GENERAL FISHERIES COMMISSION FOR THE MEDITERRANEAN

COMMISSION GÉNÉRALE DES PÊCHES POUR LA MÉDITERRANÉE

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First Meeting of the GFCM Working Group on the Black Sea

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Provisional List of Abstracts

Methods and fishing gears used in the Black Sea area

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This paper presents methods and gear used in fishing activities by riparian Black Sea countries. Punctually is a presentation of extinction using each type of fishing gear, target fish species, types of boats / vessels used and the impact on water resources, populations of dolphins and their specific habitats. The gillnet gear types (fixed or drifting) are used by all Black Sea countries, both to catch demersal fish species (turbot, flounder, dogfish, gobies etc.) and pelagic fish (Danube shad, Caspian shad, mullet, bonito, blue fish etc.). Because gill nets have a high retention capacity by hooking and entangling, this reduces the chances of escape of dolphins, which, in their attempt to recover the captive fish in mesh networks, become themselves victims of these tools. Also, another tools that raises the same problem are the trap net tools, installed on floaters or pillars. Tools with the least harmful impact, regarding the dolphins are the longlines and handlines. As they are stationary fishing tools, set on the sea floor, thus with a static position during operation, longlines do not generate harmful effects on marine living resources and their specific habitats.

Towards the Black Sea strategy to reduce cetacean by-catch

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Present knowledge on cetacean by-catches in the Black Sea region will be analysed. Mitigation actions will be proposed in accordance with relevant national, regional and international initiatives.

Methods and fishing gears used in the Black Sea area

Cervantes A.
EU Fisheries in the Black Sea

Romania and Bulgaria joined the European Union in 2007. Since then they are subject to the provisions of the Common Fisheries Policy.The presentation describes the main EU fisheries in the Black Sea as well as the process for managing these fisheries since the accession of both Member states. An explanation on the scheme for the collection of the main basic data for the provision of scientific advice and how this advice incides in the decision making process is also provided. In October 2011 the European Commission organised a Brainstorming event on maritime affairs and fisheries in the Black Sea in cooperation with the main Bulgarian and Romanian authorities. During this exercise a number of options for the future of the Black Sea fisheries were identified as follows: Improving Regional Dialogue, Improving Research and Data

Collection and Improving Fisheries Control and Monitoring. Some actions in line with these axes are outlined in the presentation

Overview of the aquaculture activities in the Black Sea

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The Black Sea is bounded by Europe, Anatolia and the Caucasus and is ultimately connected to the Atlantic Ocean via the Mediterranean and the Aegean seas and various straits. The Black Sea forms in an east-west trending elliptical depression which lies between Bulgaria, Georgia, Romania, Russia, Turkey, and Ukraine. The Black Sea supports an active and dynamic marine ecosystem, dominated by species suited to the brackish, nutrient-rich, conditions. As with all marine food webs, the Black Sea features a range of trophic groups, with autotrophic algae, including diatoms and dinoflagellates, acting as primary producers. Fisheries is one of the important economic sectors in the Black Sea countries, and virtually all its commercial fish stocks are shared among the bordering countries. In addition to capture fisheries, there is a long history of sturgeon aquaculture in the Azov Sea and more recently, the cultivation of mussels, oysters, shrimp and some finfish. Black Sea countries total fisheries (including inland capture and aquaculture) production was 4 860 747 tonnes in 2009. Russia is leading concerning total fishery production with 3,942,700 tonnes (81%), Turkey and Ukraine are fallowing with 622,679 tonnes (13%) and 237,256 tonnes (5%) respectively. Total aquaculture production of Black Sea countries was 319 480 tonnes in 2009. Turkey take place first with 158,762 tonnes (50%), Russia and Ukraine are fallowing with 116 571 tonnes (36%) and 24 083 (8%) respectively. Aquaculture started in 1869 in the Black Sea on the prompting of first artificial insemination of the sturgeon occurred in Russia, but commercial scale aquaculture was started in 1930. Main aquaculture species are sturgeon, trout, whitefish, Mediterranean mussel, scallop, carp, and turbot. There is lack of statistical data in connection with same countries before 1980's. Aquaculture production was increased rapidly after 1986 in the Black Sea Region, as parallel as global aquaculture trend. The Black Sea countries have great potential for aquaculture development; but they are using their aquatic resources under capacities. Sector has made progress very well in same countries such as Turkey and Russia, if it has developed gradually in other countries. There is necessary international and regional assistance and collaboration for enhancing aquaculture sector in the Black Sea countries. In this context, it will be advantageous GFCM support.

