



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



SAC GFCM
Sub-Committee on Stock Assessment

SCSA Assessment Forms

> Enter <



Tool designer (GFCM consultant)	Federico De Rossi
FAO backstopping officer for SCSA	Jordi Lleonart
SCSA coordinator	Constantina Karlou-Riga
GFCM Bio-Statistician	Matthew Camilleri
GFCM Deputy Executive Secretary / Adviser fisheries management	Abdellah Srour

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PLEASE READ CAREFULLY BEFORE STARTING THE DATA ENTRY

Macro - Security settings

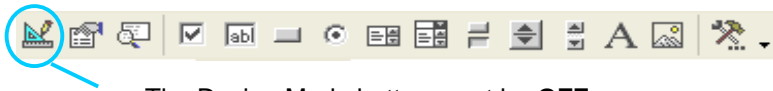
In order to ensure the proper full working of this Data Entry System, **the macros must be allowed to run.**

To change the security settings, please go to: **Tools > Macro > Security** and then select the **Medium** level. Close and re-open the file.

Now you are ready to start by clicking on the Cover button!

Control toolbox settings

To visualize the **Control toolbox** go to: **View > Toolbars > Control toolbox**



The Design Mode button must be **OFF**.

WARNINGS



Please do not try to **Delete, Rename, Move** or **Copy** any Excel Worksheets.



Right now it is not possible to **Print** the completed worksheets only.




Once the data entry process is completed, the **file size** will be increased significantly. Before sending it by email, please compress the file by using any zip tool available in your pc.


Colours and symbols meaning

WORKSHEETS

Green ► Not compulsory sheet


Orange ► Compulsory sheet

Red ►  Not completed sheet


Bright green ►  Completed sheet

CELLS

Black asterisk ► * Compulsory sheet/field

Turquoise ►  Compulsory field not yet completed

White ►  Free cell

Light green ►  Cell with the scroll-down menu

Light yellow ►  Auto-complete cell

Excel shortcuts

Ctrl + C Copy

Ctrl + V Paste

Ctrl + X Cut
Ctrl + Z Undo
Ctrl + P Print
Alt + Enter Line break within a cell

For more detailed information about Excel shortcut and function keys, please refer to the Microsoft website. > [CLICK HERE](#) <

SAC GFCM
Sub-Committee on Stock Assessment

SCSA Assessment Forms Release 2 (2007) beta version

Since the SAC, and SCSA, inception (1999) a set of assessment forms were made available to scientists in order to provide a common framework to present assessments.

It has been decided to present a new release of these forms to facilitate their use. We took advantage of these upgrade to modify and amend some aspects. We would like to receive comments and suggestions from the users in order to improve the forms.

The structure of this new release is basically the same. The differences are:

- Migration from Word to Excel
- Some fields (yellow) are filled automatically
- Some sheets have been added
 - o A cover sheet with title, authors, species and GSAs
 - o A new sheet "other" allowing to include assessments based on methodologies other than the usual ones.
 - o An abstract sheet to be included (copy/paste) in the SCSA report
- It is more clear what sheets or fields are compulsory to fill
- The sheets for direct methods have not been yet upgraded

Excerpts from the presentation of 1st version of the assessment forms (1999), however the sheet "other" can be used in such a case

Each assessment consists of several sheets. Each assessment will take, at least, one sheet of paper numbered "0" (Sheet #0) and will also include no less than one copy of sheets "B", "P1" and "P2a" (now using the current "operational units" terminology). It is not compulsory to fill out any of the other sheets that make up this assessment form, but the person in charge is supposed to fill out some of them: otherwise no assessment is actually made. There may be more than one copy in several cases. Sheets "D" (diagnosis) and "Z" (conclusions and recommendations) should be considered as essential too.

Sheet	Title	Contents	# of sheets	Priority
0	Preliminary basic data on the assessment	Species, person in charge, date and code. All the sheets that belong to the same assessment share this code.	1	Indispensable
B	Biology of the species	Biological parameters used in the analyses (it is assumed that only one set of parameters is used).	1	Indispensable
P1	General information about the fishery	Catches by gear and associated fleet.	1 or more	Indispensable
P2a	Fishery by Operational Unit	Time series for the operational in question, including structure by size (or age).	At least as many as the OU numbers	Indispensable
P2b	Fishery by Operational Unit	Accompanying species and regulations applicable to operational unit.	At least as many as the OU numbers	If available
G	Indirect methods: global model	Description of model, data, parameters and results of each analysis.	As many as used in the analysis	If available
A1	Indirect methods: VPA, LCA	Description of model used and of general results of an analysis.	As many as used in the analysis	If available
A2	Indirect methods: data	Description of data used by gear for the analysis in A1.	As many as used in the analysis by OU	If available, requires A1
A3	Indirect methods: results of VPA	Detailed description of results by gear, structured by size or age.	As many as used in the analysis by OU	If available, requires A1
Y	Indirect methods: Y/R	Description of model, data, parameters and results.	As many as used in the analysis	If available
Other	Other assessment methods	Description of model, data, parameters and results of other assessment methods not included in the previous sheets.	1	If available
D	Diagnosis	Synthesis of results of analyses and diagnosis on the state of resources.	1	Indispensable
Z	Objectives and recommendations	Set the objectives to be attained and recommendations for their attainment.	1	Indispensable

C	Comments	At the option of the person in charge.	Unspecified	If available
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SAC GFCM Sub-Committee on Stock Assessment

Date*	26	August	2008	Code*	DPS1608Gan
--------------	-----------	---------------	-------------	--------------	-------------------

Authors* Gancitano V., Giusto G.B., Sinacori G., Labanchi L., Fiorentino F.

Affiliation* Italian National Research Council (CNR) - Institute for Coastal and Marine Environment (IAMC)

Species Scientific name* **1**
Source: GFCM Priority Species

2
Source: -

3
Source: -

Geographical area* Strait of Sicily

Geographical Sub-Area (GSA)* 16 - South of Sicily

Combination of GSAs
1
2
3

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Assessment form

Sheet #0

Basic data on the assessment

Code: DPS1608Gan

Date*	26	Aug	2008	Authors*	Gancitano V., Giusto G.B., Sinacori G., Labanchi L., Fiorentino F.
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Species Scientific name*	Parapenaeus longirostris - DPS	Species common name*	Deep water pink shrimp
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Data Source

GSA*	16 - South of Sicily	Period of time*	2006-2007
------	----------------------	-----------------	-----------

Description of the analysis

Type of data*	Landings	Data source*	DCR
Method of assessment*	LCA and Y/R analyses	Software used*	VIT4win, Yield and LFDA

Sheets filled out

B	P1	P2a	P2b	G	A1	A2	A3	Y	Other	D	Z	C
1	1	#REF!	#REF!	#REF!	#REF!	1	#REF!	---	4	1	1	#REF!

Comments, bibliography, etc.

Comments, bibliography, etc.

