



GENERAL FISHERIES COMMISSION FOR
THE MEDITERRANEAN
COMMISSION GÉNÉRALE DES PÊCHES
POUR LA MÉDITERRANÉE



**GENERAL FISHERIES COMMISSION FOR THE
MEDITERRANEAN**

SCIENTIFIC ADVISORY COMMITTEE

**Meeting of the Sub-Committee on Stock Assessment
Malta, 29th November – 2nd December 2010**

**OVERVIEW OF THE INFORMATION AVAILABLE TO
ESTABLISH REGIONAL PROTOCOLS FOR SURVEYS-AT-SEA
(BY GFCM SECRETARIAT)**

* Only available in English

Introduction

1. The importance of establishing standard GFCM protocols for surveys-at-sea has been discussed over the last few years during various meetings of the Scientific Advisory Committee (SAC). Following the request of the SAC at its 11th session (GFCM-SAC, 2008a) for scientists of GFCM Members to submit copies of protocols of surveys-at-sea conducted in the GFCM Area to the GFCM Secretariat, three related documents have been made available. The twelfth session of SAC (GFCM-SAC, 2010a) reiterated the need to continue to work towards developing these standard protocols. In this respect, the ninth session of the Coordination Meeting of the Sub-Committees (GFCM-SAC, 2010b) agreed that the Secretariat should prepare a short document on the subject, which would serve as a basis for discussion during the next SCSA meeting.

2. This document summarises the information on surveys-at-sea available to the Secretariat as requested by the CMSC for the perusal of the SCSA.

Demersal otter trawl surveys

3. MEDITS is the most widespread demersal trawl survey and has been in operation since 1994 (Anon., 1998; Bertrand et al, 2000). Countries conducting this survey include seven European Union Mediterranean countries (Cyprus, France, Greece, Italy, Malta, Slovenia and Spain) together with Albania, Croatia, Montenegro and Morocco which have conducted the survey periodically over years. A trawl survey using the MEDITS protocol was also undertaken by the Libyan Marine Biology Research Centre (MBRC) to study the natural marine resources of the area between Missurata and the Egyptian border (GFCM-SAC, 2008b)¹. An outline of the main specifications of the MEDITS programme and its evolution has been described by Bertrand et al. (2002) and the most recent version of the survey protocol is that released in April 2007 (Bertrand et al., 2007) which has been submitted to the GFCM Secretariat².

4. Another long-established survey is GRUND, an Italian demersal trawl survey which initiated in 1984-1985 in all Italian seas within the framework of Italian Law 41/1982 regarding multi-annual plans to improve fishery management and fish farming (GFCM-SAC, 2007). Up to 1995 two surveys per year were conducted (one in spring and the other in autumn) but from 1996 only one autumn survey was conducted under the GRUND protocol (Anon, 1996). Other countries namely those in the Adriatic Sea - Albania, Croatia, Italy, Slovenia, and Montenegro have also conducted GRUND-compliant surveys in their waters, mainly through FAO Sub-Regional project support (Vrgoc et al., 2007). In addition, through Italian bi-lateral cooperation, GRUND surveys have also been conducted by other countries such as Malta (MedSudMed, 2006). In 2002 GRUND was included as an optional survey within the EU Fisheries Data Collection Programme (EC 1543/2000; EC1639/2001) but has been omitted since 2008 (Comm. Dec. 2008/949/EC; Comm. Dec. 2010/93/EU). The GFCM Secretariat is informed that discussions among EU Mediterranean Members are currently underway on the possibility of conducting an autumn trawl survey using the MEDITS protocol in replacement of GRUND.

¹ In collaboration with Greece using the Greek research vessel *Philia*.

² J. Bertrand, 17th July 2009

5. There are other records of demersal trawl surveys conducted in the Region. Technical descriptions of the trawl surveys carried out by Algeria, Libya, Morocco, Tunisia and Turkey have been provided during the second meeting of the SAC working group on assessment methodology (GFCM-SAC, 2008b)³. An overview of the survey carried out in Morocco in 2006 was also given during the SAC workshop on trawl survey based monitoring (GFCM-SAC, 2007)⁴. Reports of trawl surveys carried out in Libyan waters between 1993 and 1994 (Lamboeuf et al. 1995; Rawag et al. 2004) have also been produced and contain descriptions of the survey design.

6. Within the framework of the FAO-MedSudMed project, efforts have been made to standardise trawl survey protocols. During a workshop held in 2003, research institutes from Italy, Malta, Tunisia and the Libyan Arab Jamahiriya put together all available information on the existing procedures to carry out national and international trawl surveys, compare them and attempt to develop common methodological protocols. Details of the survey methods, sampling gear used, processing of the catches, biological sampling, as well as data management and processing are available in the workshop report (MedSudMed, 2006). It had generally been decided to maintain the procedures used in the national programs and adopt procedures to standardize selected data to be stored in a regional data base. In 2009, MedSudMed organised an on-the-job training course using the MEDITS protocol to pursue the harmonisation of the sampling protocols in the MedSudMed Project area⁵. The training was led by the Istituto per l'ambiente marino costiero (IAMC-sez Mazara del Vallo) on board R/V Sant'Anna and was attended by researchers from Libya, Malta and Tunisia.

