

bony canal, close to the anterior margin of the orbit. By means of this canal the duct of the nasal gland is conducted to the nasal fossa, into which it opens close to the orifice of the lachrymal duct. In *Aptenodytes* the nasal orifices of these two ducts are situated one inch in front of the anterior margin of the orbital cavity. According to Owen,¹ the nasal gland in the Albatross and Penguin is provided with two or three ducts. So far as the Penguins are concerned, I have only been able to find a single duct to the nasal gland in every species which I have examined.

The Eyeball.—As regards the *eyeball* itself, it may be observed that the sclerotic coat in all the Penguins is provided with well-developed ossified plates, and that the choroidal pecten is of large size, conical in form, and provided with numerous plications.

VI.—SPLANCHNOLOGY.

Before proceeding to describe the viscera, it may be as well to sketch the position which they occupy in the cavity of the thorax and abdomen. On opening these cavities, and without farther dissection, the viscera are seen to be arranged as follows (Pl. XVI. fig. 9). In the middle line is the heart, covered by the pericardium, the apex of the organ being accommodated in a depression bounded on either side by the apical portion of each hepatic lobe. In front of the heart are the terminal portions of the trachea and œsophagus, and on either side of the viscus are the right and left lungs. Behind the heart and lungs is the liver, which occupies the entire breadth of the abdominal cavity. Posterior to the left hepatic lobe is the stomach, and behind the right are a number of the coils of the small intestine. Lying in the interval between the intestinal coils on the right and the stomach on the left, is the elongated gall bladder, which in the Penguins reaches nearly as far as the cloaca. The posterior extremity of the abdominal cavity is occupied by the large globular cloaca and by the anal passage.

The urinary and genital organs have their usual position immediately below, and in contact with the vertebral column.

DIGESTIVE ORGANS.

The digestive organs of one or other species of Penguin have been described by Reid² in the case of *Aptenodytes patachonica*, Forst., and by Garnot³ in that of *Aptenodytes demersa*. Meckel,⁴ moreover, refers to these organs in certain members of the group, but omits to particularise the species which he examined. Consequently, his observations,

¹ *Anatomy of Vertebrates*, vol. ii. p. 144.

² *Proc. Zool. Soc.*, 1835, pt. iii. p. 147.

³ *Remarques sur la zoologie des îles Malouines, Annales des Sciences Naturelles, Zoologie*, 1826, tom. vii. p. 53.

⁴ *Anatomie Comparée*, vol. viii.