development of spines upon the body. It is more or less true in other groups of the Crustacea that the very spiny forms are either deep-sea, or, if shallow-water, are from the Arctic or Antarctic shores, where the conditions of temperature are not so widely different." [1]

Brady writes: "As to the relations between the Ostracoda of distant parts of the globe and those of the European seas,—or rather of the British and Scandinavian seas, those being the only districts which, as yet, have been tolerably well explored,—some scanty, though interesting, observations may be made. I have, elsewhere, had occasion to note the occurrence at Kerguelen Island of a very common European Copepod, *Harpacticus fulvus*, which in that distant spot inhabits precisely the same sort of places as in Europe. And now, in the lists of the Kerguelen Island Ostracoda, we may notice an affinity with the European fauna much closer than that of any other locality coming into the scope of this memoir. The British residents found in that distant home are *Pseudocythere caudata*, *Sclerochilus contortus*, *Paradoxostoma abbreviatum*, *Krithe bartonensis*, *Xestoleberis depressa*, and *Polycope orbicularis*. . . . *Xestoleberis depressa* [taken at Kerguelen and Heard Islands] is a common species in the Northern Hemisphere, having been found in the seas of Great Britain, Ireland, Norway, Spitzbergen, and the Gulf of St Lawrence . . . It is not a little remarkable that one of the two species [of *Paradoxostoma*] described in this monograph (*Paradoxostoma ensiforme*) is from a European dredging, and is a well-known European species, while the other, also known as an inhabitant of Europe, is from Kerguelen Island, a locality which, of all others, has shown in its entomostracan fauna a close resemblance to that of Europe. . . . Zoologically, the most remarkable character of *Xestoleberis* is its being viviparous; the fry are retained within the shell of the mother until very fully developed; this, perhaps, may account for the great posterior expansion of the female carapace." [2]

M'Intosh states: "The members of this family [Ampharetidæ] . . . are perhaps more abundant in Arctic and Antarctic seas than in the warmer oceans." [3]

Théel writes: "*Elpidia glacialis* is found in the Arctic Ocean and in the North Atlantic, in addition to which one individual has been brought home from Station 160, South of Australia. *Lætmogone violacea* was dredged by the Challenger Expedition close to Sydney, and during the cruise of the 'Knight Errant' between the Faroe Islands and the coast of Scotland. . . . It cannot be doubted that those two almost antipodal forms will be found at many interjacent localities when a larger area of the oceanic abysses has been explored . . . The discovery of this specimen [of *Elpidia glacialis*] in a locality so far south as the neighbourhood of the Antarctic sea is of the greatest interest, considering that this species during the last six or seven years has been found living rather commonly in the North Atlantic Ocean and in the Arctic Ocean (Sea of Kara). *Elpidia glacialis* seems able to exist under very various conditions; the individual brought home by the Challenger Expedition proves that it lives at the greatest depth, up to 2600 fathoms, while those from the Arctic sea are found at depths of only 50 to 150 fathoms. . . . [*Kolga nana*] is not the only example among the Holothurids from the great depths of the sea, where representatives of the same species or at least of the most nearly allied forms are found in or near the Arctic sea, and also in the neighbourhood of the Antarctic Ocean." [4]

Holothurioidea of the Northern and Southern Hemispheres.

Théel says further: "With respect to the Arctic and Antarctic regions, the observations hitherto made seem to establish that not a single species of the [shore] Holothurioidea is common to both seas. Notwithstanding this the shallow-water fauna of the two regions possesses much the same features. Thus the northern forms, *Cucumaria frondosa*, *Trochostoma borealis*, *Psolus squamatus*, *Psolus fabricii*, *Holothuria intestinalis*, &c., are represented in the Antarctic Sea by *Cucumaria lævigata*, *Cucumaria crocea*, *Trochostoma violacea*, *Psolus ephippifer*, *Psolus antarcticus*, and *Holothuria magellani*. I have had all these forms at my disposal, with the exception of *Holothuria magellani*, and they appear to be distinct from one another, though the distinguishing characters, it must be confessed, often seem to be rather inconsiderable, and possibly not of specific value. It is, however, of importance not to neglect such small characters, which unquestionably have a much greater consequence than may be at first supposed. According to my opinion, every example proving that the Arctic and Antarctic shallow-water faunæ are different is of value, for I cannot conceive how it is possible that they can have animals which are entirely similar. Of course, I do not take into consideration such forms as pass their existence on the bottom of the deep sea or at the

[1] Zool. Chall. Exp., pt. xlviii. p. 167.
[2] Zool. Chall. Exp., pt. iii. pp. 4, 124, 125, 149, 150.
[3] Zool. Chall. Exp., pt. xxxiv. p. 424.
[4] Zool. Chall. Exp., pt. xiii. pp. 4, 18, 19, 42.