



Working Group (WG1)

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Monitoring of Discard in the Data Collection Framework (DCF)

Maria Teresa Spedicato



ICES glossary

Discards

Organisms that are returned to the sea after capture.

As a consequence of heavy gear, long tows and large pressure differences between bottom and the surface, individuals of most species are either dead or have no chance to survive.

Fish may be discarded for several reasons;

- ✓ they may be of non-marketable species,
- ✓ they may be below the minimum legal landing size,
- ✓ current prices may be considered too low,
- ✓ or the quota for a particular species may have been exceeded.

Discarding may take place on a very large scale, particularly when an abundant **year class** starts to enter the exploitable part of the stock.

GFCM Glossary

Discards

The portion of the total organic material of animal origin in the catch, which is thrown away, or dumped at sea for whatever reason.

It does not include plant materials and post harvest waste such as offal. The discards may be dead, or alive.

Discard Rate

The proportion of total catch which is discarded. Rates may be computed for individual species or combined groups of species.

Further definitions and discarding general features

Discarding of unmarketable, undersized or damaged fish is common practice in most fisheries worldwide

(Alverson *et al.*, 1994).

Discards refers to the organisms of both commercial and non-commercial value that are caught during commercial fishing operations and returned to the sea, often dead or dying

(Catchpole *et al.*, 2005, Feekings, 2012)

The importance of discards compared to landings depends strongly on the gear used

Another common feature of discards is their high variability in space and time

(Rochet *et al.*, 2002)

Fishery discards: A waste of resources

It is widely accepted that the dumping of fish at sea is unethical and represents a substantial waste of resources.

There are a number of international statements and agreements, including United Nations (UN) resolutions, that call for States and Regional organizations to develop and implement techniques to reduce by-catch and discards (e.g., FAO, 1995; UN, 1996).

UN resolution 57/142, urging action to reduce or eliminate by-catch and fish discards (UN, 2002).

GES

Specific objectives of the CFP reform proposal

For the purpose of achieving the general objectives set out in Article 2, the Common Fisheries Policy shall in particular:

(a) eliminate unwanted catches of commercial stocks and gradually ensure that all catches of such stocks are landed;

.....

Discards of
commercial
species



Undersized
exceeding quota
Not for the
Mediterranean

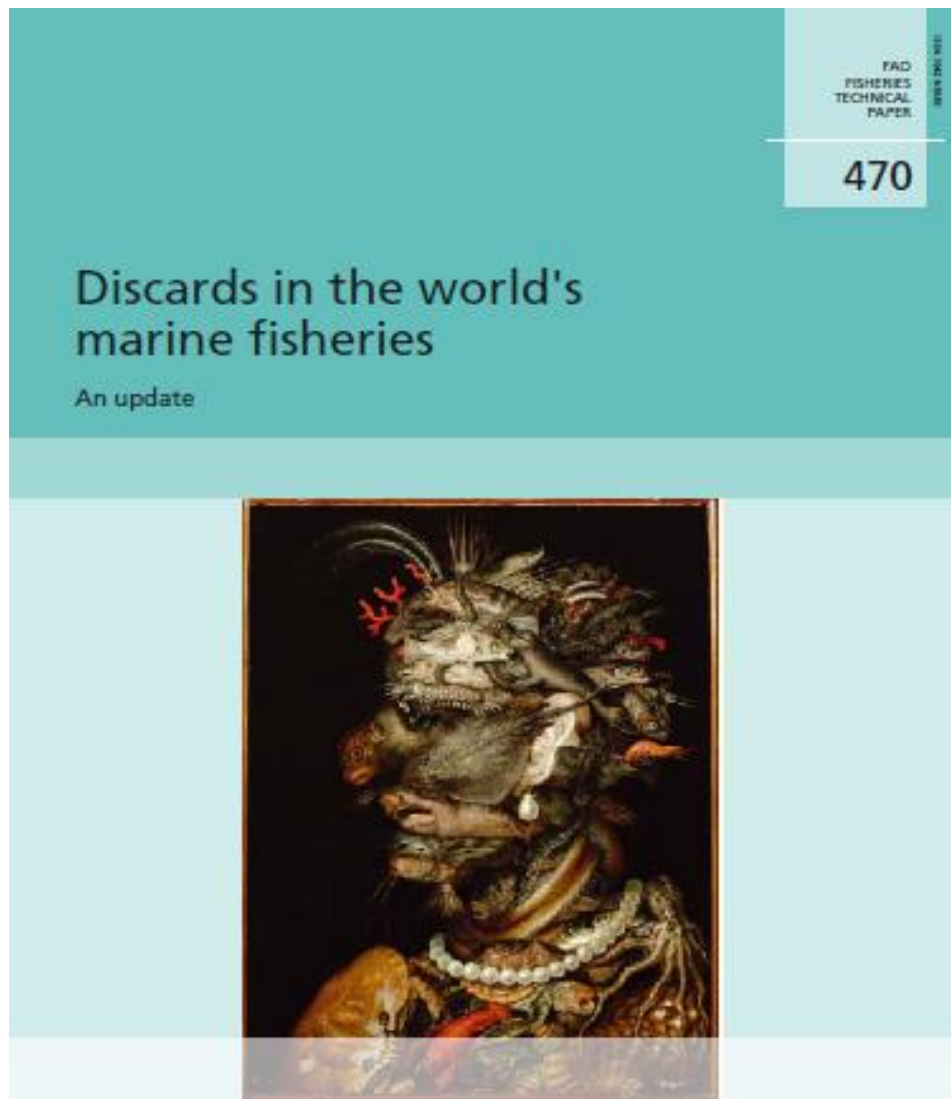
e.g.

