



**ACCOBAMS EMERGENCY TASK FORCE TO ASSIST WITH EMERGENCIES AND UNUSUAL MORTALITY EVENTS:  
SPECIAL ISSUE IN THE BLACK SEA**

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## ACCOBAMS EMERGENCY TASK FORCE TO ASSIST WITH EMERGENCIES AND UNUSUAL MORTALITY EVENTS: SPECIAL ISSUE IN THE BLACK SEA

### Background

During the Seventh Meeting of the Parties to ACCOBAMS, Parties recommended the re-establishment of an ACCOBAMS expert panel on strandings to assist with emergency and unusual mortality events (Resolution 7.14). Moreover, under the section CA1.d - Functional Stranding Networks and Responses To Emergency Situation- of the Programme of Work for the triennium 2020-2022 (Resolution 7.6), Parties, Scientific Committee and Secretariat were invited to *“Encourage the creation of a permanent expert panel on strandings to assist on emergencies and unusual mortality as a means of implementation for the action of setting /reinforce official national stranding networks (with all national institutions concerned) as appropriate, and encourage collaborations among national networks of Parties”*.

Significant capacity building effort focused on best practice for *postmortem* investigations and tissue sampling and involved all ACCOBAMS Countries experts between 2021 and 2022.

### Main scope of activities of the Emergency Task force

- monitoring and reporting strandings and bycatch data in the area in a common and real time repository to note any deviation from the average stranding rate for the area, period and species;
- collect information on ongoing military exercises involving underwater noise sources to be monitored, and enhance passive acoustic monitoring;
- routinely carry out complete *postmortem* investigations, including acoustic trauma, according to Resolutions 7.13 and 7.14, with remote advice and support from ACCOBAMS Experts (teleneecropsy);
- collect and preserve tissue samples in double: 1) to be stored and analyzed in Country by local laboratories and stored in a centralized Tissue Banks (University of Padova and Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine) and 2) to deliver samples to European countries to be analyzed for a second opinion, and stored as a back-up tissue Bank;
- deliver brain tissue to the University of Padova for molecular and microscopic examination, and ears to the University of Liege and Hannover for microscopic examination so to support forensically acoustic impacts;
- report any incident related to acoustic trauma to ACCOBAMS Secretariat and to the Task Force;
- respond to live strandings and unusual mortality events;
- maintain preparedness through organizing necropsy and teleneecropsy training sessions so to develop and improve remote advice for dissection and samplings.

### Composition of the Emergency Task Force

The Task Force will be jointly chaired by **Sandro Mazzariol** ([sandro.mazzariol@unipd.it](mailto:sandro.mazzariol@unipd.it)) from Padova University and **Thierry Jauniaux** ([T.Jauniaux@ulg.ac.be](mailto:T.Jauniaux@ulg.ac.be)) from Liege University. The co-chairs will be assisted, at least, by the following experts:

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Additional experts may join the Emergency Task Force after providing their CV to the ACCOBAMS Secretariat and to both co-chairs.

The Emergency Task Force should identify any needs for further training and capacity building to properly respond to emergency and unusual situations.

## SPECIAL SITUATION IN THE BLACK SEA

### 1. State of play of Black Sea cetaceans

The cetacean fauna of the Black Sea includes three species which are recognized as endemic subspecies – the Black Sea harbour porpoise (*Phocoena phocoena relicta* Abel, 1905), the Black Sea common dolphin (*Delphinus delphis ponticus* Barabash-Nikiforov, 1935) and the Black Sea bottlenose dolphin (*Tursiops truncatus ponticus* Barabasch, 1940). The ranges of all the Black Sea cetacean subspecies include open waters of the Black Sea, as well as territorial waters and exclusive economic zones of all Black Sea countries. Also, the Sea of Azov is the habitat for a distinctive decreasing population of the Black Sea harbour porpoise. The conservation status of Black Sea cetaceans has been reviewed and assessed under initiatives by the European Cetacean Society (1992), the European Commission (1999), the Black Sea Commission (1999 and 2008), ACCOBAMS (2002, 2006 and 2010), the International Whaling Commission (2004), and the IUCN (2008, in progress). The Black Sea harbour porpoise and the Black Sea bottlenose dolphin are now listed as Endangered by the IUCN (Birkun and Frantzis, 2008; Birkun, 2012) and the Black Sea common dolphin is listed as Vulnerable (Birkun, 2008). Eleven Important Marine Mammal Areas (IMMAs) were formally distinguished in the Black Sea by the IUCN (2021), among them the whole Sea of Azov, Kerch Strait and the Turkish Straits System (<https://www.marinemammalhabitat.org/imma-eatlas/>).

All three Black Sea cetacean species suffer from common and specific threats, both natural and anthropogenic. They are all affected by prey depletion and by habitat degradation, chemical pollution and underwater noise, microplastic contamination, as well as infection diseases causing many mass mortality events. Amongst the anthropogenic factors, incidental mortality in fishing nets is the most serious threat, which needs immediate action by riparian states (ACCOBAMS SC 14, 2021). Although all three Black Sea cetacean species are 'bycaught', the majority (often more than 90% in annual estimates) of recorded cetacean entanglements are harbour porpoises (Birkun et al. 2014; Popov et al 2022). Bycatch is, indeed, the major factor affecting the population trend in harbour porpoises in the region. There is also a threat of illegal live catches for captivity purposes posed to bottlenose dolphins.

## 2. Current situation in the Black Sea

At present, the entire Black Sea basin faces heavy military threat.

The most serious threats posed to the biota are bombardments from warships, contamination of the sea by toxic products of explosives, fuel and ammunition of sunk ships. In addition, there are unexploded drifting mines in the sea. Underwater noise produced by military action is particularly dangerous. Military vessels (including submarines), navigation systems and coastal installments permanently use various sonars and produce other types of underwater noise, some of which are poorly known due to their classified nature.

All this poses a significant threat of direct killing, as well as serious injuries and mortality due to acute acoustic trauma to Black Sea cetaceans. Even a non-lethal acoustic trauma increases the risk of starvation, infection development and bycatch due to damage to echolocation function.

Also, significant underwater noise causes disturbance and may lead to mass displacement of marine mammals, including entire subpopulations, some of which are local and associated with specific habitats.

Stranding network actin along the Black Sea coastlines reported an unusual high number of individuals found stranded since the end of February and during March 2022, some of them still alive with atypical behavior: at least 80 common dolphins were recorded as stranded ashore at the Black Sea coast of Turkey by TUDAV (Arda Tonay, personal communication); additionally, a particularly high incidence of cetacean bycatch was recorded in turbot gillnets in the waters of Bulgaria during April 2022 (communicated by Popov, Green Balkans). The bycatch rate of harbour porpoises was twice higher than in previous years during the same season. A higher incidence of bycaught animals in unusual periods and/or areas could be related to a displacement of cetaceans from the war area. For this reason, throughout investigations on stranded animals should be run systematically to identify any possible link between the underwater noise due to the ongoing operations at sea and the higher stranding rate and/or rule out any other possible cause of unusual mortality events.

## 3. Specific tasks of the ACCOBAMS Emergency Task Force for the Black Sea

The assistance of the ACCOBAMS Emergency Task Force in the Black Sea is strongly recommended with the specific goal of monitoring the effect of military activities in the Black Sea and adjacent waters.

The main objectives will be:

- collect information regarding the military activities ongoing in the Black Sea and Eastern Mediterranean waters;
- constantly monitor strandings and bycatch to eventually relate incidents spatially and temporally with military activities;
- implement *postmortem* investigations to preserve and store samples for future analyses;