



*Pilot project Catch and discard composition including solutions for limitation and possible elimination of unwanted by-catches in trawl net fisheries in the Mediterranean (DISCATCH)*

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## **Minutes of the first stakeholder meeting (M0.2)**

### *Deliverable D6.1*

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## General information on the DISCATCH project

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Starting date: 29/12/2013; End date: 29/06/2015; Duration: 18 months

Total project costs: 624,843 Euro; Requested Union funding: 499,875 Euro

## Information on the partners

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## Description of the DISCATCH project

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Conservation standards for sustainable exploitation, within an ecosystem approach to fisheries management, increasingly urge the elimination of the wasteful practice of biomass discarding at sea. Understanding the reasons for discarding and identification of solutions to tackle the bycatches of unwanted species and specimens is essential if discards are to be eliminated, without affecting the minimum requirements of conservation standards.

To strengthen the scientific basis for the ecosystem approach to fisheries management the EU requires knowledge on the impact of fishing on the structure, functioning and services of the ecosystem as well as on the socio-economic aspect of innovations in fisheries technology and management. The current project will provide this basis. The success of this multi-disciplinary project, however, will critically depend on a clear a priori understanding of how these different topics are inter-linked and fit into the overall framework of the project.

The aim of DISCATCH (Pilot project on catch and discard composition including solutions for limitation and possible elimination of unwanted by-catches in trawl net fisheries in the Mediterranean) will be to support the identification of viable solutions to address factors determining the catches of unwanted species and specimens in trawl fisheries with a view to reducing unwanted catches and eliminating discards. The main objectives of DISCATCH are:

- to provide an overall assessment of the fishing fleet discarding behaviour and to identify the main reasons for discarding in Mediterranean continental shelf demersal and small pelagic trawl fisheries.
- to identify measures, including technical ones related to fishing gear characteristics, to mitigate or eliminate bycatches of unwanted species and measures to eliminate discarding based on existing or new measures.

DISCATCH will cover seven non-adjacent Mediterranean sub-regions, as identified by the FAO Statistical Divisions, within the Western, Central and Eastern Mediterranean Basin, where relevant demersal and small pelagic trawl fisheries occur. For every Mediterranean sub region covered by this proposal, project will provide:

- a comprehensive review and analysis of scientific papers and technical reports covering fisheries for demersal and small pelagic fisheries in the selected area;
- a description of commercial yields, discard rates, selectivity parameters in relation to different mesh sizes/shapes and/or net structures through existing simulation models;
- a comprehensive analysis of the relevant data collected through the Commission Decision No 2010/93/EU adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector. Where applicable, data shortcomings will be described in detail, and if needed, scientific surveys on board of commercial vessels to address such shortcomings will be performed;
- statistically significant sea trials, both for demersal and small pelagic trawls, supplemented by predictive simulation models to test the use of different mesh sizes, shapes and net structure.



## Venue, date, agenda and the participants of the first stakeholder meeting

The first stakeholders meeting of the DISCATCH project took place on the 9th October, at the ATRIUM Hotel in Split (Croatia). The event was held in the Peristil Meeting Room, a room equipped with a projector for presentations, a whiteboard, a U-shaped table. In addition, three interpreter's booths were provided to furnish interpretation from/into: IT, EN, FR, ES. Susana Sainz-Trapaga (WWF), members of the AC (Advisory committee) was also present. The complete list of participants is attached to this document. Members of the following National Administration also attend the meeting: Croatia, France, Italy and Spain. The complete agenda with a description of the different presentations and the speakers are reported in the Table 1. The complete lists of participants are given in the

Table 2.

Table 1. Agenda of the first Stakeholder meeting (M0.2).

