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The Italian Experience in Designing and Implementing the Long Term Fishery Management Plans

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The main legal framework

- COUNCIL REGULATION (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy apply to the Mediterranean Sea;
- COUNCIL REGULATION (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing regulation (EC) No 1626/94 (article 19);
- COUNCIL REGULATION (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund (article 24).
- COUNCIL REGULATION (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy

...the available approaches...

- Top-down (mainly in trawlers management plans at GSA spatial scale)
- Bottom up (mainly in artisanal fisheries at small scale management plans)

...both approaches were used within a co-management framework...

...the main goals pursued by the Italian LTMP....

- to maintain the target species at or above the levels necessary to ensure their continued productivity (biological);
- to maximise the net incomes of the participating fishers (economic); and
- to maximise employment opportunities for those dependent on the fishery for their livelihoods (social).

...main contents of the Italian LTMPs...

- description of the environment and the status of main commercial stock;
- description of the fishery (métiers, target species, yield, effort);
- identification of the management objectives;
- specific measures to be adopted in order to achieve the objectives;
- assessment of impact of the management measures on biological, economic and social performance of the fishery
- monitoring program to assess the effectiveness of the LTMP;
- how the plan is to be reviewed
- financial resources needed for the LTMP implementation

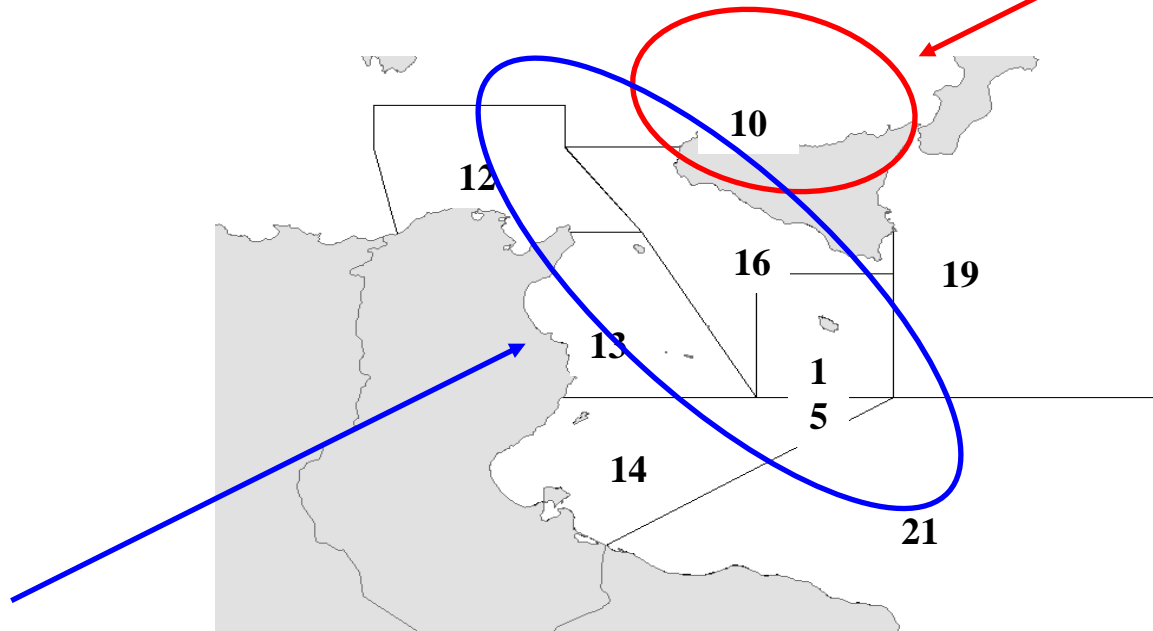
...some steps on the design and implementation of LTMPs in Italy...

- From May to November 2008, 18 proposals for LFMPs , distinguished by GSA and métiers (Trawlers for demersals, artisanal fisheries, purse seines and midlewater trawlers for small pelagics). Each plan contained a Fleet Decommissioning Program, to adjust the fishing capacities to stock status;
- These plans were discussed and agreed with stakeholders and notified to the EC in November 2008 . The STECF examined the Plans and gave positive appraisal;
- On April 2010 the Italian Fleet Decommissioning Plan was adopted by Italian Government, after a revision according to available financial resources;
- On June 2010 the Italian Government adopted 8 LTMP for trawlers. Seven of this plan cover fleet operating inside the Italian territorial water while one plan is targeted to Italian trawlers with LOA>18m, mainly operating in the Strait of Sicily and based in harbors falling in the GSA 16 (southern Sicily).