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SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet B
Biology of the species

Code: DPS1608Gan

Biology

Somatic magnitude measured (LH, LC, etc)*				CL	Units*	mm
Sex	Fem	Mal	Both	Unsexed		
Maximum size observed	46	41			Reproduction season	all round the year
Size at first maturity	22,1	14,3			Reproduction areas	Yes
Recruitment size			11		Nursery areas	Yes

Parameters used (state units and information sources)

		Sex				
		Units	female	male	both	unsexed
Growth model	L_{∞}	mm	43	38		
	K		0,68	0,75		
	t0		-0,2	-0,2		
	Data source	SAMED (2002)				
Length weight relationship	a		0,0035			
	b		2,4457			
	M		1			
	sex ratio (mal/fem)		1			

Comments

Ogive at maturity parameters (2006-2007)
 Females $L_{50\%}=22.1$ & $g=0.45$; Males $L_{50\%}=14.3$ & $g=1.50$

Spawning all round the year with a peak between November and February and another in April

Recruitment at bottom 5 mm CL (trawl survey data)

Sex ratio in weight from commercial landings (2006-2007) as $F/(M+F)$ was 0.66

A large, empty rectangular box with a thin black border, intended for entering comments.

SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet P1
General information about the fishery

Code: DPS1608Gan

Data source*	DCR	Year (s)*	2006-2007
Data aggregation (by year, average figures between years, etc.)*	average figures between years		

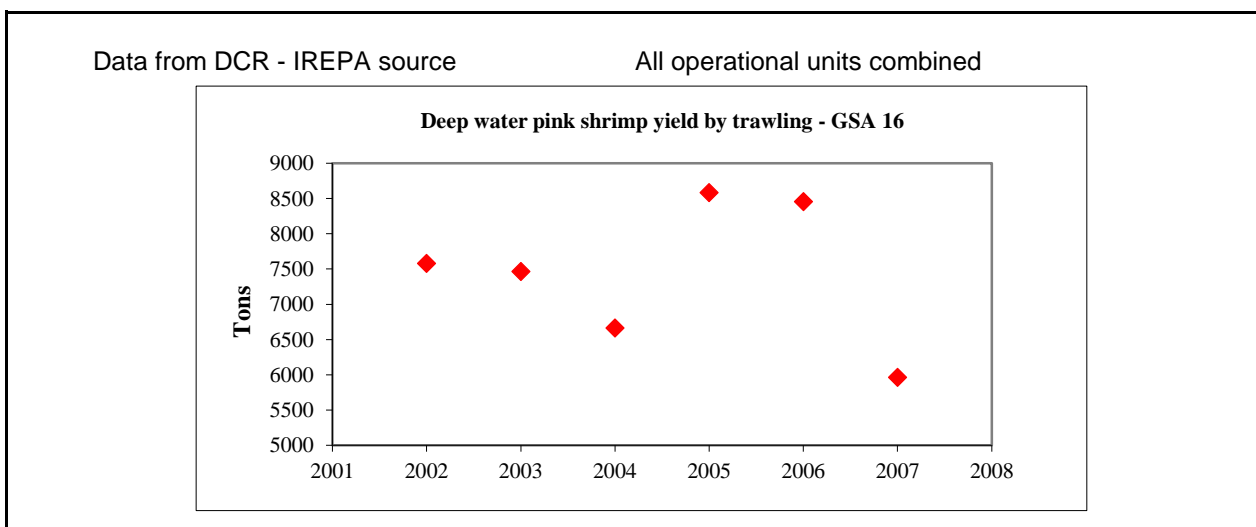
Fleet and catches (please state units)

	Country	GSA	Fleet Segment	Fishing Gear Class	Group of Target Species	Species
Operational Unit 1*	ITA	16	E - Trawl (12-24 metres)	03 - Trawls	33 - Demersal shelf species	DPS
Operational Unit 2	ITA	16	F - Trawl (>24 metres)	03 - Trawls	34 - Demersal slope species	DPS
Operational Unit 3						
Operational Unit 4						
Operational Unit 5						

Operational Units*	Fleet (n° of boats)*	Kilos or Tons	Catch (species assessed)	Other species caught	Discards (species assessed)	Discards (other species caught)	Effort units
ITA 16 E 03 33 - DPS	332	Tons	4208		12		
ITA 16 F 03 34 - DPS	162	Tons	3014		8,6		
Total	494		7222		20,6		

Legal minimum size	20 mm CL since December 2006
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Comments



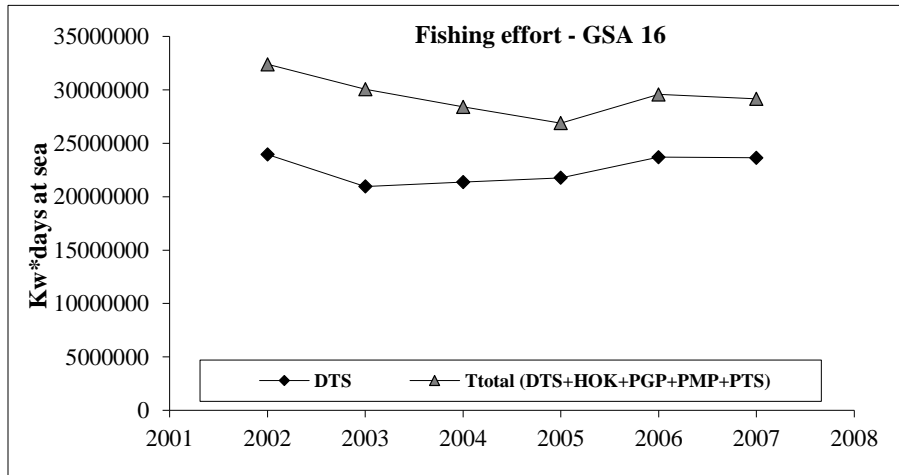
Sheet P1 (page 2)

Comments

Comments

Data from DCR - IREPA source

All operational units combined



Effort is reported as kw*days at sea

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Assessment form

Sheet P2a
Fishery by Operational Unit

Code: DPS1608Gan

#REF!

Data source*	DCR	OpUnit 1*	ITA 16 E 03 33 - DPS
--------------	-----	-----------	----------------------

Time series

Year*	2006	2007				
Catch	4535	3881				
Minimum size						
Average size Lc						
Maximum size						
Fleet	350	315				

