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ACCOBAMS SURVEY INITIATIVE PROGRESS REPORT FEBRUARY 2020

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Figure 1- Sperm whale observed during the ASI boat-based survey on Song of the Whale, August 2018.

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INTRODUCTION

The “ACCOBAMS Survey Initiative” project, officially launched at the Sixth Meeting of the Parties to ACCOBAMS (Monaco, 22-25 November 2016) is a major project of ACCOBAMS that aims to establish an integrated, collaborative and coordinated monitoring system for the status of cetacean populations at the whole ACCOBAMS area level, with the final aim to strengthen the conservation effort and governance for cetacean species. Developed and implemented by the ACCOBAMS Permanent Secretariat, in coordination and with the support of riparian countries and national scientists and experts, the ASI represents an unprecedented effort and a first step towards the regular assessment of cetacean abundance and distribution at the ACCOBAMS area level.

This programme is particularly important in respect of several regional policies related to marine biodiversity conservation and marine resources management. In particular, the ASI contributes to support the countries in achieving their commitments as regard the implementation of the Ecosystem Approach process of the Barcelona Convention, the implementation of EU Regulations and Directives (Habitats Directive and Marine Strategy Framework Directive), as well as other relevant international instruments such as the Aichi targets of the Convention on Biological Diversity or the Sustainable Development Goal 14 of the United Nations.

Note: When referring in this report to the ACCOBAMS Survey Initiative, this includes the whole program and by extension also refers to actions carried out through the CeNoBS project, which allowed the implementation of the Survey in the Black Sea.

1-ASI PROJECT COORDINATION

The ASI project is entirely coordinated by the ACCOBAMS Permanent Secretariat with the support of an ASI project officer who was recruited in Avril 2017 for the all duration of the ASI project. The ACCOBAMS Secretariat also acts as a partner of the CeNoBS project and is responsible for the Activity 2.2: Assessment of cetacean populations distribution and abundance at the regional scale, which includes the implementation of an aerial cetacean survey in the Black Sea

The ACCOBAMS Permanent Secretariat is responsible in implementing all the actions planed in the ASI, either directly or by coordinating the work of all involved stakeholders and entities mobilized for the project. In total, dozens of actions have been implemented since the launch of the ASI project, including activities related to the logistical preparation of the survey (plane companies contracting, boat selection, team contracting, team daily life organisation and follow up on the field), all administrative and permits processes, the section and recruitment of all consultants, the development of specific partnerships, the organisation of workshops and meetings, fundraising efforts, reporting to funders, communication strategy development and implementation, representation in different fora of interest, etc.

In addition to the ACCOBAMS Permanent Secretariat work and the countries’ contributions, the ASI project benefits from the involvement of a great number of partners, and of the following key stakeholders in particular:

ASI Steering Committee:

The ASI Steering Committee is composed of representatives of key partnering entities (IUCN Centre for Mediterranean Cooperation, Regional Activity Centre for Specially Protected Areas (RAC/SPA), Agence Française pour la Biodiversité (AFB), Observatoire Pelagis of the University of La Rochelle, Italian National Institute for Environmental Protection and Research (ISPRA) and the Chair of ACCOBAMS

Scientific Committee). Representative of the Bucharest Convention Secretariat is also susceptible to take part in the ASI Steering Committee, according to the specific needs related to the Black Sea survey.

The ASI Steering Committee provides advice and guidance to the ACCOBAMS Permanent Secretariat for all aspects linked with the coordination of the ASI project. The ASI Steering Committee was gathered and consulted numerous times during the preparatory phase of the Survey and advised on several strategical aspects, including budget planning, selection of platforms and partners, but also teams review, scientific effort definition, etc.

The ACCOBAMS National Focal Points and the ASI Contact Group Members:

This ASI contact group is composed of (a) contact person(s) in each country who were nominated by the National Focal Points of ACCOBAMS (NFP) in 2014 in accordance with Resolution 5.9 “Comprehensive cetacean population estimates and distribution in the ACCOBAMS area (ACCOBAMS Survey Initiative)”. The NFP and Contact person’s roles are to assist the ACCOBAMS Secretariat with several tasks along the course of the ASI project to facilitate the latter. During the survey preparation phase, NFP and Contact Group Members have been mobilized intensively during a consultative process for the implementation



of the ASI survey in their respective countries (visits, meetings, e-mail exchanges, etc.) which was consolidated during the 1-week Regional Workshop of the ASI Contact Group held in Tunisia (3-5 October 2017). ASI Contact Group Members have also often supported the field operations during the survey, and many of them were part of the observation teams. Regular contact and consultation have also been ongoing for the implementation of the other ASI survey activities such as capacity building or data analysis.

Figure 2. ASI Contact Group Member Workshop – Tunisia, 2017

ASI Scientific Coordinator and his *ad hoc* support team:

The ASI Scientific Coordinator was selected at the beginning of the project early 2017 in order to support the ACCOBAMS Secretariat on all the scientific issues related to the implementation of the ASI project.

The ASI Scientific Coordinator has been working with the support of *ad hoc* team, to develop all methodological aspects (survey design, protocol, platform selection, equipment), select and train observer teams and to ensure data acquisition and management by coordinating and assisting all the aerial and boat based scientific teams during the monitoring efforts. Following the successful survey implementation in 2018, and in accordance with the Terms of Reference of the mission, the ASI Scientific Coordinator and his team’ responsibilities were extended to the implementation of the data analysis process, after acceptance of a detailed proposal by the ASI Steering Committee.

