

Pectoral muscles.—These muscles present a very complicated arrangement. In the *Cuscus* there are four distinct factors, viz. :—

- (1) A large superficial fan-shaped muscle,
- (2) An anterior deep band of muscular fibres, } pectoralis major.
- (3) A posterior deep muscle, probably the pectoralis minor.
- (4) The pectoralis quartus.

The first two may be regarded as being constituent parts of the pectoralis major. The large superficial fan-shaped portion (Pl. II. figs. 1 and 4, p^1 .) arises from the whole length of the sternum and ensiform cartilage. From this it passes outwards, and is inserted into the outer lip of the bicipital groove, where it coalesces slightly with the clavicular deltoid. The deep portion (Pl. II. figs. 1 and 4, p^2 .) takes origin from the anterior third of the sternum, and throughout is quite separated from the preceding muscle. Stretching outwards and slightly forwards as a thick fleshy band, it is inserted into the external tuberosity, and a small portion of the external bicipital ridge of the humerus. The pectoralis minor (Pl. II. figs. 1 and 4, p^3 .) springs from the posterior two-thirds of the body of the sternum, and also from one or two of the costal cartilages. From this it proceeds outwards and forwards, and sinking under cover of the small deep portion of the pectoralis major, it is inserted into the inner margin of the great tuberosity of the humerus, into the capsule of the shoulder-joint, and through the medium of a strong aponeurotic membrane into the tendon of the supraspinatus and the coracoid process. Its origin from the costal arches and its indirect insertion into the coracoid process seem to indicate that this muscle is the pectoralis minor. The pectoralis quartus (so-called by Professor Macalister) (Pl. II. figs. 1 and 4, p^4 .) arises behind the ensiform cartilage from the linea alba, and from the fascia over the rectus abdominis, and extends forwards and outwards under cover of the superficial part of the great pectoral to the upper part of the pectoral ridge into which it is inserted. The humeral portion of the panniculus carnosus (Pl. II. fig. 1, $p.c.$) fuses with it at its insertion.

In the *Phascogale* the pectoral muscles are identical with those of the *Cuscus* with two exceptions, viz., (1) there is no deep muscle corresponding with the deep portion of the pectoralis major; (2) the pectoralis quartus is more strongly developed, and is more in the form of a fleshy band.

In the *Thylacine* the pectoral muscles consist of a small superficial muscle, a large deep muscle, and a very rudimentary pectoralis quartus.

The superficial muscle is the representative of the pectoralis major. It arises from that part of the sternum which lies in front of the junction of the second costal cartilage.

The deep muscle, which is the representative of the pectoralis minor, springs from the whole of the sternum behind the preceding muscle, and also from some of the posterior costal cartilages.