

muscles pass forwards, and converging come into contact about the middle in length of the neck. From this point forwards they diverge, and each (after winding round the lateral surface of the trachea) is *inserted* into the superior and lateral surfaces of the thyroid cartilage close to its posterior border.

Action.—This muscle retracts the thyroid cartilage, and indirectly the hyoid bone, and approximates them to the clavicle.

Relations.—The muscles at their origin are almost inseparable from the superjacent fibres of the cutaneous muscle of the neck. In the terminal part of their course the muscles lie in contact with the trachea.

Nerve supply (?)

Variations.—In three species of *Spheniscus*, namely—*Spheniscus magellanicus*, *Spheniscus demersus*, and *Spheniscus mendiculus*, I found this muscle prolonged forwards to the great cornu of the hyoid bone, to the apohyal element of which it took a distinct attachment. Neither in *Spheniscus minor* nor in any species of the other genera which I dissected was this the case.

2. *Sterno-trachealis* muscle.

Les laringiens inférieurs et externes, Vicq d'Azyr, 1773, p. 581, No. 3.

Brustbein-Luftröhren Muskel, Tiedemann, p. 666, No. 1.

Sterno-trachéens, Cuvier, vol. iv. p. 466.

Sterno-trachéalis, Meckel, vol. x. p. 340.

Sterno-trachéen, Gervais and Alix, p. 17.

Attachments.—The sterno-tracheal muscle arises from the deeper or thoracic surface of the costal process of the sternum. The fibres form a riband-like muscle, which passing forwards, gains the lateral aspect of the trachea $1\frac{1}{4}$ inches in front of the bifurcation of that tube. Its anterior fibres are *inserted* directly into the trachea, while the posterior become continuous with those of the contractor tracheæ.

Action.—This muscle retracts the posterior extremity of the trachea within the thorax.

Relations.—The sterno-trachealis arises close to the origin of the triangularis sterni.

Nerve supply (?)

Variations.—The point at which the sterno-tracheal muscle applies itself to the side of the trachea varies in different species. In *Eudyptes chrysocome* from the Falklands, it reaches the trachea $1\frac{1}{4}$ inches, in *Eudyptes chrysocome* from Kerguelen 1 inch, in *Eudyptes chrysolophus* $1\frac{1}{2}$ inches, in *Spheniscus magellanicus* 2 inches, in *Spheniscus demersus* $1\frac{3}{4}$ inches, in *Spheniscus mendiculus* $1\frac{1}{2}$ inches, in *Spheniscus minor* $\frac{3}{4}$ of an inch, in *Pygosceles tæniatus* $1\frac{3}{4}$ inches, and in *Aptenodytes longirostris* $1\frac{3}{4}$ inches in front of the point of bifurcation of that tube.

Remarks.—By Cuvier, Tiedemann, and Meckel, the sterno-tracheal muscle is