## Draft indicator factsheet D1 Mammals

**SUMMARY INFORMATION**

* **Indicator name**: D1 Mammals, incorporating assessments of D1C1 Mammals: Incidental by-catch of harbour porpoise, common dolphin, bottlenose dolphin; D1C2 (Primary): The population abundance of the species is not adversely affected due to anthropogenic pressures, such that its long-term viability is ensured and D1C4 (Primary for species covered by Annexes II, IV or V to Directive 92/43/EEC and secondary for other species): The species distributional range and, where relevant, pattern is in line with prevailing physiographic, geographic and climatic conditions
* **Indicator summary:** In the Black Sea only small toothed cetaceans exist. No other species groups of marine mammals are present in the region. Based on the existing information the status dos not appear to be good. A summary of the trend for this indicator can only be delivered after progress on status assessment.
* **Background/relevance:** The descriptor shows the mortality rate from incidental by-catch for small toothed cetaceans (harbour porpoise, common dolphin, bottlenose dolphin) which are at risk from incidental by-catch in the region or subregion. A low rate should be at levels which do not threaten the species, such that its long-term viability is ensured. The population abundance of three species indicates the level of anthropogenic pressures on the species, and whether they are adversely affected by them or not. It should be at levels that their long-term viability is ensured. Distributional range refers to the occurrence where a wide area of occurrence and distribution are indicative of healthy populations which are not adversely affected due to anthropogenic pressures.
* **Relevant criterion/a**: D1C1, D1C2; D1C4.

**MAIN ASSESSMENT**

**Status and trends:** The status assessment is based on the study “Studies for Carrying Out the Common Fisheries Policy - Lot No. 2: Adverse Fisheries Impacts on Cetacean Populations in the Black Sea”[[1]](#footnote-1) which was finalised in 2014.

Quantified conservation objectives (GES) for cetaceans remain undefined in the Black Sea as a whole, but according to the study above, taking the existing metrics, then the least conservative goals are that by-catch should not exceed 1300 porpoises, 1740 bottlenose dolphins or 5860 common dolphins per year. Based on the available data it appears that harbour porpoise by-catch rates are an order of magnitude greater than this threshold. According to the study, bottlenose dolphins appear (from the observed fishery hauls) to be more frequently caught than common dolphins, which is consistent with their more coastal distribution compared with common dolphins. It is possible therefore that among a crudely estimated 14,000 dolphins taken as by-catch, the majority may be bottlenose dolphins, and their total is therefore likely to exceed the 1740 limit by several-fold. However, it is important to note that most of the incidental bycatch is reported for Turkey, with Bulgaria second and Romania fourth. However, the study clearly remarks that the confidence of the assessment is low.

For the population abundance, the following picture can be given:

* Harbour porpoise (*Phocoena phocoena. relicta*): from 0.303 indiv./km2 in the shelf stratum with a depth of ≤200 m (CV = 23.59; 95% CI = 0.191–0.481) to 0.099 indiv./km2 in the deep-water stratum with a depth of >200 m (CV = 36.15; 95% CI = 0.048–0.205) (decrease of density in three times; p<0.05), and
* Common dolphin (*Delphinus delphinus ponticus*): from 0.329 indiv./km2 in the shelf stratum (CV = 25.18; 95% CI = 0.201–0.539) to 0.864 indiv./km2 in the deep-water stratum (CV = 22.00; 95% CI = 0.552–1.352) (increase of density in 2.6 times; p<0.01).
* The variation of density of Bottlenose dolphins, (*Tursiops truncatus ponticus*), in different strata (from 0.254 to 0.195 indiv./km2 in the shelf and deep-water strata, respectively) was found to be statistically insignificant.
* *P. p. relicta* abundance for the entire Black Sea (except neighbouring water bodies) was estimated as 64575 (95% CI = 36459–116611). The estimated number of *D. d. ponticus* was 293106 (95% CI = 186188–461480). The estimate for *T. t. ponticus* was 87148 (95% CI = 53332–144155).

The numbers calculated for the Black Sea as whole are very rough estimates and have been extrapolated on the basis of one opportunistic ferry track. The values should not be used in accurate estimations of cetacean abundance.

The distributional range is provided in the three maps below.

From the available information, it can only be concluded that the status is not good. A summary of the trend for this indicator can only be delivered after progress on status assessment .

* **Maps**:



* **Figures**:
* **Tables:**
* **Confidence assessment:**

Bulgaria: Low, as the study points out several data gaps and the use of estimations.

Romania: Low: as the study points out several data gaps and the use of estimations.

* **Knowledge gaps:**

**SUPPORTING INFORMATION/FURTHER DETAIL/METADATA**

* **Geographical coverage**: BG, RO
* **Date of data used for assessment**

The study “Studies for Carrying Out the Common Fisheries Policy- Lot No. 2: Adverse Fisheries Impacts on Cetacean Populations in the Black Sea” combines various sources of data including historic data and survey data.

* **Data products**: (insert link)
* **Contact and ownership**

Bulgaria: Black Sea Basin Directorate/Varna/BG

Romania: National Institute for marine research and development "Grigore Antipa"/Constanta/Romania

* **Method for assessment (optional)**: see details under https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/cetaceans-in-the-black-sea\_en.pdf

**Date of publication/preparation:** (preparation 06.02.2017)

1. https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/cetaceans-in-the-black-sea\_en.pdf [↑](#footnote-ref-1)