RESOLUTION 5.11

SHIP STRIKES ON CETACEANS IN THE MEDITERRANEAN SEA

The Meeting of the Parties to the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area:

Recalling Resolution 4.10 "Ship Strikes on large cetaceans in the Mediterranean Sea", which has replaced the previous Resolution 3.14,

Taking in consideration the Recommendations of the Scientific Committee,

Aware that cetaceans, in particular large species such as fin and sperm whales, are threatened by impacts with ships,

Also aware that the speed, rather than the shape or displacement, of vessels is the most significant factor in ship strikes,

Recognizing that the number of vessels will increase substantially in the near future,

Recalling the Resolution 8.22 of the Meeting of the Parties of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) on Human-Induced Impacts on Cetaceans, which also addresses ship strikes, and under which a CMS Programme of Work for Cetaceans is being developed,

Conscious that ship strikes are a concern for many populations of cetaceans listed on the Appendix of CMS and that the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) is also concerned with this issue,

Taking note of the Guidance document for minimizing the risk of ship strikes with cetaceans of the International Maritime Organization (IMO)[1], and of the publication: "Mapping of potential risk of ship strike with fin whales in the Western Mediterranean Sea. A scientific and technical review using the potential habitat of fin whales and the effective vessel density" from the Joint Research Center of the European Commission,

Stressing that the broadest application of REPCET project, which is being carried out within the Pelagos Sanctuary, is of particular importance,

Taking note of the report and the work plan of the joint IWC (International Whaling Commission) - ACCOBAMS Workshop on Reducing Risk of Collisions between Vessels and Cetaceans, held in Beaulieu, France, in 2010,

Considering that a number of areas are of particular interest due to their shipping and cetacean density, such as, in the Mediterranean Sea, the Strait of Gibraltar, the Pelagos Sanctuary, the area south west of the island of Crete, the area around the Balearic Islands, the area between Almeria and Nador at the eastern side of the Alborán Sea, the Strait of Sicily, and, in the ACCOBAMS extension area, the Bay of Biscay,

Welcoming projects undertaken by ACCOBAMS Partners such as GIS 3M, écoOcean Institute and CIRCE regarding ship strikes on cetaceans,

Welcoming, as regards the problem of ships strikes, all forms of collaborative work which involves, besides the ACCOBAMS Parties and Secretariat, other interested entities, such as the IMO, the IWC, the European Commission and the CMS, ASCOBANS, Pelagos,

[1] Reference: Ref. T5/1.01 MEPC.1/Circ.674.

1. *Urges* Parties:
    - to enhance involvement of the competent authorities in facilitating exchange of information between scientists and shipping companies;
    - to support the ACCOBAMS Survey Initiative (Comprehensive cetacean population estimates and distribution in ACCOBAMS area), since such effort can provide detailed information on large cetaceans' abundance and distribution throughout the Mediterranean and on high risk areas for cetaceans and ship strikes;
    - to allow access to general summarized ship traffic data (some of which data can be accessed from the European Union Member States's (MS) Initial assessment reports compiled for the Marine Strategy Framework Directive, with regards to the pressures sections and available on each MS's website and also through the Automatic Identification System (AIS), in order to relate traffic information to cetacean presence and allow identification of high risk areas for ship strikes;
    - to consider extending to the entire Agreement area the REPCET system applied in the Pelagos Sanctuary area with some shipping companies and, when feasible, with the financial or other support as necessary, from the Secretariat;
    - to take note of the recommendations and the work plan from the joint IWC - ACCOBAMS Workshop on reducing the risk of collisions between vessels and cetaceans in the Mediterranean area, as annexed to Resolution 4.10, as well of subsequent additional information;

2. *Encourages* Parties to continue to collect information on non-lethal ship strikes through photo-identification studies, with the aim of allowing an assessment of the extent of ship strikes within the Agreement area and developing effective mitigation measures, including the modification of shipping lanes;

3. *Recommends* Parties to support studies, in particular photo-identification studies along with telemetry and genetic studies, that elucidate migration/movement patterns of sperm and fin whales throughout the ACCOBAMS area and to report the results to the ACCOBAMS and IWC Scientific Committees;