Hour	Description	
09:30-09:45	Welcome and Opening Speech	RC (MEDAC)
09:45-10:00	Presentation of the Consortium	AS (CNR)
10:00-10:30	Overview of the DISCATCH project	AS (CNR)
10:30-11:00	WP 1. Review and analysis of scientific papers and technical reports on discards quantities, composition, practices and mitigation tools in the Mediterranean	KT (HCMR)
11:00-11:15	Coffee break	
11:15-11:45	WP 2. Data Collection Framework analysis	AS (CNR)
11:45-12:15	WP 3. Predicting commercial yields, discards rates and selectivity by towed gears from fishing gear characteristics: PRESEMO	AS (CNR)
12:15-13:00	Debriefing	RC (MEDAC) AS (CNR)
13:00-14:00	Lunch	
14:00-15:00	Questionnaire on discard: group work	<i>All participants</i>
15:00-16:00	Questionnaire analysis and comments: open discussion	AS (CNR)
16:00-16:15	Coffee break	
16:15-17:00	Meeting debrief	<i>All participants</i>



Table 2. List of DISCATCH partner participants (in alphabetic order) of at the stakeholder meeting (M0.2) held in Split (Croatia) the 09/10/2014.

Surname, Name	Acronym	Institute	Partner	Notes
Brčić, Jure	JBC	UNIST	P4	
Caggiano, Rosa	RC	RACMED	P6	
Krstulović Šifner, Svjetlana	SK	UNIST	P4	
Monnati, Erika	EMN	RACMED	P6	
Sainz-Trapaga, Susana	SST	WWF	AC	Member of the AC (Project Advisory Committee)
Sala, Antonello	AS	CNR	P1	
Tsagarakis, Konstantinos	KT	HCMR	P2	
Virgili, Massimo	MV	CNR	P1	

## Welcome and Opening speech

RC welcomed the participants and asked the attendees to go around the table to introduce themselves. Before starting the meeting, she explained the channels for the language of translation. She also thanked the representatives of the EU and EFCA. She left the floor to AS the leader of the DISCATCH project who explained how the meeting will be organized.

AS, before introducing himself and the project, communicated that RC, EMN, KT, MV and JB are going to be the official rapporteurs and that all the coordination meeting notes/minutes will be made available to the Commission on a web private zone.

AS welcomed the participants and presented the Agenda, which was adopted by the participants who were asked to fill in the questionnaire already distributed at the beginning of the meeting. Afterwards, AS introduced the objectives of the DISCATCH project, the whole project proposal presented upon request of the EU which includes the point of view of the research institutes and inputs from stakeholders. AS presented the structure and organization of the project and the progresses made.

KT presented the progress of the work in WP1 (Review and analysis of scientific papers and technical reports on discards quantities, composition, practices and mitigation tools in the Mediterranean). The two deliverables which were already submitted to the Commission were also presented. The first deliverable is a review document on trawl fisheries discards in the Mediterranean Sea as concerns discards projects and discards quantities. The second deliverable is a review document on trawl fisheries discards in the Mediterranean Sea





aiming to identify reasons for discarding and factors affecting discards as well as tools applied for the mitigation of discards.

Studies on discards across the Mediterranean started in the mid '90s, mainly funded by the EU, while some national discards projects followed. Much progress has been made in recent years after (i) the establishment of the Ecosystem Approach to Fisheries as an integrated management approach and (ii) the implementation of the EU Data Collection Regulation. Discards projects partly followed similar methodologies, although differences in sampling design and analyses are identified.

Discards ratios fluctuate among fisheries and areas, usually from <20% to 70%, due to a plethora of interplaying biological, technical, environmental, legal and socio-economic factors. Species specific discards ratios in the Mediterranean are low for target species and usually higher for species that constitute commercial by-catch, but discard ratios of a given species, either target or non-target, are likely to fluctuate within a fishery, across seasons, years and regions. Moreover, a great number of demersal species which are not marketable, and subsequently are discarded, is also caught in Mediterranean trawl fisheries.

Lengths at discarding are also affected by a number of reasons such as management measures for minimum landing size (MLS) regulated species, market demands but also by biological, population and ecological traits. The above constitute the starting point for designing mitigation measures and management plans to reduce discards. Finally, important gaps of knowledge are highlighted especially concerning areas (mostly non-EU countries).

Reasons for and factors affecting discards can be classified into four main categories: (i) natural and structural conditions, (ii) community, (iii) state (and regulations) and (iv) market. These factors often act in synergistic effect which may not be straightforward to disentangle, especially in multi-species fisheries like most of those exerted in the Mediterranean.

