



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

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***Biological Parameters Database:  
ongoing proceedings***

*by*

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SAC meetings of the Sub-Committees (SCSI, SCSA, SCESS, SCMEE)  
(29<sup>th</sup> November – 2<sup>nd</sup> December 2010 St. George's Bay, Malta)

# Introduction

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*Rome, 9-10 June 2010*

9<sup>th</sup> Coordinating Meeting of the Sub-Committees (CMSC)

**the GFCM Secretariat is requested to improve the [...]**

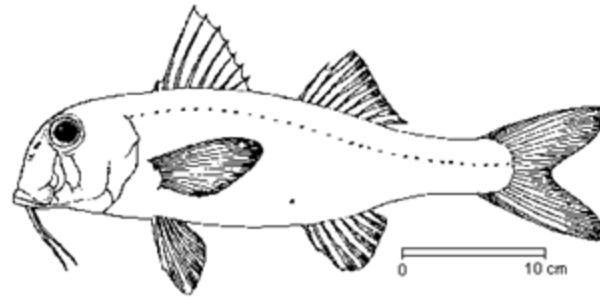
- *knowledge on the biology*
- *life history parameters*
- *stock structure*
- *spatial location of nurseries and spawning areas*

**[...] of 6 priority species in the GFCM Area ...**

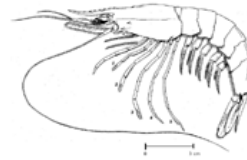
# The six priority species



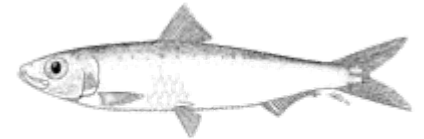
*Engraulis encrasicolus* (Linnaeus, 1758)  
**European anchovy**



*Mullus barbatus* (Linnaeus, 1758)  
**Red mullet**



*Parapenaeus longirostris* (Lucas, 1847)  
**Deep-water pink shrimp**



*Sardina pilchardus* (Walbaum, 1792)  
**European pilchard**

*Mullus surmuletus* (Linnaeus, 1758)  
**Stripped red mullet**

*Merluccius merluccius* (Linnaeus, 1758)  
**European hake**

# Parameters investigated

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- the VBGP( $L_{\infty}$ ,  $K$ ,  $t_0$ );
- the length-weight relationship - yearly ( $a$  and  $b$ );
- the natural mortality rate as scalar ( $M$ );
- the length/age at 50% maturity;
- the length/age at habitat recruitment;
- the vector of maturity and natural mortality by length/age;
- the reproduction period;
- the recruitment period;
- the spatial distribution of spawning and nursery areas

# The schedule

(started in August 2010)

1. *Organising an excel data sheet for the data collection*

2. *Bibliographic research*

• papers (on the web, library, etc)

• other sources (FishBase, SG-MED, Regional Projects, FAO Fish. Rep., etc.)

• SAFs already in the GFCM records

3. *Circulate a questionnaire*

• a GFCM message has just been sent by email to experts and national focal points to collect recent and/or update information

4. *Transform the excel sheet into a web-based DB application*

- design and population of the Database
- development of the web based application

5. *Test/implement the new GFCM Biological Parameters Database*

WORK IN PROGRESS



# 1. Organizing an excel data sheet for the data collecting

Species	Author(s)	Year	GSAs
<i>Mullus barbatus</i>	Scaccini	1947a, b	17 - Northern Adriatic
<i>Mullus barbatus</i>	Ananiadis	1950	22 - Aegean Sea
<i>Mullus barbatus</i>	Bougis	1952	07 - Gulf of Lion
<i>Mullus barbatus</i>	Wirszubski	1953	27 - Levant
<i>Mullus barbatus</i>	Nümann and Denizci	1955	24 - North Levant
<i>Mullus barbatus</i>	Larrañeta and Rodriguez-Roda	1956	06 - Northern Spain
<i>Mullus barbatus</i>	Gotlieb	1956	27 - Levant
<i>Mullus barbatus</i>	Akyüz	1957	27 - Levant
<i>Mullus barbatus</i>	Županović	1963	17 - Northern Adriatic
<i>Mullus barbatus</i>	Haidar	1970	17 - Northern Adriatic
<i>Mullus barbatus</i>	Passalaigne	1974	07 - Gulf of Lion
<i>Mullus barbatus</i>	Frogliia and Magistrelli	1981	17 - Northern Adriatic
<i>Mullus barbatus</i>	Jukić and Piccinetti	1981	17 - Northern Adriatic
<i>Mullus barbatus</i>	Papaconstantinou et al.	1981	22 - Aegean Sea

Unit of measure

FL	TL	SL	NG					
Von Bertalanffy								
$L_{\infty}$ (cm)			$k$ (y <sup>-1</sup> )			$t_0$		
M	F	Combined	M	F	Combined	M	F	Combined
		29.72			0.089			
		29.72			0.089			
23.39	24.55	24	0.158	0.225	0.2	-2.84	-2.01	
		24.8			0.29			
	26.2			0.41				
	20.8			0.49				
18.5	23.1		0.63	0.51				
21	17							
		23.31			0.049			
		21.49			0.038			

Total/Fork/Standard/etc. Length

Length/weight relationship - yearly					
Male		Female		Both	
a	b	a	b	a	b
0.0040006	3.125	0.0059837	3.078	0.0051649	3.111
0.0062252	3.016	0.0042768	3.154	0.0053218	3.124
0.0050094	3.12	0.0045515	3.153	0.0045515	3.153
0.0069	3.03	0.0069	3.03		

**... and so on !**



# What's next ?

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1. Check all the references to validate the information
2. Build the bibliographical references of the GFCM Database
3. Collect the questionnaires and import the new data
4. Transform the excel sheet into a web Database
5. Test the new GFCM Biological Parameters Database (feedback from users)

## Ideas for the future ...

To implement the Database with more species

Provide national experts of the GFCM network with  
*Username e Password* to insert new data by  
themselves

(instead of filing SA Forms) ?

# Thanks for your attention !

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