

63rd Annual Meeting of the International Whaling Commission

SHIP STRIKES WORKING GROUP

SIXTH PROGRESS REPORT TO THE CONSERVATION COMMITTEE



Credit: Global Ocean Race

JUNE 2011

1. BACKGROUND TO THE SIXTH PROGRESS REPORT

The Ship Strikes Working Group (SSWG) was established at IWC/57 in 2005 by the Conservation Committee to examine the issue of ship strikes with cetaceans. The group is comprised of Argentina, Australia, Belgium, Brazil, Denmark/Greenland, France, Germany, Italy, Republic of Korea, Luxemburg, New Zealand, Portugal, South Africa, Spain, UK, the USA and UNEP/CMS (see Appendix 1 for an updated list). Belgium is chairing the Working Group. The SSWG submitted its First Progress Report to the Conservation Committee at IWC/58 in St. Kitts and Nevis. A work plan was subsequently developed.

At IWC/59, the Conservation Committee reviewed progress with the work as provided in the Second Progress Report (IWC/59/CC3) and the recommendations for further work proposed by the SSWG: co-operation with IMO, development of a global ship strikes database; development of national and regional legislation, rules and action plans to reduce the impact of ship strikes, with priority for high-risk areas; preparations for a multidisciplinary expert workshop on ship strike mitigation; recommendations relevant to the Scientific Committee.

At IWC/60, the Conservation Committee reviewed progress with the work as provided in the Third Progress Report (IWC/60/CC3) and four recommendations for further work proposed by the SSWG which had met on June 16:

- 1) The SSWG endorses the recommendations of the Scientific Committee for future work, including that the Secretariat develop and maintain the ship strikes database and integrate it in the IWC website;
- 2) The Conservation Committee should request contracting governments to use the agreed ship strike template and submit ship strikes data to the IWC Secretariat on a regular basis;
- 3) The Conservation Committee should request contracting governments to communicate ship strikes data and information to relevant maritime sector bodies, including port authorities, shipping federations, coast guards and other relevant bodies;
- 4) The establishment of a Steering Committee for a multidisciplinary workshop on ship strike mitigation, noting that workshop participants should represent experts from within the Commission, the Scientific Committee and appropriate other organizations.

The Committee endorsed these recommendations.

It was noted that progress had been made in all areas except the development and implementation of national legislation.

At IWC/61, the Conservation Committee reviewed work progress as provided in the Fourth Progress Report (IWC/61/CC11) and endorsed the proposal for the joint IWC/ACCOBAMS workshop on ship strikes mitigation.

At IWC/62, the Conservation Committee reviewed work progress as provided in the Fifth Progress Report (IWC/62/CC10), including national and regional initiatives.

This document therefore:

1. reports on progress with past recommendations;
2. provides updated and new information on ship strikes on cetaceans collected since IWC/62.

2. PROGRESS MADE WITH RECOMMENDATIONS

2.1 Co-operation with IMO

Co-operation with the IMO is ongoing. As said in the 2010 progress report, closer co-operation will also be in keeping with the suggestion coming from the process on the future of IWC that co-ordination with other relevant international conventions be improved. Currently, two issues are of common interest: ship strikes and underwater noise. At IWC/61, the Scientific Committee established an intersessional correspondence group on anthropogenic sound to elaborate this item further for its 2010 meeting. The focus is on the impacts of long-term chronic exposure to high levels of anthropogenic sound, primarily from shipping.

Due to the date clash between MEPC 62 and the Commission meeting next July, the IWC Secretariat will not be in a position to participate. Regarding the IMO NAV sub-committee where a Mandatory Polar Code is discussed, there is also a date clash with the IWC Scientific Committee meeting in Tromsø. However, for MEPC 63 in March 2012, the IWC will submit the report of the Conservation Committee and Commission discussions on the IWC/ACCOBAMS Beaulieu-sur-Mer workshop on ship strikes mitigation. At MEPC 63, there will also be a work program item “Noise from commercial shipping and its adverse impacts on marine life”.

