

Spheniscus demersus, and by Selater,¹ who is of opinion that it is a "quite distinct" species from *Spheniscus demersus*. In the absence of an anatomical examination it is impossible to decide which view is correct, but I shall be surprised if farther research does not demonstrate that *Spheniscus humboldti* is simply a variety, and by no means a well-defined variety, of *Spheniscus demersus*. It appears to me that the difference in external appearance between *Spheniscus humboldti* and *Spheniscus demersus* is even less than that which exists between *Spheniscus demersus* and *Spheniscus magellanicus*, and in view of the similarity of the anatomy of the two last-mentioned birds, it appears to me likely that an accurate anatomical examination of *Spheniscus humboldti* will show that it is simply a variety of *Spheniscus demersus*, and one that differs less from *Spheniscus demersus* than does *Spheniscus magellanicus*.

Lastly, relying on the results afforded by a minute anatomical investigation, there can be no doubt that both *Spheniscus mendiculus* and *Spheniscus minor* constitute well-defined species, the specific characteristics of which are to be found in the foregoing pages.

Spheniscus minor appears to be the most aberrant species of the genus, and differs more from any of the other species than these do from one another in respect of the form of the skull, in that of the proventricular gland, in the length of the small intestine, and in the total absence of a tracheal septum. In some respects, moreover, especially in the form of the skull and in that of the conjoined metatarsal bone, *Spheniscus minor* seems to occupy an intermediate position between *Spheniscus*, as represented by *Spheniscus demersus*, and *Eudyptes*, as represented by *Eudyptes chrysocome*. Its relationship to *Spheniscus*, however, is closer than to *Eudyptes*. The difference between *Spheniscus minor* and the other species of the same genus nevertheless does not appear to me to be sufficient to justify the establishment of a distinct genus for the reception of this species, as has been done by several ornithologists.²

ORIGIN OF THE PENGUINS.

It has been remarked by Owen,³ that in respect of several osteological features the Penguins present exceptionally reptilian characters. These characters are to be found more especially in the opisthocœlous character of the dorsal vertebræ, and in the form of the metatarsal bones which present an amount of differentiation from one another which, so far as I am aware, is met with in no other group of birds.

The reptilian arrangement of certain of the muscles of the Penguins has, moreover, been referred to by Gervais and Alix.⁴

¹ Challenger Reports, Zoology, part viii. p. 126.

² Gray, Hand-list of Birds; Gould, Birds of Australia, vii. pl. lxxxv.; Bonaparte, Comptes rendus, 1856, tom. xliii. p. 646.

³ Cyclopædia of Anatomy, Art. "Aves," vol. i. p. 270.

⁴ Ostéologie et Myologie des Manchots.