

1. Introduction

The hydrobiological data on the world ocean collected up to the present, along with new technological advances for data analysis and storage, has provided the basis for solving a wide variety of problems in studying the ocean climate and its bioresources. The raw data collected by scientists at the White Sea Biological Station since 1961 had been archived but not in an electronic format. The implication was that, in the future, existing data would be inaccessible to the international scientific community or even to the scientists of the Zoological Institute. Hence, it was necessary to digitize all the available information. Once this task was completed, the data was integrated into the World Ocean Database, which will greatly enhance further study of the White Sea as well as its interaction with the entire Arctic basin.

This document presents an analysis of zooplankton data from the White Sea Biological Station for the period 1963-1998. In addition, temperature and salinity observations at different depths for the period 1961-1999 are presented. The objectives of this effort are:

- to compile a database from the observations of temperature, salinity, and zooplankton at a fixed point of the White Sea, which were obtained since 1961;
- to quantitatively describe the environmental effects on zooplankton development.

In Chapters 2 and 3, a brief description of the atmospheric and marine geochemical characteristics of the White Sea is provided as well as information about the history of the White Sea Biological Station, respectively. Chapter 4 describes the data used for this study and includes an inventory of temperature, salinity, and zooplankton stations as well as a list of taxa. The methodology and results are presented in Chapter 5. In Chapter 6, a description of the contents of the CD-ROM is provided, followed by concluding remarks and a list of references in Chapters 7 and 8, respectively.

The raw data used in the present study are being disseminated internationally without restriction via CD-ROM and the Internet in conjunction with the principles of the World Data Center system of the International Council of Scientific Unions (ICSU) and the UNESCO Intergovernmental Oceanographic Commission (IOC).