

PROJECTS FUNDED UNDER THE ACCOBAMS SUPPLEMENTARY CONSERVATION FUND

Background

At their First Meeting (Monaco, 28 February – 2 March 2002), and as provided by Article IX, paragraph 3, of the Agreement, the Parties to ACCOBAMS established a Supplementary Conservation Fund (SCF) from voluntary contributions received from ACCOBAMS Parties, or from any external source in order to increase the available funds for activities related to monitoring, research, training and projects on the conservation of cetaceans.

The SCF became operational as of the Second Meeting of the Parties (Palma de Mallorca, Spain, 9-12 November 2004) and played a significant role in supporting ACCOBAMS conservation initiatives in developing countries and in countries with economies in transition.

Since 2011, projects to be funded under the SCF were selected through calls for proposals launched by the Secretariat, in consultation with the Bureau of the Parties, and following a scientific evaluation by the ACCOBAMS Scientific Committee.

In 2013, at their Fifth Meeting (Tangier, 5-8 November 2013), the Parties to ACCOBAMS adopted Resolution 5.5 on the Procedure for ACCOBAMS calls for proposals for projects to be funded under the Supplementary Conservation Fund. Resolution 5.5 was later replaced by Resolution 8.5 adopted in 2022.

As provided by Resolution 8.5 the goals and objectives of SCF are as follows:

- to catalyse the development and implementation of concerted or cooperative actions that should clearly contribute to the implementation of the Agreement and the priorities adopted by the Parties;
- to support applied conservation projects;
- to provide seed money to initiate long-term projects that have a multiplying impact well beyond the funding period;
- to stimulate dialogue and cooperation at a local and regional level in order to improve the conservation status of the cetaceans in the ACCOBAMS area;
- to assist in the development of capacities to conserve cetaceans and their habitats;
- to raise awareness on the conservation and management needs of cetaceans and their habitats;
- to provide relatively small funds to communities and other conservation stakeholders with limited access to alternative funding sources.

Six projects are currently funded under the ACCOBAMS Supplementary Conservation Fund: two projects selected during the 2018 ACCOBAMS Call for proposals that suffered delay in their launching or implementation respectively:

- *“Establishment of a new operational network for the monitoring of cetacean strandings on the Algerian Coast”* coordinated by the National Centre for Research and Development of Fisheries and Aquaculture (CNRDPA),
- *“Establishing the bank of cetacean tissue samples in Ukraine”* coordinated by the I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine (IZAN),

and four projects selected during the 2022 ACCOBAMS Call for proposals whose implementation started in January 2023:

- *“Implementing ACCOBAMS best practices in post-mortem investigations on stranded and by-caught cetaceans from Romanian shore and ingested marine litter monitoring (PONTICCET)”* coordinated by the National Institute for Marine Research and Development (NIMRD),
- *“The Tunisian Dolphin Project, expanding the monitoring programme to the Gulf of Gabes”* coordinated by the Association Tunisienne de la Vie Sauvage (ATVS),
- *“Research and Conservation of the Sperm Whale (Physeter macrocephalus) in the Eastern Mediterranean Sea of Türkiye”* coordinated by the NGO Deniz Memelileri Araştırma Derneği (DMAD),
- *“Establishing a cetacean tissue bank in Türkiye”* coordinated by the Istanbul University, Faculty of Aquatic Sciences (IUFAS).

Summaries of these projects are presented hereafter.

**Establishment of a new operational network for the monitoring of cetacean strandings
on the Algerian coast**

Country: Algeria

Beneficiary: National Centre for Research and Development of Fisheries and Aquaculture (CNRDPA)

Duration: 18 months

- **Project context**

The monitoring of cetacean strandings allows the improvement of knowledge on the different species and the causes of their strandings. For several years, different Algerian institutions have been trying to collect data during stranding events but the information collected is not always complete and some areas are better covered than others.

A formally recognized operational network is being set up through collaboration between all stakeholders: researchers (CNRDPA, universities), administrations (DPA, DEW, CNL), local communities, services in charge of coastal surveillance and security (Coast Guard, Gendarmerie, police, Civil Protection), and civil society in order to better organize the collection and banking of data in a standardized manner and to centralize it by pooling national efforts. This project coordinated by the CNRDPA is financially supported by the Supplementary Conservation Fund of ACCOBAMS.

- **Activities implemented**

The implementation of all eight activities planned under the project for an 18-month period depends on the implementation of the first three activities that were scheduled to be completed in the first quarter of 2021.

Activity 1.1.1 Capacity building, especially for necropsies and tissue sampling

It was planned that an international expert assisted by national specialists, with experience in the realization of necropsies, would provide training on the establishment of the stranding monitoring network and the realization of necropsies (for biologists and veterinarians). However, this activity could not be implemented due to restrictions related to the COVID 19 pandemic.