General Objectives	Specific Objectives	Indicators
Biological: Renewability of commercial stock	Drive commercial stocks within safety level (below Biological Limit Reference Points) and sustainable exploitation level (around Biological Target Reference Points).	1.Total mortality rate (Z); 2.Fishing mortality rate (F); 3.Exploitation rate (E); 4.Spawning Potential Ratio (ESSB/USSB).
Economic: Improve economic conditions of fishermen	Improving fishing industry economic return having regard for the inflation rate	1.Gross Profit/vessel; 2.Added value/employed
Social: Maximize the employment in the fishery dependent area	Development of employment opportunities in related activities having considered biological targets	1.Numer of fishermen; 2. Labour cost per employed.

....some examples of the Italian LTMP....

LTMP for trawlers LAO<18m operating around Sicily, mainly in territorial waters, with some interactions with artisanal fisheries

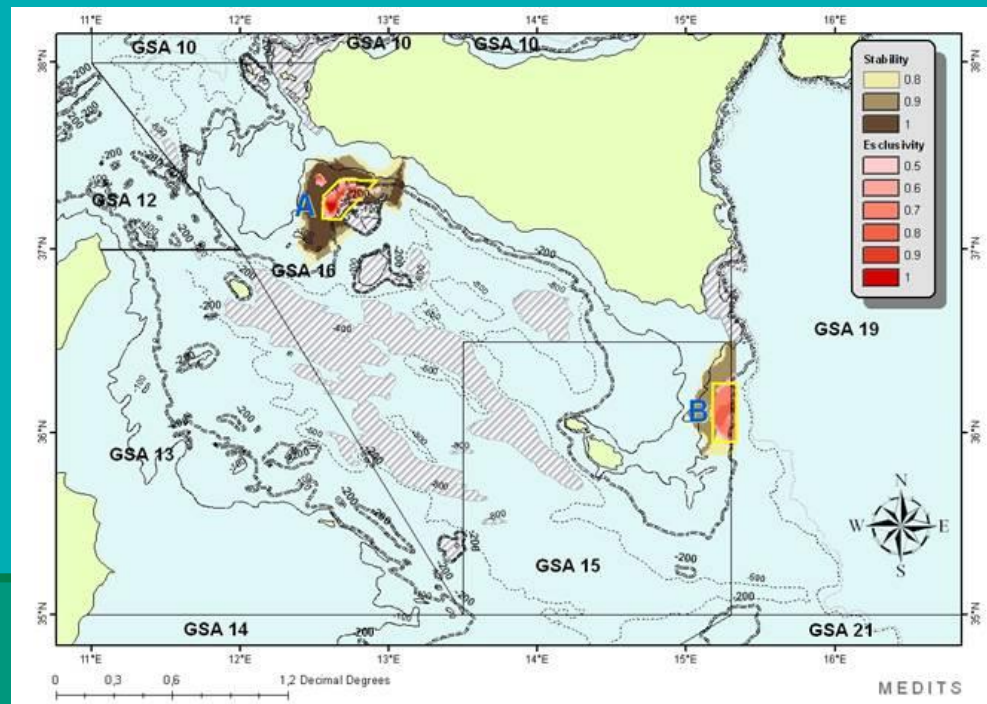


LTMP for trawlers LAO>18m operating in the Strait of Sicily. The management measures in force not include those concerning the closed areas in international waters to protect the undersized hake. This plan must be considered as a basis for a Community Fishery Plan on the basis of art. 18 of the Reg. (EC) 1967/07, to be discussed and adopted with the Third Countries within the GFCM framework.

...some of the identified management measures.....

- ✓ Reduce the current fleet capacity (decommissioning);
- ✓ Seasonal closures - season trawling ban (30 days per year mainly in summer-autum) to decrease fishing activity and protected recruits
- ✓ Area closures - Protection of nurseries areas from trawling to improve the exploitation pattern.
- ✓ Reduce fishing activity - trawling not allowed in saturday and sunday
- ✓ Improve of selectivity by adopting selective devices in trawl nets (grids).
- ✓ Control the access to the fisheries

Closed areas to protect hake nurseries in the Strait of Sicily.
The box A, covering an area of about 1040 km², falls in the international waters of GSA 16. The box B, about 1020 km², wide, falls in the international waters of GSA 15.



