Biology

Conclusions

The type structure, and the total values (number and biomass), which characterize the development of phytoplankton and zooplankton in the period since summer 1998 till autumn 1999 were typical for the research areas.

As a result of the carried out analysis no infringements were marked during seasonal cycles of phytoplankton groups. The meaning of crude total biomass of micro seaweed in this period did not exceed the values, which were received in the previous years. The spatial and vertical distribution of phytoplankton was caused by a hydrodynamic mode; the maximal meanings of biomass were usually formed in the southern areas of the northwest shelf. Eutrofication influence was traced, probably, in a little bit prolonged vegetational of Diatomea and geterotrophic Peredinea alge on the aquatory of Odessa Bay and adjacent areas.

In November 1998 the general depression of fodder zooplankton was observed which was the reason of an autumn maximum of development of the population mnemiopsis - importer. The increase of zooplankton stocks began from the end of winter, his cold species have penetrated up to the North to the Odessa Bay. In May 1999 at the minimal stocks of jelly medusa general improvement in the condition zooplankton groupings was observed. The changes in the condition of zooplankton on the Odessa polygon in June, - September 1999 are similar as in 1998: in June the stocks of fodder zooplankton are significant, and in July a depression comes in under influence of Mnemiopsis. In middle August biomass of zooplankton - again quickly increases the fodder base is improved at the expense of summer flowering of phytoplankton. Species variety of bottom organisms, as a parameter of ecosystem stability of the north-western shelf of the Black sea depends upon the litological deposition. The central part of northwest and coastal areas (depths is more 10-15 M) are submitted by typical tacsons, which are characteristic for shell rock and silt shell rock: these were two-folder Bivalvia, Ascidia and ofyura, that formed in 1998-1999 years large total number and biomass values. Near shore zones of the Odessa and Danube polygons were characterized by the smallest quantity of Bivalvia, which on silt grounds are replaced with a grouping of nematoda and polychaeta. In May, 1999 total number and biomass values of zoobenthos twice exceeded values received in November, 1998. This is connected to seasonal changes of benthotzenoz. By the data received in May, - October 1999., it was established, that the benthotzenoz of the Odessa Bay is in unstable, depressed condition - live organisms practically are absence up to the end of summer.