

# Scientific Advisory Committee

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## The optimum weight threshold for reporting of catches in the GFCM logbook

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## Introduction

- One of the activities included in the programme of work of the Sub-Committee on Statistics and Information (SCSI), as endorsed by the Commission, relates to the analyses of the optimum weight threshold for reporting of catches in the GFCM logbook, adopted in Recommendation GFCM/34/2010/1.
- This matter is also reflected in Article 2 of this recommendation which states that the minimum quantity (50kg live weight) to be reported by species “may be adjusted in the light of further work to be undertaken under the GFCM framework”.

## Pilot study

- Malta has carried out a pilot study using information collected between 2008 and 2010.
- Data was collected from on-board observations as part of the sampling strategy adopted for the biological sampling for the EU Data Collection Framework.

## Pilot study

- The study was focused on two of the most important types of fisheries in the Maltese Islands in terms of catches, effort and value.
  - Surface long-lines – targeting swordfish and bluefin tuna (species-specific fishery),
  - Bottom trawls – (multi-species fishery).
- 67 trips were sampled for surface long-line fishery.
- 14 trips were sampled for bottom trawls.
- All the weights of species caught and landed per trip were recorded.

## Data analyses

- Different threshold levels were determined a priori;
  - 50kg (as in Article 2 of Recommendation GFCM/34/2010/1)
  - 25kg
  - 15kg
  - 10kg
  - 5kg (in case of the trawls only)
- Analysis on whether the catch would be recorded depending on the threshold was made:

Trip number	Species	Total (kg)	10kg threshold	15kg threshold	25kg threshold	50kg threshold
1	<i>Xiphias gladius</i>	17	✓	✓		
1	<i>Coryphaena hippurus</i>	20	✓	✓		
1	<i>Prionace glauca</i>	35	✓	✓	✓	
2	<i>Xiphias gladius</i>	34.4	✓	✓	✓	
2	<i>Thunnus thynnus</i>	57	✓	✓	✓	✓
3	<i>Coryphaena hippurus</i>	10	✓			
3	<i>Xiphias gladius</i>	36	✓	✓	✓	
3	<i>Thunnus thynnus</i>	150	✓	✓	✓	✓

## Results obtained from surface long-lines

Species name	Total catch (kg)	% recorded catch (by weight)			
		10kg threshold	15kg threshold	25kg threshold	50kg threshold
<i>Coryphaena hippurus</i> **	200.0	92	46	15	0
<i>Lamna nasus</i>	180.0	100	100	100	100
<i>Mola mola</i>	75.0	100	100	73	73
<i>Prionace glauca</i>	35.0	100	100	100	0
<i>Ruvettus pretiosus</i>	14.5	0	0	0	0
<i>Tetrapturus belone</i>	84.5	89	89	71	0
<i>Thunnus alalunga</i> *	40.0	100	63	63	0
<i>Thunnus thynnus</i> **	9789.1	100	100	100	100
<i>Xiphias gladius</i> **	3148.2	100	97	97	97

\*GFCM Priority Species \*\* GFCM / DCF Priority Species

## Conclusions for surface long-lines

Species name	Total catch (kg)	Percentage of recorded catch (by weight)			
		10kg threshold	15kg threshold	25kg threshold	50kg threshold
<i>Coryphaena hippurus</i> **	200.0	92	46	15	0
<i>Lamna nasus</i>	180.0	100	100	100	100
<i>Mola mola</i>	75.0	100	100	73	73
<i>Prionace glauca</i>	35.0	100	100	100	0
<i>Ruvettus pretiosus</i>	14.5	0	0	0	0
<i>Tetrapterus belone</i>	84.5	89	89	71	0
<i>Thunnus alalunga</i>	40.0	100	63	63	0
<i>Thunnus thynnus</i> **	9789.1	100	100	100	100
<i>Xiphias gladius</i> **	3148.2	100	97	97	97

- From this table it is evident that if a 50kg threshold is maintained, the landings for certain species will be highly underestimated.
- A 15kg threshold would considerably decrease the underestimation of landings for most of the species.

## Results obtained from bottom trawls

Species	Total catch (kg)	% recorded catch (by weight)				
		5kg threshold	10kg threshold	15kg threshold	25kg threshold	50kg threshold
<i>Aristaeomorpha foliacea</i> **	657.2	100	100	100	97	86
<i>Aristeus antennatus</i> **	40	71	27	0	0	0
<i>Aspitrigla cuculus</i>	0.3	0	0	0	0	0
<i>Helicolenus dactylopterus</i>	17.9	56	56	0	0	0
<i>Illex coindetii</i>	0.2	0	0	0	0	0
<i>Lepidorhombus boscii</i>	6.1	0	0	0	0	0
<i>Lophius budegassa</i> **	3	0	0	0	0	0
<i>Merluccius merluccius</i> **	114.6	97	85	85	37	0
<i>Mullus surmuletus</i> **	1.7	0	0	0	0	0
<i>Nephrops norvegicus</i> **	87.1	96	66	40	0	0
<i>Parapenaeus longirostris</i> *	541.8	100	100	99	91	59
<i>Phycis blennoides</i>	23.7425	100	63	63	0	0
<i>Todarodes sagittatus</i>	1.4413	0	0	0	0	0

\* GFCM Priority Species \*\* GFCM / DCF Priority Species

## Conclusion for bottom trawls

Species	Total catch (kg)	% recorded catch (by weight)				
		5kg threshold	10kg threshold	15kg threshold	25kg threshold	50kg threshold
<i>Aristaeomorpho foliaceus</i> **	657.2	100	100	100	97	86
<i>Aristeus antennatus</i> **	40	71	27	0	0	0
<i>Aspitrigla cuculus</i>	0.5	0	0	0	0	0
<i>Helicolenus diachlopterus</i>	17.9	56	56	0	0	0
<i>Uca cistoides</i>	0.2	0	0	0	0	0
<i>Lepidarthrus bosell</i>	6.1	0	0	0	0	0
<i>Lomitus halepensis</i> **	3	0	0	0	0	0
<i>Merluccius merluccius</i> **	114.6	97	85	85	37	0
<i>Mullus surmuletus</i> **	1.7	0	0	0	0	0
<i>Nephrops norvegicus</i> **	87.1	96	66	40	0	0
<i>Parupeneus longirostris</i> *	541.8	100	100	99	91	59
<i>Phycis blennoides</i>	23.7425	100	67	63	0	0
<i>Comarodon suvirimus</i>	1.4413	0	0	0	0	0

- From this table it is even more evident that if a 50kg threshold is maintained, the landings for certain species will be highly underestimated.
- A 10kg threshold would considerably decrease the underestimation of landings for most of the species.

## Conclusions

- From the results obtained, Malta recommends that the optimum weight threshold for reporting in logbooks should be one of the two options:
  - Option 1: a threshold of 10kg (for ALL the species),
  - Option 2: a threshold of 15kg with NO threshold for priority species (DCF/GFCM).
- Since the lists of priority species for both GFCM (48 species) and DCF (>49 species) are quite extensive, (only 25 species are common to both); for the scope of reporting the catches in logbooks with NO weight threshold, Malta suggests that a discussion should be made to decide which are the most important species so as to reduce the number of species for which weights have to be reported in logbooks whenever any amount is caught.

**Thank you**