As part of the Scientific Coordinator team, the PELAGIS Observatory (La Rochelle University) has been strongly involved in the preparation of the aerial survey campaign and its implementation, in particular by assisting the ASI Scientific Coordinator with all aspects linked to the use of the SAMMOA software (preparation of the software, training to the observers, assisting during the survey, verifying and preparing the data collected on SAMMOA for the data analysis) and advising on the implementation of

cetaceans large-scale surveys. Pelagis Observatory is also actively involved in the development and implementation of the ASI Data Analysis component.

Marine Conservation Research International (MCR) is as well a key scientific partner of the ASI project, and has been supporting and assisting the ACCOBAMS Secretariat with the implementation of all aspects of the ASI vessel-based survey component (planning, logistics, vessel requirements and survey equipment needs, survey methodology, training for participants, survey implementation with the R/V Song of the Whale, data management and analysis.)

2-PROJECT FUNDING SCHEME

The idea of a macro-regional large-scale survey to assess the abundance and distribution of cetaceans in the ACCOBAMS area has been on the agenda of ACCOBAMS for more than 15 years. However, the important resources needed for this effort necessitated a strategic and long fundraising process. From 2014 to 2019, the ACCOBAMS Permanent Secretariat, with the support of consultants, has developed proposals and contacts with different potential funders. In 2016, MAVA Foundation agreed to provide a significant financial support that was going to complement the ACCOBAMS secured funds for the ASI project, including the voluntary contributions granted by Spain in 2008, by Italy in 2015, by France and by Monaco in 2016. A co funding from the FPA2 was also granted in 2016, consolidating the ASI budget for conducting the Survey and other activities in the Mediterranean Sea. Additional voluntary funding was provided by Italy in 2018, by Slovenia in 2019 and IFAW also provided co funding to support specific survey actions of the ASI through MCR.

In addition to the cash support described above, all participating countries have provided in kind support to the project, through the mobilization of Contacts group members, National Focal Points and scientific staff, and though a crucial support regarding administrative aspects, meetings and ASI events organization.

While the ASI budget was secured for the Mediterranean, the ACCOBAMS Permanent Secretariat pursued its effort in identifying relevant funding to support the implementation of the survey in the Black Sea. In 2018, the ACCOBAMS Permanent Secretariat and several partners from the Black Sea developed the **CeNoBS project - support MSFD implementation in the Black Sea through establishing a regional monitoring system of cetaceans (D1) and noise monitoring (D11) for achieving GES**. CeNoBS was granted a financial support from the DG Environment of the European Commission and benefited from the co-funding secured by ACCOBAMS. CeNoBS project started to be implemented in January 2019 for a 2-year duration.

3- SURVEYS EFFORT AND EXPERIMENTATION

A detailed report of the ASI Survey implementation is available in the ACCOBAMS Survey Initiative technical reports presented during the 7th Meeting of the Parties to ACCOBAMS (document ACCOBAMS-MOP7/2019/Inf33). This comprehensive and detailed document provides the description of all steps and actions taken towards the successful implementation of the surveys, as well as preliminary results and recommendations for the use of future regional survey efforts. A summary of the Surveys actions implemented in 2018 and 2019 is provided below.

Mediterranean Surveys

Following an intensive preparation phase during more than a year, the ASI survey of the Mediterranean Sea started in June 2018, just after two workshops were organised to train all the cruise leaders and the observers for the aerial component (France, in May 2018) and the team leaders involved in the visual and acoustic effort from research vessels (Greece, June 2018).

Data collection in the Mediterranean Sea was concentrated during the summer of 2018. 8 planes and 3 different research boats were used during this period, with almost 100 scientists and researchers involved.

Aerial surveys were conducted in over 75% of the area, and this effort was complemented by ship-based visual and acoustic surveys, to survey waters where it was not possible to use dedicated airplanes and to collect data on deep diving species, such as beaked and sperm whales.

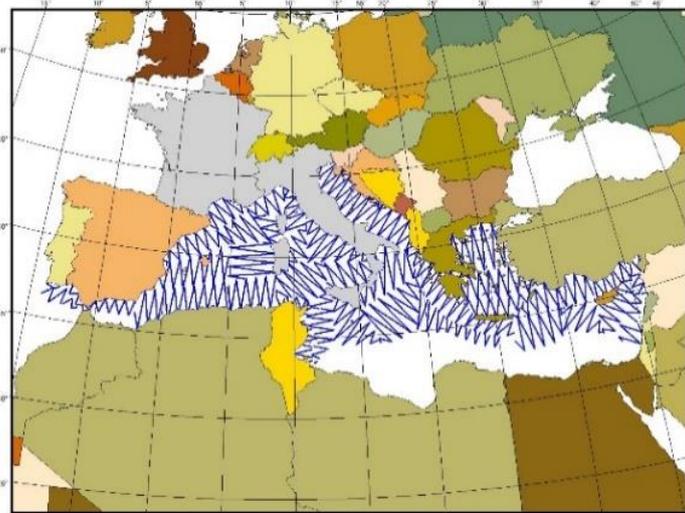


Figure 3- Planned transects of the ASI aerial survey

Data collection was mainly conducted at the same time during the summer 2018, in order to allow a synoptic coverage of the entire Mediterranean Sea. However, due to complex political and security situations, a few areas could be surveyed only in 2019: an ASI survey was conducted in August 2019 in Syrian coastal waters and the ASI Egyptian boat surveys was carried out in October 2019. There is

confidence that the different period for some areas will not negatively affect the overall results.

