

species are microscopic does not detract from their importance. The protozoa, protophyta, eggs, larvæ and such small crustaceans as the Copepoda, Ostracoda and Cladocera, are of interest in their morphological relations, and also because they form the food material, directly or indirectly, for the great mass of marine life. Quantitative and distributional research on the plankton should hence be of great value. Of the larger forms, your attention has been called to the classes that have been most neglected. The lists of Bryozoa, Nudibranchs, Annelids, etc., should be made as complete as in the classes that have received the greatest attention; while many others should receive important additions. Even among the fish, the chances are that there are many species, some of them common enough, that are not known. Tide pool and shallow water forms, except in a few localities, have scarcely been touched; and the bottom forms have not received due attention. When the distribution of the common species is known, it will be an easy matter to get material for investigators in other branches of the science: the physiologist, the biochemist, the experimental zoologist and botanist, the morphologist, the comparative anatomist, the embryologist and the ecologist will all find something to do. Enough is known already to start all of them going; but with a complete survey they would have a chance to do much better work.

In the working out of heredity problems, the coelenterates and the echinoderms have received a great deal of attention. I believe I am correct in saying that nowhere along the shores of this continent at least, can be found greater numbers or a better variety of these two classes than can be found in these waters. The sea-urchin has been a favorite for experiments in fertilization. We have in abundance two species suited for such work, the smaller green urchin, *Strongylocentrotus drobachiensis*, and the large purple one, *S. franciscanus*. Experiments concerning the effect of controlled stimuli have been tried extensively on the starfish. There is scarcely anything more common along the coast than the starfish; and if one species does not prove satisfactory, there is a large enough variety to choose from. The anemone has been used for similar experiments. It would be impossible to find *Metridium* more plentiful than it is on some of the rocks in the Gulf. A species of *Anthopleura* and several others beside are more or less abundant. Co-ordination experiments have been tried on medusæ. *Gonionemus murbachi* has been the great favorite for these at Wood's Hole. *Gonionemus vertens*, which may or may not be the same species, is much more abundant in the Gulf of Georgia than the Atlantic species is at Wood's Hole. Many other genera are well represented. Regeneration experiments have been tried on hydroids; and they have been used