

APPENDIX TO THE REPORT ON THE SEALS.

The MYOLOGY of the PINNIPEDIA. By WM. C. STRETTCELL MILLER, M.D. Edin.

INTRODUCTION.

This memoir embodies the result of a series of dissections of Seals, commenced in November 1886, in the anatomical department of the University of Edinburgh, at the request of Professor Sir William Turner, to whom I am much indebted for his kindness in placing the material for this research at my disposal.

The animals which I have dissected are as follows:—an adult *Phoca vitulina*, a half-grown imperfect specimen of *Phoca hispida*, an imperfect specimen of a pup of *Phoca barbata*, two partially damaged young specimens of *Arctocephalus gazella* brought by the Challenger from Kerguelen Island, and a specimen of *Macrorhinus leoninus*, also brought by the Challenger from the same island, which, unfortunately, was so imperfectly preserved that the hind limbs were the only parts which could be dissected. In addition, a half-grown specimen of *Phoca vitulina* was kindly given to me by Professor Cossar Ewart for this investigation.

The plan which has been pursued in drawing up this description has been to take the arrangement found in *Phoca vitulina* as the standard, and to describe fully the muscles as seen in that animal, and then to point out wherein the other Seals agreed with or differed from it; but as *Arctocephalus* is far removed from *Phoca vitulina* in its structure, its myology has had to be described in considerable detail. It must be understood that when I use the term Phocinæ in the course of my narrative I mean by it *Phoca vitulina*, *Phoca barbata*, and *Phoca hispida*. Opportunity has frequently been taken to compare the result of my own dissections with those of previous writers.

The muscles have been arranged in natural groups, and so far as possible the nervous supply of each muscle has been stated.

The memoirs on the myology of the Pinnipedia which I have consulted in connection with my dissections are as follows:—

DUVERNOY, G. B., Sur les organes du mouvement du Phoque Commun. *Mém. du Muséum*, tom. ix., 1822.

VROLIK, W., Specimen Anatomico-Zoölogicum de Phocis, speciatim de Phoca vitulina. Trajecti ad Rhenum, 1822.