

WORKSHOP ON ESTIMATION OF MORTALITY OF MARINE MAMMALS DUE TO BYCATCH (WKMOMA)

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WKMOMA addressed a special request from OSPAR regarding bycatch mortality of 3 marine mammals

- harbour porpoise
- common dolphin
- grey seal

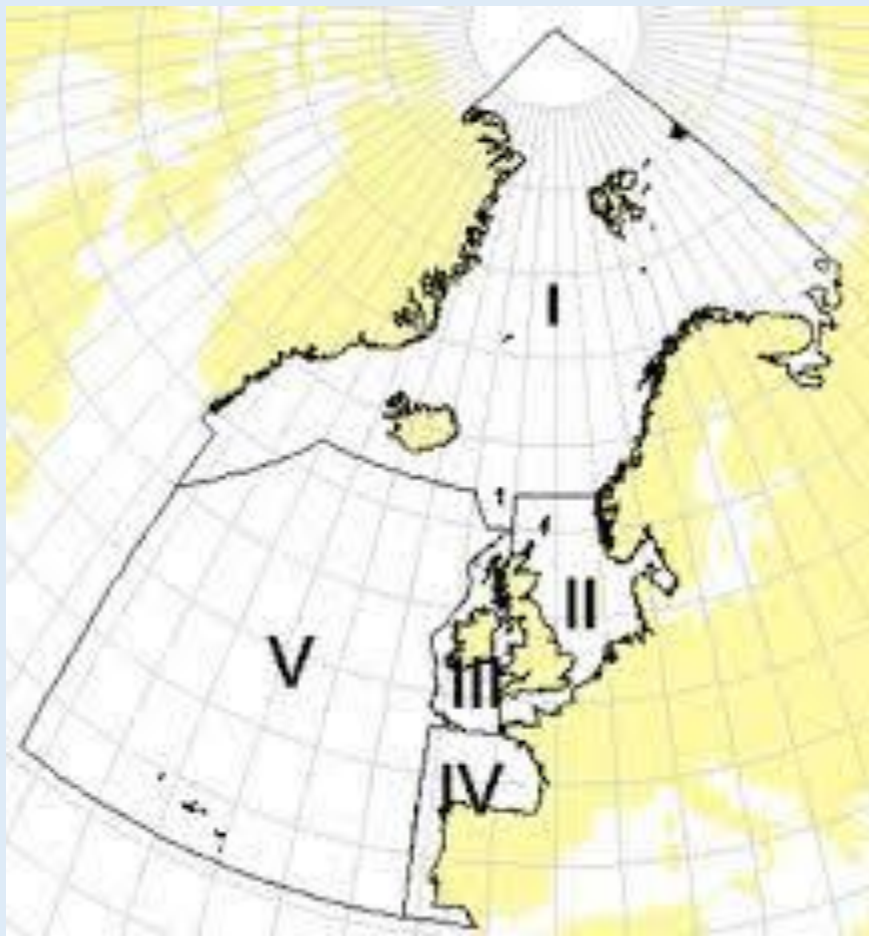
within parts of the OSPAR maritime area.

ToR a) Generate bycatch rates (e.g. specimens per day at sea) and associated confidence intervals for static and towed gears (at least Métier Level 4) for relevant species and assessment units;