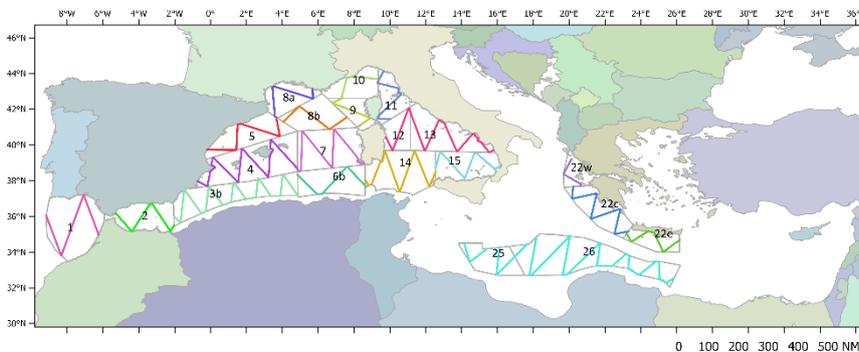
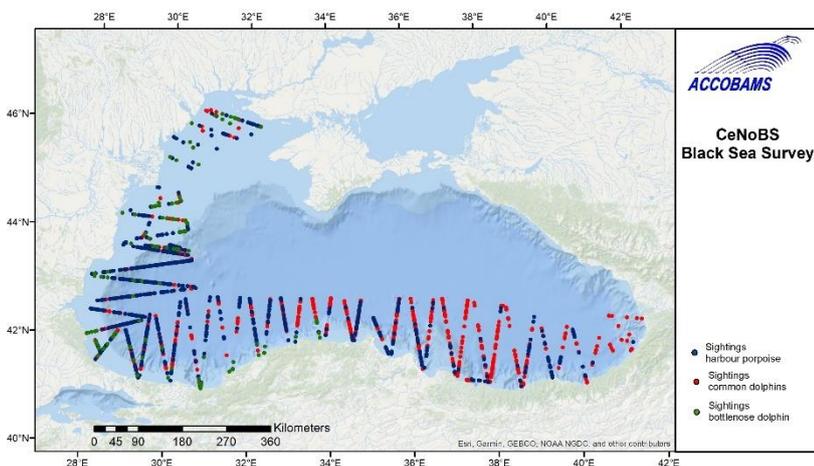


Figure 4- Planned transects and blocks of the ASI Boat survey with Song of the Whale

Black Sea Survey

Following the same scientific approach and tools used during the Mediterranean

Sea ASI aerial survey, the aerial regional survey was conducted in the Black Sea during the summer 2019 in the context of the CeNoBS project (see funding scheme). Coordinated by the ACCOBAMS Permanent Secretariat and Mare Nostrum (CeNoBS Project Leader), the 6 months intensive survey preparation phase allowed to fine tune the Survey protocol and transects design while



putting in place all the necessary conditions for the good implementation of the survey: aircraft company selection and contracting, permits and authorization requests, teams selection and training, communication tools. Under the lead of the ASI/CeNoBS Scientific coordinator, two teams of scientists from Romania, Bulgaria, Turkey and Ukraine collected data over the waters of Bulgaria, Georgia, Romania, Turkey and Ukraine during three weeks in June 2019.

Figure 5. Preliminary results of cetaceans' observations – Aerial Survey in the Black Sea

In parallel, the ACCOBAMS Permanent Secretariat developed a collaboration with Russian Scientific Organizations in order to conduct a survey over part of the Russian waters. With the additional support of the EU-UNDP EMBLAS+ project and Russian stakeholders, this collaboration led to the successful implementation of the aerial survey in Russia in September 2019 following the same approach and methods than the ASI/CeNoBS survey in order to allow the comparison/merging of the two datasets.

4- EXPERIMENTATIONS ON UAVs USE FOR LARGE SCALE SURVEYS

The implementation of surveys of macro fauna remains a costly and challenging exercise in terms of implementation, in particular at a large scale, and it has become essential to explore the use of new techniques and instruments in order to facilitate future cetaceans monitoring at a wide variety of scale. Unmanned Aerial Vehicles (UAV) have been developed significantly during the past decades for various purposes, including for environmental monitoring. They also represent a promising approach for surveying cetaceans and marine macro fauna in a close future, as they may require reduced fieldwork human effort and prove economical on the long run. Therefore, the ASI includes a specific activity that aims to explore the possibilities linked with those new technologies.

Since late 2018, the IMMRAC/University of Haifa in collaboration with Murdoch University (Australia) are developing a 'Feasibility study and experimentation on the use of drones for Cetaceans monitoring in the ACCOBAMS Agreement area' whose final results will be available in May 2020.

5- CAPACITY BUILDING

A key aspect of the ASI is its capacity-building component, which aims to ensure the competence of the observers involved in the ASI survey and to increase the countries' abilities to monitor cetaceans at the national level over the long run. In this view, and considering the complementarity and synergies between the ASI and the implementation of the Integrated Monitoring and Assessment Programme (IMAP) of the UN Environment/Mediterranean Action Plan, ACCOBAMS and UNEP/MAP/SPA-RAC have developed a capacity building programme and carried on a series of workshops and trainings on cetaceans monitoring technics and tools. These workshops have been designed taking into

consideration the capacity building needs identified by each Riparian Country, in particular during the ASI Contact Group member Workshop organized in Tunis on 3-5 October 2017.