Natural conditions (e.g., depth, productivity, substrate type), which are considered very dynamic, but external to the remaining factors, affect species composition, abundance and size structure of the catch, which in turn influence fishers' behaviour.

Fishing strategies and legal constraints substantially affect composition and quantities of discards, however discarding in the Mediterranean is mainly regulated by market demands; geographical differences, apart from the effect of natural conditions, seem to be related to socio-cultural characteristics such as community welfare, nutritional habits and familiarization with some species, which affect market demands. In the multi-species Mediterranean trawl fishery marketable by-catch may constitute an important supplemental source of income, especially when abundance of target species is low. In addition, a market for specimens below Minimum

Landing Size (MLS) is apparent in several cases. Mitigation tools mainly comprise selectivity improvement and spatio-temporal closures. Increasing size selectivity is a prerequisite not only for the mitigation of discards but for the rebuilding of the stocks. Several gear modifications (mesh size and shape, sorting grids, codend circumference) have been tested leading in an increase in mesh size during the last years, while trials are still ongoing since it is a dynamic field.

MPAs and spatio-temporal closures mainly aim the avoidance of charismatic species and/or undersized fish and invertebrates and can provide effective solutions. Among the remaining mitigation tools the MLS mainly aims to discourage fishing juvenile fish, however it is possible that discards quantities increase in some cases due to discarding of unavoidable undersized catch. However, a whole set of tools, mainly awareness



campaigns and economic incentives for more selective fishing (e.g., selective licensing, eco-labelling) are totally absent or have very limited application in the Mediterranean Sea.

## WP2. Data Collection Framework analysis

A short introduction to WP2 was given. AS continued with the issue of hydraulic dredge selectivity performed by CNR, where he showed the simulation similar to one that is going to be done in WP3 allowed fishermen to better understand how their gear works and how selectivity can be improved.

The DGMARE representative Silvia Scalco took the floor to thank for the presentation and reported the positive comments on the deliverables of this project. She also agreed that one of the weaknesses of the landing obligation is about selectivity which is a very big problem in Italy. Other Italian stakeholders also confirmed that the selectivity of the trawl gears have to be increased in order to reverse the condition of the stock, but they also emphasized how other measures are needed too.

## WP3. Predicting commercial yields, discards rates and selectivity by towed gears from fishing gear characteristics

AS continued with the work performed on the trawls with selective grid, and how simulations showed how this can help eliminating catch of unwanted species. By changing the space within the grid it could be also possible eliminate retention of sharks in the net. Objective of WP3 is to predict the selectivity for a range of species for many different codend constructions. PRESEMO will be used to simulate all those situations that couldn't be experimented within the pilot projects. For demersal fishes PRESEMO will be used to quantify the size selective property. To predict size selectivity of codends it is necessary to know the cross sectional morphology of the species investigated. After the presentations AS left the session opened for Q&A

The representative of Federcoopesca, Gian Ludovico Ceccaroni, asked how data showed in WP1 were collected and is there any data available for sardine, anchovies, mackerel and horse mackerel. Finally he asked do discard data refers only to data collected for the species in Annex III of the EC regulation 1967 or for other species also? KT explained how data coming from technical reports and public data coming from on board data collection of past projects. And since this was historical review, all available species were included.

The representative of Federacion Balear Cofradias de Pescadores, Antoni Garau Coll, asked for more information on the Spanish case study on the Balearic Islands. AS replied that he only reported what the Spanish partner in the project proposed to deal with when the project proposal was submitted. He also underlined that he also criticized their experiment. The other representative of Federcoopesca, Mario Ferretti, warned on the fact that discards have to be firstly well defined in order to make a distinction between the undersized and non-target species. If discards are defined in general terms then we can reach 90% of discards, but if we are talking only about undersized target species then these percentages can be significantly lower.

AS said that in the Italian case study his goal was not just to recommend fishermen to increase the mesh size, but to explore other options in order to reduce the unnecessary meshing of fish. He mentioned how this was requested by the stakeholders and that's why it was included in the project proposal.

