



Commission on the Protection  
of the Black Sea Against Pollution

# *Saving The Black Sea*



Official Newsletter of  
the Commission on the Protection of the Black Sea Against Pollution

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**31 OCTOBER**  
**INTERNATIONAL BLACK  
SEA DAY ACTIVITIES**

**Biodiversity is life!**

**UKRAYNA**  
UKRAINE

**ROMANYA**  
ROMANIA

**RUSYA FEDERASYONU**  
RUSSIAN FEDERATION

**BULGARİSTAN**  
BULGARIA

**TÜRKİYE**  
TURKEY

**GÜRCİSTAN**  
GEORGIA

**30 OCTOBER – 02 NOVEMBER 2010**  
**TRABZON**

Karadeniz Teknik Üniversitesi Kampüsü  
Prof. Dr. Osman Turan Kültür ve Kongre Merkezi

**SEAGULL**  
Marmar Deniz Temizliği Ltd.

ULUSLARARASI KARADENİZ GÜNÜ ÇEVRE ETKİNLİKLERİ VE PANELLERİ

T.C. Çevre ve Orman Bakanlığı

In this issue:

**The MONINFO Project:  
Moving on to the next phase**

**2010 International Black Sea  
Day Environmental Activities  
and Panels, Trabzon, Turkey**

**The Black Sea Education Box  
said fire up!**

**IMO – BSC join hands to  
protect the Black Sea**

**EC Supported Baltic2Black  
Project: "Environmental  
monitoring of the Black Sea  
with focus on nutrient  
pollution"**

**The Up-Grade BS-Scene**

**Project: Up-Grade Black Sea  
Scientific Network**

**The EnviroGRIDS Project:  
Building Capacity for a Black  
Sea Catchment Observation  
and Assessment System  
supporting Sustainable  
Development**

**The PEGASO Project:  
Building ICZM**

**Platform for Black Sea and  
Mediterranean Basins**

**First case of *Nodularia  
spumigena* blooming in the  
Black Sea**

**Commission News: Prof. Lutfi  
Akca steps in as new Com-  
missioner from Turkey**

**An improved new BSC  
website**

**BSC publications on the new  
website**

**Don't let the bluefish go ex-  
tinct!**

*Dear Colleagues & Friends,*

*We as the Permanent Secretariat of the Black Sea  
Commission have concluded another productive  
year with great efforts focused on the well-being  
of the Black Sea, our shared heritage.*

*You will find in this 13<sup>th</sup> issue of our newsletter  
articles on a selection of issues that are of regional  
and international importance, such as the  
MONINFO Project, 2010 International Black Sea  
Day Environmental Activities and Panels held in  
Trabzon, Turkey, the launch of the Black Sea  
Education Box, IMO – BSC partnership and  
updates on the EC Baltic2Black, UP-GRADE Black  
Sea Scene, EnviroGRIDS and PEGASO projects.  
We are also introducing the improvements on the  
BSC website and BSC publications on the new  
website. At the last pages, you will find the news  
about the Turkish Marine Research Foundation's  
campaign for saving the bluefish in the Black Sea.*

*Please do not hesitate to contact us for more  
information and ideas towards a cleaner and  
healthier Black Sea!*

*Prof. Ahmet E. Kideys  
Executive Director*

## **THE MONINFO PROJECT: Moving on to the Next Phase**

One of the main activities of the BSC is to cooperate with competent international organisations in developing appropriate programs for the Black Sea environmental control, prevention and combating oil pollution and improving regional cooperation and response capability.

Within this context, the Black Sea Commission (BSC) was granted a 3 years project (Phase 1, 2009-2010; Phase 2, 2010-2011) called MONINFO ("Environmental Monitoring of the Black Sea Basin: Monitoring and Information Systems for Reducing Oil Pollution"), funded by the European Commission (EC) via DG ENV.



*Map showing 2007 Kerch oil spill accident*

The MONINFO project should enable the coastal states to better prevent and respond to operational/accidental/illegal oil pollution, aiming to achieve the following main objectives:

Development and implementation of the Black Sea Information System to collect, store, process and distribute different types of data related to oil pollution prevention and response activities within the area

Setting up a Black Sea Regional AIS server

Setting up a regional monitoring service system on oil pollution detection

Setting up a modeling system to understand oil distribution following a spill

In support of decision making toward reduction/elimination of oil pollution in the Black Sea, the initial phase of the project pursues the following specific objectives under 3 work packages that help finally to develop a Black Sea MONINFO system:

- - WP. I – Improved information system for combating oil pollution
- - WP. II – Enhanced monitoring system of operational and accidental pollution
- - WP. III – Enhanced response capabilities, including the capacity building for planning, preparedness and risk management

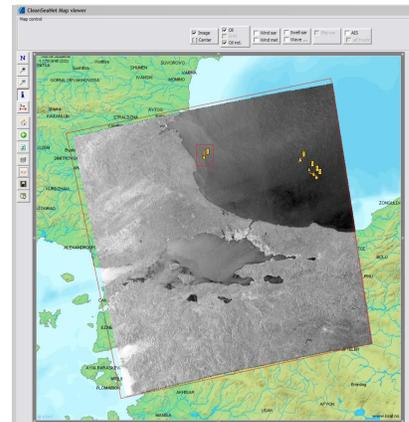
The project's vision is to apply and share the best practices and successful achievements, which exist already in other Regional Seas, as well as in the Black Sea countries.

The main achievements and deliverables of the MONINFO were presented in the 1st meeting of MONINFO Project Stakeholders (29 Oct 2010 Trabzon, Turkey) and in the 18th and 19th Meetings of the Advisory Group on Environmental Safety Aspects of Shipping (ESAS AG) (November 2009 and November 2010, Istanbul, Turkey), based on the 3rd Moninfo Progress Report (January - August 2010).

Presently, major outcomes and achievements of the MONINFO Project are as follow:

I) A draft concept and ToR for design and development of a regional oil pollution database / information platform (initially named as RIP, but in MONINFO dedicated session

within ESAS meeting has been decided to call it simply the MONINFO system) is prepared based on the experience of national and other information systems in the region and it received comments in the Stakeholders meeting to be further updated. It is now in the process of revising, in order to better develop the MONINFO system.



*Correlation with AIS data for a detection in Bulgaria: Medium confidence spill*

A consultant has started to develop the MONINFO system that will be built using the existing capacity in the region in order to interact with existing servers.

The following tasks are envisaged to be accomplished within the MONINFO system:

- Monitor the traffic on a map by using AIS Info, being able to query name of a displayed ship as well as all other available information through AIS
- Launch the risk assessment tool, configure it, select parameters, and run it. The user will be able to export results in commonly read formats
- Set up operational Sea Track Web tool to be able to run an oil spill drift model
- Provide satellite images and processed report on oil spill

- Spot in layers important needed information, that show protected areas, risk areas etc...

- Search for information linked to Black Sea pollution, such as stakeholders contact list, historical cases, news, link to existing web-sites, legal frameworks.

