

d'Acunha, the small intestine varies in length from nine to ten times, in *Eudyptes chrysocome* from the Falklands, from twelve to thirteen times, and in *Eudyptes chrysocome* from Kerguelen, from seventeen to eighteen times the length of the vertebral column. Moreover, in *Eudyptes chrysocome* from Tristan, the tracheal septum is relatively shorter than in *Eudyptes chrysocome* from the Falklands, while in *Eudyptes chrysocome* from Kerguelen it is, relatively to the trachea, longer than in either of the other varieties. Lastly, if we compare the skulls of these varieties, we find a difference in their size but not in their form. *Eudyptes chrysocome* from Kerguelen has a smaller skull than *Eudyptes chrysocome* from Tristan, and the skull of the latter is in turn exceeded in size by that of *Eudyptes chrysocome* from the Falklands.

Taking these facts into consideration, I am of opinion that while these birds must be included as members of one and the same species, they form well-marked varieties of that species. In this opinion, at least so far as *Eudyptes chrysocome* from Tristan is concerned, I am supported by the authority of Mr. Murray,<sup>1</sup> who observes that "all the birds on this Tristan group had the yellow superciliary plumes considerably longer than that of those got at Kerguelen and the Falklands. They also all seemed to me rather bigger birds. The Tristan birds are, I think, a well-marked variety."

The second so-called species of the genus *Eudyptes* which we have to consider is *Eudyptes chrysolophus*. This bird was recognised for the first time as a distinct species by Brandt,<sup>2</sup> who named it *Catarractes chrysolophus*. Since his time the majority of ornithologists, including Hyatt,<sup>3</sup> Coues,<sup>4</sup> and Sclater,<sup>5</sup> have accepted Brandt's conclusion that it is really specifically distinct from *Eudyptes chrysocome*. Mr. Sclater, the most recent writer on the subject, observes :<sup>6</sup> "Forster evidently had both the 'Rock-hopper' and 'Macaroni' Penguins under his eyes when he described his *Aptenodytes chrysocome*. Brandt first clearly separated the two species, which are quite distinct and easily recognised by the characters which he has given."

Such being the opinion of ornithologists, it may appear presumptuous on my part to throw doubt on the correctness of the conclusions at which they have arrived. An examination, however, of the anatomy of *Eudyptes chrysolophus*, and a comparison of it with that of *Eudyptes chrysocome*, compels me to entertain doubts as to whether these two ought to be regarded as perfectly distinct species. A consideration of the exterior alone of *Eudyptes chrysolophus* undoubtedly leads at once to the conclusion that Brandt was justified in regarding it as distinct from *Eudyptes chrysocome*. Not only does it differ from *Eudyptes chrysocome*, as pointed out by Brandt and Sclater, in the colour and

<sup>1</sup> Challenger Reports, Zoology, part viii. p. 131.

<sup>2</sup> Bull. Acad. St. Petersburg, ii. p. 315.

<sup>3</sup> Proc. Boston Sci. of Nat. Hist., 1871, p. 250.

<sup>4</sup> Proc. Acad. Nat. Sci. Philad., 1872, p. 204.

<sup>5</sup> Challenger Reports, Zoology, part viii. p. 127.

<sup>6</sup> *Ibid*, part viii. p. 127.