Previous studies

In the Mediterranean discards were in general not considered an important component of the catch

(Kelleher, 2005).

Trawl discards in the GFCM areas about 40%



Studies on Discards

Information on by-catch of the artisanal fishery was relatively scarce.

Discards ratios are quite low (less than 10% on average for longlines, trammel and gill nets).

Most studies report a high number of species that are always totally discarded, and a high number of by-catch species which are occasionally landed.

The species-specific discard ratios vary a lot.

Data collection on discards

- ✓ Until the advent of the Data Collection Regulation (DCR) and subsequently of the Data Collection Framework (DCF) information on discards were sparse;
- ✓ Following the introduction of the Data Collection Regulation (DCR, 2002-2008) and Data Collection Framework (2009-onwards) the coverage of discard sampling programmes has considerably expanded in the recent years to all the European Mediterranean countries.

Data collection on discards

- ✓ The Data Collection Regulation (DCR) introduced the objective of a specific task regarding the data collection of discards;
- ✓ The obligation was based on a three year sampling;
- ✓ For example in Italy the collection of data was accomplished in 2005 for fleet segment other than OTB and in 2006 for OTB;
- ✓ The new Data Collection Framework (DCF) introduced since 2009 the obligation to the collection of discard data on a yearly basis.

The Data Collection Framework

**COUNCIL REGULATION (EC) No 199/2008
of 25 February 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***

Data collected for the purposes of scientific evaluation should include information on fleets and their activities, biological data covering catches (total volume of catches per stock) including discards, survey information on fish stocks and the environmental impact that may be caused by fisheries on the marine ecosystem.

The Data Collection Framework

COMMISSION DECISION (2010/93/EU) 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

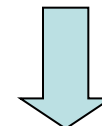
B. COLLECTION OF BIOLOGICAL VARIABLES

B1. Metier-related variables

1. *Variables*

1. Sampling must be performed in order to evaluate the quarterly length distribution of species in the catches, and the quarterly volume of discards. Data shall be collected by metier referred to as level 6 (**mesh size level**) and for defined stocks listed by area.

Es. OTB_DES_ \geq 40 mm



The Data Collection Framework

Some rules

- ✓ If discards of a given metier exceed 10% the metier should always be sampled;
- ✓ the sampling unit shall be the fishing trip;
- ✓ discards are monitored on a large group of species (commercial interest, depending on the area, plus elasmobranches; for example G1 and G2 species are about 50);

The Data Collection Framework

Some rules

- ✓ discards must be the subject of a quarterly estimate of the length distributions (if more than 10 % of the total catches by weight or more than 15 % on annual basis);
- ✓ a summary of the sampling protocols carried out by Member States shall be made available to STECF through the national programmes.

The Data Collection Framework

COMMISSION DECISION (2008/949/EC) and (2010/93/EU) 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

8. Specification and calculation of an indicator for ‘Discarding rates of commercially exploited species’

Definition: This is an indicator of the rate of discarding of commercially exploited species in relation to landings.

Purpose: Pressure indicator. Contributes to assessing the performance of Common Fishery Policy in relation to the objectives of ‘minimising the impact of fishing activities on the marine eco-system’.

Data required: Discard rates by species measured in weight, landings rates by species measured in kg and main metier according to level 6 for the metier classification.

Discard volume

Discards of species routinely assessed highlight that the volume can change from year to year and area.

In 2010 a decreased was observed for some species and areas, given to the recruitment strength of the assessed species and possibly to the new mesh size.

