

# **SC/68D/HIM/06**

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**Progress of IWC Work on Ship Strikes**

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## ABSTRACT

This paper provides updates on the progress of IWC work on ship strikes and invites comments from the Scientific Committee. Following this, the Ship Strikes Standing Working Group and convenor of HIM will refine both the Ship Strikes Strategic Plan and Workplan, and submit to the Commission for endorsement at IWC68.

## BACKGROUND

The IWC has identified the need to address the effects of ship strikes on cetacean populations, and especially large whale populations, as a conservation concern worldwide. Both the Conservation and Scientific Committees of the IWC are working to understand and reduce the threat posed by ship strikes. The Conservation Committee progresses its work through the Standing Working Group on Ship Strikes (SSWG), working closely with the Scientific Committee. The Secretariat (including the Human Impacts Technical Advisor and Data Manager) supports work across both Committees, particularly in terms of the ship strikes database and cooperation with other organisations.

### *Ship Strikes Strategic Plan and Workplan*

The IWC Strategic Plan (2017-2020) to Mitigate the Impacts of Ship Strikes aimed to develop approaches and solutions to achieve a permanent reduction in ship strikes globally. Its main strategic objectives included:

1. To reduce mortalities and injuries to large whales resulting from ship strikes.
2. Increase the application of measures that reduce collision probability, such as re-routing and speed reduction/limits on a global scale.
3. Improve reporting of incidents that do occur to the IWC Ship Strike Database.
4. Increase development/use of avoidance technologies and push for their widespread standardised use where appropriate.
5. Improve collaboration on ship strike issues internationally (e.g. International Maritime Organization (IMO), other IGOs (ACCOBAMS, ASCOBANS), NGOs, Arctic Council).
6. Increase public and industry awareness about the issue and mitigation measures to reduce this threat.

The current Strategic Plan expired in 2020, but was retained, taking into account relevant discussion by SC and CC 2020, with its timeline extended for two further years. Revisions to the Strategic Plan will be presented for endorsement by the Commission at IWC68. The current Ship Strikes Workplan underpins the Strategic Plan and a new Workplan for 2020-2022 was drafted and refined (CC/68A/09.3/01) after being presented to SC68B.

A new draft Strategic Plan for the 2022-2032 (SC68D/HIM/XX) period has now been developed based on the original plan, updates to both high risk populations and areas and the ongoing threat of ship strikes. The SSWG welcomes input from SC on this draft Strategic Plan so it can be refined before presentation and endorsement by the Conservation Committee and IWC68. This document will also be supported by an updated Workplan for 2022-2024.

## **SHIP STRIKES WORKPLAN**

A new Ship Strikes Workplan for 2020-2022 was developed by the SSWG in 2020, setting out priority activities in support of the objectives of the strategic plan, establishing timelines, and proposed roles and responsibilities. Given the delay of IWC68, the workplan has been further revised and drafted for the time period of 2022-2024 to cover the next intersessional period. The draft plan allocates responsibilities to existing IWC bodies, in addition to the Data Manager and a new Expert Panel (Annex 2).

The SSWG welcomes review and input from the SC on this draft Ship Strikes workplan, which will be further developed on the basis of SC feedback, and from other stakeholders, and will be reviewed by the CC before being presented to the Commission for endorsement at IWC68.

### *IWC Data Manager*

The Data Manager, in collaboration with the IWC Ship Strikes Working Group, Scientific Committee, and proposed Expert Panel, works to progress the strategic development of the Ship Strike Database and delivery of the Ship Strikes Workplan.

The Data Manager has been in place since April 2021 with funding from VCF and the SC. During SC68C, the Committee endorsed the proposal for additional funding for the position of Data Manager.

The SSWG now proposes that the SC consider endorsement of funding matching that from SC68C (£10,000) for the Data Manager position to continue progressing the development of the Ship Strike Database and delivery of the Ship Strikes Workplan for 2023 – 2024. Should the SC endorse this proposal, it will then be taken to IWC68 in October 2022 for endorsement by the Commission.