Ilaria Vielmini, from OCEANA, mentioned how a good incentive to increase fish selectivity in Mediterranean is missing. She asked if this is also considered in the project. AS responded that this is so far not tackled in the project because it is not covered by the project proposal. WP4, using the BEMTOOL, will explore the



ecological and economic effects of changed selectivity, and maybe there some incentives could be recommended. The representative of CEPESCA, José Maria Gallart pointed out that the situation in the Mediterranean is quite different from the situation in the North Sea, where the amount of discards can be significantly higher because of the catch quotas. He was also surprised to see that the Balearic case study is focused on energy and consumption and not on discards, like another study already conducted in 2010, and he asked whether it would be possible to add other case studies on the matter. For the purpose of studying discards he offered to use CEPESCA's data collected by its fleet in Almeria.

AS replied that the work of IEO has not yet started and there is still chance to change the case study. He is going to contact the partners on that subject. Other Spanish stakeholders continued by saying that they have very good collaboration with IEO and that they are willing to collaborate more if needed.

AS said that he is very pleased to hear that. He continued by saying how both Greek and Italian partners contacted their stakeholders when they proposed their case studies. He continued by saying how all this conversation is going to be forwarded to IEO. AS said that this is the whole point of this meeting, where it is possible to hear the feedback from the stakeholders and incorporate it into the project. The representative of EMPA, Rafael Mas continued by saying how they are aware that the square mesh panel made form Dyneema, will have a fuel saving effect. Impact is lower, and fuel is saved but the selectivity is the same. He also mentioned that he acknowledges the planned work, but he is not convinced that laboratory simulations can really give good results because the conditions at sea are constantly changing and fishermen don't know how the mesh is going to behave, given that there are many uncontrollable factors during fishing.

AS opened the presentation of the D3.4 (review of the selectivity in Mediterranean), where he showed that L50 depends on mesh size, meaning that increasing the size of the mesh we are catching bigger fish (less discards). Many factors were not showed here, but even if they are not taken into account, it is possible to see that there is a trend showing that L50 increases with the increase in mesh size. He furthermore explained how today we have very sophisticated ways to simulate codend selectivity that has been already validated for some species and some codends in the Mediterranean. The starting point is the calibration with the experimental results. Mario Ferretti, representative of Federcoopesca, agreed with AS and he said that maybe we can have different rules for different areas because for example fishing on 100m and on 800m depth, where the community structure is completely different will have different effect.

Gian Ludovico Ceccaroni, representative of Federcoopesca, argued that when we speak about discards, we are only speaking about the species that have MLS in EC regulation 1967. According to 1380/2013 the first discards ban will be for PIL, ANE, MAC etc. Because of this regulation, if fishermen catch small fish defined in 1380 they will be obligated to land it. After 2019 this is going to be in power for all other target species. We have to work with the data from the DISCATCH project in order to implement management plans for demersal species. In Article 3, for example if the *Sprattus sprattus* is caught, which is not covered with ANNEX III, it can be discarded. In conclusion we have to concentrate only on the species covered in ANNEX III, not others. Obligation only refers to the species in the Mediterranean regulation 1967/06. Therefore, Mario Ferretti pointed out that when regulation goes into effect even species listed in ANNEX III that are above MLS and infected with the Anisakis parasite should also be landed, whereas today, these are regularly discarded.

Spanish stakeholders expressed their concern with the implementation of the landing obligations because of the high management and transportation costs to take discards to the processing factories. When asked if the results from this project can be used in the future draft of management plans, AS agreed and pointed out that in fact results should be provided as soon as possible to be on time for midwater trawls.



## **Preliminary questionnaire results**

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JB presented preliminary results of the stakeholder analysis (see figures at §*Questionnaire for stakeholders: preliminary results*). The HGK representative from Croatia asked why this was not sent to stakeholders and fishermen before the meeting. JB replied that it is because from previous experience people tend to ignore questionnaires sent to them by email.

Ilaria Vielmini, from OCEANA asked if the results of question 7 would be made available to participants. JB replied that there was not enough time to analyse and resume all the answers from question 7.

RC informed the floor that the questionnaire will be circulated by email to all the members that did not attend the meeting. She then closed the meeting by thanking all the participants for their contributions and the interpreters for their precious collaboration.



### Questionnaire for stakeholders: preliminary results







