

why it should not be included along with *Aptenodytes longirostris* as another species of one and the same genus.

“Lastly, in their affinities the Penguins appear to be more closely allied to the Palmipedes than to any other group of birds, but the numerous important deviations which they present from every one of the various groups included within that very heterogeneous assemblage appear to show that the Spheniscidæ must have diverged at an early period from the primitive avian stem, and the connecting links having been lost, it seems at present hopeless to attempt to establish the exact affinities of the Penguins to other birds. At first sight, indeed, it appears that the nearest allies of the so-called wingless birds of the southern are to be found in the wingless birds of the northern hemisphere, but the researches of Professor Owen¹ on the osteology of the Great Auk (*Alca impennis*), abundantly show that the two groups have but little in common. We are compelled therefore to postpone the accurate determination of the affinities of the Spheniscidæ till the progress of Palæontology shall have made us acquainted with the intermediate forms connecting the Spheniscidæ with the primitive avian stem from which both they and the other Palmipedes were originally derived.”

whilst the latter may only express the fact that under similar circumstances and the necessity of adopting similar modes of life the details of anatomical structure of two specifically distinct organisms tend also to become similar.

“I would only farther remark that an investigation into the entire subject of the relation which the sexual organs bear to the skin and tegumentary appendages on the one hand, and to the rest of the organism on the other, in different forms of animal life, is one which is likely to be productive of valuable results in enabling us to determine the essential morphological as distinguished from the physiological characteristics of a species.”

¹ Description of the Skeleton of the Great Auk or Garfowl (*Alca impennis*), *Trans. Zool. Soc.*, vol. v. p. 317, 1866.