Chronology of Stock Assessments in the Black Sea Coasts of Turkey

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Although there was no national policy to assess the fish stocks, there are several initiatives had been carried on small cetaceans, Rapa whelk, anchovy, horse mackerel, whiting, red mullet and turbot funded by TUBITAK, university research funds and institutional budgets. Therefore many of them were local and limited with very narrow scope. In this presentation the summary of various researh fields will be summarised.

Black Sea anchovy stock assessment project

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Black Sea anchovy is by far the greatest contributor to the overall Turkish landings from sea and occupies more than 50 % of the total catch of the country. However, this important marine resource is managed based on the expectations of the fisheries sector rather than sound scientific strategies that could possibly lead to maximum sustainable yield. Being a species of the entire Black Sea basin exhibiting basin wide spawning distribution, the Black Sea anchovy is exploited almost exclusively by the Turkish fishing fleet during over-wintering season when they form very dense aggregations along the territorial waters of Turkey. Exclusive exploitation of this transboundary and shared stock brings along heavy burden of ensuring sustainable utilization of the species. Therefore Turkey is urged to initiate stock assessment studies based on scientifically sound methodologies. Exploitation of the marine resource without management strategies in the territorial waters of Turkey and on Black Sea anchovy in particular, created a significant problem during the EU accession phase. Therefore lack of stock assessment studies is not only a matter of utilizing the potential of a value resource but also a growing international problem facing Turkey. The Black Sea Anchovy Stock Assessment project aims to initiate a model optimized according to the marine infrastructure facilities currently available at the Ministry of Food, Agriculture and Livestock who, by law, is responsible to carry out stock monitoring and assessment studies in Turkey. The only fisheries research vessel owned by the ministry is not sufficient large to conduct fisheries surveys covering the entire range of the anchovy in the Black Sea. However, to fulfill the biological requirements the species undergoes seasonal migrations and aggregates on the southeast Black Sea in winter. Almost 90% of the stock is accumulated within an area not larger than 1% of surface area of the Black Sea. One of the goals of the project is to set the borders of the over-wintering area and to determine the environmental overwintering conditions. The next goal is to assess the size of the over wintering stock using hidro-acoustic techniques. The results are planned to incorporate in a stock assessment model tested and modified for the Black Sea anchovy. In the proposed presentation, the very first results of the acoustic surveys and market sampling conducted in November-December 2011 will be presented.

Statistical Data Collection and Information Systems in Turkey

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Turkish Statistics Institute (TURKSTAT) is the competent authority for statistics and undertakes its duties in collaboration with Ministry of Agriculture and Rural Affairs (MARA). TURKSTAT has collected landings and effort data since 1967. The Fisheries Information System (SUBIS) meets almost 80% of Decision 2010/93 for Transversal Sampling. Alongside the establishment of the SUBIS, a Vessel Monitoring System (VMS) has been developed. It currently is using to monitor tuna fishing vessel. Peculiarities of fishing on the shelf and in the coastal zone of the Crimea in 2000 - 2010's.

Collaborative international scientific research of marine living resources and marine environment as a basis of sustainable development of the Black Sea fisheries

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The Black Sea basin has unique hydrographic and hydrochemical parameters and environment. In addition, it is an essential fishing area for the Black Sea countries: the Russian Federation, Ukraine, Bulgaria, Romania, Turkey and Georgia. Fisheries and aquaculture play an important role in the socio-economic welfare of regions in the coastal areas, being the basis for the development of trade and recreational economy, providing the population with the food supply and employment. Joint use of aquatic territory and resources of the Black Sea by all the countries of the Black Sea Region has necessitated the development of collaborative international activities oriented to the conservation and restoration of the Black Sea marine living resources and their environment. The basis for the development of these measures should be integrated scientific research approach and joint efforts of all interested research institutions and organizations, representatives of the administration, agencies responsible for the protection of the environment and natural resources, fisheries management organizations of the Black Sea countries.
Russian Federal Research Institute of Fisheries and Oceanography (VNIRO) within its area of expertise suggests a programme of collaborative international environmental and aquaculture research, which could serve as a firm basis for sustainable development of the Black Sea fisheries. It is indispensable to conduct oceanographic, hydrochemical, biochemical, hydrobiological, hydroacoustic and ecological - toxicological research within the frame of comprehensive environmental monitoring of the Black Sea basin. The high priority in the planning of the international scientific collaborative activities should be given to elaboration of unified methodological approaches to the scientific research; creation of an integrated database of abiotic and biotic factors of marine living resources environment; carrying out joint scientific and field research; collaborative

publications and conference participation; international coordination and correction of the positions, research activities and the results; joint training and internship of scientific experts and stuff.