4. *Invites* Parties, with the advice of the Scientific Committee:
    - to follow and support the recommendations adopted by international bodies, such as IMO or the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC);
    - to prepare and present joint documents to IMO–MEPC;
    - to consider adopting systems under the IMO framework, such as the Mandatory Ship Reporting System or the establishment of Particularly Sensitive Sea Areas;
    - to make the reporting of actual ship strikes, or near misses, available, to fill the relevant databases that have been developed regionally and within the IWC and to transmit the reports to the relevant authorities, when relevant;

5. *Requests* Parties:
    - to consider ship strikes with cetaceans as a complementary topic for training watchmen and crew on deck, involving merchant navy schools, shipping companies (including ferry companies and cetacean watching vessels) and navies;
    - to provide for detailed necropsies following dedicated protocols to assess the cause of death for stranded large cetaceans;
    - to ask the Secretariat to assist them in enhancing the necessary skills to perform these tasks, when needed;
    - to ensure communication with shipping companies and increase reporting by them of ship strike events as far as possible;

6. *Instructs* the Agreement Secretariat to investigate the most appropriate ways of:
    - raising cetacean issues with the International Maritime Organization (IMO) and the Regional Marine Pollution Emergency Response Centre (REMPEC) and obtaining relevant information from them;

- liaising with the Ship Strike Working Group of the International Whaling Commission (IWC);
- liaising with the IWC Secretariat and associated scientific bodies, to provide a complementary ACCOBAMS database of ship collisions, that is directly linked to and in accord with the global IWC database;
- collaborating with the Pelagos Secretariat to propose mitigation measures to the Parties;
- collaborating closely with the joint CMS/ASCOBANS Secretariat as well as the scientific bodies of the two Agreements to facilitate full exchange of information and, where appropriate, joint projects/initiatives;
- encouraging collaboration with non-party States;
- facilitating collaborations among countries for specific issues, including the exchange of information on traffic, presented on the Automatic Identification System (AIS) and ship strike issues in targeted areas, such as between Spain and Morocco;
- enhancing cooperation with companies in ship strikes mitigation;
- taking into consideration activities developed by other relevant Organizations.

7. *Asks* the Scientific Committee:
    - to identify joint actions and pilot measures for using the Pelagos Sanctuary and the Strait of Gibraltar as model for testing ground for mitigation measures;
    - to identify areas with high / medium shipping density and assess for these areas the potential risks of collision with cetaceans;
    - to promote behaviour studies on large cetaceans regarding risks of ship strikes;
    - to develop a protocol for investigating and documenting ship strike injuries and mortalities in cetaceans, in the frame of the joint two-year work plan to address ship strike issues with IWC;

8. *Asks* the ACCOBAMS Ship Strikes Working Group to continue its work, to collate relevant studies within and outside the Agreement area and report on them, to foster collaboration with the IMO, the IWC and the CMS, ASCOBANS, Pelagos, as well as to develop priority actions and studies, including the consideration of a project for a standard training module;

9. *Asks* the ACCOBAMS Ship Strikes Working Group to collaborate with the IWC working group on ship strikes;

10. *Decides* that the present Resolution replaces Resolution 4.10 and that the Annex to Resolution 4.10 is to be annexed to the present Resolution.

ANNEX

Excerpt of the "Report of the Joint IWC-ACCOBAMS Workshop on Reducing Risk of Collisions between Vessels and Cetaceans"[2], September 2010, Beaulieu (France)

(...)

8. RECOMMENDATIONS

All of the recommendations in the report are important. However, here a number are highlighted.

8.1 Priority species/populations/areas

Several species of whales are at risk of ship strikes within the geographical area examined by the Workshop including fin, sperm and other deep diving species. The Workshop recognised that gaps in data exist for both whale distribution and abundance, and also for shipping data. This lack of data prevented a full assessment of the conservation implications of ship strikes for both species. Nonetheless the Workshop **recommended** three areas as priorities for collecting data to allow improved risk assessments of ship strikes:

(1) **The Strait of Gibraltar**. The Straits carry some of the highest traffic densities in the world and are a region of known importance for concentrations of whales with a number of demonstrated cases of ship strikes.