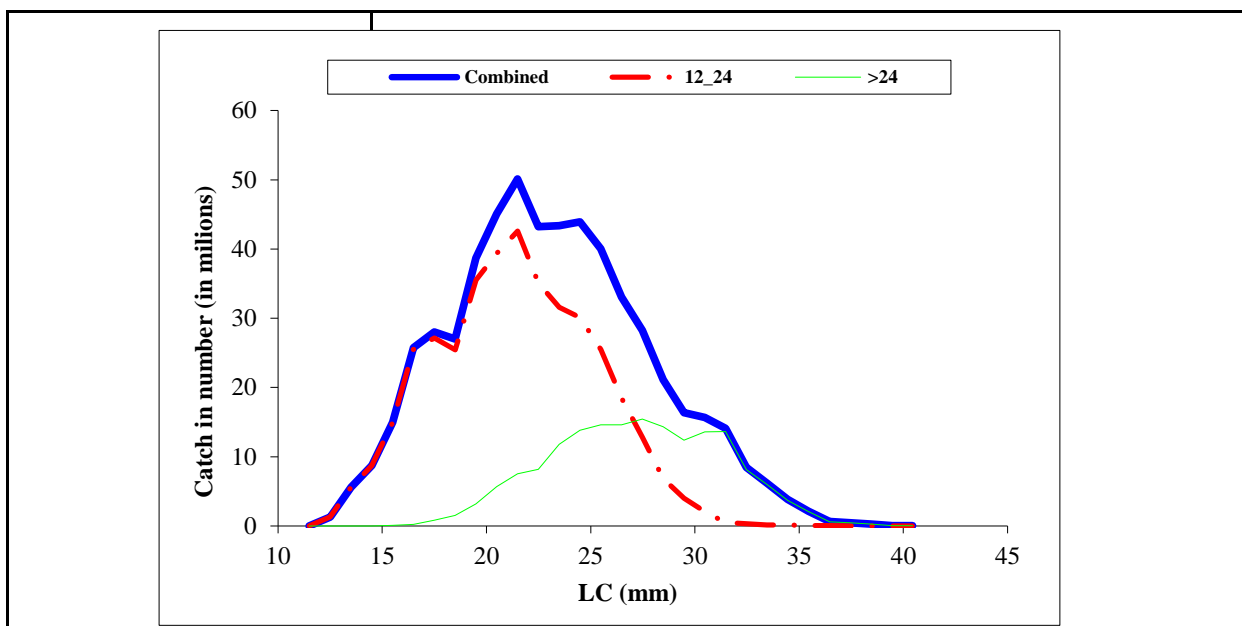
Year						
Catch						
Minimum size						
Average size Lc						
Maximum size						
Fleet						

Selectivity

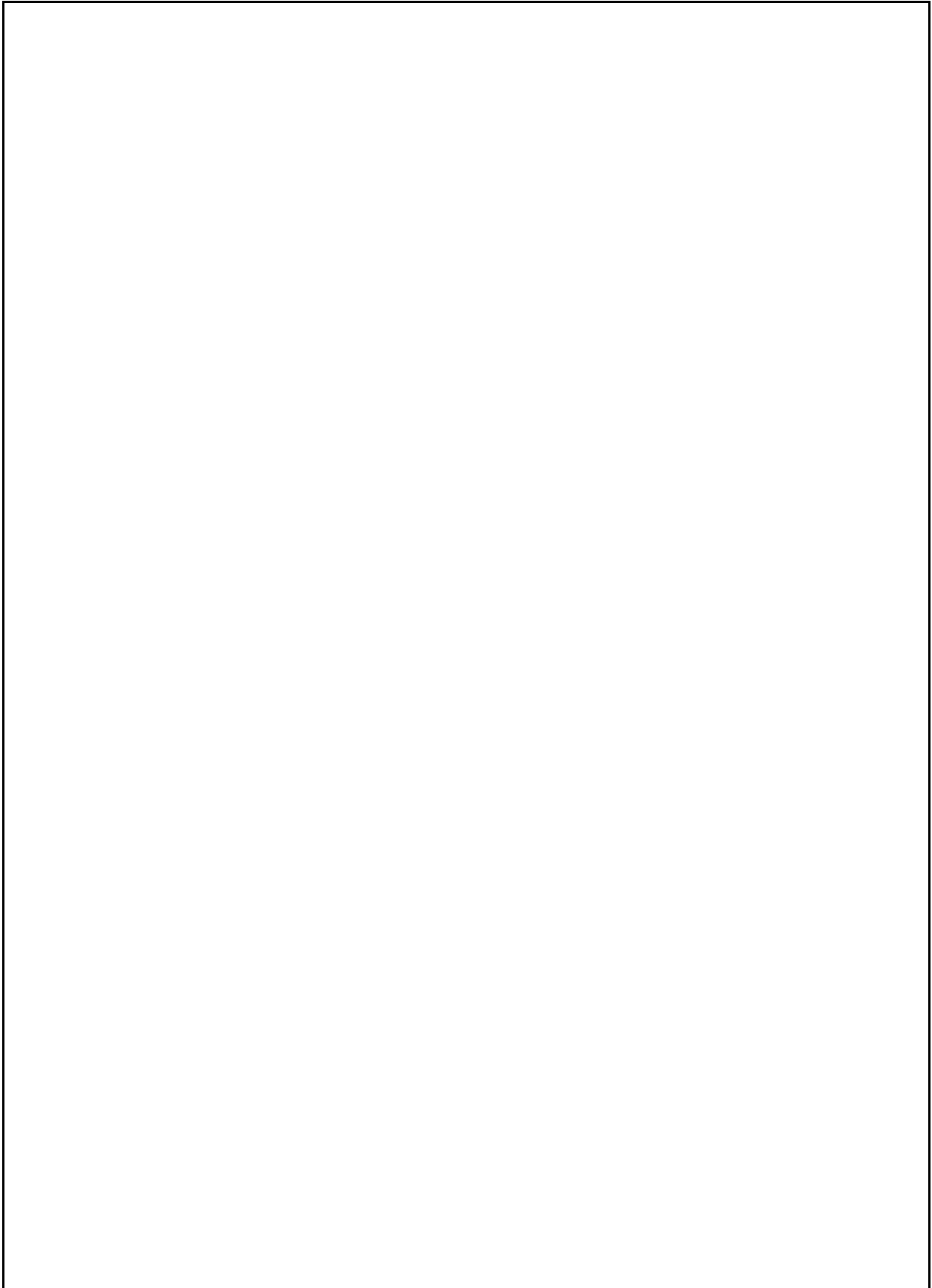
Remarks

L25	15,5	Discard ogive from commercial trawling in 2006
L50	17	
L75	18,5	
Selection factor	0,42	

Structure by size or age



Structure by size or age

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SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet P2a
Fishery by Operational Unit

Code: DPS1608Gan
#REF!

Data source*	DCR	OpUnit 2*	ITA 16 F 03 34 - DPS
--------------	-----	-----------	----------------------

Time series

Year*	2006	2007				
Catch	3920	2108				
Minimum size						
Average size Lc						
Maximum size						
Fleet	172	152				

Year						
Catch						
Minimum size						
Average size Lc						
Maximum size						
Fleet						

