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Agenda Item 27.2

VESSEL STRIKES

(Prepared by the Secretariat)

Summary:

This document contains a draft Resolution on reducing the risks of vessel strikes for marine megafauna – including specific guidance for Whale Sharks – and draft Decisions for adoption.

This document was revised by the Scientific Council at its 6th Meeting of the Sessional Committee in July 2023.

VESSEL STRIKES

Background

1. The impact of vessel strikes (often referred to as ship strikes¹) on marine megafauna is a growing concern due to the widespread and increasing use of the world's oceans by commercial, recreational and other vessels.² In light of this, it is imperative for Parties to undertake actions aimed at gaining a deeper understanding of the adverse effects of vessel strikes on migratory marine species. Furthermore, it is crucial to safeguard CMS-listed marine megafauna, including marine mammals, marine turtles, sharks and rays, by implementing measures to prevent collisions with all types of watercraft.
2. Vessel strikes can cause severe or even fatal injuries to marine animals. Large vessels going at a high speed can be hard for marine megafauna to avoid. Noise generated by vessels generally projects sideways and backwards, making it difficult for marine species to detect an approaching vessel in time.
3. Cetaceans are at risk of collisions with vessels, especially in areas where they feed and breed. There appears to be very little – or a delayed – behavioural response to approaching vessels. Collisions can cause serious injuries to large and small cetaceans, including broken bones and internal damage, often resulting in death. Serious and even fatal injuries to cetaceans have been inflicted by ferries, whale watching boats, recreational craft and other vessels.
4. Sirenians are vulnerable to vessel strikes because they are slow-moving and large, regularly come up to the surface to breathe, and live in shallow water around seagrass meadows. Studies have shown that the vast majority of West Indian Manatees (*Trichechus manatus*) have multiple scars from vessel strikes, and that manatees in Florida are probably subjected to more sublethal vessel strikes than any other studied marine mammal. Vessel strikes are also a significant risk to Dugongs; in many parts of the world, they are the second-most common cause of Dugong mortality from direct interactions with humans, after bycatch in fishing nets.
5. Marine turtles are also highly vulnerable to being struck by passing boats because they are slow-moving and come to the surface to breathe. In addition, turtles migrate through shipping lanes and are often found in coastal areas where there is a lot of vessel traffic. Collisions can cause severe injuries to turtles, such as carapace fractures and internal damage, which can impact their ability to survive and reproduce.
6. Large sharks and rays, specifically filter-feeding species like the Basking Shark, Whale Shark and Mobulids, which spend much of their time at the surface feeding, are also vulnerable to collisions with vessels, particularly in areas where feeding or mating aggregations coincide with high levels of vessel activity. Severe injury or death caused by collisions may have a significant impact on these species.

1 The National Oceanic and Atmospheric Administration (NOAA) fisheries [defines a vessel strike](#) as “a collision between any type of boat and a marine animal in the ocean. All sizes and types of vessels—from large ships to jet skis—have the potential to collide with nearly any marine species. Strikes that result in death or injury to the animal may go unnoticed by the vessel operator or unreported to researchers that keep track of such incidents. The types of vessels documented in vessel strikes include large boats, such as cargo ships, whale-watching boats, ferries, and military vessels, and all manner of private watercraft used for commercial and recreational purposes. Most reported collisions involve large whales, seals, or sea lions.”

2 Schoeman, Renee & Patterson-Abrolat, Claire & Plön, Stephanie. (2020). A Global Review of Vessel Collisions with Marine Animals. *Frontiers in Marine Science*. 7. 292. 10.3389/fmars.2020.00292.

