

lucidum, Hoek, at lat. $0^{\circ} 48' S.$). The fourteen remaining species were all dredged between lat. $33^{\circ} 31' S.$, and lat. $53^{\circ} 55' S.$; and it is a remarkable fact, that those two latitudes limit a zone of about 20° , in which Pycnogonids seem to be rather common. However, even in this zone they are again much localised, being almost in every instance from near the coast of an island or continent. For miles the dredge was let down without bringing up a single specimen; whereas six species were found occurring at Stations 146 and 147, off the Crozets Islands (these Stations being very near to one another, I take as one); one at Station 157; three east of New Zealand, at Stations 168 and 169; five between Juan Fernandez and Valparaiso (Stations 298, 299, and 300); and two east of Buenos Ayres (Stations 320 and 325).

These facts indicate, I think, that the number of places inhabited by deep-sea Pycnogonids are not very numerous, and that where Pycnogonids do occur, many forms are, as a rule, found living together. This also ought to be observed when considering that between Stations 237 (off Yeddo) and 298 (between Juan Fernandez and Valparaiso), throughout a course of 11,775 miles, the dredge was let down sixty times and not a single Pycnogonid was obtained. This of course may partly be ascribed to the circumstance, that on an average the depth of that part of the ocean is too considerable to be inhabited by Pycnogonids; but as the depth at many stations during that part of the voyage did not exceed the depths of other stations at which Pycnogonids were dredged, this cannot be considered as the only reason. Also when the same circumstance is found to be the case in that large part of the South Atlantic between the Azores and Station 146, where during a course of more than 9000 miles the dredge was let down at 76 stations without a single return of Pycnogonids, and this although the depth at these stations is less, and at most of them much less, than some of the greater depths at which Pycnogonids were found, it is quite evident that the depth of the sea alone cannot be held responsible for it. Nor do I consider it yet proved that Pycnogonids are totally wanting in these oceans, as only a very small area of these oceanic abysses has been explored; so I think the only conclusion which at present may be drawn is this, that as yet only a few of the places where Pycnogonids occur in great numbers have been found out.

In regard to the nature of the bottom from which the Pycnogonids of the Challenger Expedition were obtained, conclusions must be also somewhat uncertain. The bottoms on which they occur seem to be extremely different. We find that one species was brought up from a bottom of gravel and stones, one from hard ground, one from rocky ground, five species are recorded as having been brought up from a muddy bottom, one from diatom ooze, five from a sandy bottom, three from a bottom of grey ooze, three from grey mud, and three from globigerina ooze. The other species were obtained from rocky bottoms in the neighbourhood of the shore.

More particulars about the geographical and bathymetrical distribution of the