However, three Algerian scientists benefited from training courses organized by the ACCOBAMS Secretariat on "Best practices in cetacean post-mortem investigation and tissue sampling resulting from the ACCOBAMS and ASCOBANS harmonization process".

Activity 1.1.2 Awareness-raising and information of the different stakeholders: scientists of the different coastal stations of the CNRDPA (El Kala, Skikda, Bejaia, Bou Ismail, Beni Saf), Wilaya Directorates of fisheries and resources, university researchers, Directorates of the environment and different authorities in charge of the coast and the civil society)

In order to involve and collaborate with all stakeholders, from March 2021, online meetings have been organized for the presentation of the project to stakeholders: researchers (CNRDPA, universities), Administrations (DPRH, DEW, CNL), local authorities, services in charge of the surveillance and security of the coast (Coast Guard, Gendarmerie, Police, Civil Protection), and civil society.

A presentation of the project was scheduled during a training session on stranding monitoring, organized on 12 and 13 Octobre 2022 by WWF, the Gouraya National Park (PNG) and the Taza National Park (PNT), within the framework of the COGITO project, with the objective of initiating the managers of the MPAs in Algeria and their partners to intervene during stranding events and to build a network of trained people.

Standard data collection forms as well as species identification forms are being finalized and will be adopted by stakeholders after being validated in common agreement.

Activity 2.1.1 Formalization of the national network, defining the organization and the mode of intervention of the different persons and authorities involved

This activity, which is necessary for the establishment of a coordinated and operational alert network for the monitoring and collection of data on strandings, has not yet been implemented.

- Difficulties encountered and measures taken to overcome problems

The difficulties encountered are mainly related to the COVID 19 pandemic and the availability of the various stakeholders. The improvement of the health situation should allow the project to progress.

- Work program for the next period

During the next few months, a great effort of awareness-raising and consultation will have to be done to organize and define the mode and timing of intervention of the various people and organizations involved. The network will have to be structured and have a regulatory anchor (official decision).

Training on necropsy and tissue sampling methods should be organized as soon as possible, in order to start the field work which will consist of taxonomic identification, the collection of biometric data and the realization of a maximum number of necropsies allowing to proceed to macroscopic examinations that could explain the reasons of the different strandings.

Tissue samples can be taken and properly preserved because even if it is not obvious to carry out toxicological, histological and/or genetic analyses immediately (e.g.: DNA barcoding necessary for the identification of degraded individuals), a tissue and DNA bank can be set up in order to preserve the information.

All the collected data will be reported in a centralized database under Excel which will be integrated into a geodatabase under Q-Gis. Analyses and interpretations can be made on the annual data.

Establishing the bank of cetacean tissue samples in Ukraine

Country: Ukraine

Beneficiary: I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine (IZAN)

Partner: Ukrainian Scientific Center of Ecology of Sea (UkrSCES)

Duration: 18 months

The project “Establishing the bank of cetacean tissue samples in Ukraine” was conducted by the Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine in Kyiv, Ukraine, with the expert support of Ukrainian Scientific Center of Ecology of the Sea in Odesa, Ukraine. The project aimed to establishing the national tissue bank of cetacean samples, the first Ukrainian facility of this type for wild animals; and starting collection and archiving of cetacean tissue samples obtained from strandings, bycatch, biopsy, environment sampling and captivity. The project directly implemented the ACCOBAMS Conservation Plan for Black Sea cetaceans (Resolution 3.11), focused on the Activity 15c: (Establishing Black Sea cetacean tissue bank(s) accumulating samples from stranded and bycaught cetaceans), filling the gap in this provision, and the Resolution 3.9 (Guidelines for the establishment of a system of tissue banks). It was focused on (but not limited to) endangered and vulnerable Black Sea species (harbour porpoises, bottlenose and common dolphins). This project was focused on Ukraine with involvement of old collections and current fieldwork, and creating the background for joining other Black Sea countries in future. Project activities included purchase of the equipment, development of the action plan, promoting the new facility, collecting and archiving the samples and creating their catalogue.

