

MUSCLES OF THE TRUNK.<sup>1</sup>

## (a) CUTANEOUS MUSCLES.

1. *Dorsal cutaneous muscle.*

*Dermo-spinalis*, Owen, p. 24.

*Panniculus carnosus* (second portion) Reid, p. 139.

*Tenseur de la membrane axillaire*, Gervais and Alix, p. 38.

*Attachments.*—This muscle is quadrilateral in form. It arises from the posterior half of the spinous process of the fourth, from the spinous process of the fifth, and from that of the sixth dorsal vertebra. The fibres pass transversely outwards, and are inserted into the subcutaneous fascia of the lateral line of the trunk.

*Action.*—It pulls the integument of the flank towards the spine.

*Relations.*—The muscle is subcutaneous, and rests upon the trapezius and latissimus dorsi.

*Nerve supply.*—Several branches from the posterior divisions of the dorsal spinal nerves.

*Variations.*—In *Aptenodytes longirostris* the muscle is better developed than in any other species. In it the anterior fibres end in a delicate aponeurosis, which covers the shoulder joint, while the posterior fibres terminate in the subcutaneous fascia covering the knee.

In *Spheniscus magellanicus*, as well as in *Spheniscus minor*, the muscle is relatively smaller than in *Eudyptes chrysocome*, and arises only from two dorsal spines.

In both specimens of *Pygosceles tæniatus* which I dissected, this muscle was entirely wanting.

*Remarks.*—As observed by Gervais and Alix, the costal fasciculus of this muscle, which is present in the majority of birds, is entirely absent in every species of Penguin. According to these authors, in *Eudyptes chrysolophus* the muscle presents the arrangement above described in *Aptenodytes*. In the specimens of *Eudyptes chrysolophus* examined by myself, the muscle was scarcely so well developed as in *Aptenodytes*, and presented the arrangement described above in *Eudyptes chrysocome*.

2. *Constrictor colli.*

*Der Hautmuskel des Halses*, Tiedemann, vol. i. p. 133.

*Panniculus carnosus* (part of), Reid, p. 139.

*Constrictor colli*, Owen, p. 22.

*Peaucier du cou* (plan superficiel) Gervais and Alix, p. 39.

*Attachments.*—This, the more superficial of the two cutaneous muscles of the neck, consists of a number of circularly arranged muscular fibres which lie immediately underneath

<sup>1</sup> In describing the muscles it will be understood that I imagine the trunk of the bird to be horizontal, with the vertebral column directed upwards.