### *Ship Strikes database*

Since 2007, the IWC has been developing a global database of collisions between vessels and whales with associated collaboration from other international organisations. The objectives of this database are to contribute to a better understanding of the scale of the problem, of the factors that relate to risk (such as vessel type and speed), to estimate ship strike mortalities for different whale populations, to identify High Risk Areas and inform mitigation measures. The database went online in 2009. Between 2013 and 2020, the IWC employed two part-time data coordinators to facilitate addressing this issue. As was proposed at SC68B and CC 2020, a dedicated Data Manager has been employed at the Secretariat since April 2021 to continue this work.

In the past year, an assessment of the IWC Global Ship Strikes Database data model and records has highlighted areas of strength and improvement. Some of the strengths are in the use of the Portal for data entry and verification. Some of the areas for improvement are in standardising open text fields and inserting quality control measures within the data entry steps. Additionally, improvements have been made to the Portal to fix automatic emails and alerts. Currently there are a total of 1,154 cases in the database and 58 additional new reports to assign to cases since April 2020. Of those new reports, approximately 45% are ready to be finalised, 10% lack enough data to move forward, and 35% need additional follow-up. The Data Manager will work with the IWC Ship Strike Data Review Group to ensure all new entries are verified and categorised according to the data processing protocol.

The existence of country-specific datasets that can be added to the global database should be a priority. The database currently holds some of the records from the USA and Australia, but not the official records from their national databases. Whether it be submitting new reports to the database or adding additional information to already existing cases within the database, the ingestion of known country datasets would add significant value to all data involved. With the employment of the Data

Manager at the Secretariat, it is ideal to begin adding these datasets into the global database. In the coming weeks, the Data Manager will begin reaching out to dataset holders to meet and scope the ingestion of data. Regardless of variations in data format and standardisation within the datasets, the Data Manager will take responsibility for the data processing into the database to lessen the effort load for the current data holders. Once the data have been ingested into the database, additional data sharing and analysis can occur.

Over the past year, there have been four requests for data. These requests include ship strike data along the east coast of the United States, data on human injury and vessel damage, spatial data for students to create an ESRI (Environmental Systems Research Institute) Story Map, and records from Norwegian waters. Three of the data requests were fulfilled with data usage and metadata documentation included with the data. However, the data request for Norway could not be fulfilled since there are no data for those waters. A data platform on the IWC website should be considered to increase data access and usage. This could include a dashboard for data exploration and a graphical user interface to download high level data to csv files.

### **SHIP STRIKES EXPERT PANEL**

The structure for supporting IWC work on ship strikes was agreed at CC 2020 (CC/68A/09.2/01) and SC68B (SC/68B/HIM/13) and all elements are now in place, except the Expert Panel.

As a reminder it was proposed that the Expert Panel, which will report to the SSWG and SC, be established by the SSWG in consultation with the SC.

At SC68B it was proposed and agreed that the Expert Panel could initially be formed from the existing Ship Strikes Data Review and Ship Routeing Groups within the Scientific Committee, but also include those with expertise on management of shipping and knowledge of the shipping industry.

The proposed responsibilities for the Expert Panel are briefly set out below and detailed TORs will be developed following discussion with the SSWG and the convenor of HIM, with SC input.

The Expert Panel will provide scientific and technical advice to the Data Manager and SSWG in support of implementation of the Ship Strikes workplan including through:

- Supporting the development and use of the ship strikes database, including through undertaking review of database records (as per the TORs of the existing Data Review Group)
- Collate information on high risk populations and areas and on monitoring of impacts of mitigation measures taken
- Input of technical expertise to support development and application of mitigation measures and the review of technological approaches
- Work with the Data Manager, SC and others to develop tailored advice specific to different shipping sectors and related training/capacity development programmes
- Provide advice and support to states bringing forward mitigation proposals on stakeholder engagement, design considerations or routeing or other measures, and the requirements for proposals made to IMO

*As outlined, the Expert Panel needs to be established.* New members with relevant expertise are invited to contact the HIM convenor and Chair of the SSWG should they wish to join the panel.

### **FUNDING**

The full costings for implementation of the workplan, including but not limited to the cost of the Data Manager post, will be further developed and included in the final workplan submitted to IWC68.