II) On-line Oil Spill Model-the Sea Track Web (adopted as a good

practice transfer from Baltic Sea to the Black Sea) is under development with the participation of two institutions – the Special Design - Technological Bureau of the Marine Hydrophysical Institute in Sevastopol, Ukraine and the Swedish Meteorological and Hydrological Institute (SMHI). Demonstration of the prototype was done during the International Black Sea Action Day Activities in Trabzon, Turkey (Oct 2010). The prototype is now being installed on a BSC PS server, and will be put on-line following testing and further development at the end of the contract.

III) Establishment of a Regional Automatic Identification System-AIS Server to improve the monitoring of oil pollution is well attended

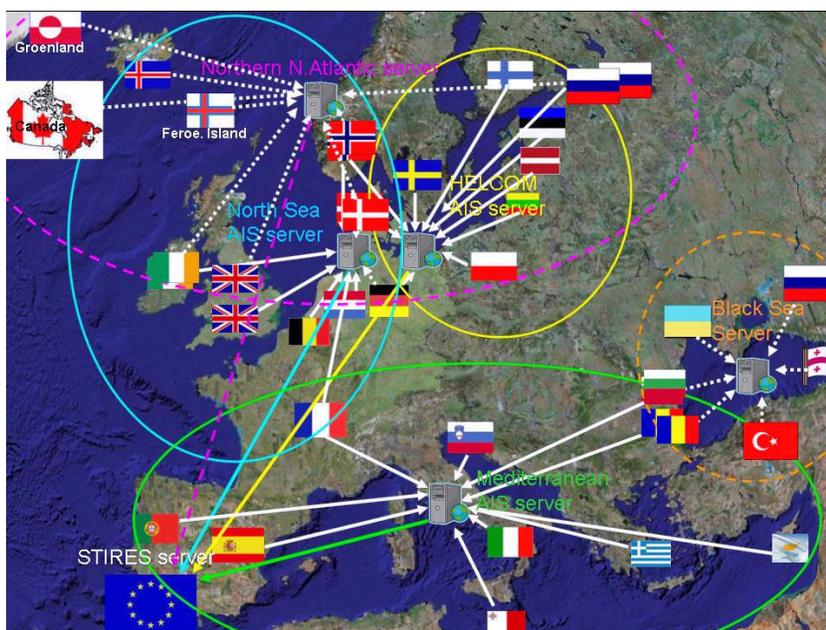
and promoted by the project and a good progress has been made through AIS Expert Working Group (AIS EWG) meetings by participation of high level officials from Maritime Administrations of Member States. Based on this, a Draft MoU including technical description on AIS Data Exchange has been prepared by the AIS EWG. Following its finalization, this MoU will be signed by the participating countries (at this stage by 4 countries).

IV) Satellite surveillance is well promoted in the region through signing an agreement in between EMSA (European Maritime Security Agency, CleanSeaNet (CSN) services), BSC PS, Georgia and Turkey. Receiving of satellite images showing possible oil slicks in the Black Sea waters of Georgia and Turkey started on the 1<sup>st</sup> of August 2010. The efficiency is proved already in several occasions e.g. on 23 Aug 2010, by notification of EMSA, a ship was inspected and illegal discharges detected and the ship detained in Mersin Port.

By notification of Georgia on 22 Sep 2010 another ship has been inspected in Unye Port, no deficiency found. Also a ship has been

inspected in Kroman Port by notification of Georgia on 30 Sept 2010 and illegal pipeline discovered and the ship has been detained. Another example is on 12 Dec 2010 when Georgia identified a possible polluter, and informed the Russian maritime authorities to inspect the ship and no deficiency found after the inspection in Russian port. Necessary contacts with Maritime Administrations and other responsible authorities such as Coast Guards have been established to develop procedures and mechanism for verification of the satellite based reports. BSC PS is promoting the CSN service in the rest of the Black Sea non-EU countries (Russia, Ukraine) to improve the remote sensing monitoring in the whole region. Bulgaria and Romania are members of the CSN Service since 2007. The Russian experience under SCANEX-the operative oil slick monitoring system, and Istanbul Technical University, Center for Satellite Communications and Remote Sensing (ITU UHUZAM) have been invited by BSC PS by aiming increasing the capacity on satellite based monitoring of oil spill in Black Sea. Both institutions presented their capacity and expertise in satellite surveillance during the 19th annual ESAS meeting that could contribute to build a composite map of areas of concentrated oil pollution and should be considered further how resources and expertise of EMSA and SCANEX could be combined for the MONINFO Project.

V) Two training courses on the CSN service were organized jointly with EMSA with participation of representatives from Black Sea countries to increase the capacity in the region in satellite surveillance of oil pollution. First training which was held in Istanbul was attended by all Black Sea Countries except Ukraine. Second training in EMSA was attended by participated to CSN Service Black Sea Countries.



Regional AIS servers around the European continent and the proposed regional Black Sea AIS server

VI) A draft concept for Risk Management of Oil Pollution and Risk Assessment Methodology (for further incorporation into the MONINFO system) is also prepared. It is further expected from countries to communicate their existing methods in the region, as to prepare a common risk assessment system.

VII) A comprehensive report on the Kerch accident (11<sup>th</sup> November 2007) is prepared by a team of experts from Russia and Ukraine. It contains unpublished data, many photos taken during and after the accident, figures and tables which provide valuable information in different aspects including conclusions and lessons learned. Historical records of oil spills in the Black Sea have been prepared and are in the process to be updated and stored in the MONINFO system.

VIII) Communication is ongoing for establishment of contacts and setting agreements on data exchange with laboratories dealing with identification of oil in the BS region in order to harmonize the methods used and the reporting format. Draft list of institutions working in the field of monitoring of consequences of large oil spills is prepared. The next step is to establish an expert pool and network of laboratories.

IX) MONINFO had supported the undertaking of the RODELTA exercise of Romania in 2009 and it will also support preparatory actions for the Regional Delta exercise that will be held in Georgia in September 2011 (workshop will be held jointly and facilitations for ensuring the participation of one of EMSA oil spill recovery vessels to this exercise is underway). Dedicated workshops will be organized to promote the MONINFO and to facilitate its implementation. MONINFO project staff is now making all efforts together with the expected deeper contribution of the countries to successfully develop a common

operational instrument in the Black Sea that will help the countries in better decision making to overcome an oil spill incident in the region.

### **2010 INTERNATIONAL BLACK SEA DAY ENVIRONMENTAL ACTIVITIES AND PANELS, TRABZON, TURKEY**

2010 International Black Sea Action Day was celebrated on 30 October – 2 November in the Turkish Black Sea coastal city of Trabzon with activities jointly organized by the Permanent Secretariat of the Commission on the Protection of the Black Sea Against Pollution (Black Sea Commission) and Turkish Ministry of Environment and Forestry. These activities took place within the Karadeniz Technical University (KTÜ) campus in Trabzon.