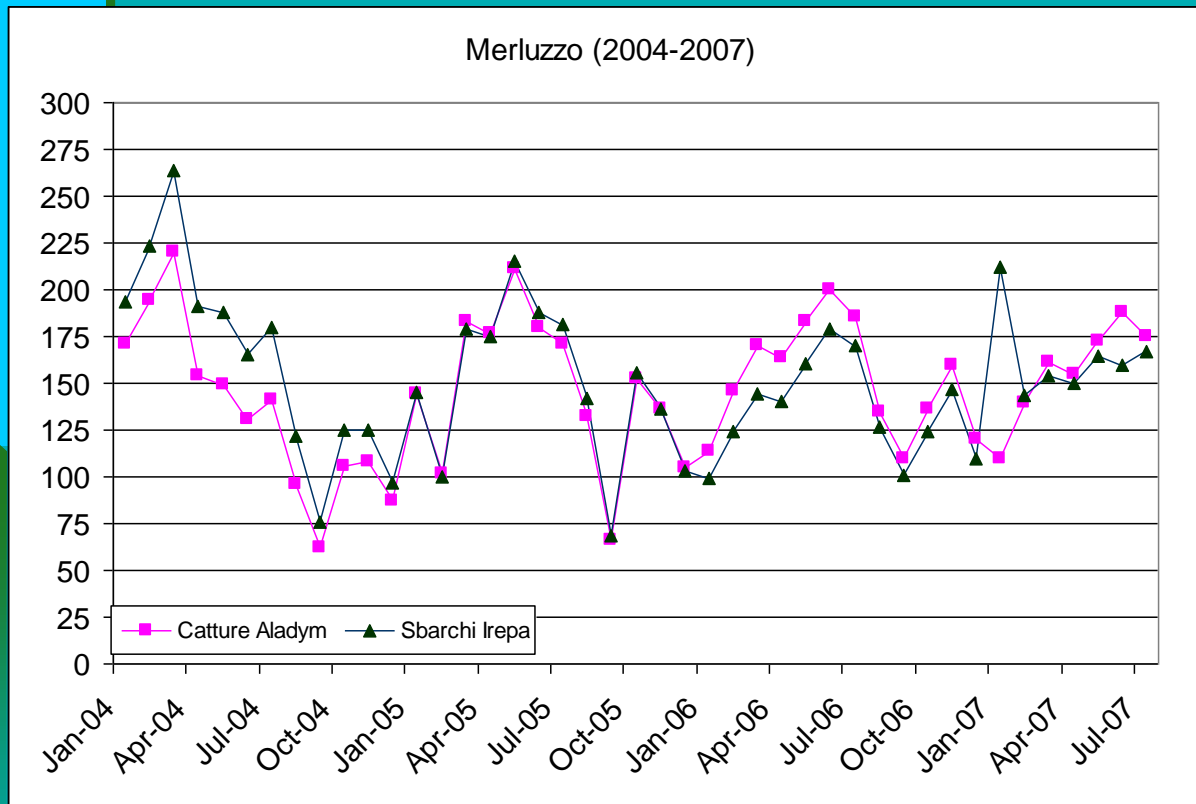
Closing an overall area of about 2060 km², that is about 12% of the area where the recruitment of hake occurs, should protect about 45% of the recruitment strength by year.

How was the effect of measures assessed?

A standard approach to evaluate the effects on resources and fisheries as consequence of management measures LTMP was used. Performance of the main indicators (Yield and SSBF) in five management "scenario" were examined.

- 1) Reduction of fishing capacity of 12.5.% in the 1st period (2008-2010) and a further 12.5% in the 2nd period (2011-2013);
- 2) Trawling ban of 45 days according to the recruitment period in different areas;
- 3) Change of mesh size in the cod end from 40 to 50 opening (diamond) in the 2nd period(2010-2013);
- 4) Combination of the three measures;
- 5) Status quo (no change).

