

origin to the same muscle in *Cuscus*. It is inserted into the outer aspect of the shaft of the humerus about an inch below the great tuberosity, and at a higher level than the clavicular deltoid. It receives no fibres from the trapezius. The clavicular deltoid is composed of fibres derived from three distinct sources. In great part it is formed by fibres which come from the trapezius and the cleido-mastoid muscle, but it also obtains some which spring directly from the lower border of the rudimentary clavicle. Thus constituted it is inserted into a ridge upon the antero-external aspect of the shaft of the humerus about its middle, where it is partially fused with the insertion of the pectoralis major.

According to Macalister¹ the deltoid in the Wombat is double, whilst in the Tasmanian Devil it is triple as in the *Phascogale*. The same authority states that the muscle is "undivided" in the Giant Kangaroo, in *Macropus bennettii*, the *Phalanger*, and the Virginian Opossum. In the Koala² it is composed of two parts—clavicular and scapular. The above facts might lead us to question the general applicability of the assertion made by Owen in his great work upon the Comparative Anatomy of Vertebrates that "in clavicate Marsupials the deltoid . . . consists of three fasciculi."

Cephalo-humeral muscle.—We are now in a position to understand the constitution of the composite muscle to which this name is applied. In the *Cuscus* it consists of that portion of the trapezius which, in man, is inserted into the acromion and clavicle united with the acromial and clavicular parts of the deltoid. In the *Thylacine* and *Phascogale*, on the other hand, the acromial deltoid is not a constituent. In the former (Pl. I. fig. 4, *c.h.*) it is composed of the cleido-mastoid, the anterior fibres of the trapezius, and the clavicular deltoid, in the latter it is formed by the anterior fibres of the trapezius and the clavicular deltoid.

Coraco-brachialis.—Professor John Wood has taught us, in his well-known paper upon Muscular Variations,³ to look upon the typical coraco-brachialis as being a muscle with a triple constitution. The animals in question afford a beautiful example of this. In each the coraco-brachialis brevis is present, and in *Thylacinus* it constitutes the sole representative of the muscle, which in this respect therefore resembles the carnivora. It springs from the coracoid processes, in common with the coracoid portion of the biceps, and spreading out in a fan-shaped manner, passes downwards over the insertion of the subscapularis to find attachment to the shaft of the humerus immediately above the insertion of the teres major. It is a short thick fleshy muscle.

In addition to the short muscle, the *Phascogale* possesses a coraco-brachialis medius—a very slender fasciculus which is inserted into the middle of the inner aspect of the shaft of the humerus, whilst in the *Cuscus* we find a coraco-brachialis longus (Pl. II. fig. 4, *c.b.l.*) inserted into the bridge of bone which walls in the supra-condyloid foramen of the humerus.

¹ *Loc. cit.*, p. 3.

² Young, Muscular Anatomy of Koala, *Journal of Anatomy and Physiology*, vol. xvi.

³ *Journal of Anatomy and Physiology*, vol. i.