Figure 6- Training session during the ASI aerial observer workshop, Cuers airport, France.

In 2018, in view of training the ASI observer teams, two regional workshops were conducted prior to the ASI survey: the first one allowed to train the ASI aerial survey observers and team leaders to the methodology, protocol and practice of aerial macro fauna survey (Cuers, France, 23-27 May 2018); the second workshop was dedicated to the team leaders of the countries/areas where aerial survey was not possible and marine vessels used instead (Samos, Greece, 18-22 June 2018).

To complete the preparation of the teams, ASI observers who did not yet have aerial work safety training certification received dedicated training (Helicopter Underwater Escape Training).

The ASI Capacity building programme continued to be implemented during the following year, in collaboration and with the support of the EcAp MED II project “*Mediterranean Implementation of the*



Figure 7- ASI Workshop participants during a Photo ID practice at Sea, Montenegro

Ecosystem Approach, in coherence with the European Union (EU) Marine Strategy Framework Directive (MSFD)” and led to the implementation of 4 sub-regional workshops in 2019.

All workshops organized in the context of the ASI are listed and detailed in Table 1 below.

Table 1- Capacity building Workshops organized in the ASI and CeNoBS context

Title of the event	Content / Purpose	Date Location	Targeted countries
ASI Aerial observers Training Workshop	Training workshop to prepare all the Aerial survey observers and Team leaders to conduct the ASI aerial Survey in the Mediterranean	23-27 May 2018 Cuers, France	Mediterranean and black sea countries
HUET trainings for Aerial observers	Helicopter Underwater Escape Training – Basic safety training for aerial work	- Marseille- 29-30 May 2018 - Šibenik, Croatia – 15 may 2018	Mediterranean and black sea countries

		- Athens, Greece – May 2018 - Costanta, Romania May 8th 2018 - Pavia ,Italy, 4 APRIL 2018	
ACCOBAMS Survey Initiative Boat survey Training Workshop	Training workshop to prepare the Team leaders to conduct the ASI boat based Survey in the Mediterranean	18th to 22nd of June 2018, Samos Greece	Egypt, Lebanon, Syria, Libya
The EcAp MED II/ ASI sub-regional training workshop on cetacean monitoring software	In French Distance sampling and Photo ID monitoring methods – softwares DISTANCE, MARK and SocProg	25-28 February 2019 - Bizerte, Tunisia	Algeria, Morocco and Tunisia
The ASI / EcAp MED II training workshop on monitoring techniques of cetaceans	Training on cetaceans biology, monitoring techniques and practice at sea (Photo ID)	15-18 April 2019 Monastir, Tunisia	Libya, Tunisia
The ASI/ EcAp MED II sub-regional training workshop on cetacean monitoring software	in English Distance sampling and Photo ID monitoring methods – softwares DISTANCE, MARK	24-27 of June 2019, Lebanon	Egypt, Lebanon, Syria and Turkey
The ASI / EcAp MED II on cetacean monitoring methods	held in English Distance sampling and Photo ID monitoring methods – Practice at sea	16-20 of September 2019 - Kotor, Montenegro	Montenegro, Albania
CeNoBS Aerial survey observer training	Training workshop to prepare all the Aerial survey observers and Team leaders to conduct the ASI aerial Survey in the Black Sea	12-16 June 2019, Tulcea, Romania	Bulgaria, Romania, Ukraine, Russia, Turkey

The ASI project was also instrumental to develop additional collaborations. In particular an academic collaboration between the CNRS Lebanon, INAT (Institut National d’Agriculture de Tunisie) in Tunisia and the University of La Rochelle is supported through a project funded by the Agence Universitaire de la Francophonie and a Master Research project is currently taking place at the Pelagis Laboratory.

6-DATA ANALYSIS PROCESS

Following the validation of their proposal for the analysis of the ASI data by the ASI Steering Committee, the Scientific Coordinator and his team started the Data Analysis process in 2018. The regional analysis of the aerial and boat-based observation data are being conducted by the Scientific coordinator and a consultant expert, together with PELAGIS Observatory. In parallel, the analysis of the acoustic data is being conducted by Marine Conservation Research.

The global ASI Data Analysis validated approach proposes an optimal data analysis strategy for the data arising from the ASI that will provide (a) the most robust estimates possible for use in conservation and management; and (b) expand analytical capacity throughout the ACCOBAMS region.

Therefore, the analysis of the ASI data is done also through a participatory approach, reflecting the collaborative nature of the ASI project, and involves scientists from each country, strongly engaged in learning and applying analytical aspects. One data analysis sub-regional workshop for the Central Mediterranean was organized in November 2019, with both theoretical and practical sessions, during which participants had the chance to individually prepare the data for abundance estimates, run the different models and present and discuss results with the trainers.

In 2020, two more sub-regional workshops are to be organized for the Western Mediterranean and the Eastern Mediterranean, respectively early May in Monaco and in September in Istanbul.

A Black Sea data analysis workshop (organized as part of the CeNoBS project) will be organized back to back with the last ASI workshop in Istanbul.