2.2 Global database on ship strikes

The IWC has continued work to develop a global database of collision incidents to support further analyses of factors affecting risk, identification of areas where ship strikes may be of particular conservation concern, and development of the most effective mitigation measures. Data presented to IWC 62 in National Progress Reports have all been entered. All data in the database were also reviewed and codes (e.g. for sea areas and vessel types) were standardised. In addition, tools for identifying duplicate data entries of the same incident within the database were developed. The new system groups individual records or pieces of evidence into a single ‘case’. Using these tools, duplicate records were grouped into cases, resulting in a summary table of 539 cases (based on data received up until October 2010) that were classified as ‘definite’ ship strike events. This summary table has been made publicly available at http://iwcoffice.org/sci_com/shipstrikes.htm. These summary data come mainly from reviews of historical sources, including past national progress reports to IWC. Therefore, the interpretation as to whether these incidents were indeed definite ships strikes relies on the provider of the data or authors of review papers. The IWC Scientific Committee has established a ship strike data review group, but this group has only reviewed the most recent submissions.

Despite some publicity efforts, the utility and existence of the database is still not sufficiently widely recognised to encourage mariners and others to report data. Only one unsolicited data entry has been received so far in 2011. Based on the experience of the last two years when the data entry system has been up and running, it is not realistic to expect a significant number or proportion of collisions to be reported to the database by mariners or scientists who have not been directly involved with the database. This suggests the need for a more pro-active approach in which entries for the database are actively solicited. The Scientific Committee recommended in 2010 that consideration be given to the appointment of a dedicated co-ordinator for the database, noting that this is the practice for other similar successful databases of this scale.

2.3 Development of national and regional legislation, rules and action plans to reduce the impact of ship strikes, with priority for high-risk areas

As said in the 2010 report, two parallel courses of action need to be followed if progress is to be made: adoption of legislation by the relevant countries and guidance through international organizations like the IMO. An assessment of the different aspects of ship strikes to be addressed by these two courses of action will be necessary.

In order to enable the mapping of shipping routes and whale distribution, a letter was sent on 16 May through the IWC Secretariat to the Executive Secretary of the European Maritime Safety Agency (EMSA, Lisbon) with a view to knowing the procedure to access shipping data. The next meeting of the EMSA Steering Group in charge of data access is scheduled in October 2011. On 26 May, the SSWG Chair attended a demo of SAFESEANET at EMSA’s headquarters. SAFESEANET is the European Platform for Maritime Data Exchange between Member States’ maritime authorities. The demo provided the following information: as a system for monitoring EU vessel traffic, SAFESEANET enables Member States’ competent authorities to provide and receive information (including movements and speed) on ships and their hazardous cargoes; it also includes high-speed ferries and fishing vessels equipped with VMS are part of a pilot project; the information is obtained from Member States and through national coastal Automatic Identification System (AIS) stations and can be combined using the same graphical interface with information received through the Long Range Identification and Tracking (LRIT) satellites. Satellite AIS data will also be used. LRIT data are not in the public domain. A data warehouse is under development, which will provide historical data and statistics.

At IMO level, a joint NGO submission¹ was made to MEPC 62 (11-15 July 2011) on Arctic Shipping and Cetaceans: Recommendations Regarding Mitigation Measures and the development of the Mandatory Polar Code (WWF, FOEI and IFAW). The paper includes recommendations to reduce the foreseen increased impact of shipping in the region, including in relation with ship strikes.

¹ Document MEPC 62/11/6.

2.4 Multidisciplinary expert workshop on ship strike mitigation

The joint IWC-ACCOBAMS ship strikes mitigation workshop with a focus on the Mediterranean Sea and the Canary Islands took place from 21 to 24 September 2010 in Beaulieu-sur-Mer (France). With 45 registered participants, there was broad stakeholder representation, including scientists, government, industry and NGO representatives. Nineteen papers were presented, among which: shipping and whale data overlay, regional case studies, technological developments, national measures and measures taken through the IMO. The agenda included the following items: data requirements, risk assessment, mitigation measures, recommendations and the development of a two-year work plan for IWC/ACCOBAMS collaboration.

During the workshop, the following issues generated extensive discussion: data on cetacean abundance and data on collisions (these data come mainly from the examination of carcasses; basin-wide stranding networks should be established in the Mediterranean); data on shipping density (the availability and merits of AIS, LRIT and Voluntary Observing Ships data was discussed); risk assessment through data overlays; mitigation measures (re-routing, speed restrictions, mandatory ship reporting systems and technological approaches were discussed).