The Minister of State of Turkey, Romanian, Russian and Turkish members of the Black Sea Commission, Trabzon Governor, Trabzon Major, resident representative of

KTÜ, as well as members of the Turkish Ministry of Environment and Forestry, Undersecretariat of the Maritime Affairs, representatives from several international organizations, governmental bodies, universities around the Black Sea, private sector, teachers and NGOs participated in the jointly organized environmental panels and other activities.

As one of the most important projects of the Commission on the Protection of the Black Sea Against Pollution, the MONINFO (Monitoring and Information Systems for Reducing Oil Pollution in the Black Sea) Project held its important "Stakeholders Meeting" on 29-30 October in Trabzon back-to-back with the International Black Sea Day activities and celebrations. An entire day of the Black Sea Day celebrations was allocated to the presentations on oil spill in general and the MONINFO specific activities in particular to disseminate the outcomes of the project to a large number of participants (over 400).

Adopting the year of biodiversity with a slogan of "BIODIVERSITY IS LIFE", International Black Sea Day



the UNDP, Deputy General Secretary of Black Sea Economic Cooperation and Deputy Secretary of its Parliamentary Assembly, Rector of

Activities featured many educational and artistic events relevant to raising awareness of the envi-

ronmental issues in the Black Sea region. Among them were:

Over 400 interested experts and dignitaries participated in eight different panels. The panels included important topics such as:

- "Pollution from shipping in the Black Sea-Monitoring, impacts and measures",
- "MONINFO Project: Monitoring and Information Systems for Reducing Oil Pollution in the Black Sea",
- "State of the Environment of the Black Sea and Information Support",
- "Land-based Sources of Pollution - Implemented Activities", "Challenges in Sustainable Fisheries and Biodiversity",
- "Integrated Coastal Zone Management (ICZM) Activities and Marine Protected Areas",
- "Cooperation among International Organizations on the Black Sea Environment" and
- "Examples of NGO and Private Company Activities Related to the Black Sea"

Black Sea Medals were presented to one individual from each of the six Black Sea countries for their contribution to the protection of the Black Sea ecosystem. The medalists of this year are Mr. Lyudmil Ikonov from Bulgaria, Mr. Valerian Imnaishvili from Georgia, Prof. Nicolae Panin from Romania, Ms. Svetlana Pankova from the Russian Federation, Prof. Hasan Zuhuri Sarikiya from Turkey and Ms. Oksana Tarasova from Ukraine.



The "Black Sea Education Box", sponsored by the Ministry of Environment and Forestry and Ministry of National Education of Turkey, the Commission on the Protection of the Black Sea Against Pollution (Black Sea Commission), WWF-Turkey, UNDP and the Coca-Cola Company, was introduced to 200 local teachers in order to train them to teach their students love and appreciation for the Black Sea, its ecosystem and nature.

Underwater Purification and Awareness Movement presented an exhibition of marine litter collected from the Black Sea by divers to demonstrate what it will be like if we do not keep our seas clean.

Private companies were presented through their appealing stands to the visitors. Among them were MARE, MEKE, Seagull and Mavi Deniz (Turkish sea cleaning and emergency response companies).

Poster presentations and municipal unions' exhibitions were another section of the exhibition hall which attracted many visitors.

The Turkish Ministry of Environment and Forestry, Trabzon Governor's Office, Turkish Ministry of Culture and Tourism kiosks were also a center of interest.

Faculty of Marine Sciences of the Black Sea Technical University set up an exhibition boat to provide visitors with first-hand experience about microscopic analyses.



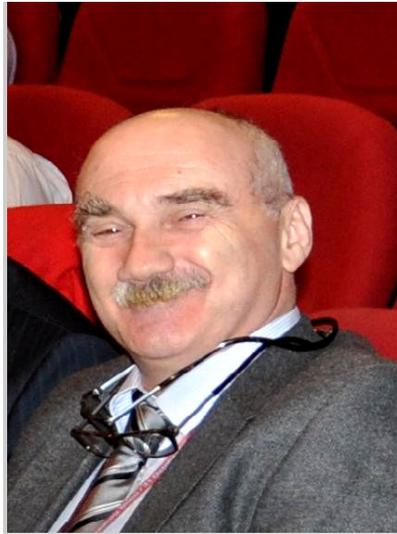
Renowned photographer and underwater video director Mr. Tahsin Ceylan's "Life in the Depths of the Black Sea" photo exhibition and its exquisite catalogue were very much in demand. This exhibition was open for the general public at the Forum Shopping Mall, the biggest shopping complex in Trabzon between 25-30 October 2010.

#### **Black Sea Medalists**



*Mr. Lyudmil Ikonov Bulgaria*

Mr. Ikonov works as the General Manager of the Consulting Centre for Sustainable Development Geopont-Intercom Ltd. and Executive Director of the Institute for Ecological Modernisation in Varna. He has been awarded for his great efforts in marine and coastal zone management in Bulgaria.



*Mr. Valerian Imnaishvili  
Georgia*

Mr. Imnaishvili is a legal expert of Maritime Transport and Policy, expert of Shipping Management, Port State Control and Flag State Control implementation, Pollution Prevention Policy, and holds a master's degree in Maritime Law. For many years he worked as deep sea Captain on tankers. He has been awarded for his endless contribution to and efforts for the protection of the Black Sea on various regional and international platforms.



*Prof. Nicolae Panin  
Romania*

Prof. Panin works as Counselor of the Director General of the National Institute of R&D for Marine Geology and Geo-ecology – GeoEcoMar since January 2009; Professor of Marine Geology - Faculty of Geology and Geophysics at the University of Bucharest and is a Member of Romanian Academy. He has been awarded for his work and contributions over many years in the fields of Marine Geology and Sedimentology, Environmental Geology (Geo-ecology); global changes and sea-level changes within the Black Sea region.



*Ms. Svetlana Pankova  
Russian Federation*

Ms. Pankova is a Doctor of biology, Educator of "Modern Concept of Natural Science", "Natural Recourses and Environment of Krasnodar Region", "Health", "Environmental Tourism" in Anapa Branches of Sochi State University of Tourism and Resort Management and Moscow Justices University. She has been awarded for her efforts concentrated in the fields of civil society and media for the protection of the Black Sea environment.



*Prof. Hasan Z. Sarikaya,  
Turkey*

Prof. Sarikaya worked as the Commissioner of Turkey in the Black Sea Commission, Member of the Board of the Directors of European Environment Agency, Operational Focal Point of Turkey for GEF, Chair of Wetlands Commission, Co-chair of the 5th World Water Forum and Chairman of the Board of the Directors of TÜÇEV. He has been awarded for his efforts over many years towards bringing the Black Sea to a healthier stage through many national and international organizations including the Black Sea Commission.



*Ms. Oksana Tarasova Ukraine*

Ms Tarasova works as Advisor at the Ministry of Environmental Protection of Ukraine. She has been awarded for her contribution to the work of the Black Sea Commission when she worked at the Permanent Secretariat as the Pollution Monitoring and Assessment Officer between 2001-2007.