Selectivity

Remarks

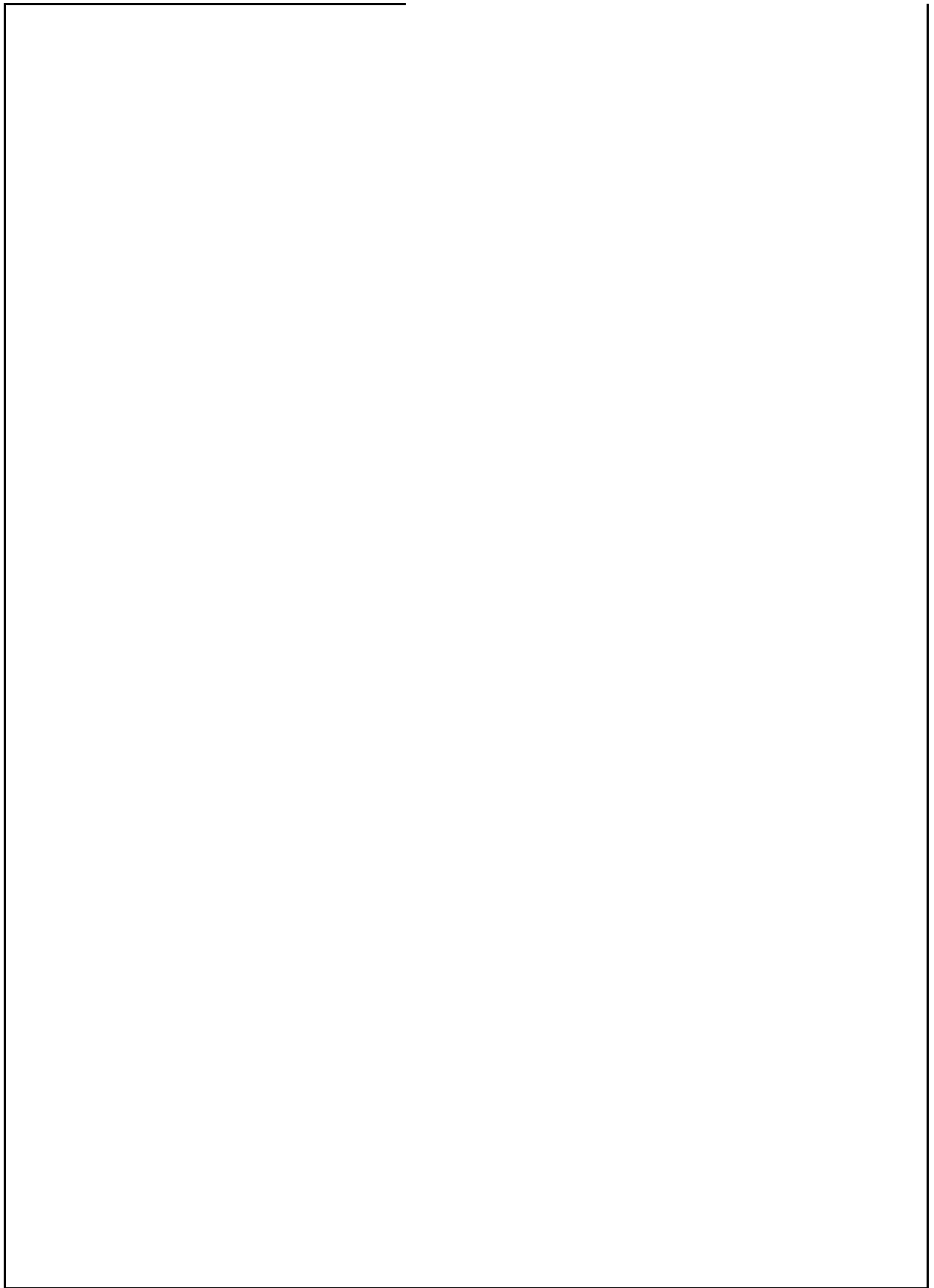
L25	15,5	
L50	17	
L75	18,5	
Selection factor	0,42	

Structure by size or age

--

#REF!

Structure by size or age



SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet P2b
Fishery by Operational Unit

Code: DPS1608Gan

####

Data source* DCR

OpUnit 1*

ITA 16 E 03 33 - DPS

Regulations in force and degree of observance of regulations

Up to now no formal management objectives for *P. longirostris* fisheries in the Strait of Sicily are enforced. As in other areas of the Mediterranean, the stock management is based on control of fishing capacity (licenses), fishing effort (fishing activity), technical measures (mesh size and area closures), and fish size limits.

In order to limit the over-capacity of fishing fleet, the Italian fishing licenses are fixed since the late eighties. After 2000, in agreement with the European Common Policy of Fisheries, a gradual decreasing of the fleet capacity is occurring. Furthermore from 1987 to 2005 a 30-45 days stopping of fishing activities was enforced each year, although in different ways, in order to reduce fishing effort.

The new regulation CE 1967 of 21 December 2006 of the European Union fixed for the first time a minimum marketable size of *P. longirostris*, which is of 20 mm CL for the Italian and Maltese trawlers. According to the regulation CE 1967 of 21 December 2006 the mesh has to be modified in square 40 mm or rhomboidal 50 mm after July 2008, although derogations are possible up to 2010.

It must be to outline the existence in the Strait of Sicily of the Maltese Management Fishing Zone (MMFZ) extending up to 25 nautical miles from baselines around the Maltese islands, in which fisheries are specifically managed on the basis of the control of the fleet capacity.

Accompanying species

P. longirostris is fished exclusively by otter trawl, together with other species (*Nephrops norvegicus*, *Merluccius merluccius*, *Eledone* sp., *Illex coindetii*, *Todaropsis eblanae*, *Lophius* sp., *Mullus* sp., *Pagellus* sp., *Zeus faber* and *Raja* sp.) (Anon., 2000).

#REF!

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Assessment form

Sheet P2b
Fishery by Operational Unit

Code: DPS1608Gan

####

Data source*

OpUnit 2*

ITA 16 F 03 34 - DPS

Regulations in force and degree of observance of regulations

The italian administration is preparing a management fishing plane for Trawlers LFT>20 m operating in the Strait of Sicily, which will be submitted to UE and GCFM.

Accompanying species

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Assessment form

Sheet A1
Indirect methods: VPA, LCA

Sex* F

Code: DPS1608Gan
#REF!

Time series

Analysis # * LCA

Data	Size	Age
(mark with X)	X	

Model	Cohorts	Pseudocohorts
(mark with X)		X

Equation used	VPA	Tunig method	NO
# of gears	2	Software	Vit4win
F _{terminal}			

Population results (please state units)

	Sizes	Ages		Amount	Biomass
Minimum	11	0,235	Recruitment	1302265843	1605838197
Average	23,14	0,984	Average population	740920567,5	3721063091
Maximum	40	3,716	Virgin population		
Critical	20	0,72	Turnover		

Average mortality

	Total	Gear			
		12_24	>24		
F ₁	1,53	0,263	1,27		
F ₂	0,76	0,526	0,231		
Z	2,53				

(F1 and F2 represent different possible calculations. Please state them)

Comments

F1 is F total and F2 is global F obtain by LCA

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Assessment form

Sheet A2
Indirect methods: data

Code: DPS1608Gan

Sex*	F	Gear*	Trawling	Analysis # *	LCA
------	---	-------	----------	--------------	-----

Data	
------	--

Data

Female	12_24	>24	Combined
CL (mm)			
11	5567	0	5567
12	1280215	0	1280215
13	5464962	0	5464962
14	8515200	15015	8530215
15	#####	64648	14644191
16	#####	230383	25195162
17	#####	803736	27392512
18	#####	1463310	26394108
19	#####	3019336	37819935
20	#####	5400345	43961432
21	#####	7127546	48839625
22	#####	7747688	42083646
23	#####	#####	42132023
24	#####	#####	42621768
25	#####	#####	38788278
26	#####	#####	31952632
27	#####	#####	27193410
28	6675595	#####	20270981
29	3905154	#####	15657753
30	2039776	#####	14947982
31	468077	#####	13405671
32	295573	7737109	8032682
33	152757	5719251	5872007
34	138053	3498263	3636316
35	55082	1979175	2034256
36	55082	571108	626190
37	0	437422	437422
38	0	267510	267510
39	0	46766	46766
40	0	46766	46766

