

and geophysical organisations will be encouraged to adopt the protocols, standards and tools which are developed as part of the Geo-Seas project.

Geo-Seas is building on the work already done by the existing SeaDataNet project which currently provides a data management e-infrastructure for oceanographic data which allows users to locate and access federated oceanographic data sets. By adopting and adapting the SeaDataNet methodologies and technologies the Geo-Seas project will not only avoid unnecessary duplication of effort by reusing existing and proven technologies but will also facilitate multidisciplinary ocean science across Europe through the creation of a joint infrastructure for both marine geoscientific and oceanographic data.

This approach will also lead to the development of collaborative links with other European projects including EMODNET, Eurofleets, Genesi DEC and SciDIP ES as well as extending to the wider marine geoscientific and oceanographic community including projects in the USA such as the Rolling Deck Repository (R2R) initiative.

Geo-Seas consortium partners:

NERC-BGS (United Kingdom), NERC-BODC (United Kingdom), NERC-NOCS (United Kingdom), MARIS (Netherlands), IFREMER (France), BRGM (France), TNO (Netherlands), BSH (Germany), IGME (Spain), INETI (Portugal), IGME (Greece), GSI (Ireland), BGR (Germany), OGS (Italy), GEUS (Denmark), NGU (Norway), PGI (Poland), EGK (Estonia), NRC-IGG (Lithuania), IO-BAS (Bulgaria), NOA (Greece), CIRIA (United Kingdom), MUMM (Belgium), UB (Spain), UCC (Ireland), EU-Consult (Netherlands), CNRS (France), SHOM (France), CEFAS (United Kingdom), and LU (Latvia).

Data Quality Assurance for Biodiversity Monitoring in the Black Sea

Paul Goriup^{1,a}, Ahmet Kideys^{2,b}, Valeria Abaza^{3,c}

¹ Fieldfare International Ecological Development, UK

² IMS-METU, Turkey

³ Black Sea Commission Permanent Secretariat

^apaul.goriup@fieldfare.biz, ^bkideys@gmail.com, ^cvaleria.abaza@blacksea-commission.org

This paper presents the findings of an expert working group² set up within the Upgrade Black Sea SCENE project (UBSS)³ concerning the quality of marine environmental datasets and harmonizing their delivery formats. The UBSS Black Sea partners (a network of leading marine environmental and socio-economic research institutes, universities and NGO's from the countries around the Black Sea and within the EU) contributed metadata about their research projects, cruises, and data sets to the European directories EDMED, EDMERP and CSR that are part of the SeaDataNet infrastructure and service.

Until recently, however, environmental data from the Black Sea have mainly concerned physical, chemical and certain biological parameters (principally zoo- and phytoplankton populations, and selected benthic organisms such as mussels) important for assessing nutrient status and pollution

² Paul Goriup (Fieldfare International Ecological Development, UK); Ahmed Kideys (Black Sea Commission Permanent Secretariat, Turkey); Valeria Abaza (National Institute for Marine Research and Development, Romania).

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impacts. However, the Black Sea countries also participate in various multilateral environmental agreements, not least the Bucharest Convention on the Protection of the Black Sea Against Pollution, that have created an interlocking institutional framework for common activities and transboundary cooperation, including biodiversity monitoring programmes that generate increasing quantities of data concerning the status and distribution of coastal and marine species and habitats.

Accordingly, Black Sea range states need to put in place Quality Assurance (QA) systems to ensure that standards of monitoring deliver what is required by statute. The Guidance developed by the expert group, reported in this paper, is intended to assist Black Sea marine research institutions develop appropriate methodologies, practices, audit methods, documentation, and training schemes which give confidence that the marine biodiversity data which are increasingly being collected and reported (for example, to national governments and the European Environment Agency) are of a high and comparable quality.

Method of Detecting the Long-Wavelength Structure of Shelf Currents according to Observations on a Separate Horizon

N.G. Horolich^{1,a}, V.N. Horolich^{2,b}

¹Marine Branch of Ukrainian Hydrometeorological Institute, 61, Sovetskaya st., Sevastopol, Ukraine, 99011

²Sevastopol State Technical University, Striletska balka, Sevastopol, Ukraine, 99053

^an.horolich@yandex.ru, ^bsevforsream@ukr.net

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It is known that the most reliable source of the information on sea currents generally accepted the mooring buoy observations data. In spite of rather significant volume of these data, got for a shelf, them, in general speaking, by virtue of considerable spatial-temporal alternated, obviously not enough for research of the long-wave structure of currents, conditioned mainly due to the development of his waveguide (resonant) properties. Therefore presently *reanimation* of these data got, in fact, on a separate horizon, from this point of view becomes especially actually in geophysical hydrodynamics.

The main drawback of today's installed the spectral theory of sea currents is the lack of universally accepted as the spectral method and the spectral hydrodynamic model needed to interpret the results of the analysis in terms of geophysical fluid dynamics.

The purpose of this study is to show that using the semi-spectral linear theory of sea currents is in principle possible to prove their long-wave structure on the shelf, even according to observations on a separate horizon with the influence of many factors, among which there may be unknown factors.

Because the shelf currents of a homogeneous sea, if we abstract from the purely drift currents, which are important only in the upper layer of friction, are, in fact, the gradient currents and presumably have a long-wave structure due to the waveguide properties of the shelf, it is interesting to study the characteristics of only gradient mechanism of their generation.

It is shown within the framework of semi-spectral linear model of wind-driven currents, that if the temporal changes of the level inclination normal to the coast are mainly of a reverse character, that