

shall simply make a third of it, and if the localities are not so far removed, it will not make any difference to our procedure so long as the difference of habitat is, as supposed, associated with the difference in character. On this manner of viewing species, the different races of mankind would be regarded as species; and as very different species, much better defined than many species amongst the Invertebrates, I certainly would regard them; but to take a specific instance from the Sponges, in the Atlantic there is a group of similar forms of Lithistid which, without knowledge of any other similar group, we can with certainty call a species, and its differences from all other forms of Lithistid are sufficiently great to justify us in distinguishing it generically, it thus acquires the name *Siphonidium ramosum*; in the Challenger collection is a similar group of Lithistids, brought home from the Pacific, in outward form and general structure this is not distinguishable from the Atlantic group, one of its spicules, however, is different, being an oxystrongyle, while the corresponding spicule in *Siphonidium ramosum* is an oxytyle; had these Sponges been obtained from the same locality, they would have been placed in the same species (they differ far less than a Negro and a European), but coming from such distinct geographical regions I have placed the Pacific form in a new species—*Siphonidium capitatum*. With more hesitation I have distinguished the form of *Pachymatisma*, which occurs off the Norwegian coast, from that which is found in the English Channel, simply on a difference in the relative size of the spicules and in the thickness of the cortex.

The outcome of the preceding remarks would appear to be that assemblages of similar individuals, occurring in different distributional areas, may be regarded as species, if they present any constant difference of structure, however trivial.

We now pass to groups of genera, and the distinction between these will naturally be more marked than between species; generally there will be no difficulty in finding some clear and definite character by which one genus is readily separated from its nearest allies, but here again transitional forms cannot, as Nägeli, quoted by Poléjaeff, maintains, be regarded as destructive of the genera which they unite, for transitional forms on the evolutionary hypothesis are as much to be expected between genera as between species. Thus from an origin α let two divergent lines ab ac be drawn to represent two groups of species evolved along different lines of descent and of the value of genera, then if the whole of the two series should be known to us it is plain that however divergent the two stems may be they must pass into each other at the origin α . Unless therefore nature exercises a selective destructive power specially at such points as α , we may frequently expect to find what are really good genera passing into each other as they receive fresh accessions of species. As to what constitutes a good genus, I see no escape from the admission, that as in the case of species it is a matter resting chiefly on the judgment of the describer, but there is one condition which should be satisfied as far as possible,—it should not, except in special cases, be founded on a