

Threshold values for bycatch indicator for STATE&CONSERVATION 15-2021



- Model based thresholds proposed, i.e. numerical threshold will be derived with modelling approach based on life history information, abundance and anthropogenic mortality data
- Bycatch rates for harbour porpoises and seals are still lacking for most areas
- Fishing effort data (needed to extrapolate from bycatch rates to numbers) is still incomplete due to partial incompatibility of EU fisheries and nature conservation legislation – especially small vessel effort data

 HELCOM INDICATORS

HELCOM core indicator report
July 2018

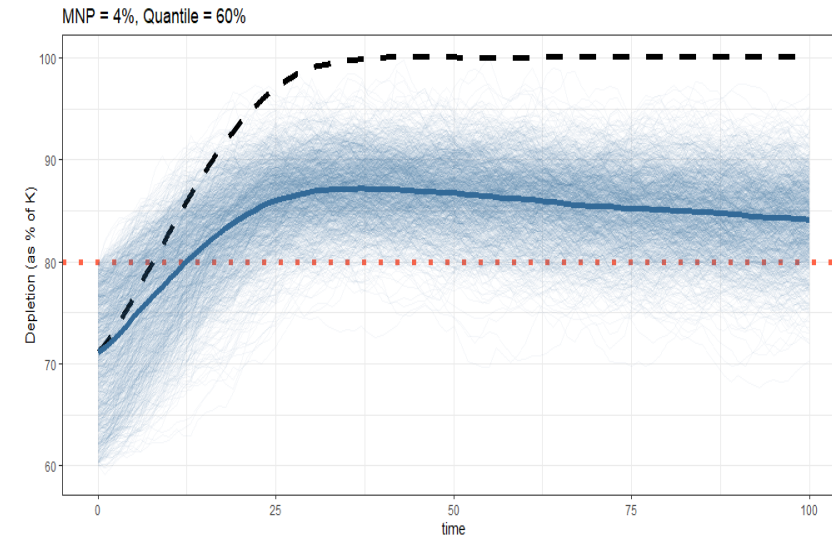
Number of drowned mammals and waterbirds in fishing gear





Proposed thresholds for harbour porpoises

- Model based thresholds (RLA, mPBR) require a quantitative conservation objective (CO), e. g. **a population should be able to recover to or be maintained at 80% of carrying capacity, with 80% probability, within a 100-year period**
- **Belt Sea** population: RLA would require time series of abundance and bycatch data which is not available -> numerical thresholds will be derived using mPBR based on CO above (contracted for HOLAS III by the Swedish Museum of Natural History)
- **Baltic Proper** population: Zero, in absence of robust by-catch estimates the status is also “poor”.



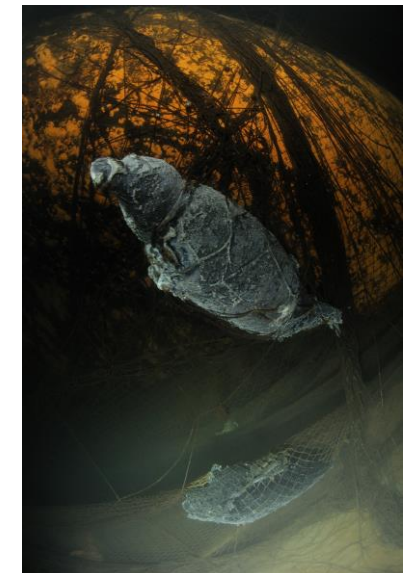
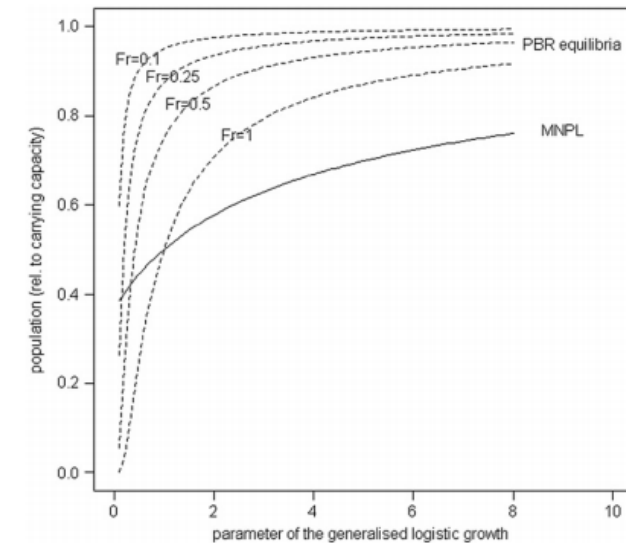
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Proposed thresholds for seals

- The joint *OSPAR-HELCOM workshop* recommended as CO for seals: **a population should be able to recover to or be maintained at 70% of carrying capacity (median value) within a 100-year period**
- OSPAR did not follow that recommendation and used PBR (50%K, $p=0.95, 100$ yrs)
- Assessment of seal management units according to Rec. 27-28/2
- From “long-term objective to allow seal populations to recover towards carrying capacity levels” it can be concluded that for the Baltic Sea, the CO should rather be based on 70% K than 50% K as in PBR. A mPBR approach still needs to be developed
- If a management unit is below its Limit Reference Level, the CO is not met and in that case the threshold is zero, in absence of robust by-catch estimates the status is also “poor”



From Lonergan 2011
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