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JOINT PRESS RELEASE

Density and abundance estimates of cetaceans in the Black Sea: The results of the ASI/CeNoBS aerial survey now published

The results of the most comprehensive aerial survey on cetaceans, which covered over 7,000 km area in 3 weeks in 2019 in the waters of 5 Black Sea countries, have been published in one of the prestigious international scientific journals, Frontiers in Marine Science. The study reveals that there are around 100,000 common dolphins, 90,000 harbour porpoises and 20,000 bottlenose dolphins. These aerial surveys yielded the first insights on overall abundance, density and distribution, providing current regional baseline values and density maps for all three cetacean species of the Black Sea during the summer months. The results are important for the elaboration of effective conservation measures and to address national and international requirements. The study was carried out within the CeNoBS project, co-funded by the European Union and published with ACCOBAMS support.

Three species of cetaceans, all represented by local subspecies, inhabit the Black Sea: the Black Sea common dolphin *Delphinus delphis ponticus*, the Black Sea bottlenose dolphin *Tursiops truncatus ponticus*, and the Black Sea harbour porpoise *Phocoena phocoena relicta*. Their populations are threatened by multiple factors, including overfishing of their prey, bycatch, pollution and epizootics. In 2019, in cooperation and with support from the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area (ACCOBAMS), within the framework of the ACCOBAMS Survey Initiative (ASI), a systematic study was carried out under the Support MSFD implementation in the Black Sea through establishing a regional monitoring system of cetaceans (D1) and noise monitoring (D11) for achieving GES – EU CeNoBS Project. Six strata in the waters of Bulgaria, Georgia, Romania, Türkiye and Ukraine, covering most of territorial and offshore waters and 52% of the total Black Sea area, were surveyed between June 19 and July 4, 15 days at good weather conditions. A total of 7,324 kilometres of transects were surveyed recording a total of 1,744 cetacean sightings.

The rough estimates obtained were 108,283 common dolphins, 22,720 bottlenose dolphins and 93,808 harbour porpoises. These aerial surveys yielded the first insights on overall abundance, density and distribution, providing current regional baseline values and density maps for all three cetacean species of the Black Sea during the summer months, to be used for the elaboration of effective conservation measures and to address national and international requirements.

The cetacean populations in the Black Sea have not fully recovered from various human pressures, including direct hunting (continued until 1983) or on-going bycatch in fisheries. Common dolphins and bottlenose dolphins hypothetically passed the lowest point of population decline, as they are under less heavy pressure of bycatch than harbour porpoises. But recent war-related threats can pose new challenges to these vulnerable populations.

The distribution of common dolphins and harbour porpoises in the Black Sea can be broadly associated with prey availability in a changing ecosystem. Additional factors, such as specific cultural traditions of feeding and migration patterns may also be important for the bottlenose dolphin.

Shifts in the hotspots of the species distribution were identified from the historic literature. This underlines the need of a broad scale, long-term monitoring programme to be implemented. Considering the seasonal difference in distribution of cetaceans, the temporal and spatial coverage of monitoring should be increased. These results provide essential information for the assessment within the framework of European Commission's Marine Strategy Framework Directive.

This first synoptic aerial survey for cetaceans in the Black Sea yielded comprehensive data and the first robust insights on global abundance, distribution and density for all three cetacean species, as well as strengthened the collaboration of cetacean scientists within and beyond the Black Sea.

Paiu R-M, Cañadas A, Dede A, Meshkova G, Murariu D, Amaha Ozturk A, Popov D, Tonay AM, Timofte C, Kopaliani N, Gol'din P and Panigada S (2024) Density and abundance estimates of cetaceans in the Black Sea through aerial surveys (ASI/CeNoBS). Front. Mar. Sci. 11:1248950. doi: 10.3389/fmars.2024.1248950

The full paper (open access) can be found here:
https://www.frontiersin.org/articles/10.3389/fmars.2024.1248950/full