Recommendations were adopted at species/population level for five areas of the Mediterranean Sea and three areas for the Canary Islands; recommendations were also made regarding scientific research and conservation measures proposed (can be supported by training of mariners). As underreporting of collisions remains a key concern, the workshop made recommendations with regard to the strengthening of existing stranding networks, the possibility to make reporting mandatory and the provision of training to mariners. Overall, the strengthening of collaboration at different levels with the IMO is advocated.

The proposed two-year work plan for collaboration between the IWC and ACCOBAMS includes four elements: development of a protocol for investigating and documenting ship strikes injuries and mortalities; supplying scientific support to the ACCOBAMS Mediterranean basin-wide cetacean survey that should ideally be organized in the summer of 2012, improved reporting to the IWC global ship strikes database and development of appropriate modeling techniques to identify high priority areas.

The workshop report, including the full presentations and abstracts, is available at <http://www.iwcoffice.org/meetings/shipstrikes10.htm>

2.5 Awareness raising

Whale stranding networks constitute an important source of information and an updated list of networks has been produced (IWC Circular 159 of 18/02/11) which covers a greater number of countries and now also incorporates e-mail addresses with a view to facilitating communication and co-operation between networks. The new list can be found on the IWC website at http://www.iwcoffice.org/sci_com/shipstrikes.htm#stranding.

The Chair of the Ship Strikes Working Group was invited to speak on ship strikes in the Arabic Peninsula at the 2d Marine Conservation Forum held in Abu Dhabi from 14 to 16 December 2010. He used the opportunity to sense the possibility to organize a regional workshop in preparation of a conservation management plan for the endangered population of Arabian Sea humpback whales. At the Forum, a request was made by Iran to translate the ship strikes folder into farsi; the translation is ongoing and the new language version will be laid out and reproduced in collaboration with IFAW.

Other outreach activities in which the SSWG Chair was involved are described below. The new exhibition on Whales and Dolphins organized at the Royal Belgian Institute of Natural Sciences in Brussels from 14 October 2009 till 29 August 2010 was visited by 120.000 people. General information on whales was provided by the IWC Secretariat and by the SSWG Chair on ship strikes. At the Maritime College of the State University of New York, on basis of material provided by the SSWG Chair, the issue of ship strikes has been presented in the framework of the course on 'Environmental Management'. The summer edition of Cleaner Seas magazine contains a progress update on ship strikes (<http://www.cleanerseas.com/>).

The German-based NGO M.E.E.R. created a comprehensive website on ship strikes (<http://www.m-e-e-r.de/473.0.html?&L=2>). This bilingual website highlights the issue in general and informs about mitigation measures. A section is dedicated to the situation in the Canary Islands and another section to collisions between sailing vessels and cetaceans.

2.6 Sailing and whale strikes

As was communicated at the Beaulieu workshop, sailing is another sector where strikes occur. It is recognised that collisions between sailing yachts and whales pose a serious threat to whales, sailors and their yachts. During the first International Congress on Oceanic sailing and the Environment held in Barcelona from 28 to 30 December 2010, a declaration was adopted which includes the following recommendation (translated from French): “In collaboration with the ship strikes working groups of the IWC and other reference organizations, it is important to explore the means to prevent collisions between sailing boats and cetaceans. One possible measure would be to identify risk areas and to compensate the sailors for the speed reductions or the requested changes of direction”. The congress was held on the occasion of the quick-off of the 2010-2011 Barcelona World Race.

A programme is being developed by the Environmental Investigation Agency (EIA) in partnership with the Global Ocean Race to increase awareness of this threat and seek mitigation measures to reduce it. It will be focused in the first instance on ocean races as these attract great attention throughout the international sailing community. Websites of these races can attract millions of hits as people track their progress. The programme aims to increase observation by sailors, particularly in areas that have high densities of whales and therefore greater risk of collisions. In addition, it will promote the importance of accurately reporting strike incidents. These will be submitted to the IWC for inclusion in the Ship Strikes Database, aiming to identify hotspots so that mitigation strategies can be implemented to reduce the risk. Discussion will take place with the International Sailing Federation (ISAF) to identify how this specific problem may be addressed at the IMO.

