A short update on the status of the IWC ship strike database

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INTRODUCTION

The IWC has been developing a global database of incidents involving collisions between vessels and whales since 2007. The specification and developments have been reported annually to the Scientific Committee (Van Waerebeek and Leaper, 2007; Van Waerebeek and Leaper, 2008; Leaper and Donovan, 2009). The need for and value of such a database has also been recognised by the International Maritime Organization (IMO) and ACCOBAMS, amongst others.

On 31 July 2009, the IMO issued a circular (MEPC.1/Circ.674) containing a 'Guidance document for minimizing the risk of ship strikes with cetaceans'. The guidance noted the importance of gathering information. It recommended that IMO Member Governments should establish national mechanisms for the reporting of ship strikes and that any information thus gathered should be provided to the IWC. In addition, a leaflet has been developed by the Belgian Ministry of Environment including details on reporting collisions, and will be distributed as widely as possible throughout the shipping industry. The leaflet is available in Arabic, Chinese, English, French, Russian and Spanish. A PDF version is on ship strike pages of the IWC website http://www.iwcoffice.org/sci_com/shipstrikes.htm.

The main efforts to date with respect to the ship strike database have been to populate it with historical records and to develop a web-based data entry system for new information. The data entry forms are accessed through the ship strike pages of the IWC website. There is also a dedicated email address shipstrikes@iwcoffice.org for ship strike related enquiries.

The IWC and ACCOBAMS will hold a joint workshop on reducing risk of collisions between vessels and cetaceans in Monaco from 21-24 September 2010. The geographical focus of the workshop will be on the Mediterranean Sea and the Canary Islands but many of the agenda items are relevant to global considerations including data gathering.

The IWC database now has around 1,000 records although some of these are duplicates where the same information has come from different sources. Validating the existing data is an ongoing effort and referred to later in this report.

PROGRESS SINCE LAST YEAR

During the last Scientific Committee meeting in Madeira, a number of tasks were identified. A summary of those tasks and the progress made is given in Table 1.

Table 1

Summary of progress with tasks identified at the 2009 Annual Meeting

Tasks identified last year	Progress on these
(1) Minor adjustments to current web based data entry system in collaboration with the contractor who developed the system to incorporate suggestions from Committee members.	The contractor who designed the web-based data entry system was re-engaged and has: (1) fixed errors which have been reported; and (2) made some improvements (e.g. small changes such as additional categories for vessel size and type and information on injuries to passengers and crew).
(2) Develop database front end queries and tools for the **data review group** to validate data, identify and link multiple records of the same event. These tools should also allow the periodic integration of carefully reviewed datasets into the database, allowing for the fact that there may already be records of the same incidents in the database.	The contractor expects to complete the database front end tools by the end of May 2010 according the specification circulated to the ship strike data review group established at SC61. For each new incident that is reported, the main aim of the query system is to determine whether: (a) the incident is already in the database based on the same evidence (e.g. report from vessel, observation of floating carcass, stranding); (b) the incident is already in the database but based on a different type of evidence to what is being entered (e.g. the report of the collision is already there but you are entering details from the necropsy); (c) it is a completely new incident. Once the incident has been categorised as above then the user is prompted to take the appropriate action, either to enter a completely new record, link two records or just check whether there is any new information available to add to an existing record.

Tasks identified last year	Progress on these
(3) Publish the schema of the database in a downloadable form such that it could be reproduced in national databases	(3) The schema of the database is now available although the exact format may depend on the level of detail required. Contact Mark Tandy (mark.tandy@iwcoffice.org) for the schema.
(4) Data entry and validation of new records including data presented to SC61 in meeting papers and National Progress Reports.	(4) Data entry of new records including data presented to SC61 in meeting papers and National Progress Reports has been completed. These new records still need to be compared with the existing data to search for potential duplicates.
(5) Monitor and respond to emails addressed to the shipstrikes@iwcoffice.org email address, including reports of new incidents and dealing with requests for summary information from the database	(5) Most emails to shipstrikes@iwcoffice.org have been requests for data. These have been dealt with on an *ad hoc* basis. While responding to emails regarding new data is clearly essential, requests for data summaries would be most efficiently dealt with if the database was available to be queried. How best to achieve this and to respect the rights of data owners is a matter for further discussion (see section on further actions).
(6) Develop email notification system to alert the data review group to new data entries (could potentially allow rapid follow up to obtain further information and may also be needed to meet some national reporting requirements).	(6) An email notification system has been developed to alert the data review group to new data.
(7) Follow up on reports of new incidents in order to gather information as soon as possible after the incident took place.	(7) The incidents that we are aware of are being investigated by scientists in the countries where they occurred. It is hoped/expected that information will be made available to the IWC database once these investigations are completed.
(8) Develop appropriate feedback mechanism for people who provided information.	(8) People providing information through the web based data entry form receive an email summarising the data they have entered. At the time of entry they have the option of either leaving the record open for further editing or submitting the completed record. Users that have left a record open for more than a month will receive a reminder.
(9) Decide upon and develop data summaries (including consideration of the possibility of allowing web-based queries for 'general' users) for inclusion on the web page.	(9) The contractor, upon request, has developed some simple data summaries that can update directly to the IWC web page in order that the web pages demonstrate an ongoing interest and data collection process to potential users.
(10) Clarify policy on data availability, access and use.	(10) The policy on data availability, access and use should most appropriately be discussed at this meeting (see section on further actions).

SOME SUGGESTIONS FOR FURTHER ACTIONS

The database does not have a dedicated co-ordinator. However, informal arrangements among the Secretariat, members of the data review group and an external contractor have enabled progress on most of the tasks identified last year. This approach may continue to be acceptable at present but should be reviewed annually in the light of the work required.

Work of the data review group

It is hoped that increased publicity for the database will start to produce new potential data entries, particularly from mariners who may be aware of incidents that would not otherwise be reported. Although there were no new data entries requiring the work of the data review group since the last year, if potential data are entered then these will require evaluation by the data review group before acceptance into the database.

A more pressing problem is that of checking the entries that have already been imported into the main database. A preliminary examination of about 50 entries revealed that reviewing the full 1,000 entries will not be a trivial exercise in terms of time it is expected that this would be around four weeks of work, including standardisation of codes from earlier data entries. We suggest that the Committee considers providing some funding for this work as it seems unreasonable to expect this to be done in 'spare time' by the data review group. It should be completed before the joint IWC/ACCOBAMS workshop.

There have been a considerable number of requests for data extraction, mainly summaries by species or for specific areas. These requests are also likely to increase with increased awareness of the database. A mechanism to deal with such requests is needed that must take into account any data availability agreements reached (see Item 10 in Table 1). It is important to remember that the validation process often results a long time delay between the first information about an incident, the conclusions of any further investigations and the data review process. Thus at any point in time, the database will contain a number of records that are in different stages of being processed. In dealing with many data requests, the most efficient approach may be to have a periodically update (say, annually), freely available database containing only fully processed records with a limited number of fields (agreed in the context of a data availability agreement (see Item 10). This would be more efficient than running queries in response to specific email requests as users requesting data would be able to run their own queries and there would no longer be a need to respond to requests on an individual basis.. Access to the full database for detailed scientific work (e.g. by the Scientific Committee) could be made available under an additional part of a data availability agreement. The joint IWC/ACCOBAMS workshop in September would seem an appropriate time to have generated a searchable summary available to the workshop.