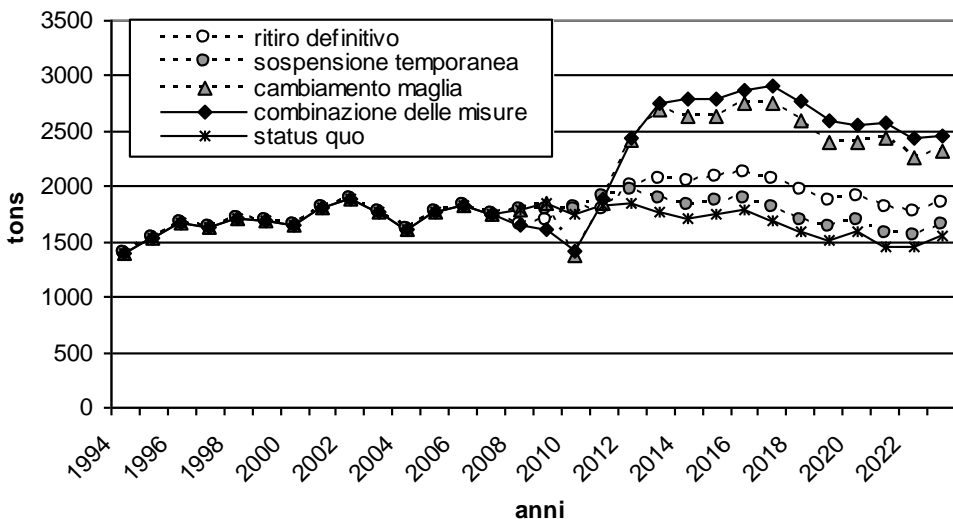
Biological effects were assessed by the ALADYM model and the yield output of the model were used for assessing economic performance of fisheries



Re-construction
of Hake catches
by month
in the Strait of
Sicily

...main results of the ALADYM simulation on hake in the Strait of Sicily ...

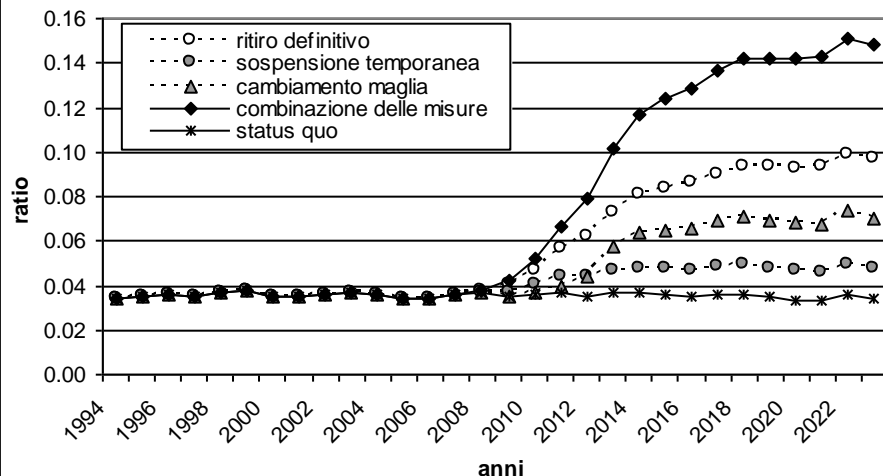
Catture di nasello - GSA16



Reduce capacity of 25%;
 Trawling ban for 45 days
 Adopt the mesh size of 50mm;
 Combining measures
 Status quo