3. UPDATED AND NEW INFORMATION RECEIVED ON SHIP STRIKES SINCE IWC/62

Nations with binding and non-binding action in territorial or EEZ waters

Australia

The Australian Government has commenced the development of a National strategy aimed at preventing vessel-cetacean interactions. The strategy will focus on public awareness and education, and improved protocols for reporting vessel-cetacean incidents. The Australian Marine Mammal Centre (AMMC) has developed a national ship strike database and associated web-based questionnaire, based very closely on the IWC data collection questionnaire. This will ensure that the data collected in Australia is compatible with the IWC ship strike database. Attempts to submit data from Australian waters directly to the IWC will be redirected back to the AMMC-based portal to ensure all reporting will have national verification.

Mexico

There are no proper shipping lanes in Mexican waters, although there are specific routes used by large ships. The Government is currently developing the North Pacific Ocean Management Plan that will include such lanes. There is planned research between Mexico's National Institute of Ecology and the US National Marine Fisheries Service, Southwest Fisheries Science Centre, to study the fine scale space use of gray whale's migration routes, using satellite telemetry, and to be able to assess spatial risk to design shipping lanes.

New Zealand

A collaborative research project is underway to deploy d-tags to Bryde's whales to understand their sub-surface behaviour throughout the Hauraki Gulf. This is the region with high levels of vessel strike mortality, primarily of Bryde's whales. Agencies supporting this work are The University of Auckland (project leader Rochelle Constantine), Auckland City Council and the Department of Conservation. The research will form part of a larger project on anthropogenic noise in the Hauraki Gulf.

Spain

A set of coordinated efforts are being put in place to address vessel and cetacean interactions. On one hand and with a broad national focus, actions to identify assess and mitigate the impacts of maritime traffic activities on marine biodiversity with a special look into cetaceans' populations and marine protected areas are being developed as part of a European LIFE + Project². Although still in progress, the following undertaken tasks can be highlighted:

² LIFE+ "Inventory and designation of marine Natura 2000 areas in the Spanish sea". Further information on the progress of the project is available by contacting Ana Tejedor Arceredillo (ana@kaimarineservices.com).

- Collection of AIS data and analysis of maritime traffic volumes studies in the areas of study, in relation to the presence of protected species and habitats, are being carried out.
- Collection of baseline data of noise levels in biologically sensitive areas to investigate the potential of noise from shipping channels to interfere with biological signals within marine protected areas.
- Production of acoustic maps for Natura 2000 MPAs.
- Promotion of the work needed to better identify critical questions to be addressed when assessing potential disturbance by commercial shipping through the International Maritime Organisation.

On the other hand, particular efforts are being developed within the Canary Islands region. Among these efforts, the following are included:

- New sperm whales populations and distribution studies.
- Enhancement of the existing regional stranding network.
- Development of management plans for the existing MPAs. These management plans will include particular actions for the mitigation of vessel and cetacean interaction.

In addition to these programs, the Spanish Ministry of Environment, Rural and Marine Affairs is developing the Conservation Management Plans for those nationally threatened cetacean species. An assessment of shipping related risks will be carried out in the development of these plans, implementing, where appropriate mitigation measures to support the recovery and conservation of cetaceans.

Intergovernmental organisations, NGOs and Programmes

Convention on Migratory Species of Wild Animals (CMS)

The 9th Meeting of the Conference of the Parties (December 2008) adopted a Revised Secretariat Programme to Implement CMS Resolution 8.22 on Adverse Human-Induced Impacts on Cetaceans, including ship strikes. The work to finalize the *Programme of Work for Cetaceans* continues in collaboration with Whale and Dolphin Conservation Society (WDCS). Work will be completed in time for the 10th Meeting of the Conference of the Parties in November 2011.