The discards of demersal assessed species as Giant red shrimp, Blue and Red shrimp, Norway lobster, Common sole, Striped mullet are generally estimated to be negligible

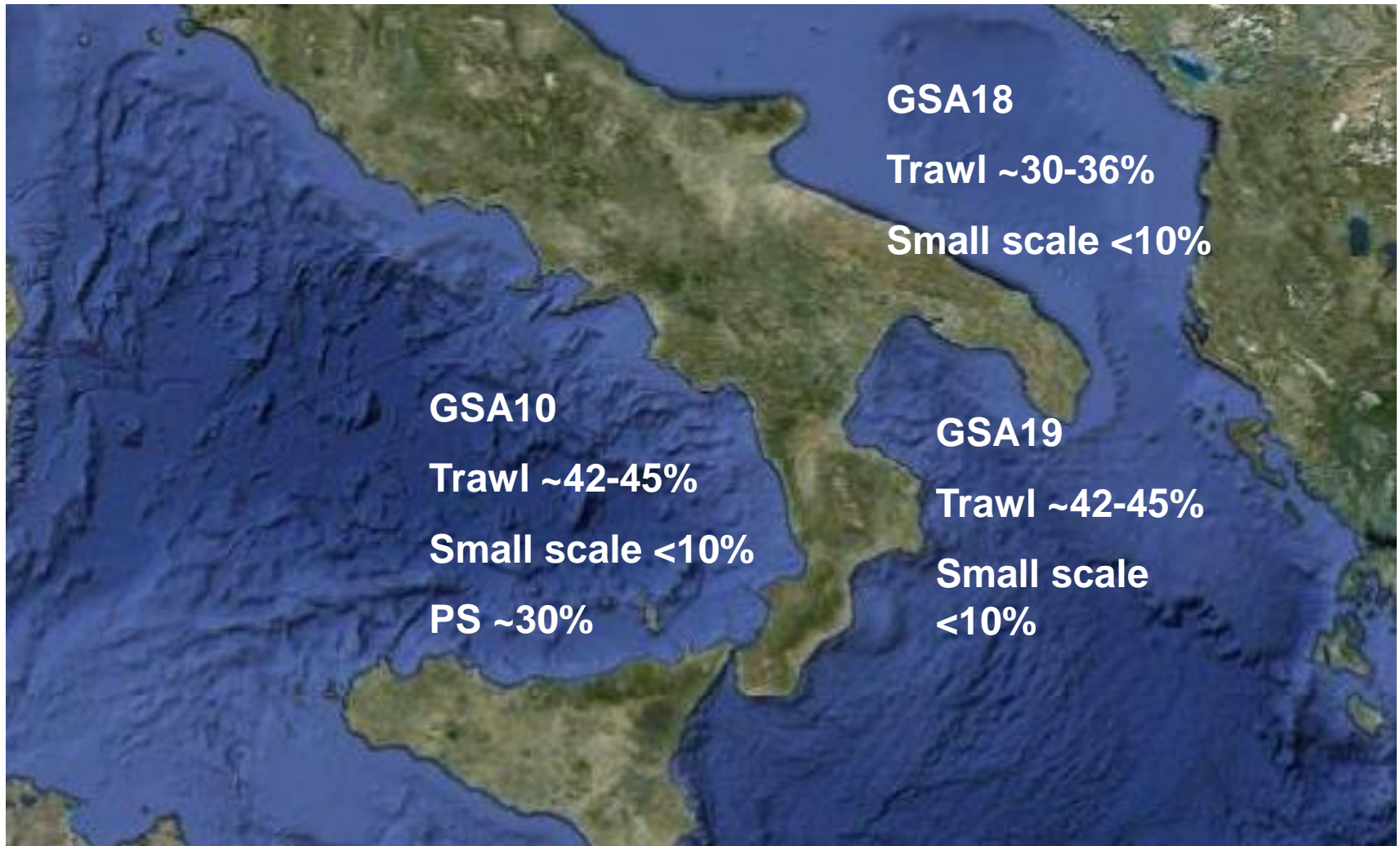
Discard volume

Some spot information for 2010 and 2009 (percentage of weight)

GSA	Species					
	European hake <i>M. merluccius</i>	Red mullet <i>M. barbatus</i>	Deep water rose shrimp <i>P. logirostris</i>	Common pandora <i>P. erythrinus</i>	Spottail mantis shrimp <i>S. mantis</i>	Picarel <i>S. smaris</i>
1	believed negligible	considered negligible 0.5%				
6		~2% per year				
9	~9% in 2010		11% (2009); 5% (2010)	~10%	18.4% (2009); 11.6% (2010)	
10	5-6%	<10%	0.50%			
16		~23% (2009)				
18	5-6%					
25						1% in 2010

from EWG - STECF Reports of 2009 and 2010

Discard monitored in 2011 under DCF in 3 Italian GSAs



Progress for data collection

Some issues

Discard data are collected during fishing trip with observer onboard

Difficulties in data collections in some situations/areas given the problems to be an observer on small boats (small scale fishery)

The level of collaboration is varying much among areas and fishing segment

The collaboration with the fishery sector is however fundamental to obtain reliable results in the long-terms