All presentations, panel reports and photos from the events can be reached via the BSC website.

International Black Sea Day Activities in 2010 were widely announced in various media, including the November 2010 issue of *Skylife*, the popular bilingual (Turkish and English) magazine of the Turkish Airlines.

### **BS Day in Romania**

In addition to the International Black Sea day celebrations in Turkey, some smaller scale activities were held in Constanta, Romania. The most significant among these activities was the BS SAP Workshop aimed at highlighting the recently updated Strategic Action Plan of the Black Sea and the MONINFO project. The BS SAP Workshop brought together representatives of local and central authorities, scientists, NGOs, delegates of the business society and journalists. The purpose of this workshop was not only to inform the Romanian authorities and other relevant organizations about the Strategic Action Plan for the Black Sea, but also to discuss urgent issues and priority targets in its implementation. The participants in the workshop elaborated together recommendations on concrete measures to be taken in the SAP implementation in Romania.

Other events associated with the BS Day in Romania were:

Eco-solutions Fair at The Natural Sciences Museum Complex, Constanta; 26<sup>th</sup> of October; Seminar

'The History of Investigations and Environment Protection of the Black Sea' at the Natural Sciences Museum Complex, Constanta, 28<sup>th</sup> of October; 40 Years Anniversary of the NIMRD 'Grigore Antipa'; Meeting with young marine scientists and students on-board of the Ukrainian R/V 'Prof. Vodianitskiy' (the vessel was in Constanta before going to the NW Black Sea for sampling).



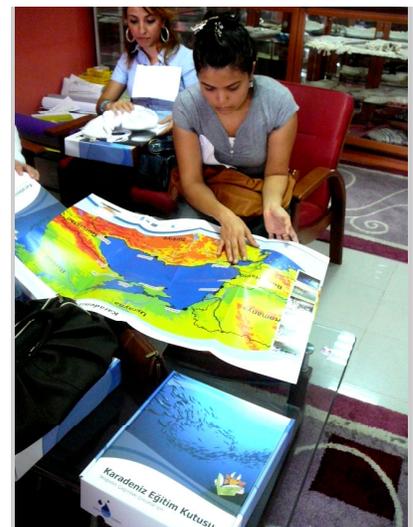
### **THE BLACK SEA EDUCATION BOX SAID FIRE UP!**

The Black Sea Commission, jointly with the United Nations Development Programme and the Coca-Cola Company, supported the creation of an education kit called "Black Sea Box" targeting the children of 9-12 years of age living around the Black Sea. The Black Sea Box includes interactive educational materials; a teacher's guide, guide book CD, "Life in the Black Sea" poster, a Black Sea map poster and game cards to attract the attention of these school children in order to increase their awareness of the environmental issues threatening the Black Sea. The Turkish and English versions of this kit have been completed. It is planned that the kit will also be translated into Bulgarian, Georgian, Romanian, Russian and Ukrainian in the future.



The Black Sea Box was launched to the Turkish media in June. It was later promoted by the Black Sea Commission during the International Black Sea Day celebrations organized jointly by the BSC Permanent Secretariat and the Turkish Ministry of Environment and Forestry last October in Trabzon, Turkey.

The WWF Turkey team organized two workshops to train teachers around the Turkish Black Sea region on how to use the Black Sea Box in their classes. One of these workshops took place in Rize and the other in Trabzon.



### **Rize Workshop**

Rize was selected because of its ecological importance on the Black Sea coast and due to its appropriate facilities. The workshop took place on 25 – 26 September 2010 at Çayeli In-Service Teacher Training Center. In total, 164 teachers participated in the workshop.

### **Trabzon Workshop**

The workshop in Trabzon took place in the Karadeniz Technical University Campus on 30 – 31 October 2010 within the framework of the International Black Sea Day celebration activities. This second teachers' training workshop of the Black Sea Box project was financed by the Commission on the Protection of the Black Sea Against Pollution and Ministry of Environment and Forestry of Turkey. 146 teachers participated in the workshop. In addition to this, 10 inspectors from other Turkish Black Sea coastal cities of Giresun, Ordu, Artvin, Samsun, Sinop and Rize joined the second group of teachers on the 31st of October. This was especially important for the dissemination of the Black Sea Education Box in other Black Sea coastal cities.

Ms Ayşe Oruç, Senior Conservation Officer at WWF-Turkey, also delivered a very informative presentation about the Black Sea Box in one of the panels within the framework of the Black Sea Day celebrations in Trabzon.

Both workshops were built on the questions why Black Sea is important and how the content of the Black Sea Box (CD, Game Cards, Posters, and the methods and techniques used in the Teachers' Handbook) would be used in class.

While the activities chosen from the Teachers' Handbook were being carried out; the difficulties that might be faced by the teachers and the application steps (such as

preparations- provision of materials- application of the activity and enrichment - evaluation) were shared. Through asking questions such as "what would you add to the activity?" or "how would you apply it?", it was made possible for the teachers to restructure the activities according to different conditions including class size, school's physical conditions and students' knowledge/skills.



It is envisaged that these workshops will be conducted in many other cities around the Turkish Black Sea coast.

The Black Sea Education Box is pending for translation into Bulgarian, Georgian, Romanian, Russian, Ukrainian and English.

### **IMO – BSC JOIN HANDS TO PROTECT THE BLACK SEA**

The International Maritime Organization (IMO) and the Black Sea Commission (BSC) signed an Agreement of Cooperation to increase mutual support on several environmental aspects of shipping including oil pollution preparedness, ballast water management and dumping. The agreement was reciprocally approved by the IMO at the 26<sup>th</sup> Session of the IMO Assembly, held on 23 November - 4 December 2009, and by the Black Sea Commission during their meeting on 19-20 January 2010.

This agreement on the reciprocal observer status between the BSC and IMO will further increase the cooperation and mutual support to achieve the common objectives of

both organizations, for the Safe, Secure and Efficient Shipping on Clean Oceans.



Within the framework of the GloBallast Partnerships, the International Maritime Organization (IMO) and the Permanent Secretariat of the Commission on the Protection of the Black Sea Against Pollution (Black Sea Commission) organized a workshop, including legal training, on 19-21 July 2010 in Odessa, Ukraine, to prepare for the ratification of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention - BWMC). The workshop is the first joint activity of the IMO and BSC within the framework of their recent agreement of cooperation, and it brought together bureaucrats, legal experts and scientists from six Black Sea riparian states. It was hosted by the State Administration of Maritime and Inland Water Transport, Ministry of Transport and Communications of Ukraine.



When ships unload their cargo brought from the Black Sea ports to other ports all over the world, they have to fill their ballast water tanks with sea water in order to keep their balance on their way

back to the Black Sea. It is estimated that about 3 to 10 billion tones of ballast water is transferred globally each year, potentially transferring from one location to another thousands of marine species that may prove ecologically harmful when released into a non-native environment. The effects of the invasive species have been devastating in many areas of the world, most notably in the Black Sea.