ACCOBAMS

The Fourth Meeting of the Contracting Parties (Monaco, November 2010) adopted Resolution 4.10 on ship strikes on large whales in the Mediterranean. The Contracting Parties took note of the recommendations and the joint work plan from the IWC/ACCOBAMS Workshop on reducing the risk of collisions between vessels and cetaceans, the Mediterranean area being a key case study region discussed during the workshop. Contracting Parties recommended supporting studies that elucidate migration/movement patterns of sperm and fin whales throughout the ACCOBAMS area and reporting the results to the ACCOBAMS and IWC Scientific Committees. They also recommended addressing cetacean issues within the International Maritime Organization (IMO) and the Regional Marine Pollution Emergency Response Centre (REMPEC) and obtaining relevant information from them; liaising with the Ship Strikes Working Group of the International Whaling Commission; and liaising with the IWC Secretariat, and associated scientific bodies, to provide a complementary ACCOBAMS database of ship collisions, that is directly linked with and in accord with the global IWC database.

The ACCOBAMS Secretariat is planning to organise, in collaboration with the Government of Monaco, a workshop to promote the REPCET system among maritime companies early February 2012 in Monaco.

ASCOBANS

Funded by the CMS/UNEP Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas, an analysis of cetacean distribution data from systematic surveys of the region along with shipping densities has been conducted in order to identify areas where there is a high risk of ship strikes. For shipping information, this has used a combination of ships' Automatic Identification System (AIS) data and VOS (Voluntary Observing Ships) data collected by the World Meteorological Office. The final report was presented to the 18th Advisory Committee Meeting of ASCOBANS in Bonn, Germany in May 2011 and is available online (AC18/Doc.6-04, available at http://www.service-board.de/ascobans_neu/files/ac18/AC18_6-04_rev1_ProjectReport_ShipStrikes.pdf).

ECCEA

Meetings were held in Martinique during 2010 and 2011 between the French Navy and its "Direction de la Mer", its Surveillance and Rescue Operations Centre (CROSS AG), the Department of Environment/the French agency for Marine Protected Areas (AAMP) and ECCEA (Eastern Caribbean Coalition for Environmental Awareness), the SEPENMAR and the CAR SPAW/UNEP office with regard to possible use of the SPATIONAV/AIS state of the art monitoring system, recently made operational in Fort de France with regard to a proposal for a REPCET anti-collision protocol to limit damage to whales and humans in the region. AIS equipment is obligatory on fishing boats measuring more than 15m, on boats which tonnage exceeds 300 tons and all passenger vessels.

The French zone of competence extends to the mid Atlantic and covers much of the Wider Caribbean. The Centre in Fort de France is the only one of its kind in the Caribbean able to effectively track an increasingly dense maritime traffic in real time. 16 naval officers operate it 24 hours a day. Analysis of AIS data is to be undertaken by the CAR SPAW as this would provide valuable information on traffic and cetacean corridors. In order to further the REPCET initiative, meetings are planned with actors in the Pelagos sanctuary in the Mediterranean Sea and with Caribbean Shipping companies, fishers and port authorities.

WWF

WWF and Sea Watch Foundation have been liaising closely with the major shipping company Wallenius Wilhelmsen Logistics (WWL) on potential ship strike mitigation measures within the ASCOBANS Agreement area. Wallenius Wilhelmsen is showing strong leadership in the shipping industry by considering voluntary measures to reduce risk of ship strikes with cetaceans. At IMO level, as said above under 2.3, a joint NGO submission³ was made to MEPC 62 (11-15 July 2011) on Arctic Shipping and Cetaceans: Recommendations Regarding Mitigation Measures and the development of the Mandatory Polar Code (WWF, FOEI and IFAW). The paper includes recommendations to reduce the foreseen increased impact of shipping in the region, including in relation with ship strikes in areas of marine mammals density

Country reports and public information

Some Contracting Governments submit country reports on ship strikes to the Conservation Committee; their reports are available on the IWC website. The information below is more factual.

Italy

In cooperation with [ACCOBAMS](#) and the IWC, a series of initiatives - funded by the [Italian Ministry of the Environment](#) - to investigate and suggest mitigation measures for the risk of collision in the Mediterranean, particularly in the Pelagos Sanctuary, has been developed. One of the first aims of this initiative is to improve and increase the dataset for the Mediterranean basin and raise public and institutional awareness. A dedicated website (www.tethys.org/collisioni/) presents latest updated information about ship strikes, helps disseminate public awareness materials to inform ship crews and the general public and includes reporting forms.