According to the planned timeframe, the first results on cetacean distribution were presented on November 4, 2019 during an ASI Special event organized at the occasion of the Seventh Meeting of the Parties to ACCOBAMS.

A final consolidated report of the ASI Mediterranean results, including the results of the 3 sub-regional workshops, will be delivered during the 3rd trimester 2020. It will be complemented by the final report on CeNoBS Black Sea Survey results which is expected at the same period.

7-DATA MANAGEMENT

The ASI data are available for national purposes use, for example to fulfil reporting obligations like the EU Marine Strategy Framework Directive, the Ecosystem Approach (EcAp) of the Barcelona Convention, the Habitat Directive, etc. The ACCOBAMS National Focal Points can contact the Permanent Secretariat to request the data.

In addition, a study on Data and Information Management System for the ACCOBAMS Survey Initiative has been finalized in 2018 (document ACCOBAMS-MOP7/2019/Inf12). Based on the results and recommendations of this study, a proposal on ASI data sharing policy and terms of use was developed by the ACCOBAMS Secretariat and the ASI Steering Committee, and circulated to the ACCOBAMS NFP and ASI Contact Group Members. The ASI data policy and Terms of Use can be consulted in the document ACCOBAMS-MOP7/2019/Inf13.

In accordance with this, the ACCOBAMS Secretariat has developed an online basic system on the ACCOBAMS Website to make part of the ASI data downloadable on line, upon filling in a form and acceptance of the ASI Terms of Use. Since the system started up in November 2019, more than 30

requests have been registered online. Additional data requests received by the Permanent Secretariat for the full set of data are circulated and reviewed by the ASI Steering Committee. Table 2 summarizes all the requests for the ASI data reviewed and accepted.

Table 2-. Requests for the ASI data received by the ACCOBAMS Secretariat in 2019 and 2020

Request holder	Species / object	Type of data	Intended research
St Andrews University, UK Jonathan Reid	Sperm whale	Acoustic data	MSc Thesis : Measuring body length of sperm whales (<i>Physeter macrocephalus</i>) in the Mediterranean from their clicks.
Centre d'Écologie Fonctionnelle et Évolutive /École Pratique des Hautes Études (CEFE/EPHE), France Gaëlle Darmon, Jeremy Mansui, Claude Miaud	Marine litter Sea turtles	Raw Boat and aerial	Risky areas of litter impacts for sea turtles at the Mediterranean basin level
McLaughlin Research Corporation Andrew DiMatteo	Sea turtles	Raw Boat and aerial	A loggerhead turtle (<i>Caretta caretta</i>) spatial density model for the Mediterranean Sea derived from multiple survey platforms
European Topic Centre – University of Malaga (ETC-UMA), Spain Dania Abdul Malak	Marine litter, Cetaceans Sea turtles	Boat and aerial	Marine litter pressures in the Mediterranean Sea. <i>ASI data will be supporting the visualization and meta-analysis of status of the pressures of marine litter on Mediterranean marine biota</i>
University of Sienna, Italy Pr Cristina Fossi	Marine litter Cetaceans other megafauna sp.	Boat and plane	Identification of Marine litter Hot spot areas and interaction with Biota (PlasticBusters MPAs Interreg –Med Project context)
Institute of Marine Science (ICM-CSIC), Spain Joan Giménez	Short-beaked common dolphin	Boat and aerial	Niche conservatism in cetaceans: common dolphins in European waters as a case study
Observatoire Pelagis, Université de La Rochelle, France Auriane Virgili / Vincent Ridoux	beaked whale sperm whale	Boat and plane	Processes underlying beaked whale and sperm whale hotspots to inform naval training planning in the aim to avoid interaction with impulse noise sources
Israel Marine Mammal Research and Assistance Center (IMMRAC) Dani Kerem	rough-toothed dolphin	Boat	To be mentioned in a chapter on rough-toothed dolphin in a forthcoming Springer book on the marine mammals of Europe
WWF Mediterranean Marine Initiative Simone Niedermueller	Sharks and rays	Aerial	Evaluation of shark and ray occurrence data to inform WWF conservation strategy
Mediterranean Association to Save the Sea Turtles (MEDASSET) Vicky Rae & Eleana Touloupaki	Sea turtles	Aerial	MAVA Funded: Increasing knowledge on the Sea Turtle population within the northern Aegean.
Open University, Germany Judith Matz – Student	marine litter	Boat	BSc course report on 'Distribution of plastic pollution across the Mediterranean Sea'.
Permanent Secretariat of the Pelagos Agreement Costanza Favilli – Executive Secretary	Cetaceans Marine Litter	Boat	Cetaceans and marine litter distribution and abundance in the Pelagos Sanctuary

University of Exeter, UK Dr David March	Cetaceans Sea turtles Fish Rays Marine litter	Boat and plane	MOVEMED: Linking Human Mobility and Marine Megafauna Movement in the Mediterranean Sea for a better integration of Blue Growth
WWF France Denis Ody	Fin Whale, Sperm whale	Plane	Evaluation des risques de collisions entre grand cétacés et trafic maritime sur la zone du projet de Zone Maritime Particulièrement Vulnérable (ZMPV) en Méditerranée Nord-Ouest.

The ACCOBAMS Secretariat received as well requests for part or all of the ASI Data from the following countries, through their respective ACCOBAMS NFP: France, Slovenia, Spain and Tunisia. These requests were made in particular to fulfil reporting obligations like the EU Marine Strategy Framework Directive, the Ecosystem Approach (EcAp) of the Barcelona Convention or the Habitat Directive.