The main result of the project was the successful launch of the newly established Ukrainian Tissue Sample Bank (UTSB), National Bank of Cetacean Samples, which showed its resilience. The main storage is the Arctiko ULUF 750-2M freezer facility of 750 l capacity supporting -80°C regime needed for long-term storing of RNA and DNA samples and the emergency power supply capable for 72 h of operations. Also the Bank includes a -20°C freezer and room temperature facilities. It is backed by a temporary storage (a -20°C freezer) in Odesa and a histological lab including age determination unit. The Action Plan was developed for the tissue bank, and its mission was identified as a regional collection, research and expert center, the core of a future center of excellence. Good practices for sample sharing were introduced. Promoting the new facility included networking with other tissue banks (primarily, the Mediterranean Marine Mammals tissue bank), communication during the 2nd World Marine Mammal Science Conference (2019), Life APEX meetings, 2022 Meeting of the ISBER (International Society for Biological and Environmental Repositories) and listing in the Global Stranding Network and ACCOBAMS regional lists of institutions and labs dedicated to population genetics. Cooperation with the Mediterranean Marine Mammals tissue bank and technical assistance from it was critically important for the response to the mass mortality and strandings of harbour porpoises and common dolphins in the Black Sea in 2022. Cooperative agreements on sample treatment were signed between Schmalhausen Institute of Zoology and Ukrainian Center of Ecology of the Sea, National Antarctic Research Center. Technical assistance and sample treatment involved Ukrainian cryobiological, embryological and veterinary institutions.

Ongoing and planned applications included research projects on pathology, toxicology, population genetics, evolution (including genomics and transcriptomics), embryology, life history and environmental studies (eDNA analyses). Also, the facility played a critical role for sample collection and transportation during the investigation of the causes of cetacean mortality by the environmental crimes department from the Odesa office of the Prosecutor General of Ukraine. Promoting the Bank activities and strengthening public awareness led to enhanced reporting of strandings and improved response and cooperation from the staff and administrations of natural reserve areas, environmental inspectors, emergency services, police and local authorities, as well as rising citizen science effort. Collecting and archiving the samples included creating an inventory of old collections and samples, obtaining of samples from stranded animals provided by institutions and researchers having the relevant national permits, obtaining of

environmental samples (e.g., eDNA from water and sea sediments); and initiating the system of exchange and backup between tissue banks. An extensive collection of old samples from polar, Black and Caspian Sea marine mammals (including rare taxa, in total 12 cetacean and 3 pinniped species), containing numerous embryos, organs (including brain), tissue samples, teeth and bones, was inventoried and its digitation was initialized. The new samples from stranded cetaceans were received from the Ukrainian Scientific Center of Ecology of the Sea; these included organs (including brain), tissue samples, flippers, teeth and bones of three Black Sea cetacean species. Among them, there were samples collected at dissections made during the mass mortality event in 2022. Also, environmental samples from Antarctica were received for temporary storage. Appropriate storage conditions include low (-80°C, -20°C, +8°C) and room temperature under climate control; frozen, RNA later, ethanol, cryoprotector media and other buffer solutions. The catalogue of samples was created.

Establishing the practice of samples exchange and backup including the Mediterranean Marine Mammals tissue bank is in progress, as a part of emergency response action for the cases of mass mortality and mass stranding events. Future developments will include developing routine, secure and rapid procedures of samples sharing and cooperative research between the authorized scientific institutions within the ACCOBAMS and ASCOBANS areas, following the best standards and providing sustainable environment for conservation research.

Implementing ACCOBAMS best practices in post-mortem investigations on stranded and by-caught cetaceans from Romanian shore and ingested marine litter monitoring (PONTICCET)

Country: Romania

Beneficiary: National Institute for Marine Research and Development (NIMRD)

Partner: Ministry of Environment, Waters and Forests (MEWF)

Duration: 12 months

Marine litter is a global environmental issue that affects all the oceans and seas and even marine organisms like cetaceans. Marine debris, in particular plastic, has negative impacts on marine wildlife primarily due to ingestion and entanglement. When cetaceans become entangled in plastics, they can drown, choke to death, suffer physical trauma, such as amputation and infection or they can suffer from malnutrition when it prevents their ability to feed properly. Plastic ingestion can lead to partial blockage or injury to the digestive tract and reduced feeding due to a false feeling of satiety, all leading to low nutrition and declining health. The Black Sea's cetaceans make no exception to these threats; thus, it is imperative to assess the impact of marine litter.

Through post-mortem investigations of stranded or by-caught cetaceans, the PONTICCET Project aims to assess ingested marine litter and to improve knowledge on this threat to the cetaceans from the Romanian shore of the Black Sea following ACCOBAMS/ASCOBANS Best practices as guidelines.

To fulfil the project's main goal, NIMRD as the coordinator will first set up a laboratory for necropsies and Gastro-Intestinal Tract (GIT) analysis. All the stranded or by-caught cetaceans will be necropsied following ACCOBAMS/ASCOBANS Best Practices on cetacean post-mortem investigation and tissue sampling and the GITs and contents will be analysed for the presence of ingested marine litter. A database will be created regarding strandings/by-caught cetaceans, the ingested marine litter, and the potential hot spots areas for cetacean ingestion of marine litter.

PONTICCET Project results will be disseminated and used to raise awareness on the impact of marine litter on the Black Sea's cetaceans.

The PONTICCET Project will provide important data that will support the implementation of Descriptor 1-Marine Mammals and Descriptor 10- Marine litter of the MSFD and will be further published in form of a scientific paper.

