

Article XXXI. — THE TRACHEA OF *OGMORHINUS*, WITH
NOTES ON OTHER SOFT PARTS.

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The skull and skeleton of the Sea Leopard are now well known, but the following notes chiefly on perishable parts of this seal's anatomy may constitute new data.

Ogmorhinus leptonyx (Blainville). Ad. ♂, Bay of Isles, South Georgia Island, Jan. 14, 1913. Skin and skeleton, R. C. M. No. 1637; in collection of the American Museum of Natural History. Length in the flesh from snout to tips of hind flippers, 302 centimeters.

The stomach contained remains of four King Penguins (*Aptenodytes*), one fish (*Notothenia?*), as well as several pieces of skin and blubber of the Sea Elephant (*Macrorhinus*) which had probably been thrown overboard from a sealing vessel at anchor in the Bay.

Small intestine 25 mm. in diameter; its length, when carefully floated out from the mesentery, 23 meters, or more than seven and one half times the length of the body. Diameter of large intestine 30 mm.; its length about 1 meter. Cæcum obsolete.

Pancreas much lobulated. Liver with wholly free gall bladder, a Spigelian lobe, and greatly subdivided lateral lobes.

Kidneys asymmetrical in position, the right lying slightly anterior to the left. Adrenals large and conspicuous. Testes small, almost equalled in size by the large projecting epididymes.

Lymph opaque, whitish, resembling milk.

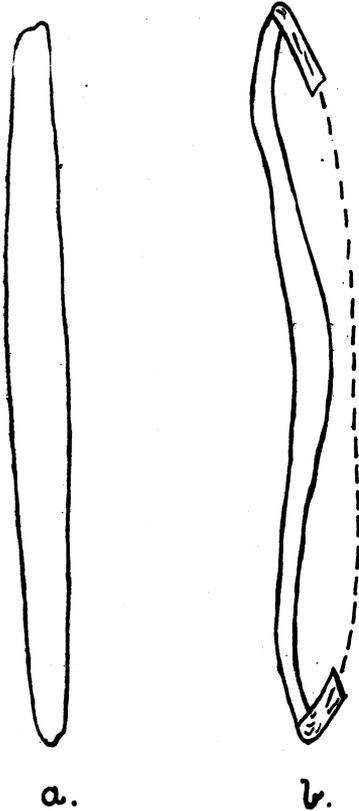
External auditory meatus scarcely 2 mm. in diameter.

Tongue bifid for 2 centimeters; the entire upper surface except the tip covered with densely distributed, sharp, conical, backwardly projecting, dentate papillæ. The distribution of these is thinnest along the distal part of the middle line. They increase in size from before backward and measure from 4 to 6 mm. in length on the proximal area. Along the sides and at the back of the tongue many of the papillæ are polycuspid, some being trident-shaped like the cheek teeth of this species, while others have five or six conical points all in the same plane. Buccal or esophageal spines are common among other groups of vertebrates (*cf.* the turtle (*Thalassochelys*),

the swallow (*Progne*), *Bison*, etc.) but the lingual papillæ of *Ogmorhinus* are comparable with those of penguins, and are entirely absent in *Macrorhinus* if not in all other seals.

Trachea. This organ in *Ogmorhinus* is perhaps unique. The cartilaginous "rings" are not rings at all, nor do they in any sense approach that condition. On the contrary they are bars the length of which is exactly one half the circumference of the trachea. There is consequently no lumen whatsoever when the passage is at rest, the organ being a perfectly flat band 10 centimeters in width, with the internal surfaces of the cartilaginous and muscular halves in juxtaposition. This curious condition is the more remarkable from the fact that the tracheal rings of *Macrorhinus* are four fifths complete, while in *Phoca* they are said to be actual circles with no membranous esophageal track. So great a variation in the internal anatomy of closely related mammals would seem to be unusual.

When dissected out the tracheal bars of *Ogmorhinus* are seen to be arcuate, with the concavity on the anterior or *external* surface.



Tracheal cartilage of *Ogmorhinus* (nat. size). *a.* View of external surface. *b.* Cross section; dotted line indicates the muscular portion of the trachea.