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Assessment form

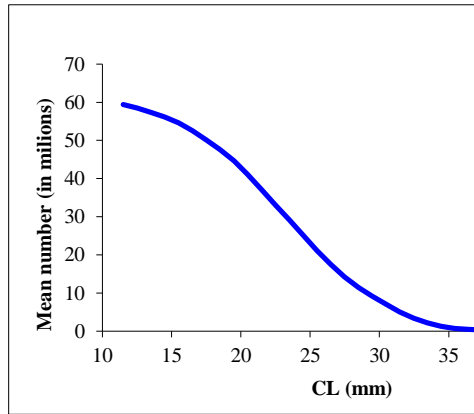
Indirect method

Code

Sex*	F	Gear*	trawl	Analysis #*	
-------------	---	--------------	-------	--------------------	--

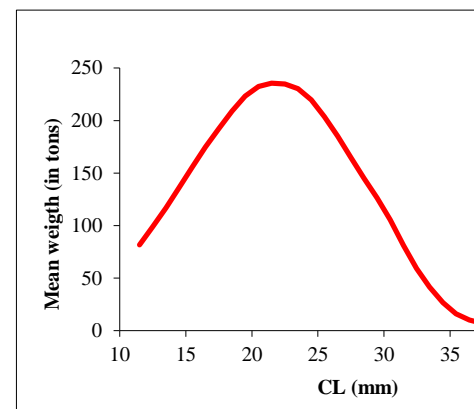
Population in figures

CL(mm)	as mean number at sea				
11	59404139	23	29203843	35	741031,03
12	58477948	24	25171834	36	436662,23
13	57399906	25	21166838	37	274604,9
14	56118160	26	17509820	38	149102,21
15	54568517	27	14257377	39	84361,44
16	52529495	28	11475569	40	48819,36
17	50092600	29	9189939		
18	47570720	30	7090392		
19	44657839	31	5036187		
20	41115465	32	3399081		
21	37114813	33	2210547		
22	33098051	34	1326906		

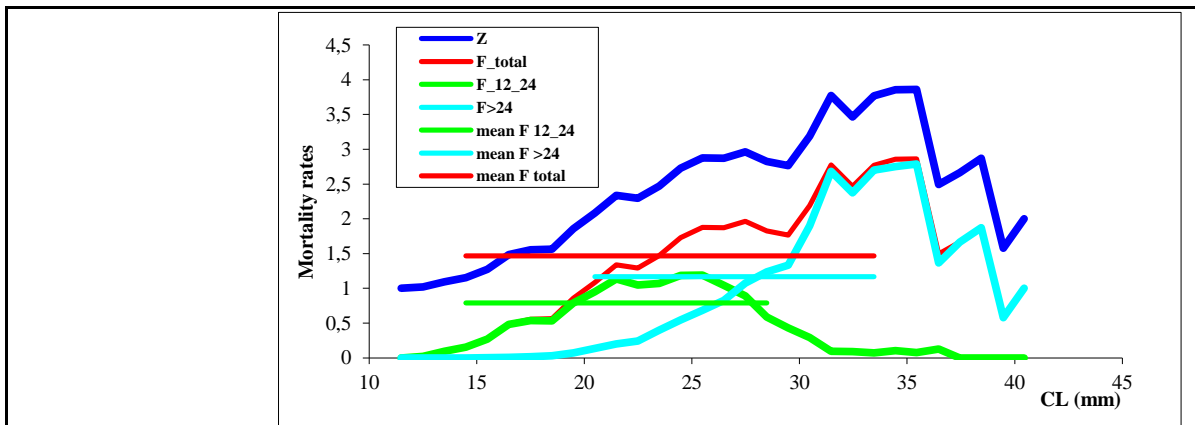


Population in biomass

CL(mm)	as mean number at sea				
11	81733867	23	230322115	35	15988335
12	98642831	24	219778103	36	10096469
13	116856112	25	203778182	37	6779303
14	136045510	26	185191503	38	3922158
15	155700523	27	165071286	39	2367038
16	174609149	28	144997248	40	1453359
17	192262162	29	126333023		
18	209152574	30	105706759		
19	223273287	31	81197533		
20	232265738	32	59162130		
21	235522155	33	41415955		
22	234733033	34	26705648		



Fishing mortality rates



Sheet A3
Is: VPA results

3: DPS1608Gan
#REF!

VPA



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Assessment form

Sheet Y
Indirect methods: Y/R

Code: DPS1608Gan

Sex	F
-----	---

Analysis #	
------------	--

# of gears	trawl	Software	vit4win
------------	-------	----------	---------

Parameters used

Vector F	
Vector M	
Vector N	

Model characteristics

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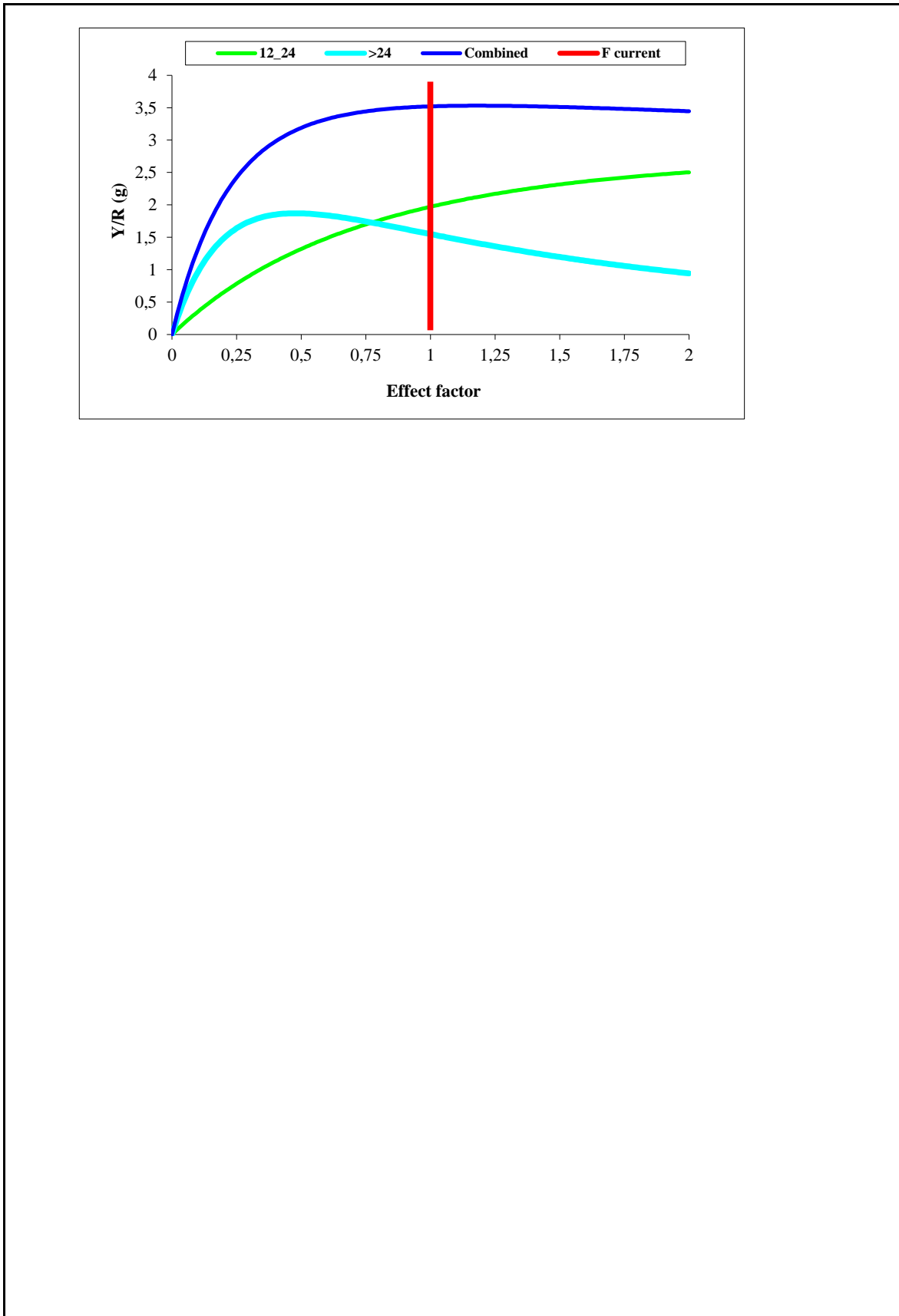
Results