8-COMMUNICATION & AWARENESS

Given the large-scale exceptional nature and the significant resources deployed by the ASI, the latter includes an important communication component implemented all along the project. This is instrumental in order to raise awareness on the ASI but also on the importance of conserving marine biodiversity at all kind of scale and by targeting a wide range of public. In this view, a communication strategy was built in the first place, accompanied by several communication support, actions, events and media coverage tools all along the ASI project. The phase of the field campaigns in the summer of 2018 was particularly conducive to communication actions. Several short movies, leaflets, posters and writing material were developed, as well as website pages, news and continuous follow up on social media tools such as Facebook or Twitter.



Figure 8- Official visit during a stopover of the Song of the Whale, June 2018

In addition, the ACCOBAMS Permanent Secretariat launches in 2018 a call for small communication actions to promote the project at the national levels and to increase its visibility in the countries participating in the survey campaign, and more generally to raise awareness about cetacean

conservation issues. 7 projects were selected in this context and implemented in 2018 and 2019 (Table 3)

Tableau 3- Small Communication Projects implemented during the ASI

Project	Organisation	Place and year	Summary
"Giant Guardians of Deep Seas (GGDS)"	DMAD & WWF Turkey	Turkey,2018	Dedicated workshops for students and academics on cetacean conservation and monitoring and "Interactive Photo-Identification and ArcGIS Mapping" and public awareness activities – (press release, book development for children..)
Mediterranean Cetaceans In Our Schools	Blue World Institute,	Croatia,2018	"Mediterranean Cetaceans" presentation by Blue World Institute's Education Team in elementary schools and media coverage
National Awareness Action In Tunisia	Centre National de Veille Zoosanitaire (CNVZ) & Institut National des Sciences et Technologies de la Mer (INSTM)	Tunisia,2018	Awareness Day the importance of monitoring and the conservation of sea turtles and cetaceans - targeting actors of the sea, including fishermen
I Know And Protect My Seas	METU, Turkey	Turkey,2018	dedicated section on cetaceans included into existing marine environmental awareness programme entitled 'I Know and Protect my Seas' (DTK abbrev., https://www.facebook.com/denizimitaniyorum).
Dolphin Day & Dolphin Night	MORIGENOS, Slovenia	Slovenia, 2018	Actions are carried out as a combination of public events and a rotating educational exhibition.
Spotlight On Mediterranean Cetaceans	Institut Marin du Seaquarium	France, 2018	Photo Contest and public lecture
Awareness on the ASI in Morocco	Groupe scolaire OSUI Jacques Majorelle	Morocco, 2019	ASI exhibition in School and French Institutes Radio coverage on radio Medi1 Preparation and broadcast of a radio show on Marine conservation, Cetaceans conservation and monitoring and the ASI by high school students

To ensure the best visibility to the project and inform the conservation community, presentations of the ASI and its preliminary results were made during several regional relevant meetings, conferences and events between 2017 and 2019 (see Table 3).

Table 4 - List of meetings, conferences and fora during which the ASI was presented

Event	Place and date	Type of communication
31th European Cetacean Society Annual Conference -	Middelfart, Denmark, Sunday 30th April 2017	Presentation of the ASI during the Workshop "Inputs to the ACCOBAMS ongoing effort to map human threats on cetaceans in the Mediterranean and Black Seas"
The fourth International Marine Protected Areas Congress (IMPAC4)	La Serena – Coquimbo, Chile, from 4-8 September 2017	Presentation of the ASI during a workshop on marine megafauna
ACCOBAMS Fourth Biennial Conference (CSMC4)	Oran ,Algeria, 11-13 November 2017	Poster on the ASI