Being almost completely isolated from the world's oceans, the Black Sea's unique ecosystem is extremely vulnerable to the threats generated by human activities. Possibly one of the greatest of these threats is transfer of invasive species into the Black Sea.

Invasive species in the Black Sea reproduce rapidly and they can invade an area in a very short time driving the native species out, which may also result in dramatic depletions in fish stocks. Hence these organisms have tremendous impacts on the economy and ecology of the areas they invade.

The Ballast Water Management Convention is comprised of measures to prevent the potentially devastating effects of harmful marine organisms carried by ships' ballast water. It requires all ships to implement a Ballast Water and Sediments Management Plan, to carry a Ballast Water Record Book and to carry out ballast water management procedures to a given standard.

**EC SUPPORTED  
BALTIC2BLACK PROJECT:  
"Environmental Monitoring  
of the Black Sea with Focus  
on Nutrient Pollution"**

The main objective of this project is to promote measures to facilitate delivery of the Black Sea Commission integrated regional monitoring and assessment products, with focus on nutrient pollution and eu-

trophication, including through transfer of related existing best practices from other regions, in particular the Baltic Sea.

**Brief Concept of Project**

The project consists of the following main activities:

1. Creation of updated version of the Black Sea Information System (BSIS) in the public domain with links to European Information Systems

- Development of the online version of the Regional Database on Pollution.
- Assessment of eutrophication parameters and analysis of status of data collection/reporting/use

2. Elaboration of regionally agreed criteria for assessment of eutrophication

- Elaboration of the Black Sea reference and target concentration levels of eutrophication parameters
- Elaboration of a regional methodology on identification of water quality classes for eutrophication

3. Enhancing the Black Sea monitoring efforts

- Enhanced use of satellite observations for monitoring of eutrophication
- Assessment of feasibility of usage of automated systems (buoys, Ferry Boxes, automated samplers) for monitoring of eutrophication parameters in the Black Sea region, based on the experience of the Baltic region

4. Development of implementation plan on setting up a modeling tool, linking background pollutants values in the Black Sea with require-

ments for reducing input of pollutants.

5. Transfer of best practices from HELCOM to BSC on eutrophication monitoring and assessments

- Organizing of a series of seminars and workshops for knowledge transfer
- Secretariat to secretariat exchange and mentoring

**Regional priorities addressed**

Eutrophication/nutrient-enrichment is recognized as one of the major threats to the marine environment of the Black Sea in the Strategic Action Plan (SAP) adopted in 1996 as well as in the revised SAP 2009. In SAP-2009, following Long-term Ecosystem Quality Objectives (EcoQOs) are addressed to these issues: EcoQO 3: Reduce eutrophication and EcoQO 4: Ensure Good Water Quality for Human Health, Recreational Use and Aquatic Biota.

The project will help to implement the set of actions defined in the BSC Work Plan such as development of the Regional Database on Pollution, assessment of background levels of pollution, work on the environmental quality objectives and target values, common understanding of "Good Environmental Status". Some of these actions were approved by the BSC under the condition "upon availability of funding" – now these actions get the chance to be implemented.

**Relevance for the Black Sea Commission and its institutional network**

The implementation of the project will facilitate harmonization of countries' monitoring programs thus improving the regional monitoring (BSIMAP), elaboration of regional criteria for assessment of eutrophication and other pollutants. It will be running in parallel with the Marine Strategy Frame-

work Directive (MSFD) process providing wide possibilities for coordination and harmonization.

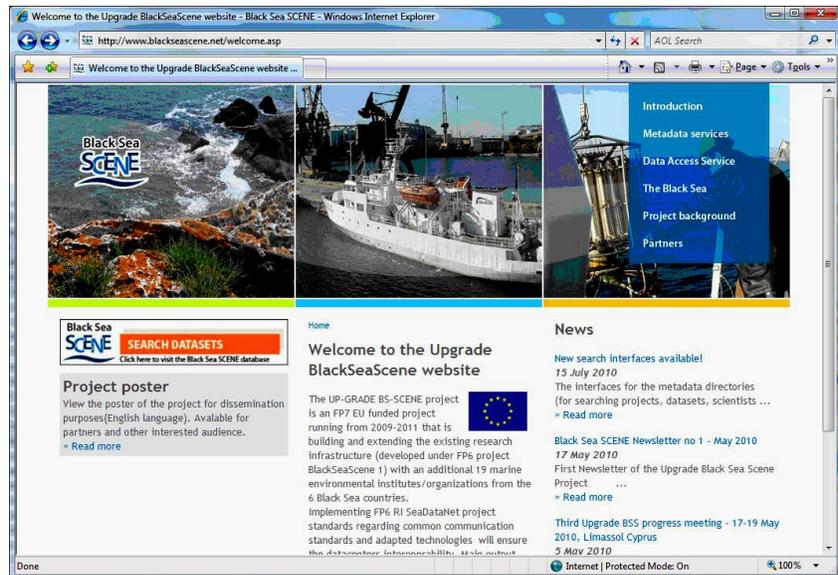
The institutional networks of BSC will be directly involved in the implementation of the project:

- Regional Activity Center on Pollution Monitoring and Assessment (RAC PMA at UkrSCES, Odessa, Ukraine) will be involved in the development of the Regional Database on Pollution and tools for assessment of eutrophication
- Advisory Group on Pollution Monitoring (AG PMA) will be involved in the implementation and follow up of the Activities 1-3, while Advisory Group on Control of Pollution from Land Based Sources (AG LBS) will be involved in the implementation and follow up of Activity 4
- The transfer of related existing best practices from the Baltic to Black Sea region will be organized through series of joint AG meetings and experts workshops. There will be 3 joint AG PMA meetings/experts workshops, and 2 joint AG LBS meetings/experts workshops.

### **THE UP-GRADE BS-SCENE PROJECT: Up-Grade Black Sea Scientific Network**

The UP-GRADE BS-SCENE is an FP7 EU funded project running from 2009 to 2011. It is undertaken by 51 partners 43 of which are located in the Black Sea countries.

The predecessor - Black Sea SCENE project - has established a Black Sea Scientific Network of leading environmental and socio-economic research institutes, universities and NGOs from the countries around the Black Sea and developed a distributed virtual data and information infrastructure. In 2010 the UP-GRADE BS-SCENE continued maintenance and upgrading the existing infrastructure and populating it with the metadata and data pro-



vided by all partners. In order to achieve success the staff of the partner's organizations was trained on common communication standards and technologies developed within SeaDataNet project.

The comprehensive Black Sea SCENE central web portal (<http://www.blackseascene.net>) hosts numerous web services providing access to the extensive metadata and data managed by project partners. The approach, when central server just plays coordination role while data are managed in place, accelerates data delivery from producers to end users thus allowing to keep the whole system up to date and sustain it after the project finish.