This regional database is compatible with the global IWC database and the Mediterranean data will form an integral part of it. An important component is also the collaboration among shipping companies, port authorities and scientists, along with the provision of public information on reporting. The available information for the Mediterranean Sea is sparse. Reliable estimates of fatality rates and associated information are essential to assess impacts at the population level and design effective mitigation measures.

Preliminary qualitative maps to assess areas where ship strike risk may be high in the Mediterranean Sea have been produced, overlapping naval traffic - obtained from AIS data and from ferry routes - and large whales' known preferred habitats.

In 2006, the Italian Ministry of the Environment funded the creation of a Large Cetaceans Necropsy Task Force in order to perform detailed post mortem examinations on collided large whales. After a mass stranding of seven male sperm whales along the Southern Italy coastline, the group was upgraded to an Emergency Task Force for Cetaceans Strandings, able to coordinate large whales, live cetaceans and typical and atypical mass strandings. The Task Force, which is funded again by the Ministry of the Environment, will work in accordance with the National Veterinary Services and it is well equipped to conduct detailed necropsies in any field conditions in order to assess the involvement of any human activities, considering also ship strikes. With particular reference to this important threat for large whales in the Mediterranean, the use of specific forensic techniques have been studied and adopted.

³ Document MEPC 62/11/6.

Pelagos Sanctuary

Several studies and actions are conducted in the framework of the Pelagos Sanctuary, funded by the French Ministry of Environment:

- A collision network was created. A process encourages commercial ship owners and ports to report all known ship strikes. This approach aims to build confidence between these structures and environmental managers and, so, to avoid an occurrence or information concerning a ship strike with a whale being lost. All listed data are transmitted to the IWC global database. Further information is available by contacting Frédéric Capoulade (frederic.capoulade@souffleursdecume.com),
- Then, the North-western Mediterranean maritime traffic was precisely studied and characterised, high risk areas of collision were determined with management perspectives in terms of limitation of collisions. Further information is available by contacting Léa David (ecocean@wanadoo.fr). Report available (in French) through the PELAGOS France Secretariat (www.sanctuaire-pelagos.fr),
- Worldwide existing technical and legal measures were compiled and analysed, and adaptations for the special case of the Pelagos Sanctuary proposed. Report available (in French) at : <http://iwcoffice.org/documents/commission/Ship%20strikes/Souffleurs%20decume.pdf>,
- The French part of the Pelagos Sanctuary ordered a study to the GIS3M with a view to ask the IMO the classification of Pelagos as a PSSA (Particular Sensitive Sea Area). Further information is available by contacting Pascal Mayol (pascal.mayol@souffleursdecume.com),
- The training course for watch-keeping personnel (active or in training) operating in the Mediterranean is ongoing every year at the École Nationale de la Marine Marchande de Marseille (French National Merchant Marine School of Marseille). Additional information is available at: http://souffleursdecume.com/english/formation_collisions_EN.html
- Finally, the REPCET system (real-time plotting of cetaceans, www.repcet.com/accueil_en) is being deployed in the Pelagos Sanctuary and adjacent waters with the objective to have between 10 and 30 passenger and RO-RO ships equipped in 2011.

UK

On 22-23 March 2011, in Cornwall, the UK organized a workshop on Whale Welfare and Ethics. Dr Moore made a presentation titled 'Welfare of whales bycaught in fishing gear or struck by vessels' (see document IWC/63/WKM&AWI 4).

USA

A new report by the US Office of National Marine Sanctuaries (NMS) analyzes the threat of ship strikes in the Channel Islands National marine sanctuary off the coast of California and suggests options for reducing their likelihood. The NMS also received a petition from four environmental groups to establish vessel speed restrictions in all USA west coast sanctuaries to reduce the threat of ship strikes to blue, fin, and humpback whales.

Shipping and other industries

The NGO World Ocean Council organized a Sustainable Ocean Summit in Dublin on 15-17 June 2010 which included a session titled Ocean Industries and Marine Mammal Interactions (with input from the SSWG chair). The report is available at <http://www.oceancouncil.org/site/pdfs/SOS%202010%20Report-FINAL.pdf> . The WOC continues to grow as a multi-industry alliance on ocean sustainability issues, and plans to establish a working group in ship strikes.

