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#### DERMAL MUSCLES.

The *Panniculus carnosus* in *Phoca vitulina* is an extensive sheet of subcutaneous muscular fibres subjacent to pelt, blubber, and the deep fascia, which is dense and coarse in some regions, fine and transparent in others. Dorsally, the panniculus almost covers the axial part of the animal. It stretches from above the orbits to the root of the tail, ending as two finger-like prolongations between the tail and the dorsal surface of the legs. Upon the ventral aspect, it begins at the lower lip, covers all the neck, recedes from the presternum, exposing a small part of the sternomastoid and cephalo-humeral muscles; overlaps the pectoral,<sup>1</sup> with the exception of a margin near the sternum, and extends almost longitudinally, from the side of the thorax to the femur, which it crosses midway between the trochanter and the external condyle, to join the finger-like prolongations. The belly, therefore, wants a subcutaneous muscular layer, and the abdominal part of the pectoral and the external oblique lie next the investing fascia.

It is capable of division into five parts by the direction of the fibres:—*a.* The *Platysma*, on the ventral side of the neck. *b.* The *Lateral cervical*, between the platysma ventrally and the cervico-scapular dorsally. *c.* The *Pectoral*, on the sternal pectoral muscle. *d.* The *Cervico-scapular* covers the back of the neck, and stretches from the orbit to the spine of the scapula. *e.* The *Dorso-abdominal* extends from the scapular spine to the tail.

*a.* The *Platysma* is pale, and covers the muscles between the rami of the lower jaw, and extends backwards to the junction of the presternum with the meso-sternum. The fibres are longitudinal where they spring from the side of the presternum, but turn outwards at their anterior ends; some of these terminate over the sternomastoid, and partially overlap it near its insertion. The remainder become more and more obliquely directed outwards; at the anterior termination of the presternum they become transverse, and over the thyroid cartilage also are transverse. The most posterior fibres join the lateral cervical part; all in front of these terminate after passing over the ramus of the lower jaw, by mingling with the fibres of the lateral cervical, round the angle of the mouth, and insert themselves into the skin round the lower lip.

*b.* The *Lateral cervical* is also pale, and passes forwards from the side of the neck. It begins over the cephalo-humeral and sternomastoid muscles near their insertions. The fasciculi ascend to the angle of the mouth, the lower lip, and the zygoma, where they end. The sides of this longitudinal band are joined dorsally by the cervico-scapular part, and ventrally by the platysma.

*c.* The *Pectoral* is fan-shaped, and rests upon the presternal and sternal parts of the pectoral muscle, which originate from the presternum and meso-sternum. The inner margin of the fan

<sup>1</sup> Only one specimen had a pectoral panniculus.