

The present and future of an integrated database on oceanology of the Southern Scientific Research Institute of Marine Fisheries and Oceanography (YugNIRO, Kerch, Crimea, Ukraine)

B.G. Trotsenko, E.V. Romanov and B.P. Panov

YugNIRO, Southern Scientific Research Institute of Marine Fisheries and Oceanography
2, Sverdlov Street, 98300, Kerch, Crimea, Ukraine

E-mail: island@crimea.com

A brief description of Southern Scientific Research Institute of Marine Fisheries and Oceanography (YugNIRO) status and activities is presented.

The state of archives dating from the middle of the 20th century is described, and measures for its safe storage, processing and future use are considered. Four principal data sets, namely: environmental, ichthyological and hydrobiological, fisheries statistics, and references, are described; their origin, means of QC, methods of analysis and data presentation specified by their origin, means of QC, methods of analysis and data presentation are specified. A listing of 15 databases available at present, and their current status is also given.

The value of the databases originated from the method of research: the collection of the information on the state of the ecosystem was carried out simultaneously with oceanographic surveys, which were supplemented with meteorological observations. The multidisciplinary nature of the primary data collected offers a plethora of opportunities for further research of the marine ecosystems. On the one hand, it opens a way to analyse the situation on a synoptic spatial-temporal scale, i.e. to define the state of fish population and its behaviour in relation to the water properties. The type of data obtained may serve as a ground to expand the knowledge of the ecosystem functioning mechanism (scientific aspects), and for implementing operative regulations of fishery (closed seasons/areas, quota management, etc.) and scientific advice to improve efficiency of fisheries fleet operations (short-term forecasts), administrative and commercial applications to support rational and sustainable use of MLR. Data obtained by standard methods in terms of repeated (through a number of years, in the same geographic regions) integrated surveys allow to access the long-term dynamics of the state of population of certain species against long-term fluctuations of the oceanographic and meteorological modes. Besides the science-related aspects, such data maintain applied information on changes in the overall stocks and estimation of the Total Allowable Catches in the different regions, as well as the development of middle- and long-term forecasts for fisheries on catches of particular commercial species in the future.

The available databases and current YugNIRO monitoring activities are an important basis of satisfying Ukrainian obligations in the framework of international conventions, agreements and membership in the international organizations involved in fisheries regulations CCAMLR, NAFO, CITES. These involve monitoring of the state of fisheries ecosystems in the high seas areas of active Ukrainian fisheries, monitoring of fishing fleet activity, and development of sound management advice on the use of fisheries resources, forecasts of resource state, as well as estimation of the Black and Azov Seas' principal commercial species stocks for fisheries regulation and setting fishing quota by the State Committee of Fisheries of the Ukraine.