis annularis, and the tibial head of the flexor brevis minimi digiti. This layer therefore, consists of—(1) a tibial head of the flexor brevis hallucis, (2) a two-headed flexor brevis medii, (3) a two-headed flexor brevis annularis, and (4) a two-headed flexor brevis minimi digiti. The dorsal layer thus reduced will consist of the same component parts as the corresponding layer in *Tamandua*, with the exception of the abductor ossis metatarsi minimi digiti, which is absent in *Manis*. Further, these muscles are inserted so as to abduct from a line drawn through the index.

The only essential difference between the intrinsic muscles in the foot of the *Tamandua* and of the *Manis* would appear to be in the disposition of the flexores breves. In the former each digit is supplied with a short flexor, but in the case of the *Manis* alone is this muscle two-headed; in the *Manis* the index has no flexor brevis, and the flexor brevis medii, the flexor brevis minimi digiti, and flexor brevis annularis are two-headed.

<sup>1</sup> Anatomie Comparée Recueil de Planches de Myologie.

<sup>2</sup> Anatomische Untersuchungen über die Edentata.

<sup>3</sup> The Myology of the Limbs of the Unau, the Ai, the two-toed Ant-eater, and the Pangolin, Jour. Anat. and Phys., vol. iv.