Notes on Bulgarian fisheries studies with view of future research activities

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A brief review of approaches and methods for fish stock biomass assessment is presented applied for Bulgarian Black Sea area. Fishery on main commercial fish species in the north-western part of the Black Sea is carried out on mobile dispersed fish schools during spring and autumn migrations. In summer in relation to spawning season they occupy vast areas as demonstrated by hydroacoustic surveys. The catches are negligible compared to the south-eastern part where they form much denser wintering concentrations suitable for commercial fishing. On this account fishery independent methods are proposed based on ichthyoplankton (DEPM-Daily Egg Production Method) and hydroacoustic surveys. Their concurrent estimates can serve as basis for testing their precision and agreement between them. Data gained in conducting such joint surveys is given with focus on sprat, anchovy, horse mackerel, whiting and with conclusions for the design, seasons and areas of coverage based on earlier experience. Some notes are also made on the research of the interaction between fisheries and cetaceans in areas off the Bulgarian coast with view on turbot fishery and cetacean bycatch assessments.

Annual report for 2010 of the Advisory Group on environmental aspects of fisheries and other marine living resources management

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This report is a synthetic outline of the activity of the Advisory Group for Environmental Aspects of Fisheries and Other Marine Living Resources Management (AG FOMLR) carried out in 2010. In the first part of the Report, the main basin level technical and economical indicators of the Black Sea fisheries are listed, among which we mention: fish consumption per capita, number of fishermen employed in fisheries, total catches on species, main threats on living resources. A significant part of the Report is dedicated to the presentation of the main parameters which characterize the national fisheries of the six coastal countries: total catches on species, fishing fleet structure, stock assessment, fisheries regulations, aquaculture, research programs etc. A special chapter is committed to regionally coordinated activities, including the work-plan of the Advisory Group for Environmental Aspects of Fisheries and Other Marine Living Resources Management for 2011-2012.

Ongoing research Projects carried out by Trabzon Central Fisheries Research Institute

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Abstract missing

Fisheries, status and management of the main demersal fish stocks in the Bulgarian Black Sea area

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Demersal fish species represent valuable resource for the Bulgarian fisheries and statistics on landings exist from 1925 till now. Catches are dominated by 10 species, but the share between them changes during the different periods. Stock assessments by analytical and holistic methods exist for some species, but the recent ones are dedicated for the evaluation of state of turbot stock in front of the Bulgarian Black Sea coast. Surveys covered period 2006 – 2011 and were carried out under DCR. Useful biological information about turbot distribution, size -age structure and population parameters was collected and used for management issues. For the protection of demersal fish stocks along the Bulgarian Black Sea coast different technical and management measures were implemented at national and regional level.

Presentation of the Project: "Strengthening the regional capacity to support the sustainable management of the Black Sea Fisheries (SRCSSMBSF)". EC/CBC-Black Sea Basin 2007-2013, Joint Operational Programme, 2. Implementation of the National Fisheries Data Collection Program in Romania

Radu G.
National Institure for Marine Research and Development "Grigore Antipa"

1. Are presented data on: Name of the Applicant, Partners, Priority and measure, Total duration of the Action, Budget - Sources of funding, Human Resources, Overall objective, Specific objectives, Main activities, Target group(s), Final beneficiaries and Estimated outputs and results.
2. Are presented data on:
- General description of the fishing sector (economic variables, biological metier related variables, biological recreational fisheries, biological stock-related variable, transversal variables);
- Research surveys at sea;
- Evaluation of the economic situation of the aquaculture and the processing industry;
- Evaluation of effects of the fishing sector on the marine ecosystem.

Scientific support for fisheries in the Ukrainian sector of the Black Sea

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In 2010 the production of fisheries in Ukrainian sector of the Black Sea, including marine fish in the saline estuaries connected with the sea, was 41.1 thousand tons. About 30 commercial fish species or closely related species of MLR are of certain economic value. On the basis of the regular scientific investigation YugNIRO undertakes annually the assessment of the status of the exploited MLR. For each exploited stock the "Limit" is calculated, being as a matter of fact Total Allowable Catch (TAC), within which all kinds of the special use of the stock within subsequent calendar years. In 2010 limits for the Black Sea were established for 17 units of the MLR stock and for "migrating fishes" in the Black and Azov Seas – for 9 units. At the same time methodical assessments of the stock size and TAC (according to the materials of different kinds of surveys, on the basis of the VPA, LCA and other methods) were made only for 9 units (35% of the limited stocks), and expert assessments were produced for the rest. A major problem of scientific support of Ukrainian fisheries is reduction in state funding for these purposes. In the past two decades, consistent reduction in the number and types of marine surveys have been seen. Nevertheless, owing to undertaken by Ukraine management of marine fisheries it succeeds in avoiding overfishing and depleting most stocks.