(2) **The Pelagos Sanctuary**. Fin and sperm whale strikes have regularly been reported from the areas within and around the Sanctuary and the commitment of the range states provides a platform for the introduction of mitigation measures.

(3) **The area south west of the island of Crete**. Localised studies of sperm whales in the Mediterranean suggest that distribution is highly concentrated within limited areas with low densities elsewhere. Long-term studies to the SW of Crete have suggested that this is a consistent area of high concentrations of sperm whales where ship strike mortalities are known to have occurred. The density of shipping also suggests this may be a high risk area. This area is suggested as a focus for further investigation to ensure sufficient data are gathered to determine whether minor routing changes to shipping could achieve a significant risk reduction. Although the conservation implications from ship strikes at a population level cannot be determined without further abundance data, studies to determine effective mitigation strategies could allow these to be implemented rapidly if new data on abundance indicated a serious conservation problem.

(4) The **area around the Balearic Islands** and the main shipping routes radiating from Ibiza, Mallorca and Menorca towards the Gulf of Lyons, Valencia and Alicante constitute one of the top high risk areas for interactions between shipping, and especially fast ferry lines and whales. Studies conducted by Alnitak (e.g. (Cañadas *et al.*, 2000; Cañadas *et al.*, 2005; Canadas *et al.*, 1999) highlight the relevance of the waters around these islands for cetaceans and particularly sperm whales and fin whales. Reports of collisions in all three islands and the intensity of ferry traffic clearly highlight the need for an intensified monitoring effort. In the context of the LIFE project INDEMARES, Spain has been conducting pilot monitoring studies using AIS data.

(5) The **area between Almeria and Nador at the eastern side of the Alborán Sea** constitutes one the main cetacean hotspots in Europe and the Mediterranean, both in terms of diversity of species as for the abundance of priority species currently more vulnerable (Cañadas *et al.*, 2005). Maritime traffic in this region is also extraordinarily complex and new ferry and fast ferry lines have raised concern over the increased risk of collision with whales. For experimenting new technological measures to mitigate risk this site is of special interest given the positive momentum of cooperation between researchers, relevant authorities and the shipping sector as a result of the reconfiguration of the Traffic Separation Scheme of Cabo de Gata and the Notices to Mariners in the Strait of Gibraltar (Tejedor *et al.*, 2008). This

[2] Complete report available at : http://iwcoffice.org/meetings/shipstrikes10.htm

task is currently being initiated in the context of the EC LIFE+ Nature project INDEMARES, coordinated by Spanish Ministry of the Environment, Rural and maritime Affairs (Fundación Biodiversidad).

(6) **The Canary Islands,** the Workshop reviewed data (see IWC/S10/SSW5.3) which indicated that deep diving species including sperm whales, pygmy sperm whales, pilot whales and beaked whales are the principal species affected by ship strikes (Carrillo and Ritter, 2008; Ritter, 2007). The Workshop further **recommended** that these populations should be considered as candidates for the development of a conservation management plan or plans to address the risk of ship strike, following the guidance provided in Donovan *et al.* (2008) and IWC/62/Rep. 4. The Workshop reviewed the limited current survey data and **recommended** that obtaining accurate estimates of abundance and distribution for these populations was a priority. Specific priority areas with respect to ship strikes were recognised as being the channel between Tenerife and La Gomera, the channel between Tenerife and Gran Canaria, the strait between Lanzarote and Fuerteventura (see Ritter, 2007, for details).

8.1.1 Recommendations at scientific level

The Workshop recognised the need to obtain data on distribution, abundance and population structure of cetaceans in the Mediterranean Sea and Canary Islands in order to be able to evaluate the conservation implications of ship strikes on mortality[3]. Accordingly the Workshop re-iterated its earlier **recommendation** (Item 5.4) that a consolidated and concerted effort be made, especially by Parties to ACCOBAMS, to obtain the necessary resources to ensure that the previously endorsed basin wide survey in ACCOBAMS waters is undertaken by the summer of 2012.
The Workshop **recommended** that additional data collection and risk assessments be conducted for the six priority areas named above (Item 8.1). It recognised that it may be more difficult to obtain the necessary abundance estimates around the Canary Islands as the population structure and geographical extent of these populations are poorly known. However, localised ship strikes may be of conservation significance to local populations, and surveys are needed to fill in current data gaps in the priority areas identified above (Item 5.4).