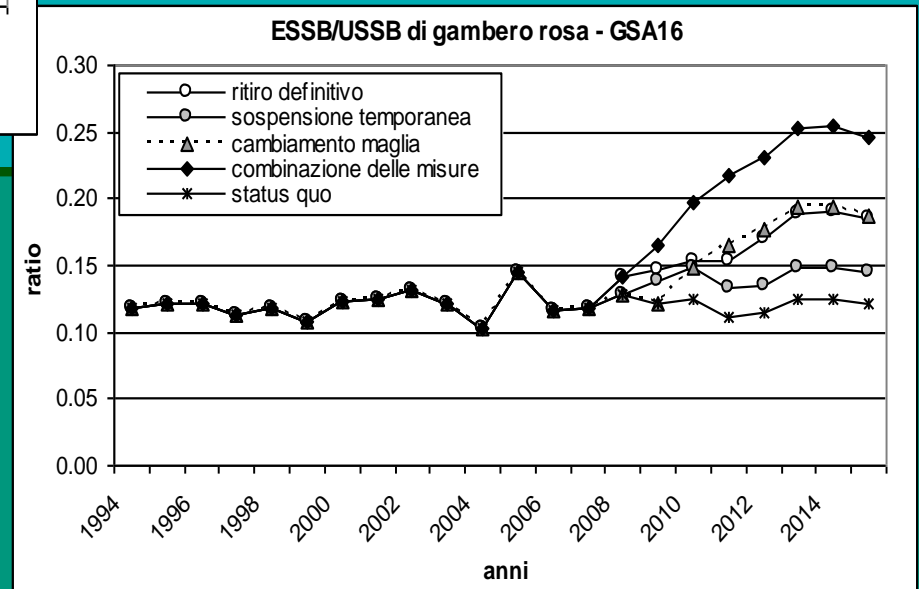
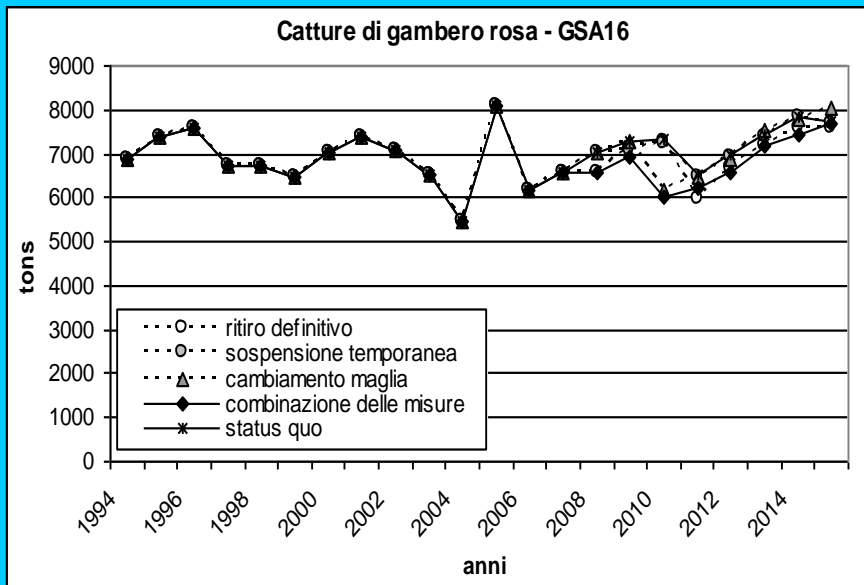
...Yield of hake....

ESSB/USSB di nasello - GSA16



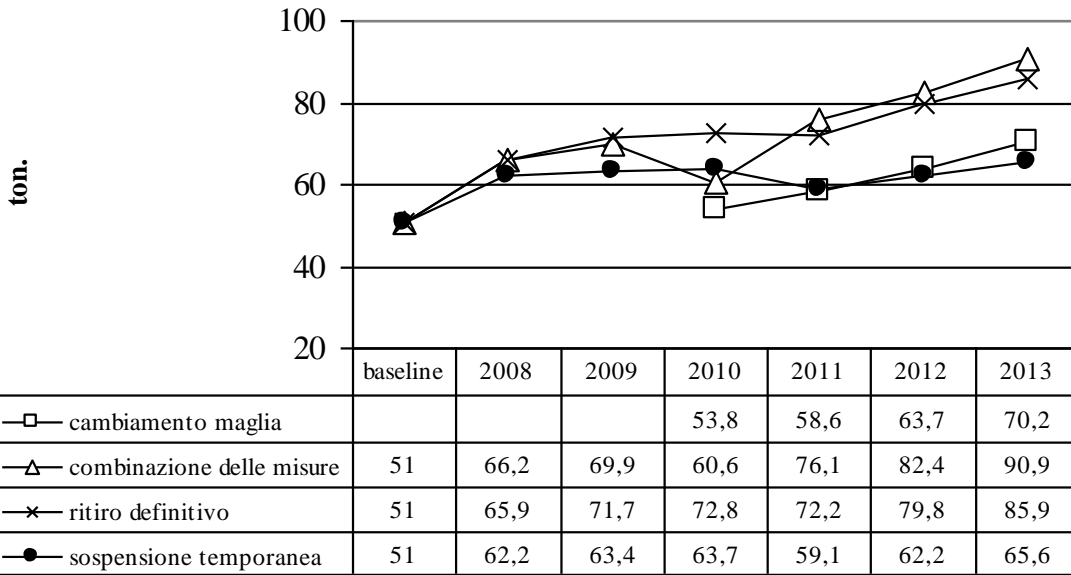
...Spanwing potential ratio of hake....

...main results of the ALADYM simulation on Deep water rose shrimp in the Strait of Sicily ...

