

than in most birds. Of the thoracic ducts the left is the largest. There are a femoral and two axillary glands; also an extra pair of bronchial glands more than in the Loon or Gull." I must content myself with adding, by way of comment on this passage, that although carefully looked for, I was unable to recognise the presence of either axillary or femoral lymphatic glands in any species of Penguin which I had an opportunity of dissecting.

V.—NEUROLOGY.

THE BRAIN AND SPINAL CORD.

The brain (Pl. XII. figs. 1, 2, 3) and spinal cord of every species of Penguin closely resemble those of other birds. The somewhat unsatisfactory state of preservation of the brain prevented me making a minute examination of the organ. I have, however, appended accurate drawings of the exterior of the brain in one species of each of the genera which I had an opportunity of dissecting.¹

The cranial nerves of the Penguins in respect of their distribution closely resemble those of the Duck or Goose, and the latter being well known, I feel it unnecessary farther to allude to them.

The spinal cord in the Penguins, as in other birds, develops a large rhomboidal sinus.

SPINAL NERVES.

Of the spinal nerves, in accordance with the number of intervertebral foramina, there are forty-two pairs in every species of Penguin. At the same time it is right to state that in the coccygeal region of *Eudyptes chrysocome* I could only distinguish four instead of seven pairs. The small size of the posterior nerves doubtless prevented me from recognising them in the midst of tissue so hardened by the preservative employed as to render the recognition of minute structures extremely difficult.

As usual, each of the spinal nerves divides into two branches, a dorsal and a ventral. The dorsal branches are distributed to the dorsal spinal muscles, as well as to the skin of the back. The ventral branches present the arrangement described below.

CERVICAL NERVES.

The cervical nerves are fourteen in number. The anterior divisions of the upper twelve appear in the dissection of the neck after passing from between the lateral and inferior cervical muscles. They do not unite to form a plexus, but after supplying numerous branches to the spinal muscles, reach the panniculus carnosus, which, together

¹ For the brain of *Aptenodytes* I am indebted to the kindness of Mr. Forbes, prosector to the Zoological Society, who kindly removed it from a specimen which died in the menagerie of that society. The other drawings are from Challenger specimens.