The results will be shared and discussed with the national authorities (Ministry of the Environment, Waters, and Forests), the scientific community, stakeholders, and policymakers in order to raise awareness and find solutions for the conservation of the cetacean species present at the Romanian shore of the Black Sea.

The Tunisian Dolphin Project, expanding the monitoring programme to the Gulf of Gabes

Country: Tunisia

Beneficiary: Association Tunisienne de la Vie Sauvage (ATVS)

Partner: Agence de Protection et d'Aménagement du Littoral (APAL)

Duration: 24 months

The Tunisian Dolphin Project (TDP) is a research initiative that started in 2014 to monitor and assess the status of the bottlenose dolphin (*Tursiops truncatus*) in Tunisia. The overall objective of the programme is to create a long-term programme that utilise mark-recapture methods (photo-id) to monitor the population in the country and to collaborate with both national and international organisation to ensure funding and continuity of the project. Indeed, and since its creation, the project has expanded its activities of monitoring from the relatively small Bizerte lake in 2014 (with financial aid from SPA/RAC) to cover the gulf of Bizerte region in 2015 (also funded by SPA/RAC), then survey the entire northern Tunisian Coast during 2016 - 2019 (funded by ACCOBAMS, SPA/RAC and the Rufford Foundation), and finally the gulf of Hammamet in 2021 -2022 (funded by the Rufford Foundation). In each campaign, the Project has linked with a local NGO (e.g. ATUTAX, ANDDCVS, Nature-Link and ATVS) and provided capacity building and public awareness activities for both the NGO and other relevant stakeholders. In the next campaign season of 2022 -2023 and with funding from the ACCOBAMS Supplementary Conservation Fund (SCF), the Tunisian Dolphin Project and the Association Tunisienne de la Vie Sauvage (ATVS) will join forces to expand the monitoring programme to cover the southern Gulf of Gabes. With this critical step in place, the project will be able to cover yet another important part of Tunisian Coast with the ultimate goal of covering the entire Tunisian coast and the dwelling bottlenose population. In turn, this effort will lead to the creating of a national-wide photo-identification catalogue and a reliable population estimate, structure and distribution which will be critical to decision makers in forming legislation or take conservation actions in the future.

Research and Conservation of the Sperm Whale (*Physeter macrocephalus*) in the Eastern Mediterranean Sea of Türkiye

Country: Türkiye

Beneficiary: Deniz Memelileri Araştırma Derneği (DMAD)

Partner: WWF-Türkiye

Duration: 15 months

Research and Conservation of Sperm Whales in the Eastern Mediterranean Sea of Türkiye project aims to fill the existing knowledge gaps on the deep diving species in Türkiye while creating the first open-source photo-identification catalogue of the target species. The current project will run in partnership with WWF-Türkiye and employs boat surveys with a stratified effort to the summer season of 2022 and 2023. During the boat surveys both visual and acoustic survey protocols will be followed, with an addition of the photo-identification of the species. Further, drone and go-pro footages with visual observations will be compared to reveal further information on individual behavioral activity as well as the social composition and structure of the sighting. Knowing the importance of local power on research and conservation, current study adds an additional focus on the local research capacities through organizing two different workshops on field techniques while using written, audio and social media for public awareness on the whales of Türkiye. Last but not the least, hashtag analysis will be conducted to understand the potential impact of the project on the knowledge and awareness of the public. The project will be completed in September 2023.

Establishing a cetacean tissue bank in Türkiye

Country: Türkiye

Beneficiary: Istanbul University, Faculty of Aquatic Sciences (IUFAS)

Partner: Turkish Marine Research Foundation (TUDAV)

Duration: 24 months

The project will establish a tissue bank of cetacean samples collected from all the coasts of Türkiye in Marine Mammals Laboratory at the basement of Faculty of Aquatic Sciences, Istanbul University with the partnership of a NGO, Turkish Marine Research Foundation. In short, the team want to increase their sampling and storage capacity by providing appropriate necropsy conditions. The tissue bank to be created will increase the sampling capacity of Türkiye.

Tissue samples collected from stranded and bycaught cetaceans will be used to gain advanced knowledge on cetaceans' mortality causes in the region. Other areas of studies, such as functional anatomy, physiology (including respiratory and diving physiology), life history, toxicology, pathology (including infectious diseases), population structure, and trophic relationships, will potentially be carried out by leading partners as well as collaborating national/international researchers.

Once the tissue bank is fully operational, it will be networked with the Mediterranean Tissue Banks for sharing expertise and cooperative research. The importance of establishing a tissue bank in Türkiye, which is the only country among the ACCOBAMS member states that is bordered by both the Mediterranean and Black Seas, will contribute significantly to the conservation efforts of cetaceans living in both basins.