8.1.2 Conservation measures

As noted above, the lack of the necessary data on cetaceans and vessels along with the lack of agreed conservation objectives, means that it is not possible in most cases to carry out a full risk assessment, especially within the ACCOBAMS region. That being said, the available data do suggest certain priority areas where it may be prudent to instigate mitigation measures and a monitoring programme. For the Strait of Gibraltar, the Workshop reviewed the range of mitigation measures available and concluded that the most efficient option would be to reduce speed given the limited options for re-routing shipping traffic. However the Workshop also noted the practical difficulties that some vessels will encounter in transiting the straits at reduced speeds.
For the Pelagos Sanctuary, the Workshop noted that preparations are being made to submit the designation of the Sanctuary as a Particularly Sensitive Sea Area (PSSA) under the IMO. The Workshop **endorsed** this process and recognised that this would need to be accompanied by specific measures to reduce ship strikes. The Workshop noted that several measures, including re-routing and speed reductions measures may be beneficial once a thorough analysis of the newly available data had been completed (e.g. the Italian aerial survey programme), **stressing** the need for a carefully specified monitoring programme.
For the area southwest of Crete it was noted that this is a turning point for long distance traffic transiting the Mediterranean. The Workshop **recommended** that a full analysis of the available shipping and cetacean data is undertaken (and additional monitoring carried out including the basin wide survey) to confirm whether a small change in routing to avoid an apparent hotspot for sperm whales would be beneficial; this would add only a minor additional distance to the overall transit journey.
For the Canary Islands, the Workshop **recommended** the establishment of dedicated observers on fast and high speed ferries as well as according training and education efforts for observers and vessel crews (see Item 7.4). The need for speed reduction was discussed, and speed restrictions (e.g. to ≤10 knots) within existing SACs (Special Areas of Conservation) or identified small scale high risk areas (see map in Ritter, 2007) were **recommended** (see Item 7.2).

[3] Several documents have been submitted to the IWC, including IWC/61/CC16, Carrillo and Ritter (2008) and Ritter (2007).

Furthermore, although re-routing might not be feasible in certain areas, it was **recommended** that approaches like route switching from different ports or other forms of experimental re-routing away from areas with high cetacean concentration should be conducted. Examples would be the current ferry transects from Tenerife to La Palma, La Gomera and Gran Canaria, respectively.
In light of the fact that new inter-island ferry connections are planned, the Workshop suggested that the adoption of the mitigation measures mentioned above, should be preconditions for operation.
The Workshop recognised that increased training measures for mariners, including expansion of the maritime training academy ship strike reduction training module[4] whilst not being a mitigation measure in its own right, nonetheless provided valuable opportunities to assist in the implementation of mitigation measures in the future.

8.1.3 Reporting

The Workshop discussed methods to improve reporting of ship strikes. These were: (1) strengthening of existing strandings networks and (2) encouraging reporting of strikes to the IWC database. The Workshop **reiterated** that to obtain the most extensive datasets, measures should be taken to make reporting of ship strikes mandatory and that contracting parties to IWC and ACCOBAMS establish mechanisms to improve and give priority to the reporting of ship strikes, ultimately to the IWC database.
In particular, the Workshop **recommended** that mandatory reporting (especially for ferries) in the Canary Islands should be established as soon as possible; the Spanish and Canary Islands Governments are competent authorities for maritime traffic and conservation measures respectively.
Additionally, the Workshop **recommended** that training schemes for mariners be expanded to include awareness of the need to report ship strikes, and that this be facilitated by making a link from the IMO environmental reporting section of its website direct to the IWC database.
In relation to strengthening of existing stranding networks, the Workshop proposed a series of actions in the two year work plan (Item 9) to increase their capacity and to introduce new necropsy techniques.

