

sexual maturity is dependent on the temperature of the water; for the deeper the water, the more slowly it becomes heated up.

The fact that by the end of August in a cool summer the spawning was over seems to show that the oyster could be fished without damage to the spawn in September, and that the close season is unnecessarily long.

I was not able to secure enough material for a thorough study of the development owing chiefly to the absence of proper facilities for rearing the larvae at the station, but some of the facts gleaned may be of interest. The egg when shed out is pear-shaped—when fertilized it becomes round and separates off two polar globules. These globules are by many eggs—notably those of the sea-urchin—separated out before fertilization and as coincidentally with their separation the nucleus of the egg loses its distinct membrane and shrinks in size, it becomes possible to discriminate ripe eggs from unripe ones. This is impossible in the case of the Oyster—the only available test is fertilization; if the eggs do not develop they are unripe. After fertilization, the egg divides into a number of sequents termed blastomeres and out of these the future organs of the animal are built up.

It is characteristic of the eggs of all Mollusca, so far examined, that a number of smaller blastomeres should be budded off from one pole of the egg, out of which are formed the skin and nervous system. In the Oyster this is well seen; the peculiarity to notice is that the rest of the egg remains undivided as one large blastomere, whereas in other Mollusca the whole egg first divides into four equal parts when then bud off smaller blastomeres. The larger blastomere however divides later and forms a central mass of cells the rudiment of the gut and internal organs, and this central mass covered by the smaller cells. Soon the little larva rises to the top and begins to swim, and it is then seen that there is a hat-shaped anterior part surrounded by a thickened belt of skin armed with powerful cilia. This organ is termed the *prototroch*, and is found in the young stages of nearly all Mollusca and worms. About this time the