

Terms of Reference for the Resource Depletion Working Group

The 24th Meeting of the ASCOBANS Advisory Committee requested the establishment of a Working Group on resource depletion to (i) review new information on resource depletion and its impacts on small cetacean populations and (ii) make recommendations to Parties and other relevant authorities for further action.

The Resource Depletion Working Group (RDWG) will work intersessionally using email and internet-conferencing platforms. RDWG is to report to Meetings of the Advisory Committee, as necessary.

The Working Group membership shall include veterinary and fishery science expertise as well as cetacean ecology and conservation expertise, i.e. people who collect samples from stranded animals and determine causes of death, who investigate diet, or feeding ecology studies, or are involved in management and governance. Additional members may be added, for example to facilitate links with HELCOM, OSPAR, ICES, IWC, ACCOBAMS, ECS, EAMM, SMM, NAMMCO, and WDC.

The RDWG will carry out the following tasks:

- 1) Review/summarise recent information on resource depletion and its impacts on small cetaceans and identify additional research needed.
- 2) Review sources of information on *prey distribution and abundance* (e.g., fishery landings and effort data, stock assessments, fish surveys (which potentially offer information with a higher spatial resolution), habitat models for fish and cephalopods) and, if appropriate, propose a mechanism to collate relevant data, focused on species already identified as of importance in the diet of small cetaceans.
- 3) Liaise with other ASCOBANS initiatives to develop *health/condition indicators* for small cetaceans, based on information from live animals and/or necropsies, with the ultimate aim to improve the resolution of these indicators for identifying impacts of prey depletion and other cumulative stressors. Establish collaboration with HELCOM in relation to their development of a health indicator for porpoises. The indicators are likely to be multi-faceted, including information on pathology, physiological status (e.g. pregnancy, stress), body condition (e.g. blubber thickness), considering that simple indicators such as blubber thickness are influenced by multiple factors and do not necessarily reflect resource abundance.
- 4) Review and collate information on *diet of small cetaceans* in the ASCOBANS area (including long-term dietary variation) and foraging behaviour, to improve understanding of likely responses to changes in prey availability; identify knowledge gaps and encourage new research and monitoring of diet, considering that ongoing monitoring of diet and spatio-temporal trends is an essential part of surveillance of cetacean conservation status.
- 5) Review spatio-temporal trends in *sightings data on distribution and abundance* of small cetaceans, in relation to possible relationships with trends in distribution and abundance of their known prey.
- 6) Review relevant information from *emerging technologies* (e.g. drones to determine condition; eDNA to estimate fish presence in association with actively feeding cetaceans) and multidisciplinary research cruises
- 7) Explore prospects for *integrating information from multiple data sources* to provide inter/multidisciplinary insights into the resource depletion issue.
- 8) Recommend possible mitigation measures; explore options for better integrating cetacean conservation measures (e.g. MPAs, time-area closures) with fishery management procedures to help reduce risk of prey depletion.