8.2 Other

The Workshop discussed methods to enhance action on the part of states to both improve reporting of strikes and adopt appropriate mitigation measures. There was a brief discussion on the relevance of various national and international laws to assist in this regard, and the Workshop **recommended** that the ACCOBAMS and IWC Secretariats request contracting parties to provide information on national legal statutes that may require Governments to take measures to reduce the risk of ships striking cetaceans.

9. PROPOSAL FOR A JOINT TWO-YEAR WORK PLAN TO ADDRESS SHIP STRIKE ISSUES

As decided by the IWC and ACCOBAMS, a two-year work plan needs to be developed to reduce collision risks in the ACCOBAMS area. Both organisations have been working for several years on the issue of ship strikes. The following four actions are proposed, subject to endorsement by ACCOBAMS and IWC Parties at their forthcoming meetings of contracting Parties.

9.1 Development of a protocol for investigating and documenting ship strike injuries and mortalities in cetaceans

Recognizing the benefits of collaboration across national boundaries and the need for consistent documentation of human interactions with cetaceans, the Workshop **recommended** that the IWC and ACCOBAMS Scientific Committees establish a Joint Stranding investigation Working Group to carry out the actions listed below.
(1) Review existing protocols (such as those used in the USA or UK) and tools for determining the presence or role of human interactions in the stranding of cetaceans, with particular emphasis on ship strikes, developing consistent terminology, diagnoses, reporting, and evidence collection.

[4] http://www.ncro.noaa.gov/shipstrike/doc/mtr.html

(2) Identify, develop, review, and validate tools, techniques and/or methods to address key issues relative to stranding investigations such as: (i) time from death; (ii) role of injury in the death; and (iii) time of injury related to death and to promote the use of such validated tools to give a systematic diagnostic approach to the problem of mortalities due to human interaction, with particular emphasis on ship strikes.
(3) Develop a tiered approach that addresses the various experience levels of network participants and the multidisciplinary approach required for a definitive diagnosis. The developed methodology will be addressed to participants at different levels in the stranding networks (volunteers, biologists, veterinarians, pathologists).
(4) Develop and implement training using these agreed approaches and/or protocols (initial emphasis should be given to specific priority ACCOBAMS areas).
(5) Build capacity in range states with no strandings programmes to include human interaction detection, documentation and reporting.
(6) Plan and hold a range-wide stranding coordination meeting for ACCOBAMS members. This type of regional cooperation should become a model for other agreements between IWC and regional conservation bodies that require evaluation of human impacts on cetaceans.

9.2 Mediterranean basin wide survey in the summer of 2012

Given the essential need for baseline data to assess potential effects of ship strikes and other anthropogenic threats to cetaceans, a consolidated and concerted effort must be made, especially by Parties to ACCOBAMS, to obtain the necessary resources to ensure that the previously endorsed basin wide survey in ACCOBAMS waters is undertaken by the summer of 2012. The IWC Scientific Committee will continue to supply scientific support.

9.3 Improved reporting to the IWC global ship strike database

Given the identified need for ship strike data worldwide to be able to assess potential conservation problems, a strong commitment should be given by IWC and ACCOBAMS Parties to actively encourage reporting of ship strikes to the IWC global database. In this regard, the Workshop also **recommended** that efforts be made to encourage IMO member states to make it mandatory to report ship strikes of cetaceans by vessels in their waters or under their flags. In addition, the Workshop **recommended** that governments should facilitate and develop mechanisms to ensure reporting of ship strikes by non-merchant vessels to the IWC database. It was noted that the IMO has sections on its website related to databases on environmental issues. A link to the IWC database on the IMO site would facilitate reporting. The Workshop **recommended** that IWC Secretary approach the IMO to discuss links between the web sites for both reporting and information dissemination.

9.4 Development of appropriate modelling techniques to identify high priority areas

The IWC and ACCOBAMS should obtain funding and organise a workshop of experts in cetacean and shipping distribution to agree on appropriate analytical and modelling techniques to facilitate the identification of potential 'hotspots' for more detailed future consideration.

9.5 Review of progress

The Workshop commends its recommendations to the IWC and ACCOBAMS for endorsement. Those organisations should develop a reporting mechanism to review progress on the implementation of the endorsed recommendations in a timely fashion.

(...)