Metadata services:

- EDMO- Directory of Marine Organisations active in the Black Sea region
- EDMERP - Marine and Environmental Project catalogue
- EDMED - Marine and Environmental Datasets catalogue
- Data Quality Control – DQC methods overview and reference to support tools

- CSR - Directory of Marine Research Cruises in the Black Sea
- Scientists - Directory of Marine Scientists active in Black Sea region
- Bibliography - Scientific Reports and Publications on the Black Sea

The access to the partners' data is organized via interface of the Black Sea Common Data Index (CDI) database, which already contains more than 90 000 individual environmental data entries for the Black Sea. 15 partners' data centers are already in production mode delivering data to users. 20 datacenters are in testing mode (including BSC PS) and other data centers will join the network by January 2011. The final Conference of the project will be organized jointly with the third Black Sea Bi-annual Scientific Conference in November 2011.

**THE ENVIROGRIDS PROJECT: Building Capacity For A Black Sea Catchment Observation and Assessment System Supporting Sustainable Development**

The goal of the project is to build capacities in the Black Sea catchment region to use new international standards to gather, store, distribute, analyze, visualize and disseminate crucial information on past, present and future states of this region, in order to assess its sustainability and vulnerability. To achieve its objectives, EnviroGRIDS will build a Grid-enabled Spatial Data Infrastructure (GSDI) becoming one of the integral systems in the Global Earth Observation System of Systems (GEOSS).

The scientific aim of the EnviroGRIDS project is to assemble an observation system of the Black Sea catchment that will address several GEO Societal Benefit Areas within a changing climate framework. This system will incorporate a shared information system that operates on the boundary of scientific/technical partners, stakeholders and the public. It will contain an early warning system able to inform in advance decision-makers and the public about risks to human health, biodiversity and ecosystems integrity, agriculture production or energy supply caused by climatic, demographic and land cover changes on a 50- year time horizon.

A powerful modeling tool SWAT (Soil Water Assessment Tool) will be used to create the hydrological model of the entire Black Sea catchment. The SWAT model allows to predict the impact of land management practices on water, sediment and agricultural chemical yields in large, complex watersheds with varying soils, land use, man-

agement conditions over long period of time.

The results of the SWAT calculations under different scenarios of changes (climate, land use, management etc.) will provide prognosis for water quantity and quality (nutrients, sediments, pesticides, bacteria, etc). Considering the complexity of calculation the SWAT will be executed at the computer grid coordinated by CERN.

Main deliverables of the project at this stage includes:

- - Gap analysis of existing datasets and observation systems within the Black Sea catchment
- - Interoperability guidelines based on provisions of INSPIRE directive and OGC standards
- - Guidelines on data storage, sensor data use and integration, remote sensing data use and integration
- - SWAT model prototype for Black Sea Catchment
- - Model inputs: demography, land cover, climate
- - Project web site at <http://www.envirogrids.net> / and EnviroGRIDS Unified

Resource Management at <http://www.envirogrids.cz>

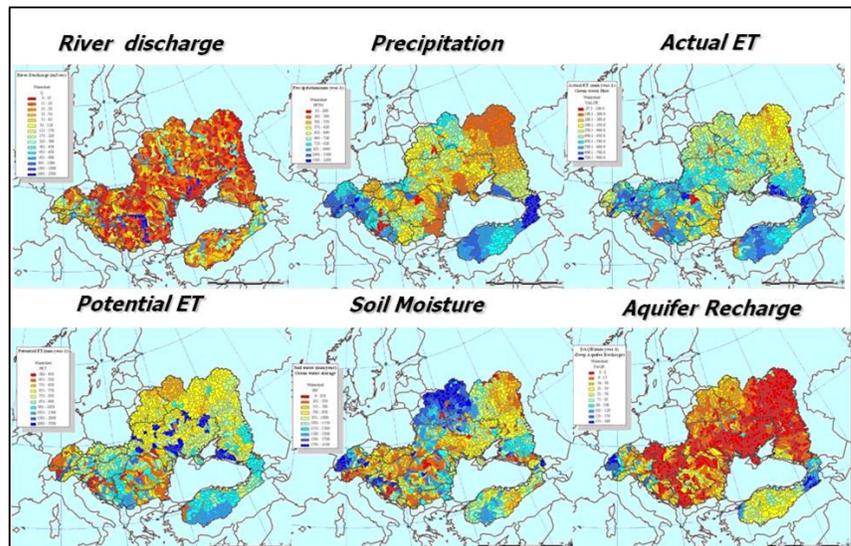
- Capacity building: workshops-trainings "Bringing GEOSS Services into practice" held in Bucharest, Romania, May 2010 and Tbilisi, Georgia, November 2010.

**THE PEGASO PROJECT: Building ICZM Platform for Black Sea and Mediterranean Basins**



[pegasoproject.eu](http://www.pegasoproject.eu)

The Commission on the Protection of the Black Sea Against Pollution, through its Permanent Secretariat (BSC PS), promotes the implementation of the Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea, adopted in April 2009 by the Black Sea states, which, among many



other themes, is targeted towards the further recognition and implementation of Integrated Coastal Zone Management (ICZM) through adoption of increasing number of guidelines, policies and legislative instruments reflecting ICZM principles.

In furtherance of this mandate the Permanent Secretariat joined 24 partners from European and Mediterranean countries to participate in the implementation of the collaborative project in the field of ICZM, supported by the Commission of European Communities within its 7<sup>th</sup> Framework Programme and entitled "People for Ecosystem-based Governance in Assessing Sustainable development of Ocean and coast" (PEGASO).

PEGASO Project, initiated in February 2010 and with the duration of four years (see [www.pegasoproject.eu](http://www.pegasoproject.eu) for further details), is coordinated by the Universitat Autònoma de Barcelona, Spain. The aim of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean. The Protocol does not apply to the Black Sea, but PEGASO will use the model of the existing ICZM Protocol for the Mediterranean and adjust the ICZM platform to the needs of governance in the coastal areas of the Black Sea countries.

By taking part in the project BSC PS is committed to achieve PEGASO objectives by facilitating the production of the following:

Building shared ICZM Governance Platform for Black Sea and Mediterranean;

Arriving to a legal agreement framework similar to the ICZM Protocol and promoting it in the Black Sea region through participatory process;

Building spatial data infrastructure for ICZM in the Black Sea region;

Producing Integrated Black Sea ICZM Toolbox, adapted for national reporting & regional assessment needs of the Black Sea countries;

Testing and validating assessment tools at regional and local scales through implementation of Collaborative Application SitES (CASES) in Ukraine, Romania and Georgia;

Elaborating Black Sea ICZM Guidelines, explaining and detailing the ways of application of the ICZM legal instruments and assessment tools;

Development and dissemination of information, training and education materials on ICZM.