	Total	Gear		
		12_24	>24	
Current YR	3,52	1,971	1,549	
Maximum Y/R	3,531		1,867	
Y/R 0.1	3,205	1,338		
F _{max}	1,73		0,57	
F _{0.1}	0,74	0,4		
Current B/R	2,857			
Maximum B/R	2,583			
B/R 0.1				

Comments

	Main results of VPA	Gear		
		Total	12_24	>24
	Y/R current	3,52	1,971	1,549
	Y/R max	3,531	*	1,87
	Y/R 0.1	3,205	1,338	*
	B/R current	2,857	*	*
	B/R max	2,583	*	*
	B/R 0.1	4,227	*	*
	mean Z	2,53		
	mean F (vitwin)	1,53	0,26	1,27
	global F (vitwin)	0,76	0,53	0,23
	mean F (CL≥1% in number)	1,46	0,79	1,17
	global F (CL≥1% in number)	0,97	0,70	0,96

Comments



SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet other

Code: **DPS1608Gan**

Page 1 / 4

Other assessment methods

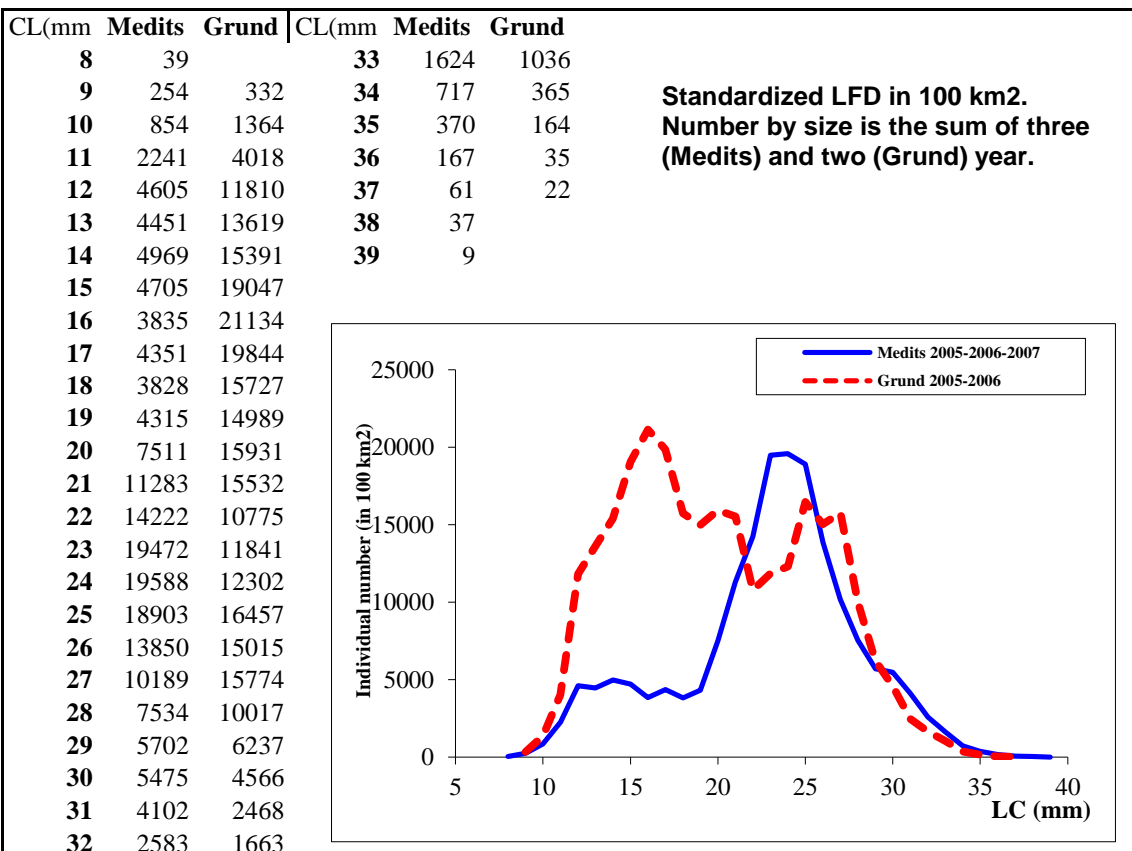
Assessments of current status of females fraction of population from trawl surveys Grund (autumn 2005 & 2006) and Medits (spring 2005- 2006 & 2007) in GSA 16 by using Beverton & Holt estimator on mean standardized LFD with minimum length at fully recruitment (LC) 20.5 mm CL and VBGF as reported in form B

Y and B per recruit estimated by Yield package (Branch, T. A. et, al., 2000) with the same parameters reported in forms and LC=20.5mm CL. All the linear parameters were expressed as TL (cm).

Conversions were made by using the relationship reported by Crosnier et al.,(1970):
 $TL(mm) = 3,646 + 4,436 CL(mm)$.

Probability distribution of Fmax, F0.1 and FSPR0.3 were estimated with 2000 simulations.

A transition analysis reducing current fishing mortalities by 25% in two successive steps was performed and results in terms of Yield and SSB per recruit were shown.



SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment form

Sheet

Code: DPS10

P:

Other assessment methods

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Total mortality (Z) Estimator B&H</th> </tr> <tr> <td style="text-align: center;">Meditis 2005-2006-2007</td> <td style="text-align: center;">2,19</td> </tr> <tr> <td style="text-align: center;">Grund 2005-2006</td> <td style="text-align: center;">2,34</td> </tr> <tr> <td style="text-align: center;">Landings 2006-2007</td> <td style="text-align: center;">2,34</td> </tr> </table>	Total mortality (Z) Estimator B&H		Meditis 2005-2006-2007	2,19	Grund 2005-2006	2,34	Landings 2006-2007	2,34	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: center;">Biological Reference Point</th> </tr> <tr> <td style="text-align: center;">Y/R_{max}</td> <td style="text-align: center;">2.66</td> <td style="text-align: center;">F_{max}</td> <td style="text-align: center;">1.73</td> </tr> <tr> <td style="text-align: center;">Y_{0.1}/R</td> <td style="text-align: center;">2.28</td> <td style="text-align: center;">F_{0.1}</td> <td style="text-align: center;">0,83</td> </tr> <tr> <td style="text-align: center;">Y_{SPR0.3}/R</td> <td style="text-align: center;">2,37</td> <td style="text-align: center;">F_{SPR0.3}/R</td> <td style="text-align: center;">0,87</td> </tr> </table>	Biological Reference Point				Y/R _{max}	2.66	F _{max}	1.73	Y _{0.1} /R	2.28	F _{0.1}	0,83	Y _{SPR0.3} /R	2,37	F _{SPR0.3} /R	0,87
Total mortality (Z) Estimator B&H																										
Meditis 2005-2006-2007	2,19																									
Grund 2005-2006	2,34																									
Landings 2006-2007	2,34																									
Biological Reference Point																										
Y/R _{max}	2.66	F _{max}	1.73																							
Y _{0.1} /R	2.28	F _{0.1}	0,83																							
Y _{SPR0.3} /R	2,37	F _{SPR0.3} /R	0,87																							

TRP= 0,83			
F current	Method	Status	Variation %
1,53	Mean F Vit	O	-100
0,76	Global F Vit	U	-100
1,47	Mean F >1%	O	-100
0,97	Global F >1%	O	-100
1,19	B&H Medits	O	-100
1,34	B&H Grund	O	-100
1,27	Median	O	-100

TRP= 0,70			
F current	Method	Status	Variation %
1,53	Mean F Vit	O	-100
0,76	Global F Vit	O	-100
1,47	Mean F >1%	O	-100
0,97	Global F >1%	O	-100
1,19	B&H Medits	O	-100
1,34	B&H Grund	O	-100
1,27	Median	O	-100

TRP= 0,83			
F current	Method	Status	Variation %
1,53	Mean F Vit	O	-46
0,76	Global F Vit	U	9
1,47	Mean F ≥1%	O	-43
0,97	Global F ≥1%	O	-14
1,19	B&H Medits	O	-30
1,34	B&H Grund	O	-38
1,27	Median	O	-34

TRP= 0,87			
F current	Method	Status	Var
1,53	Mean F Vit	O	
0,76	Global F Vit	U	
1,47	Mean F ≥1%	O	
0,97	Global F ≥1%	O	
1,19	B&H Medits	O	
1,34	B&H Grund	O	
1,27	Median	O	

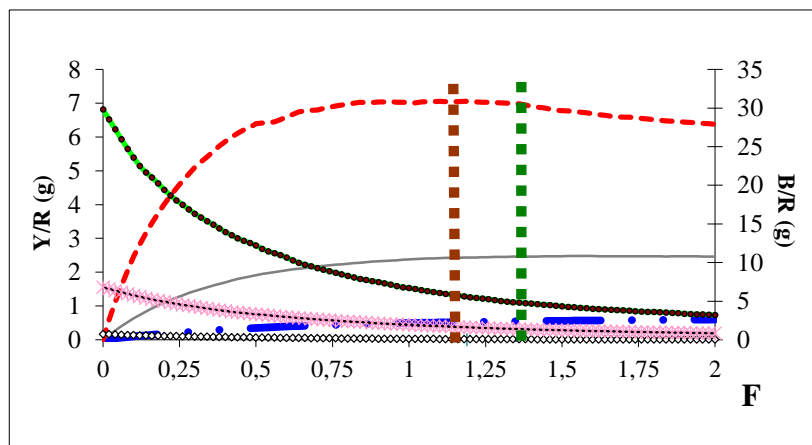
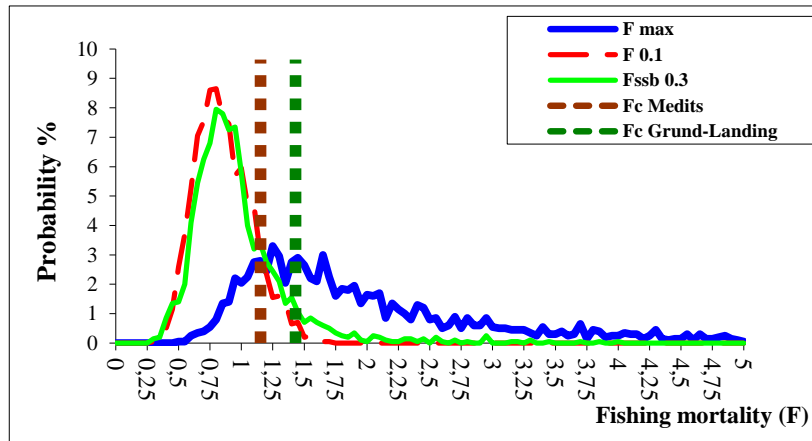
LRP= 1,73			
F current	Method	Status	Variation %
1,53	Mean F Vit	U	13
0,76	Global F Vit	U	128
1,47	Mean F ≥1%	U	18
0,97	Global F ≥1%	U	78
1,19	B&H Medits	U	45
1,34	B&H Grund	U	29
1,27	Median	U	37

other

508Gan
age 2 / 4

iation %
-43
15
-41
-10
-27
-35
-31

Other assessment methods



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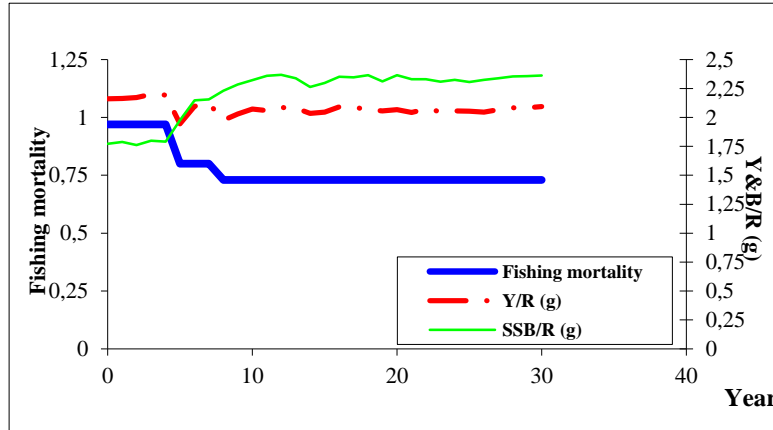
Assessment form