Regarding the Data Manager position, it is proposed that this be funded as before, through a modest contribution from the SC (allocated specifically for work on the ship strikes database to be undertaken by the Data Manager) and supplemented by additional voluntary contributions from Contracting Governments and other sources. Additional core support (for implementation of the workplan) from the Secretariat would continue to be provided through the IT team (technical support for the database), and funding needs for Data Manager travel (where this meets existing Secretariat mandates) could potentially be met from Secretariat travel funds.

## **QUESTIONS FOR THE SCIENTIFIC COMMITTEE**

The Scientific Committee is invited to provide any comments and in particular:

- Comments on the draft Strategic Plan (2022-2032) to Mitigate the Impacts of Ship Strikes
- Comments on the draft Ship Strikes workplan 2022-2024
- Comments on setup of the Ship Strikes Expert Panel
- Continued, additional funding for the Data Manager role

## **ANNEX 1. Current Terms of Reference for Ship Strikes Standing Working Group**

The Ship Strikes Standing Working Group seeks to help governments to address issues relating to ship strikes and in particular their mitigation. It will do this by *inter alia*:

- Evaluation of the effectiveness and practical implementation of mitigation measures;
- Coordination with the Scientific Committee to ensure that new relevant information is considered and evaluated in a timely manner;
- Provision of advice to the Commission on governments' request;
- Liaison and exchange of information with other inter-governmental shipping bodies (e.g. IMO) and international IGOs (e.g. CMS and its agreements such as ACCOBAMS and ASCOBANS) and NGOs with ship strike initiatives to ensure complementarity of efforts and regular exchange of information and expertise on ship strike issues;
- Increase public and industry awareness about the issue and measures used to reduce this threat.

## ANNEX 2. Draft Workplan for Ship Strikes Standing Working Group 2022-2024

### DRAFT IWC SHIP STRIKES WORKPLAN 2022-2024

High level objective & Description of activity	Timeframe			Lead	IWC community involved	Budget per year/ total budget	Potential funding source(s)	Priority
	2022	2023	2024					Core = essential Top High Medium
Coordination of programme								
All aspects of programme coordination including liaison with the SSWG; coordinate work on ship strikes database; coordinate with ship strike data holders to facilitate national/regional database upload; coordination with other IWC bodies and initiatives; engagement with other Inter-governmental Organisations (IGOs) and organisations; fundraising; monitoring of progress and communication.	x	x	x	IWC Data Manager, Secretariat		See Objective 3		Core
(1) To reduce mortalities and injuries to large whales as a result of ship strikes.								
1.1 Identify at risk populations	x	x	x					
The Scientific Committee should provide an estimate of annual incidence rate of ship strikes for each of the following:								
a. Western North Atlantic right whale								
b. Eastern North Pacific right whale								
c. Chile-Peru right whale								
d. Arabian Sea humpback whale								
e. Western gray whale								
f. Blue whale - Sri Lanka and Arabian Sea								
g. Blue whale - Chile								
h. Sperm whale - Mediterranean Sea								
i. Fin whale - Mediterranean Sea								
j. Bryde’s whale - Gulf of Mexico								
k. Omura’s whale - Northwestern Madagascar								
l. Sperm whale - Canary Islands region								
The Scientific Committee should continue to identify and review potential high risk populations for ship strikes.								