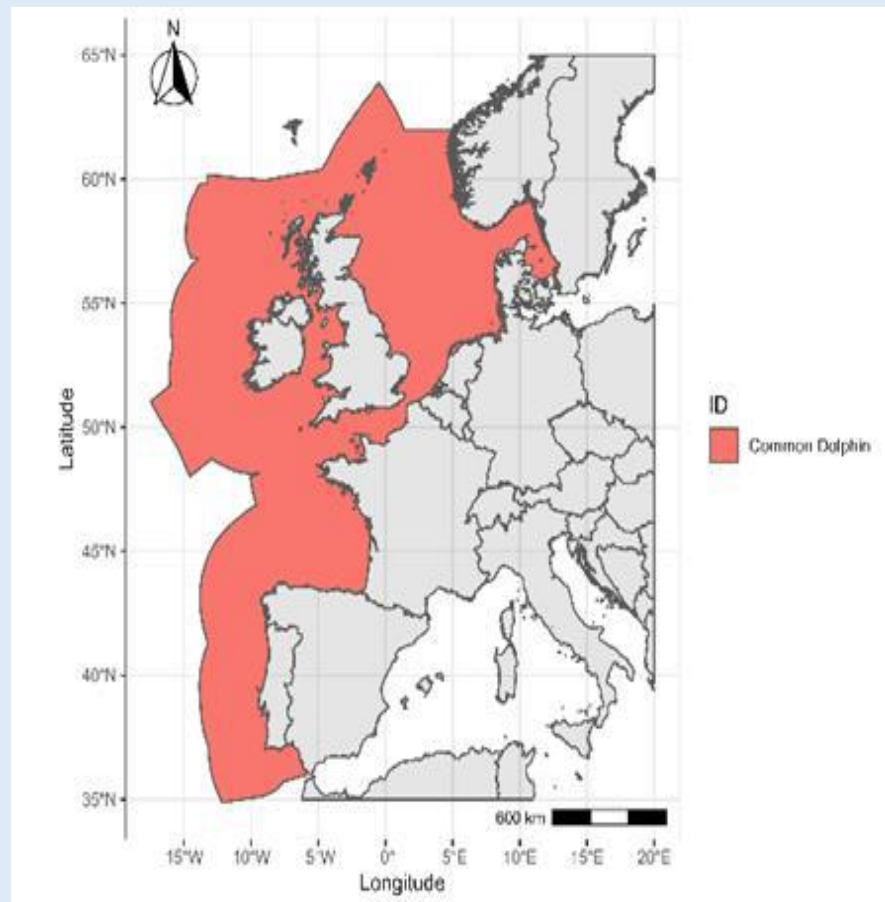
ToR b) Generate assessment unit and métier specific bycatch mortality estimates for each species and their associated confidence intervals. For harbour porpoise the assessment units will correspond to those defined in NAMMCO NIMR (2019) report in OSPAR Regions II, III and IV. For common dolphin, assessment units are OSPAR Regions III and IV. For grey seal, assessment should be made for OSPAR Regions II and III.

ToR c) Compare the bycatch mortality estimates against thresholds for the relevant species/assessment units as provided by OSPAR and identify any critical issues (such as biases in the bycatch estimates) relevant for the comparison.

ToR d) Data available within OSPAR Region I will be evaluated and, if feasible, processed to generate bycatch rate and mortality estimates for harbour porpoise and grey seal using the relevant country/NAMMCO advised assessment units.



OSPAR Areas



OMMEG CD AU

Prior to the workshop WKMOMA

- Issued a data call to acquire monitoring and bycatch data from 2005-2020 for the 3 species, plus fishing effort data from Iceland, Norway, Russia.
- Obtained EU fishing effort data from the ICES RDB

At the workshop WKMOMA

- Briefly summarised existing biological knowledge and previous CD bycatch estimates from II, III, IV
- Combined the various fishing effort datasets and ran checks – several corrections were required
- Processed the monitoring and bycatch data and ran checks – several corrections were required. 2015-2020 data selected.
- Generated modelled bycatch rates and CI's by metier.
- Generated bycatch estimates by metier and a total estimate using 2020 fishing effort data

- Highest frequency of bycatch events recorded in PTM and OTM in the Bay of Biscay (ICES area 27.8) and OTM in the Celtic Seas, west of Scotland (ICES area 27.6)
- Frequency of events in PTM and OTM was x3 higher than PTB and x6 higher than GNS and GTR.

- Mean number of CD per event over was one individual in most gears operating in ICES area 27.7 and static gears in 27.8.
- 1.5 to 2 individuals in PS and GNS operating in Subarea 9 (west Iberia).
- Highest at 3.58 (95% CI 2.29-5.6) in PTM in 27.8 and OTM in 27.8 & 27.6, and 4.09 common dolphins/bycatch event (95% CI 2.49- 6.71) in PTB operating in the Bay of Biscay.

- MOMA CD bycatch was estimated as 6404 individuals (95% CI 3051-9414) in 2020 for the entire assessment area.
 - Highest estimate for PTM at 1543 common dolphins (95% CI 709-2414), followed by 1152 (95% CI 616-1780) for GNS/GND and 925 (95% CI 549-1080) for GTR.
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- MOMA estimates are higher but cover a larger area and different time period than those calculated in WKEMBYC (3973 95% CI 1998–6599) in 2020.
 - One country also submitted revised effort data to MOMA which explains part of the difference.
 - All recent estimates (modelled or ratio based) using available fishing and monitoring effort data, and strandings analyses are indicating bycatch of several thousand CD per annum with bycatch occurring in several areas/meters.