Key BSC PS activities in 2010 included the participation in the planning and presentation events sponsored by PEGASO, such as the Kick-Off Meeting (12-14 April, Venice, Italy), the European Maritime Day 2010 Stakeholder Conference (20 May, Gijón, Spain), the ICZM Stock-Taking Questionnaire Validation Workshop (24 September, Por-

torož, Slovenia) and the CASES Workshop (6-8 October, Alexandria, Egypt). PEGASO was also present at the international Black Sea Day conference (31 October 2010, Trabzon, Turkey). In addition to above activities, two participants from Romania and Ukraine were supported by BSC PS through PEGASO resources to attend and successfully complete the international ICZM training (MEDCOAST Institute 2010, 14-30 September, Dalyan and Aegean Coast, Turkey). Last but not least, upon the endorsement by the ICZM Advisory Group Meeting (30 September 2010, Istanbul, Turkey) the ICZM Stock-Taking was initiated in each of the Black Sea countries in November 2010, with first BSC PS outputs for PEGASO expected in March, 2011.

### **FIRST CASE OF *NODULARIA SPUMIGENA* BLOOMING IN THE BLACK SEA**

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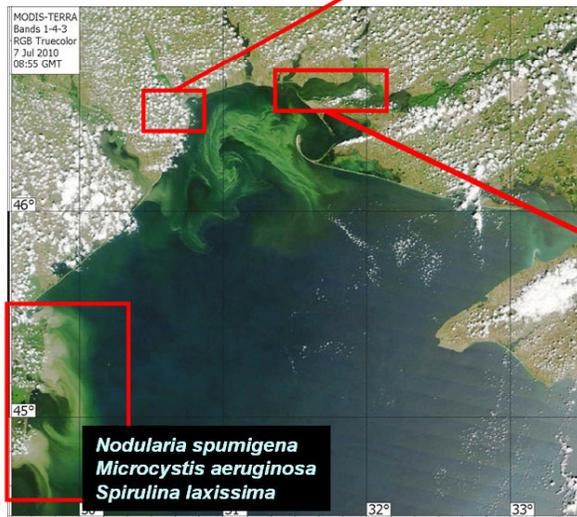
The blue-green algae *Nodularia spumigena* is a wide-spread euryhaline species. It is typical blooming species in the Baltic Sea (Mazur & Pliński 2003) and recently in the Caspian (Roohi et al. 2010) and Azov (Matishov & Fushtey 2003) seas during the summer period. In the Black Sea it was earlier noticed in small number in its north-western part and in Grigorivsky liman (Naukova dumka Publ. 2006).

**Blooming of blue-green algae**



**Odessa Bay**

***Nodularia spumigena*** – toxic blue-green algae (biomas 8 kg·m<sup>-3</sup>).



***Nodularia spumigena*  
*Microcystis aeruginosa*  
*Spirulina laxissima***



**Dneper-Bug liman**

***Microcystis aeruginosa*** – blue-green algae

The present large scale bloom of *N. spumigena* was initiated in the north-western shelf between the Danube and Dniester rivers including the Tiligulsky liman mouth during 7-23 July 2010. At the beginning, the blooming area covered the upper 10 meters layer of the water. Total number and biomass of this species were 2.2-22.6x10<sup>6</sup> filaments (10-200 μm length)·l<sup>-1</sup> and (23.2-238.7) g·m<sup>-3</sup> correspondingly. Maximal concentration (abundance 585.6x10<sup>6</sup> filaments·l<sup>-1</sup> and biomass of 6.2 kg·m<sup>-3</sup>) was registered on 12 July 2010 in Odessa coast, having salinity of 14.48 ‰. Blooming area 4-6 km wide extended practically along all Odessa Gulf coloring it in grey-yellow (see the Figure below). Satellite images indicative of broader distribution of this area.

Possible reason of this blooming was combination effect of two factors: unusual high temperature and volume of precipitation.

According the data of marine geophysical laboratory of Odessa state ecological University average water temperature off Odessa in the first half of July was about 20C higher than that of the last 30 years (i.e. 24.9 0C). A remarkably high water temperature (310C) was measured in July 2010 for this region. At the same time there was a heavy precipitation (<http://pogoda.ru.net/monitor.php>) decreasing the salinity of the coastal waters.

Special concern has the fact, that *N. spumigena* is a toxigenic species, producing hepatotoxins (nodularin). The toxin is known to have negative impact on fish and

its early life stages. Nodularin accumulate in mollusks, primarily in mussels and hence of concern for human health. Great blooming of *N. spumigena* in Gulf of Gdansk (Baltic Sea) has been the reason of temporal closing all the beaches along the gulf by local authorities (Mazur & Pliński 2003).

**Literature**

Matishov G.G. & Fushtey T.V. 2003. To the problem of harmful blooms in the Sea of Azov // Electronic magazine «Issledovano v Rossii».- <http://zhurnal.ape.relarn.ru/articles/2003/022.-213-225> (in Russian).

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Mazur H. & Pliński M. 2003. *Nodularia spumigena* blooms and the occurrence of hepatotoxin in the Gulf of Gdańsk // *Oceanologia* 45: 305-316.

Roohi A., Kideys AE., Saggadi A., Hashemian A., Pourgholam R., Fazli H., Gangian-Khanari A., & Eker-Develi E. 2010. Changes in biodiversity of phytoplankton, zooplankton, fish and macrozoobenthos in Southern Caspian sea after the invasion of the ctenophore *Mnemiopsis leidyi* // *Biological invasions* 7: 2343-2361.

### **DON'T LET THE BLUEFISH GO EXTINCT!**

The total catch of the bluefish decreased dramatically in the last ten years. The reason behind the decline in the bluefish population is the fishing stress that densely exists on the juvenile bluefish population. According to a scientific research, 81% of age 1 (19.5 cm) females were immature. But 14 cm is allowed in the Turkish regulation. Allowing fishing 14 cm-long bluefishes is not sustainable and will eventually cause a decrease in the bluefish population. The Turkish Marine Research Foundation (TUDAV) and Palates with Opinions (Slow Food Turkey) have been leading a campaign on this issue, proposing that the minimum length limit allowed for fishing should be increased to 24 cm in the legal regulation as soon as possible.



On 12 April 2010, a workshop was organized in Istanbul and a petition

was launched. Over 86 restaurants and chefs have declared that they will not cook or sell bluefish smaller than 24 cm in length in their restaurants. Over 2000 consumers have signed this petition so far. Some stickers and pins have been designed for restaurants and customers. All these efforts have aimed at forcing a change in the regulations and increasing consumer awareness.

### **COMMISSION NEWS: Prof. Lutfi Akca steps up as new Commissioner From Turkey.**

Professor Lutfi Akca, [some background information] recently took up the position of the Commissioner for Turkey for the Convention on the Protection of the Black Sea Against Pollution. When asked about the priorities of Turkey within the framework of the Convention on the Protection of the Black Sea Against Pollution, Prof. Akca responded that the Convention on the Protection of the Black Sea Against Pollution is an important regional commitment of the Black Sea riparian countries to the protection of the fragile environment of the Black Sea and as such the improvement of the institutional and legal framework, implementation capacity as well as cooperation with neighbouring institutions is of prime importance for the Convention and the Commission. He further added that Turkey as a Hosting Country and as a Contracting Party to this Convention has taken on this commitment very seriously and has devoted a substantial amount of energy, efforts and resources. He stated that Turkey plans to step up these efforts in the future and is looking optimistically forward regarding increasing the role the Convention on the Protection of the Black Sea Against Pollution in all aspects: as an instrument and example for environmental protection as well as international cooperation.

