

Organic Matter in Sea Found Food Source

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The most plentiful foodstuff in the world is not the annual crop of living marine plants, as has sometimes been claimed, but the flecks of organic matter suspended in sea water, says Denis L. Fox, Professor of Marine Biochemistry at The University of California's Scripps Institution of Oceanography.

Such matter is composed of the carbon and nitrogen compounds excreted by living animals and of the decayed remains of dead animals and plants. Writing in a recent issue of the "Annals of the New York Academy of Sciences", Fox estimates the amount of such material is about 1500 billion tons. This is 10 to 100 times the estimated amount of living plants in the sea.

Living upon the supply of marine leptoel, as the suspended organic matter is called, are hosts of bacteria and a number of more complex marine creatures. These latter Fox characterizes by their methods of taking in food as filterers, shovelers and scrapers. Filterers (such as oysters) pass great volumes of sea water through their bodies; shovelers (such as marine worms) burrow through tons of sand in the sea floor in search of food; scrapers (such as marine snails) use their file-like tongues to rasp food off ocean rocks.

One of the interesting scientific problems presented by these creatures, he says, is that although they live on virtually identical diets, each puts it to very different biochemical uses.