

and seas are divided, the study of all, or nearly all pelagic animals, ought to be combined, because by limiting investigation to one single group of organisms, one is erroneously led to multiply the geographical subdivisions. But since up to the present time there are but few groups of pelagic animals (Crustacea, Polyzoa, &c.), the geographical distribution of which has been investigated, all attempts at synthesis in this way would as yet be premature, and would give merely provisional results.

The distribution of the Pteropoda will add to our knowledge on this subject, and I shall here give the conclusions at which I have arrived after studying the geographical distribution of the Gymnosomatous Pteropoda.

The importance of currents in influencing the geographical distribution of pelagic organisms is much greater than in the case of littoral animals; and it seems to me that each great surface area of water coinciding with an important current or system of currents, forms a distinct pelagic province.

Relying chiefly upon the distribution of the Pteropoda, I think I may at least divide the surface of the ocean into the ten following provinces, many of them resembling those established by Mr. George Busk in his Report on the Polyzoa, and which have been followed in several other Reports.

I. *Arctic Province*.—This province corresponds to the region generally accepted by zoologists under this name. It extends north of both the Old and the New Continents, and between them, as the Behring Sea, the Arctic current, and the current of Hudson's Bay (or the Labrador current). Thus, this province extends all around the North Pole, within the limit of the floating ice, or, more exactly, of the isotherm of 60° F. for August.

II. *North Atlantic Province*.—This division comprises all the Atlantic Ocean, south of the foregoing province, to the equator; it includes the Gulf of Guinea and also a small part of the Central Atlantic, south of the equator. This province thus embraces the whole area traversed by the following system of currents; the Gulf Stream, Rennel's current, North African and Guinea current, and the main equatorial current, besides the whole Mediterranean Sea; that is to say, this province is nearly equivalent to the following littoral regions of the malacologists:—Celtic, Lusitanian, West African, Caribbean and Atlantic. It corresponds to Dana's north temperate and torrid zones of the Atlantic, without the subtorrid region of the South Atlantic.

The part of the Atlantic Ocean which is traversed by the Brazil current perhaps constitutes a special province; but I cannot be certain about this, not having received any Pteropoda from this region.

III. *South-West African Province*.—This division includes the parts of the South Atlantic traversed by the South Atlantic current. On account of the origin of this current this province has some relations with the following one.

IV. *Indian Ocean Province*.—This province comprises the whole Indian Ocean,