### **AN IMPROVED NEW BSC WEBSITE**

During the reported period of 2010, the Permanent Secretariat through EC support and other financing sources has started the complete overhaul of its information system. The structure employed up till recently comprised a commercially hosted web package for the basic BSC web page and hosting of additional components (BSIS, online documents, etc.) on a locally located computer. During the period the Permanent Secretariat has purchased a dedicated server which will be scalable (expandable) through virtualization which will host the basic web page as well as the complete documents, archive and applications.

The effort of the Permanent Secretariat was focused on the improvement of the WEB page of the BSC and resulted in:

- Improved online documenting system for internal and external use; in 2009/2010 a proof of concept was presented for indexing and searching of documents based on user level access control.
- Complete redesigning of the internal structure of the web page allowing better indexability by search engines (google, bing, yahoo, etc), better search functions on the web page itself, as well as thematic linking of pages through a "related" dropdown presented on every page. Some design elements were improved. Full compliance with the latest web standards was achieved. Some features being currently developed (demonstrated as proof of concept only) include presentation of custom content based on the users' credentials or country of origin or fully

- customizable layout and themes.
- Significantly increasing the content and information provided on the web page by putting online all legal documents, available in a table for easy overview and cross referencing.
- Placing ALL new publications produced by the Commission on the web, as well as related publications following the obtaining of the respective permissions.
- Completed the developing links from the [www.blacksea-commission.org](http://www.blacksea-commission.org) web to meta- data on the Black Sea (scientific, research and other data) as well as other information sources.
- Video and other content (RODELTA exercise), BBC videos, etc. on the Black Sea Commission Web page were placed following obtaining of the respective C

- The placing of complete archives of the web page of related projects in our web or sub web space is currently being transferred to the new server
- Providing up to date information on current activities – the Black Sea Commission Calendar, current update information on the Ministerial Meeting / Diplomatic Conference, documents adopted therein, etc.

### BSC PUBLICATIONS ON THE NEW WEBSITE

Updating the web presence is not a stand-alone task, it has been always a component of a number of actions aiming at improvement of communication, visibility and creating a memorable visual identity of the Black Sea Commission.

A noteworthy report assessing the data availability in the Black Sea region and their suitability for indi-

cator-based reporting has been produced with the financial support of the European Environment Agency. The final version of the "Diagnostic Report to guide improvements to the regular reporting process on the state of the Black Sea environment" is published at the webpage of the BSC.

Another notable report entitled "Biodiversity Outlook" with significant information for the assessment of the state of environment was prepared after explicit instruction from the BSC chairperson, with the financial assistance of the UNEP in this period. Following the approval of the BSC and UNEP, this report will be also published at the webpage of the BSC by the end of January 2011.

In addition to these, a report on Cetacean strandings on the western Turkish Black Sea coast covering a period of September 2009 - August 2010 was prepared for the BSC.

A modern tool (Guidance plus Atlas) for identification of Black Sea

The screenshot displays the official website of the Commission on the Protection of the Black Sea Against Pollution (BSC). The header includes the organization's name and logo, along with navigation links for Home, The Black Sea, Official Documents, Institutions, BSC Activities, Inf. & Resources, Projects / Observers / Partners, Forum, and Links. A news section on the right highlights a "Black Sea Outlook" conference and a meeting of contracting parties. The main content area features a "Recent Activities" section with links to various workshops and conferences. A prominent "Events this month" table lists upcoming events with their dates, titles, and statuses.

Date	Event	Status	Documents
3-5 May	Istanbul Water Forum, the 5th World Water Forum Secretariat, Istanbul, Turkey.	confirmed	<a href="#">Link &gt;&gt;</a>
3-5 May	10th Meeting of Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), Malta.	confirmed	<a href="#">Link &gt;&gt;</a>
20-21 Apr	EmroGRIDS full project meeting, Delft, The Netherlands.	confirmed	<a href="#">Link &gt;&gt;</a>
18-20 Apr	TRACCEA SASEPOL Meeting - Working Meeting, SASEPOL Regional Working Group, Odessa, Ukraine.	confirmed	
18-19 Apr	OpenWater Workshops and Symposium, Delft, The Netherlands.	confirmed	<a href="#">Link &gt;&gt;</a>
11-15 Apr	UBSS WP9 DOC Workshops + Plenary Meeting, Rhodes Island, Greece.	confirmed	

macroalgae was developed by the team of Dr. Milchakova (IBSS-Sevastopol). The book contains information on the algal species in the Black Sea (characteristics, ecology), their distribution and importance for the Black Sea. It will be published under the umbrella of the BSC in January 2011 (1000 hard copies and electronically on the web page of the BSC as well).

A book was written by a team of scientists and members of AGs lead by Dr. Aleksander Korshenko and the BSC PS about the Kerch accident which happened on 11<sup>th</sup> of November 2007 with the aim to help in improvement of the oil spill prevention and preparedness in the BS region. The authors collected all available information, starting from sequence of events before the accident and ending with its impact and lessons learnt. The book will be published in hard copy and electronically on the Web page of the BSC early 2011.

#### **"Have you written a book?"**

The idea for a BSC competition "Have you written a book?" was born in 2010 and will be announced for the first time early in 2011. The aim is to provide for support in publication of original manuscripts in the fields of:

- Science (Black Sea, incl. its catchment area)
- Human Pressures
- State of the Environment

- Impacts (incl. environmental impact assessments of large energy or other projects)
- Scenarios/modeling results
- Climate Change
- Valuation of goods and services
- Black Sea/Basin Legal/Policy documents development and implementation
- Governance of the Protection of the Black Sea
- National Action Plans development and implementation
- River basin management plans
- Contingency planning
- Specific Programs/projects in LBS, Biodiversity Conservation, ICZM, Spatial Planning, etc.
- BS SAP2009 implementation
- Decision-making in the field of Black Sea environment protection
- Best practices in environmental management - tools, techniques, models used in environment decision-making
- Case studies - Response to accidents
- Case studies – Hot Spots

- Risks management
- Public awareness
- Communication of Black Sea science to public

The manuscripts will be evaluated based on: novelty, actuality, quality of research and exposition, theoretical and practical importance, current priorities in research and decision-making. Supporting publications, the following outcomes are expected:

- Increased access to fresh information to be digested in the reports of the BSC;
- Increased visibility of the BSC;
- Better dissemination of knowledge in the BS region.

Please apply to the Permanent Secretariat if you would like to have your book published under the umbrella of the BSC.

For more information about the bluefish campaign, please refer to [www.tudav.org](http://www.tudav.org)



## *SAVING THE BLACK SEA*

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Against Pollution

The European Commission

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