its long axis which, combined with the backward stroke, gives rise to the screw-like motion of the organ observable when the bird is progressing through the water.

Relations.—The anterior fibres of the great pectoral muscle extend across the clavicle to the middle line of the body, and are only separated from those of the opposite side by a tendinous raphé, to which both are attached. The external border of the muscle is free. Upon its cutaneous surface lies the "muscle des parures."

Nerve supply.—A special branch from the large cord of the brachial plexus.

Variations.—In *Eudyptes chrysocome* from the Falkland Islands, the attachment of the pectoralis major to the sterno-clavicular membrane is more limited than in *Eudyptes chrysocome* from Tristan d'Acunha. In *Eudyptes chrysocome* from Kerguelen the greater pectoral muscle does not take any attachment to the sterno-clavicular aponeurosis. In *Aptenodytes longirostris* the origin of the muscle from the postero-external angle of the sternum is much more extensive than in *Eudyptes*, and it extends along the outer margin of the sternum for the posterior half of that bone.

Remarks.—Reid describes the muscle in *Aptenodytes* as arising from "the cartilages of the ribs, and from the anterior part of the coracoid bone," in addition to the origins above described. Such was not the case in the specimens examined by myself.

Gervais and Alix describe the pectoralis major in *Eudyptes chrysolophus* as arising from "the aponeurosis of the great oblique, which separates it from the sterno-costal articulations," in addition to the attachments above described. This description is not borne out by my own dissections.

2. *Muscle des parures.*

Der Brusthaut-muskel, Tiedemann, vol. i. p. 134.
Dermo-humeralis, Owen, p. 24.
Panniculus carnosus (second portion), Reid, p. 139.

Attachments.—The muscle so named by Gervais and Alix is flat and riband-like, and has a somewhat peculiar disposition. *Arising* by means of a strong fascia, which covers the external oblique muscle of the abdomen from the free cartilaginous extremity of the pubic bone, it passes forwards and inwards to the posterior margin of the sternum. Here it is reinforced by a number of fibres from the subcutaneous tissue covering the knee-joint, and thereafter diverging from its fellow of the opposite side, passes forwards parallel to the outer border of the pectoralis major, along with the posterior fibres of which muscle it is *inserted* into the anterior margin of the humerus.

Action.—This muscle co-operates with the external fibres of the pectoralis major in depressing the wing. It would appear, moreover, that its posterior fibres, that is, those which form the subcutaneus abdominalis above described (p. 55), will co-operate with the muscles of the abdominal wall in their various actions.