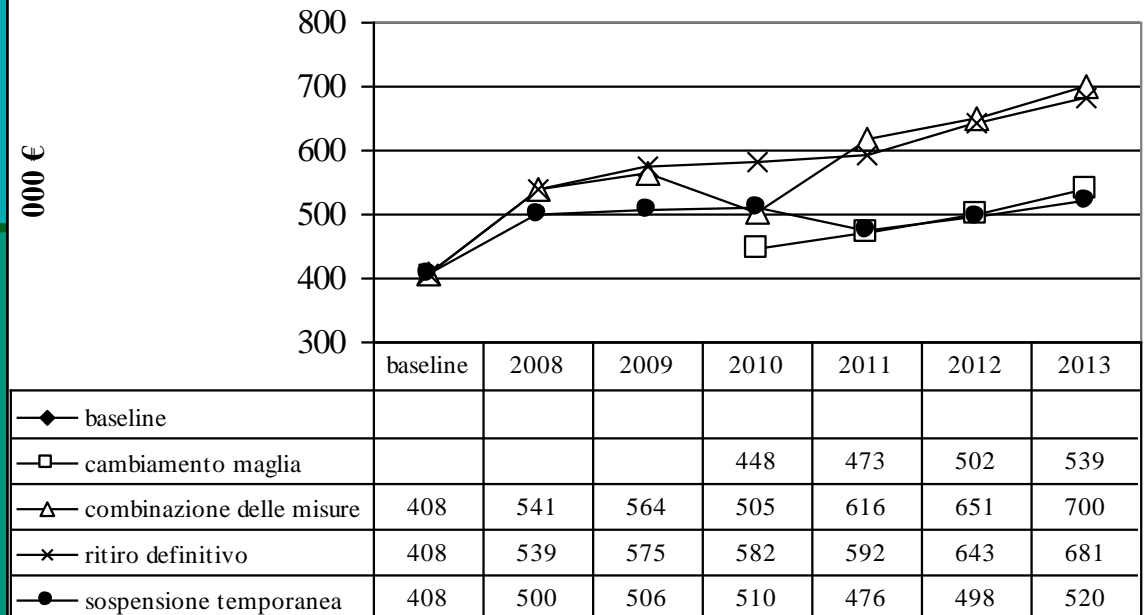


The economic effects

Landing per Unit
Effort by
management
measures, trawlers
LOA>18 m, GSA 16



Income per boat by
management measures,
trawlers LOA>18 m,
GSA 16



...some examples of the reduction of fishing capacity of trawlers operating around Sicily according to the Italian LTMP... The planned percentage of reduction is about 18-19 % of the current capacity.

Tabella 3 - Piano di adeguamento strascico GSA 16: capacità attuale e attesa

N. attuale	N. atteso	Var. N	GT attuale	GT atteso	Var. GT	Kw attuale	Kw atteso	Var. Kw
232	188	44	25.959	20.967	4.992	76.104	62.362	13.742

Tabella 3 - Piano di adeguamento strascico Sicilia (GSA 16, GSA 19 e GSA 10): capacità attuale e attesa

N. attuale	N. atteso	Var. N	GT attuale	GT atteso	Var. GT	Kw attuale	Kw atteso	Var. Kw
383	313	70	13.665	11.180	2.485	64.033	52.805	11.228

...the main source of data for monitoring stock and fisheries performance.. ..

...the Italian National Program according to the Reg. (EC) No 199/2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy...

Tabella 5 - Dati biologici ed economici rilevati nel Programma Nazionale Raccolta dati

Modulo capacità	numero di battelli, tonnellaggio, potenza motore ed età media per segmento di flotta
Modulo sbarchi	quantità e prezzi medi per specie, mese e segmento di flotta; pesca ricreativa del tonno rosso
Modulo sforzo	sforzo di pesca mensile per segmento di flotta, sforzo di pesca specifico per specie e per segmento di flotta, consumo di carburante per trimestre e per segmento di flotta
Modulo CPUE	catture per unità di sforzo della flotta a strascico, della circuizione tonniera e delle tonnare fisse
Modulo dati economici	dati di costo trimestrali e per segmento di flotta
Modulo industria di trasformazione	dati di ricavo e di costo dell'industria di trasformazione (dal 2005)
Modulo campagne di valutazione degli stock	Campagne MEDITS – GRUND (fino al 2006) - Tuna and swordfish Tagging (dal 2005)
Modulo Campionamenti biologici	Lunghezza ed età dello sbarcato per specie, trimestre, segmento di flotta ed area geografica (CAMPBIOL)
Modulo scarti	Valutazione triennale dello scarto della flotta a strascico

Many thanks for your attention