Recently published papers, posters and information on ship strikes

Aniceto, A.S. et al. (2010): Ship strikes – the behaviour of fin whales (*Balaenoptera physalus*) in the presence of fast ferries in the Bay of Biscay. Poster presented at the Annual European Cetacean Society Conference, Cadiz, Spain, March 2011.

Carrillo, M. and Ritter, F.. 2010. Increasing numbers of ship strikes in the Canary Islands: proposals for immediate action to reduce risk of vessel-whale collisions. *J. Cetacean Res. Manage.* 11(2): 131–138.

David, L., Alleaume, S. and Guinet, C. Evaluation of the potential of collision between fin whales and maritime traffic in the north-western Mediterranean Sea in summer, and mitigation solutions. *Journal of Marine Animals and their Ecology*. In press.

David L. et Di-Méglio N, 2010. – Prévention des collisions entre navires et grands cétacés (Rorquals et Cachalot). Rapport GIS 3M (écoOcéan Institut) / PELAGOS France, 66p.

Di-Méglio N, David L., Capoulade F., Gambaiani D., Mayol P., Mc Kenzie C., Mc Kenzy E. et SCHEINDER M., 2010. – Synthèse des connaissances sur l'impact du trafic maritime. Rapport GIS 3M (écoOcéan Institut / Souffleurs d'écume) / PELAGOS France, 314p.

Gende S, Hendrix N, Harris K, Eichenlaub B, Nelson J, Pyare S. A Bayesian approach for understanding the role of ship speed in whales-ship encounters. Ecological Applications. In press.

Ritter, F. (2010): A Quantification of Ferry Traffic in the Canary Islands (Spain) and its Implications for Collisions with Cetaceans. J. Cetacean Res. Manage. 11(2): 139–146.

Saccini, S., Gomez, I., Arbelo, M., Sierra, E., Godinho, A., Bernaldo de Quirós, Y., Fernández, A. 2010. Dolphin death due to trauma in the Canary Islands waters: Interaction as a cause. 24th Annual Conference of the European Cetacean Society. 22-24 March 2010, Stralsund, Germany.

Silber, G.K., Slutsky, J., Bettridge, S. (2010) Hydrodynamics of a ship/whale collision. J. Exp. Mar. Biol. & Ecol. 391, 10-19.

Tejedor, A., Gauffier, P., De Stephanis, R., Cañadas, A. and Panigada, S. 2010. Progress report on the test to use the Strait of Gibraltar and Cabo de Gata TSS case studies as models for mitigation measures for ship strikes and other traffic related impacts on cetacean populations. Document presented at the 5th meeting of the ACCOBAMS Scientific Committee, Casablanca, 11-13 January 2010.

4. VOLUNTARY FINANCIAL CONTRIBUTIONS

Any new voluntary financial contributions or allocation of past ones will be discussed during the meeting of the Conservation Committee.

Appendix 1

Membership of the Ship Strikes Working Group as per May 2011

<u>Argentina</u> Miguel Iñiguez	<u>France</u> Vincent Ridoux	<u>New Zealand</u> Rochelle Constantine Louise Chilvers	<u>USA</u> Greg Silber Shannon Bettridge
<u>Australia</u> Christine Schweizer Fiona Bartlett	<u>Germany</u> Karl-Hermann Kock	<u>Portugal</u> Marina Sequeira	<u>CMS/ASCOBANS</u> Heidrun Frisch
<u>Belgium</u> Alexandre de Lichtervelde Fabian Ritter	<u>Italy</u> Caterina Fortuna	<u>South Africa</u> Herman Oosthuizen	
<u>Brazil</u> Onildo Joao Marini Filho	<u>Korea</u> Zang Geun Kim	<u>Spain</u> Santiago Lens Ana Tejedor Juan José Areces	
<u>Denmark/Greenland</u> Nette Leverman Maj Munk	<u>Luxemburg</u> Pierre Gallego	<u>UK</u> Jennifer Lonsdale	