Underwater Investigations and Robotics. 2014. No 2 (18). P. 52-57.

APPLICATION OF GIS- TECHNOLOGIES FOR ECOLOGICAL INVESTIGATIONS OF THE COASTAL SEA WATER AREAS AND INVENTORY OF THE SOURCES OF THEIR POLLUTION

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ABSTRACT

Now geo-information systems (GIS) are widely used for ecological monitoring of sea water areas and cartographical description of pollution sources. For direct use of figures the features of mutual converting of various GIS formats must be taken into account. The paper makes comparative analysis of the most common GIS and their formats widely used for ecological maps compilation. Reference data on the most common author's modules and GIS expansions simplifying the work of ecologists serve as the starting material.

Microsoft Access 2010 database is designed and more than 2000 reports of the Centre of Laboratory Analysis and Technical Metrology for Primorsky region are analyzed for computeraided access to ecological information. The basis of databases is are the results of the hydrochemical monitoring coordinated with the design documentation on the nature of pollution and special features of observable dumps. The complex of applied programs being the part of GIS is used for representation of the primary information on pollution sources of fisheries waters. Inventory control of pollution discharge sources is the end result of conducted research.

Keywords:underwater research, hydrochemical information, GIS– technologies, polluting substances, inventory

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