	X	X	X		Expert Panel no extra cost if meets virtually or in margins of SC meetings. Potential travel costs £1000 per annum for engagement with countries.	Secretari at funding for travel or VCF (applicati on to be submitte d, if needed).	Top
<b>1.2 Identify high risk areas</b> The Strategic Plan identifies high risk areas for ship strikes. The IWC should work with relevant stakeholders to develop proposals for ship strikes reduction measures in high risk areas. The Scientific Committee should review the high risk areas, to update on new areas and progress with existing areas.  See High risk ship strike areas table in the Strategic Plan for further details of location and species of concern, alongside associated stages in identifying high risk areas and developing appropriate mitigation strategies				Chair of HIM, Ship Strikes Expert Panel and SSWG, IWC Data Manager and Secretariat			
<b>1.3 Continued monitoring of measures implemented</b> The SC should regularly review the impact of measures for high risk populations and in high risk areas implemented to reduce the incidence of ship strikes. Develop case studies to demonstrate benefits, anticipated and actual costs of measures introduced to reduce ship strikes.	X	X	X				
				Chair of HIM, SC	Included in core costs SC meetings		High
<b>1.4 Improve the understanding of the relationship between vessel speed and risk of injury, death and damage to the vessel</b>	X	X	X				
				Chair of HIM, SC	Included in core costs SC meetings		Medium
<b>(2) Increase the application of measures that reduce collision probability, such as re-routing and speed reduction/limits on a global scale.</b>							
<b>2.1 Implementation of measures</b> IWC member countries put in place speed and re-routing where necessary	X	X	X	IWC Contracting Governments, SSWG			High
<b>2.2 Communication of mitigation measures to the IMO</b> The IWC continues to promote mitigation options at the IMO. <i>Prepare a paper for MEPC in 2023 that provides an update on research, risks and mitigation opportunities on ship strikes.</i>		X		Secretariat; Chair of HIM; Ship Strikes Expert Panel, SSWG	Travel to IMO meetings £200 per annum	To be met by core Secretari at travel costs	Medium
<b>(3) Improve reporting of incidents that do occur to the IWC Ship Strike Database.</b>							



<b>3.1 Systematic outreach to data providers</b> Systematic outreach to countries (members and non-members) and regional authorities to help obtain and secure data for entry to the database. Systematic outreach to shipping sectors, including shipping associations, to seek support with data entry Data from National Progress reports assessed and entered where appropriate.	X	X	X	IWC Data Manager, Secretariat	£38,000 per annum for Data Manager	SC, VCF, welfare funds	High
<b>3.2 Review and provision of data</b> Inclusion of known datasets (e.g. USA, Australia) and development of bulk upload tool Records included and reviewed in a reasonable timeframe	X	X	X	IWC Data Manager, Secretariat, Ship Strikes Expert Panel, IWC Contracting Governments	Included in Data Manager costs		High
<b>3.3 Availability of database</b> Update the website with the most recent version of data Ongoing, regular publication of routine summary statistics from the ship strikes database Maintain a compendium of relevant papers and reports of ship strikes issues	X	X	X	IWC Data Manager, Secretariat	Included in Data Manager costs		Medium
<b>3.4 Use of the database</b> Undertake review of the database to understand how it can be used and improved to help meet the IWC Strategic Plan Undertake analysis of the database to assess the scale of the problem, factors that relate to risk, estimate ship strikes mortalities for whale populations and assess effectiveness of mitigation measures taken		X	X	IWC Data Manager, Secretariat, Chair of HIM, Ship Strikes Expert Panel	Included in Data Manager costs		Medium
<b>3.4 Outreach to other organisations</b> When database has been updated, communicate results to IMO, CMS, ACCOBAMS, ASCOBANS and others as appropriate.	X	X	X	IWC Data Manager, Secretariat, WG-SS	Met by core Secretariat costs		Medium
<b>(4) Increase development/use of avoidance technologies and push for their widespread-standardized where appropriate.</b>							
<b>4.1 Technological approaches</b> Regular review and monitoring of new technologies by the Scientific Committee. Consult with shipping industry on technologies used.	X	X	X	Chair of HIM, Ship Strikes Expert Panel	Included in core SC meeting costs. Potential costs for additional	VCF or SC science fund proposals to be submitted	High