Sheet other

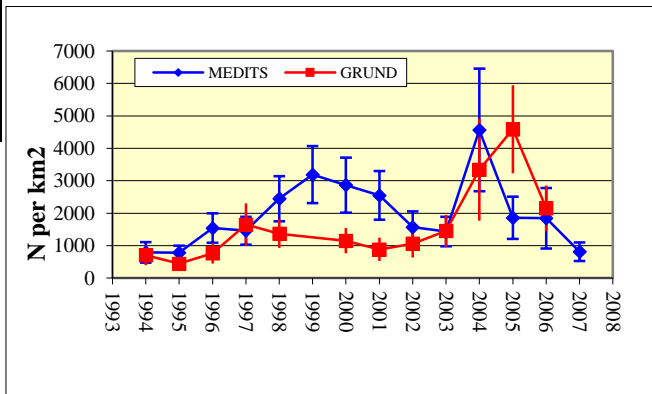
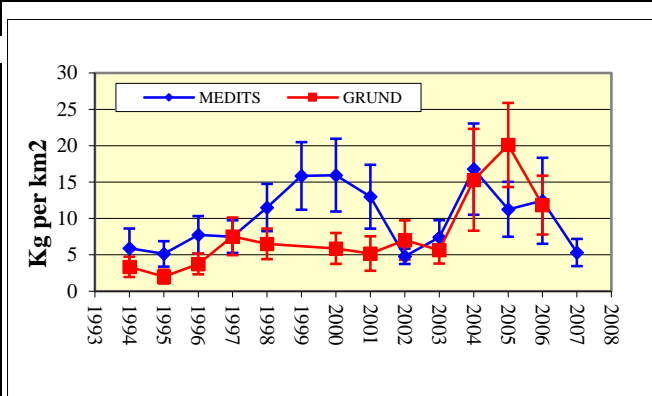
Code: DPS1608Gan

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Other assessment methods



	Kg per km ²		N per km ²	
	MEDITS	GRUND	MEDITS	GRUND
1994	5,9086	3,3532	793,76	709,38
1995	5,1296	2,0066	785,17	445,32
1996	7,7502	3,7557	1546,5	765,99
1997	7,5089	7,5443	1461,8	1648,9
1998	11,506	6,5102	2448,2	1366,4
1999	15,846		3190,3	
2000	15,957	5,8851	2868,7	1149,7
2001	12,991	5,1834	2548	885,87
2002	4,8005	7,0397	1571,7	1064,7
2003	7,3868	5,6571	1436,5	1455
2004	16,785	15,317	4565,5	3342,4
2005	11,263	20,103	1858,1	4589,6
2006	12,432	11,841	1848,4	2154
2007	5,3225		815,21	
Median	9,5067	6,1976	1710,1	1258



Abundance indices from Trawl surveys

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Assessment form

Sheet D
Diagnosis

Code: DPS1608Gan

Indicators and reference points

Criterion	Current value	Units	Reference Point	Trend	Comments
B					
SSB					
F	1,27		F0.1		F0.1=0,83
Y					
CPUE					
F	1,27		Fmax		Fmax=1,73
F	1,27		FSPR0.3		FSPR0.3=0,87

Stock Status* Use one (or both) of the following two systems for the stock assessment status description

Unidimensional	<input type="radio"/>	? - (or blank) Not known or uncertain. Not much information is available to make a judgment;
	<input type="radio"/>	U - Underexploited, undeveloped or new fishery. Believed to have a significant potential for expansion in total production;
	<input type="radio"/>	M - Moderately exploited, exploited with a low level of fishing effort. Believed to have some limited potential for expansion in total production;
	<input type="radio"/>	F - Fully exploited. The fishery is operating at or close to an optimal yield level, with no expected room for further expansion;
	<input checked="" type="radio"/>	O - Overexploited. The fishery is being exploited at above a level which is believed to be sustainable in the long term, with no potential room for further expansion and a higher risk of stock depletion/collapse;
	<input type="radio"/>	D - Depleted. Catches are well below historical levels, irrespective of the amount of fishing effort exerted;
	<input type="radio"/>	R - Recovering. Catches are again increasing after having been depleted or a collapse from a previous;

Bidimensional	Exploitation rate		Stock abundance	
	<input type="radio"/>	No or low fishing	<input type="radio"/>	Virgin or high abundance
	<input type="radio"/>	Moderate fishing	<input checked="" type="radio"/>	Intermediate abundance
	<input checked="" type="radio"/>	High fishing mortality	<input type="radio"/>	Low abundance
	<input type="radio"/>	Uncertain / Not assessed	<input type="radio"/>	Depleted
			<input type="radio"/>	Uncertain / Not assessed

Comments

The current status is characterised by a fishing mortality lower than F_{max} and higher $F_{0.1}$ and $F_{SPR0.3}$.

Adopting $F=1.27$ as current F and $F=0.87$ as TRP a decrease of 30% of the current fishing mortality is recommended.

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Assessment form

Sheet Z
Objectives and recommendations

Code: DPS1608Gan

Management advice and recommendations*

Reduce the fishing mortality of 30% by:

- decreasing of fishing capacity and activity and
- improving the exploitation pattern (adoption of the new 40 mm square mesh opening and protect nurseries).

Complete and improve the vessel monitoring system (VMS) to have data on spatial distribution of fishing effort

Advice for scientific research*

- 1) Improve biological sampling of catches and discards
- 2) identify main nurseries
- 3) improve biological parameters
- 4) make available to researchers Vessel Monitoring System data to analyse the spatial distribution of fishing effort

Abstract for SCSA reporting

Authors

Gancitano V., Giusto G.B., Sinacori G., Labanchi L.,
Fiorentino F.

Year

2008

Species Scientific name

Parapenaeus longirostris - DPS

Source: GFCM Priority Species

Source: -

Source: -

Geographical Sub-Area

16 - South of Sicily

Fisheries (brief description of the fishery)*

Source of management advice*

(brief description of material -data- and methods used for the assessment)

Stock Status*

O - Overexploited. The fishery is being exploited at above a level which is believed to be sustainable in the long term, with no potential room for further expansion and a higher risk of stock depletion/collapse;

Exploitation rate

High fishing mortality

Stock abundance

Intermediate abundance

Comments

The current status is characterised by a fishing mortality lower than F_{max} and higher $F_{0.1}$ and $F_{SPR0.3}$.
Adopting $F=1.27$ as current F and $F=0.87$ as TRP a decrease of 30% of the current fishing mortality is recommended.

Management advice and recommendations*

Reduce the fishing mortality of 30% by:

- decreasing of fishing capacity and activity and
- improving the exploitation pattern (adoption of the new 40 mm square mesh opening and protect nurseries).

Complete and improve the vessel monitoring system (VMS) to have data on spatial distribution of fishing effort

Advice for scientific research*

- 1) Improve biological sampling of catches and discards
- 2) identify main nurseries
- 3) improve biological parameters
- 4) make available to researchers Vessel Monitoring System data to analyse the spatial distribution of fishing effort

SAC GFCM - Sub-Committee on Stock Assessment (SCSA)

Assessment of Deep water pink shrimp (*Parapenaeus longirostris* - DPS) from 16 - South of Sicily.
Gancitano V., Giusto G.B., Sinacori G., Labanchi L., Fiorentino F.

Description of fishery:

Source of management advice:

Exploitation rate: High fishing mortality

Stock abundance: Intermediate abundance

Comments: The current status is characterised by a fishing mortality lower than F_{max} and higher $F_{0.1}$ and $F_{SPR0.3}$.

Adopting $F=1.27$ as current F and $F=0.87$ as TRP a decrease of 30% of the current fishing mortality is recommended.

Management advice and recommendation:

Reduce the fishing mortality of 30% by:

- decreasing of fishing capacity and activity and
- improving the exploitation pattern (adoption of the new 40 mm square mesh opening and protect nurseries).

Advice for scientific research: 1) Improve biological sampling of catches and discards

2) identify main nurseries

3) improve biological parameters

4) make available to researchers Vessel Monitoring System data to analyse the spatial distribution of

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