DESCRIPTION OF PLATE XLVIII.

Fig. 1. *Psolus* (*Lophothuria*) *peronii*, n. sp. Upper view: nat. size.
1 *a*. —— (——) ——. Portion of trivial surface (to show arrangement of suckers): nat. size.
1 *b*. Pharynx of *P. peronii*.
1 *c*. Spicule of *P. peronii*.
2. *Psolus* (*Hypopsolus*) *ambulator*, n. sp. Upper view: nat. size.
2 *a*. —— (——) ——. Portion of trivial surface (to show arrangement of suckers): nat. size.
2 *b*. Outline view from the side, to show general configuration.
3. Enlarged view of portion of dorsal surface of *P. regalis*, to show the *granular* scales.
4. Enlarged view of portion of dorsal surface of *P. fabricii*, to show the *granulated* plates.

5. Note on a Crinoid from the Straits of Magellan.

By F. Jeffrey Bell, M.A., F.Z.S.

[Received October 23, 1882.]

In the last set of specimens received from Dr. Coppinger (Surgeon, H.M.S. 'Alert') is a single example of a Crinoid from the Straits of Magellan, which, by some accident, was not forwarded along with the other Echinodermata sent by him some time ago. In giving an account of that collection to the Society[1], I directed attention to the absence of any representative of the Crinoidea; and I might have added that, so far as I knew, no other explorer of the marine fauna of the region from which it came had been able to meet with one.

It was therefore with considerable interest that I noted the arrival of this specimen in the British Museum; and I may add that I looked upon it with no little astonishment, as I conjectured how Dr. Coppinger must have doubted within himself whether he were really south of the Equator, and not again in those Arctic regions where *Antedon eschrichti* is so abundant; for it requires not only some acquaintance with specific characteristics to be able to detect any difference between the northern and the southern forms, but such differences as there are are exceedingly minute.

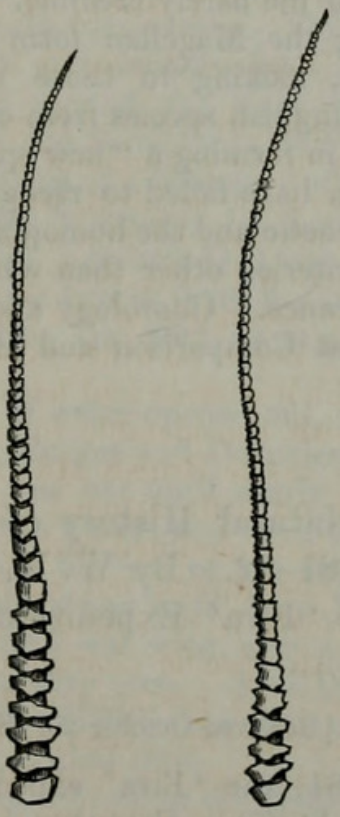
I have endeavoured to examine fully and carefully into the characters of the single, not quite complete, specimen of the Antarctic form; and although one may detect, on comparison with any given Arctic specimen, certain differences, such as may be expressed by saying that the cirri are a little more delicate, or not quite so long, or that a rather more distal joint is the longest of the series, yet marks such as these cannot be held to be distinctive of any thing more than of individuals.

When, however, we examine the pinnules, we find differences which enable us to distinguish the one from the other. As is well known, the pinnules at about the middle of the arm in *A. eschrichti* have the two basal joints of a notable shape, and so formed as to leave an interspace between them; in the Antarctic form, on the

[1] P. Z. S. 1881, p. 87.

other hand, there is no such interspace, in consequence of the different form of the basal joints, while the distal edge of the succeeding joints is provided with a delicate spinous process, which appears to be absent from the northern form. The accompanying drawings represent the second pinnules of *A. eschrichti* (A), and its variety (B).

A difference of this kind can hardly be taken to be specific, though, of course, there is a "personal equation" in zoology which renders it within the bounds of possibility that some brother naturalist may look upon it as having a higher distinguishing value than I am inclined to ascribe to it. Morphologically, the forms appear to belong to the same species; and the differences are best marked, in the language of systematic zoology, by speaking of the new Crinoid as *Antedon eschrichti*, var. *magellanica*.



It is not for the first time that attention has been directed to a resemblance between an arctic and an antarctic form; but never, perhaps, has the resemblance been so difficult of explanation. For myself, I feel compelled to confess that by no effort of the imagination can I figure to myself the passage of this fixed form over so wide a tract of sea and coast. If such has taken place, it will have to be allowed that the larva can hardly be free for so short a time as is the case with the best-known British species. Nor can it be well

explained by a mere reference to the great range of specific variability which, as we now know, obtains in the Comatulidæ. What may be ignorance or prejudice on the part of a naturalist is, if it be possible, to be kept out of the systematic register; and I content myself therefore with expressing an opinion without letting it appear in the technical title of the species.

A case of this kind forces on one's mind a reconsideration of the doctrines of a polyphyletic and a monophyletic origin of species, and, as Semper[1] has distinctly shown, of the further question of the difference between the real or objective, as opposed to the systematic or subjective view of what constitutes a species—a difference, which may perhaps be put in other words, as that which obtains between a Linnean and a genetic conception of specific relationship. That the *Antedon eschrichti* of Greenland and the *A. eschrichti*, var. *magellanica*, ever had a common ancestor belonging to the species *A. eschrichti* seems to me barely credible. All, at any rate, that I mean in now placing the Magellan form in the same species as *A. eschrichti* is that, looking to those structural characters by which naturalists distinguish species from one another, I cannot find enough to justify me in forming a "new species." But I would not like to be thought to have failed to recognize that in the discrimination of the homogenetic and the homoplastic factors of species, we have at present no criterion other than what even a friendly critic might call our ignorance. Chorology and Palæontology will have to do for species what Comparison and Embryology are doing for organs.

6. Notes on the Natural History of Franz-Josef Land as observed in 1881–82. By W. H. Neale, M.B., Medical Officer of the 'Eira' Expedition. (Communicated by Prof. Newton.)

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On July 25th, 1881, the 'Eira' expedition reached Gray Bay, Franz-Josef Land. At Cape Crowther and Cape Grant there are large loomeries; a short distance up the bay, on the west side, many Rotges had their young among the basaltic columns of the lofty cliffs. On the east side, near the head of Gray Bay, there were a good number of Snow-birds and Dovekies building, but too high for any one to climb and obtain the eggs.

At Cape Stephen there was a large loomery; and at Cape Forbes there were a few Looms, a good number of Rotges and Dovekies, and some Snow-birds.

At Bell Island the same species were also seen; and on the south side there was a large loomery, and a great number of Kittiwakes' nests, also Dovekies, Rotges, Snow-birds, and Burgomasters. Rain-

[1] 'Animal Life,' p. 462.