				research/ review work	d if needed	
	x	x		Included in core SC meeting costs. Potential costs for additional research/review work	VCF or SC science fund proposal s to be submitted if needed	Medium
<b>4.2 Avoidance of overlap between whales and ships</b> Reduction of ship strikes will focus on avoidance on overlap between whales and ships, or a reduction in speed. The IWC should look into technology to help mariners understand where to slow down or where seasonal areas e.g. mapping tools that show whale distribution or IMMAs.			Chair of HIM, Ship Strikes Expert Panel	Included in core SC meeting costs. Potential costs for additional research/review work	VCF or SC science fund proposal s to be submitted if needed	Medium
<b>4.3 Using AIS data</b> Investigate systems for monitoring all types of vessel traffic in high risk areas including expanding requirements for vessels to transmit AIS signals to smaller vessels.			Chair of HIM, Ship Strikes Expert Panel	Included in core SC meeting costs. Potential costs for additional research/review work	VCF or SC science fund proposal s to be submitted if needed	Medium
	x	x		Included in Data Manager and core SC meeting costs. Potential costs for additional research/review work	VCF or SC science fund proposal s to be submitted if needed	Medium
<b>4.4 Application of technology</b> Assess the feasibility and support the application of technology for known high risk areas. Work with IUCN MMPA Task Force and regional stakeholders to ensure that recently identified IMMAs, in which ship strikes are a risk, be added to "Whale Alert" for the Mediterranean Sea. Evaluate efficiency of the REPCET system for reducing the risk of Ship Strikes (SC2019)			IWC Data Manager, SSWG and other named leads	Included in Data Manager and core SC meeting costs. Potential costs for additional research/review work	VCF or SC science fund proposal s to be submitted if needed	Medium
<b>(5) Improve collaboration on ship strike issues internationally (e.g. International Maritime Organization (IMO), other IGOs (ACCOBAMS, ASCOBANS), NGOs, Arctic Council).</b>						

### 5.1 International Maritime Organization

Continue to liaise with the IMO on issues relating to ship strikes, including high risk species and areas. Development of an appropriate protocol to enable consideration of cetacean distribution and occurrences for proposed new or revised routing schemes or speed restrictions.

Inform the IMO that the IWC SC is "available" to review new TSS, PSSAs and ATBA for relevance and impact on avoiding ship strikes.

Maintain SC group to advise on intersessional requests from IMO.

Provision of appropriate information to the IMO MEPC

### 5.2 IUCN Marine Mammal Protected Area Task Force

Continue work on the use of Important Marine Mammal Areas to help identify high risk areas for ship strikes. This could include review of potential uses of IWC databases in helping identify Areas of interest (AOIs) for surveys and verification of longevity of IMMAs

### 5.3 Convention on Migratory Species

Liaise with the CMS and daughters agreements ASCOBANS and ACCOBAMS

### 5.4 Arctic Council

**5.5 UNEP-CEP-SPAW: Collaborative** activities under new MoC to be presented for endorsement at IWC68

### 5.6 CPPS

### 5.7 SPREP

X	X	X	Secretariat with WG-SS and other named leads	To be delivered with core Secretariat funding	Top
X	X	X	Secretariat	To be delivered with core Secretariat funding	High
X	X	X	Secretariat	To be delivered with core Secretariat funding	Medium
				To be delivered with core Secretariat funding	Medium
X	X	X		To be delivered with core Secretariat funding	Medium
	X	X		To be delivered with core Secretariat funding	Medium
	X	X		To be delivered with core Secretariat funding	Medium

	X	X	X		To be delivered with core Secretariat funding	Medium
<b>5.8 NGOs</b>						
	X				To be delivered with core Secretariat funding	
<b>5.9 MarineTraffic</b>				Secretariat		Medium
Continue to develop MOU for use of AIS data on shipping activity						
<b>(6) Increase public and industry awareness about the issue and measures used to reduce this threat.</b>						
<b>6.1 Training and education</b>		X	X			
Identify and evaluate various training/education programmes to determine which might feasibly expand to other marine resource groups. Identify opportunities for IWC input.				Secretariat		
<b>6.2 Specific advice to particular sectors</b>		X	X			
Develop advice for vessels/sectors where there may be specific issues not covered by the IMO's general guidance documents.						Core Secretariat and VCF (application to be submitted if needed)
<b>Discussion needed on which sectors to include here, including timelines for the development of guidance. This could include consideration of:</b>						
Service vessels for offshore renewables				Expert Panel and Secretariat	£500 per annum for communications activities	
Fast ferries						
Offshore sailing yachts (racing) - review needed by Expert Panel, update and promote guidance already produced.						
Cruise ship guidance - review needed by Expert Panel, update and promote guidance already produced.						
Oil & Gas						
<b>6.3 Public outreach</b>		X	X			
Circulate leaflet on ship strikes for countries to distribute to their maritime networks				Data Manager and Secretariat	Included in communications budget above	
<b>6.4 Review of impact</b>						
Assess the receptiveness of outreach efforts				As above	As above	