14th Meeting of the Conference of the Parties to the Convention on Biological Diversity	Sharm El-Sheikh, Egypt, 17-29 November 2018	Presentation of the ASI by the ACCOBAMS Chair during the Side Event “How MPAs and networks of MPAs can contribute towards Aichi Target 11. A set of tools shared at the national, regional and international levels.”
3rd Meeting of the Signatories to the Sharks MOU	Monaco, 10-14 December 2018	Side event on ASI preliminary results “The ACCOBAMS Survey Initiative :An Unprecedented Macro-Regional Marine Fauna Survey of the Mediterranean’
GFCM Forum on Fisheries Science in the Mediterranean and Black Sea	Rome, Italy, 10-14 December 2018	ASI preliminary results presentation during an ACCOBAMS Side Event Exhibition on the ASI
UNEP/MAP - Meeting of the Ecosystem Approach Correspondence Group on Monitoring (CORMON) Biodiversity and Fisheries	Marseille, France, 12-13 February 2019	Presentation of the ASI preliminary Results
European Commission Joint Research Centre Floating Marine Macro Litter workshop	Rome Italy, 14-15. February 2019,	Presentation of preliminary results of the ASI on Marine floating litter
EMBLAS-Plus Inception Workshop	Istanbul, Turkey 21-22 Feb 2019,	Presentation of the CeNOBS project and the Black Sea survey
10th edition of the Monaco Blue Initiative -	Monaco, 24 -25 March 2019	Conference on the ASI
5th International Conference on Marine Mammal Protected Areas - Messina, ICMMPA5	Messinia, Greece, April 8 – 12, 2019	Half day Workshop “The ACCOBAMS Survey Initiative (ASI): lessons learnt and future plans
MARLICE 2019 International Forum on Marine Litter and Circular Economy,	Seville, Spain 10-12th April 2019	Presentation of the ASI during a panel discussion at PANACeA open session
MEDSEALITTER Final Event International conference and workshop Roma, Italy, June 11-12, 2019	Rome, Italy, June 11 2019	Presentation of the ASI and preliminary results on floating Marine litter
MEDPOL – Regional Meeting on Marine Litter Best Practices	(Izmir, Turkey, 9-10 October 2018)	Presentation on ACCOBAMS activities related to marine litter, including the ASI data collection on marine floating debris
MAVA OAPs M4 and M5 regional meeting,	Porto Cesareo , Italy, 2-4 July 201	Presentation on the ASI and preliminary results
42nd Mediterranean Science Commission(CIESM) Congress	Cascais, Portugal 7-11 October 2019	Poster on the ASI preliminary results
ASI Special Event – ACCOBAMS MoP7	Istanbul, Turkey, 4 November 2019	Half a day event dedicated to the ASI analysis results and activities, with ACCOBAMS National Focal Points and ASI partners
World Marine Mammal Conference – WMMC 19	Barcelona, 8-12 December 2019	-Two presentations on ASI results presentation (aerial and boat-based surveys) by ASI Scientific Coordinator and MCR -Presentation on the ASI Challenge by the ASI Scientific Coordinator -Workshop ACCOBAMS/AFB “Towards coordinated marine mammal monitoring programmes for MSFD second cycle 2020-2026” - a poster on the Drone project “ Flight parameters for the integration of unmanned aerial vehicles in conventional cetacean surveys” University of Haifa , IMMRAC and Murdoch University

Communication and awareness activities will continue to be implemented until the end of the project and a short period after. This will include the publication of the Updated Cetacean Status Report in the ACCOBAMS area early 2021, the making of an animated video on Cetacean monitoring and ASI results, participation to a session led by SPA/RAC on the EcAp process during the 2020 IUCN Congress and the development of several other tools to be produced.

9- ENSURING THE SUSTAINABILITY OF THE MONITORING EFFORTS

In order to assess trends in population status that will inform decision makers and support relevant conservation measures, monitoring efforts must be replicated systematically and regularly over time, as reflected in the 6-year cycle of marine monitoring regional policies of the region (i.e. MSFD, EcAp). While the ASI 2018 and 2019 surveys provided a strong baseline for regional monitoring, it remains crucial to address the sustainability issue of harmonized monitoring operations to estimate abundance and distribution of cetacean populations in the Agreement Area.

Support long-term monitoring in the ACCOBAMS Area using the ASI framework

The ASI therefore shall not remain a single effort and there is a need to explore and assess different ways to ensure monitoring continuity in the ACCOBAMS Area. In this regard, a key aspect of the ASI project addressing the replicability of its actions, consists in assessing the feasibility of (a) mechanism(s) for ensuring regular and long-term monitoring of cetaceans in the ACCOBAMS Area.

In this context, the workshop ' *Towards Coordinated Marine Mammal Monitoring Programmes For MSFD Second Cycle 2020-2026* ' was organized during the last World Marine Mammal Conservation Congress in December 2019 in Barcelona, with the objective to identify complementarities and synergies and to foster collaboration and transboundary consultations between existing and upcoming marine mammal monitoring programmes related to MSFD descriptor 1 Biodiversity in different EU countries. The recommendations issued from this workshop are annexed to the present document.

An expert consultant will be recruited during the spring 2020 to assist the Secretariat in 2020 and 2021 to define funding mechanism(s) and institutional mechanisms to support this long-term monitoring programme.

In order to progress in this task, the long-term monitoring program will be defined, built on the basis and experience of the ASI project, covering the technical and scientific aspects but also those related to the governance and organization of the programme. Once reviewed by the ASI Steering Committee, the document will be circulated to the ACCOBAMS Scientific Committee.

Exploring Opportunities for additional data collection on cetacean's distribution and/or abundance

The 2020-2022 ACCOBAMS Programme of Work includes activities to promote the use of multidisciplinary surveys (such as fisheries / acoustic surveys), innovative technologies (UAV, satellite) and of platforms of opportunity (ferries, whale watching vessels, navy vessels, etc..) to collect data on cetacean's distribution and abundance.

To address this objective:

- Regarding innovative technologies, experimentations and studies related to the use of UAV and floating drones are currently being conducted. The results will be presented at the 14th Scientific Committee.
- A review will be conducted to define the different types of multidisciplinary surveys and platforms of opportunity that could be used to collect data on distribution and/or abundance of cetaceans, highlighting pros and cons of each approach. This study will also provide an exhaustive list of the existing surveys/scientific efforts (at the national/regional scale) that are used / could be used in the ACCOBAMS countries to collect data on distribution and/or abundance of cetaceans (ex. national fisheries surveys, ICCAT surveys, ferries networks...)

- Methods & protocols / guidelines to collect data on cetacean's distribution and/or abundance using existing multidisciplinary surveys and platforms of opportunity, focusing in priority on ferries and fisheries surveys, will be developed in view of their presentation at SC14.