Other demersal trawl surveys

7. Methodological aspects for rapido trawl surveys for stock assessment of *Solea solea* and other benthic resources in the northern and central Adriatic Sea (SoleMon project) were reported by Fabi et al. (2007) during the GFCM-SAC workshop on trawl survey based monitoring. SoleMon monitors several benthic species (flatfish, pectinids, cuttlefish, etc.) which cannot be assessed properly by otter trawl surveys such as MEDITS. Three countries (Italy, Croatia and Slovenia) are involved in the survey with sampling having been carried out twice a year (spring and autumn-winter) in 2005 and 2006 and annually in the following years.

8. The protocol and survey design for the rapido trawl survey has been submitted to the GFCM Secretariat⁶.

Acoustic and ichthyoplankton surveys

9. Technical descriptions of acoustic surveys conducted in Algeria, France, Morocco and Tunisia⁷ had been provided during the second meeting of the SAC

³ GFCM:SAC11/2008/Inf.13 - Annex 3 and Annex 4

⁴ GFCM/SAC10/2007/Inf.12 – Appendix 3, pages 24-27

⁵ <http://www.faomedsudmed.org/html/events/Training18SampleProcMedits.html>

⁶ Fabio Grati, CNR-ISMAR, 29th July 2009

⁷ Also some details on the ichthyoplankton survey was reported

working group on assessment methodology (GFCM-SAC, 2008)⁸ during which some agreement was reached on the regional standards to be used for a number of survey parameters.

10. It is also worth noting that a number of cooperative acoustic and ichthyoplankton surveys⁹, training surveys¹⁰ and inter-calibration exercises¹¹ have been conducted throughout the Mediterranean through FAO regional project support over the years.

11. Under the EU Fisheries Data Collection Framework (EC 665/2008), the Pan-Mediterranean acoustic survey (MEDIAS) is conducted annually by EU Mediterranean Member States. It is an acoustic survey which includes biological sampling using a pelagic trawl, technical details of which together with a summary protocol were first conveyed to the GFCM Secretariat in 2009¹² on the basis of the MEDIAS Steering Committee Report (MEDIAS, 2008). A revised protocol for the survey was adopted during the second MEDIAS Steering Committee Meeting (MEDIAS, 2009). During the third MEDIAS Steering Committee Meeting (MEDIAS, 2010)¹³ the protocol was reviewed and survey designs for the new areas¹⁴ (Tyrrhenian and Ionian Seas) to be covered by MEDIAS were established. In addition, the design of pilot acoustic surveys in the Black Sea (Bulgarian and Romanian marine areas), to take place for the first time in 2010 under the MEDIAS framework, were finalised and endorsed. Discussions on the harmonization of the collection of biological data also took place and protocols for the estimation of parameters such as maturity and age were adopted. Other issues under discussion by the MEDIAS Steering Committee include the collection of environmental data and inter-calibration between the research vessels.

The way forward

12. The Sub-Committee on Stock Assessment is invited to consider the information contained in this document as well as the protocols, reports and other documents referred to herein. Though it appears that the MEDITS and MEDIAS protocols are predominant and adopted as standards by several countries in the Region, the SCSA may wish to suggest amendments, if any, to fine-tune these protocols and to evaluate the feasibility of endorsing them as regional-wide standards. Alternatively, the SCSA could consider bringing together a restricted group of experts to draw up, from scratch, standardised protocols for surveys-at-sea on the basis of the information available.

⁸ GFCM:SAC11/2008/Inf.13 - Annex 3 and Annex 4

⁹ For example acoustic surveys in Maltese and Libyan waters - MedSudMed: <http://www.faomedsudmed.org/html/events.asp>

¹⁰ For example participation of Algerian scientists in the acoustic assessment carried out by the IEO (Spain) in 2009 – CopeMed: <http://www.faocopemed.org/html/events.html>

¹¹ For example the Acoustic Intercalibration Exercise (Neretva Channel - Adriatic Sea, 29th May - 4th June 2005 – Adriamed: <http://www.faoadriamed.org/html/asp/EvNewsAll.asp>

¹² A. Machias, 22nd July 2009

¹³ Croatia also participated as an observer

¹⁴ Initially only the following areas were covered - Aegean, Gulf of Lions, Adriatic Sea-Slovenia, Adriatic Sea-Italy, Sicily Channel, Iberian Coast

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COMMISSION DECISION of 18 December 2009 adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector for the period 2011-2013 (2010/93/EU)