ANNEXE – RECOMMANDATION FROM THE WORKSHOP “ TOWARDS COORDINATED MARINE MAMMAL MONITORING PROGRAMMES FOR MSFD SECOND CYCLE 2020-2026 ”



TOWARDS COORDINATED MARINE MAMMAL MONITORING PROGRAMMES FOR MSFD SECOND CYCLE 2020-2026

WORKSHOP RECOMMENDATIONS

During the World Marine Mammal Conference 2019 in Barcelona, The French Biodiversity Agency and the ACCOBAMS Permanent Secretariat organized on December 8 the workshop “Towards coordinated marine mammal monitoring programmes for MSFD Second Cycle 2020-2026”.

The objective of this workshop was to present existing and upcoming marine mammal monitoring programmes related to MSFD descriptor 1 Biodiversity in different EU countries, mainly from the ACCOBAMS area, to present specific monitoring methods and approaches and to discuss their relevancy at inter-states level. The overall objective of this workshop was to identify complementarities and synergies and to foster collaboration and transboundary consultations.

The agenda of the workshop is included in Annex 1.

A summary of the recommendations from the presentations and the discussions is presented below.

Ensuring the concrete implementation of cetaceans monitoring programmes:

- Increase the integration of the different EU policies, in particular regarding MSFD and Habitat Directive requirements, to help secure funding and better synchronize/harmonize the different reporting expectations;
- Systematically implement the large-scale regional surveys in EU Member States monitoring programmes, on a once per MSFD cycle basis. Their funding should be anticipated in a coordinated way by all the MSFD national competent authorities within the concerned region(s);
- Secure adequate budget simultaneously with the preparation/adoption of the marine mammal monitoring programmes, to ensure concrete implementation;
- Support awareness events / Workshops for MSFD competent authorities and involved organizations, to facilitate the understanding of the monitoring programmes to be implemented.

Diversifying the monitoring methods/approaches:

- All the monitoring methods presented (photo-ID monitoring, aerial and ships surveys, surveys from platforms of opportunities, fixed and line-transect acoustic monitoring, stranding and bycatch monitoring, biopsies...) are complementary. They allow to collect different data that contribute to the evaluation of GES and to the monitoring of the different criteria. Depending on their characteristics, they can be used to assess trends on different time and geographic scales;
- Existing surveys from platforms of opportunities (ferries or scientific vessels) should be included in the Members States monitoring programmes and their results should be analysed at the regional or sub-regional level;
- Multispecies / multi targets approaches (all megafauna species + floating debris) should be promoted, at different seasons;
- In order to better understand movements and migrations, efforts should be made towards multi-seasons (at least summer/winter) surveys;
- Acoustic techniques should be favoured for certain species (deep-divers and discrete species for example) and can also be used for MSFD Descriptor 11;
- Regardless of the monitoring methods/techniques used, trained observers are required to ensure reliable data collection.

Increasing regional coordination:

- Bilateral and sub-regional coordination should be increased to ensure better synchronization and harmonization of the monitoring efforts/surveys; In particular, it should help harmonizing the species lists, the methodologies and the frequency of the monitoring;
- The coordination should be increased at the scientific level, but also at the level of the MSFD competent authorities of neighbouring countries;
- The development and implementation of joint projects help to increase the coordination between neighbouring countries (between EU Member States but also with non-EU Member States), however the approach by project is hardly sustainable with regards to funding;
- The regional organizations, such as ACCOBAMS, ASCOBANS and the Regional Seas Conventions (OSPAR, Barcelona Convention...) should be rallied around facilitating the implementation of the regional marine mammal monitoring programmes as they can act as catalysts and coordination platform.

TOWARDS COORDINATED MARINE MAMMAL MONITORING PROGRAMMES FOR MSFD SECOND CYCLE 2020-2026

PROVISIONAL AGENDA
8 December 2019 – Barcelona, Spain

Opening of workshop	
8h30 – 8h45	Presentation of the participants
8h45 – 9h00	Introduction and scope of the workshop (Benjamin Guichard)
Session 1 - National monitoring programmes (5-10 minutes per country, including questions)	
9h00 – 9h10	Slovenia (Tilen Genov)
9h10 – 9h20	Croatia (Drasko Holcer)
9h20 – 9h30	Greece (Amalia Alberini)
9h30 – 9h40	Bulgaria & Romania (Marian Paiu)
9h40 – 9h50	Italy (Giancarlo Lauriano)
9h50 – 10h00	France (Benjamin Guichard)
10h00 – 10h30	<i>Group photo and coffee break</i>
10h30 – 10h40	Spain (Helena Moreno & Tono Vasquez)
10h40 – 10h50	Portugal (António Teixeira)
10h50 – 11h00	Netherlands (Steve Geelhoed)
Session 2 – Existing Large-Scale Surveys & Methods	
11h00 – 11h10	Small Cetacean Abundance in the North Sea and Adjacent waters (SCANS) survey (Steve Geelhoed)
11h10 – 11h20	ACCOBAMS Survey Initiative (Simone Panigada)
11h20 – 11h30	Fixed Line Transect Mediterranean monitoring Network - FLT Med Net (Antonella Arcangeli / Lea David)
11h30 – 11h40	ORCA vessel surveys and State of European Cetaceans report (Sally Hamilton)
11h40 – 11h50	Boat-based acoustic surveys (Oliver Boisseau)
11h50 – 12h00	French acoustic monitoring programme for MSFD 2 nd cycle (Flore Samaran)
Session 3 – Discussions & Recommendations	
12h00 – 12h30	Summary of the recommendations