Role of the International Maritime Organization in reducing vessel strikes

7. The International Maritime Organization (IMO) is a specialized agency of the United Nations responsible for promoting safe, secure and environmentally sound shipping. While the main focus of IMO is on maritime safety and security, it also has a role to play in the protection of the marine environment and the conservation of vulnerable marine species. It provides guidance to ensure that shipping activities are conducted in a sustainable and responsible manner, while minimizing the impact on the marine environment.
8. IMO has developed guidance and recommendations for the identification and designation of ecologically or culturally significant areas, including the [‘Revised Guidelines for the Designation of Particularly Sensitive Sea Areas’](#) (PSSAs). PSSAs help to identify areas that are vulnerable to damage from international shipping and other human activities, and provide a framework for the implementation of protective measures.
9. IMO also supports the establishment of Areas To Be Avoided (ATBAs) through voluntary or regulatory measures. ATBAs are established to protect vulnerable marine species or ecosystems from the potential negative impacts of shipping activities. For example, ATBAs may be established in areas where endangered marine species are known to be present or where there is a high concentration of shipping traffic.
10. IMO provides technical assistance and advice to governments and other stakeholders to establish Marine Protected Areas (MPAs) and ensure that shipping activities are managed in a way that is compatible with conservation goals. IMO also works with other organizations to ensure that shipping routes and activities are designed to avoid areas of high ecological sensitivity, such as PSSAs and ATBAs.
11. IMO is also the entity responsible for approving any changes to shipping lanes.

Cooperation with the International Whaling Commission (IWC) regarding vessel strikes affecting cetaceans

12. The IWC Conservation and Scientific Committees are both working to understand and reduce the threat to cetaceans posed by ship strikes. To this end, a [Strategic Plan to Mitigate the Impacts of Ship Strikes \(2022-2032\)](#) has been developed to assess and share solutions in order to achieve a permanent reduction in ship strikes. This Strategic Plan is complemented by a [Work Plan](#) covering the period 2022-2024. There has been long-standing cooperation with CMS daughter Agreements ACCOBAMS and ASCOBANS on this topic.
13. In 2019, the IWC held a joint workshop with the IUCN and ACCOBAMS to look at how Important Marine Mammal Areas (IMMAs) might be overlaid with shipping information and used to help pinpoint ship strike hotspots. The workshop report is available [here](#).
14. A very important initiative of the IWC was the launch, in 2007, of the IWC Global Ship Strikes Database. This long-term initiative seeks to collect and analyse information on reported ship strikes, both historic and current, and on a global scale. The aim is to identify hotspots where large numbers of whales coincide with busy shipping lanes. Governments and other stakeholders are urged to submit information on collisions between any type of vessel and a whale, dolphin or porpoise. Information can be entered into the database [here](#).

Vessel strikes on Whale Sharks

15. The Whale Shark is listed in CMS Appendices I and II as well as Annex 1 of the Sharks MOU. A Concerted Action for Whale Sharks ([CA 12.7 \(Rev.COP13\)](#)) was adopted by CMS Parties to initiate urgent collaborative conservation action for the species, including identifying critical habitats and removing anthropogenic threats contributing to population decline (see Activities 1.5 and 5.7).
16. The species is the world's largest fish and is globally assessed as 'Endangered' on the Red List of Threatened Species of the International Union for Conservation of Nature (IUCN Red List), and 'Largely Depleted' according to the IUCN Green Status of Species. This bleak outlook is largely the consequence of fisheries-induced mortality across much of their range. With long generation times,³ they are more susceptible to such anthropogenic threats. While targeted Whale Shark fishing has now largely stopped, the increase in vessel strikes could be hindering the recovery of the species.
17. Collisions with large vessels are likely fatal, yet due to the negative buoyancy of their cartilaginous skeletons, dead Whale Sharks sink and therefore go unreported. Whale Sharks are likely to be most at risk from vessel strikes in major shipping routes as they travel long distances across the ocean, and within so called Whale Shark constellations, which are specific sites or hotspots in the tropics and sub-tropics where large numbers of Whale Sharks predictably gather and where they extensively use surface waters.
18. A recent study⁴ used over 300 satellite tracks to identify key areas where Whale Sharks are at high risk from shipping during their migrations. These included areas in all oceans, such as in the Gulf of Mexico, the Gulf of Panama, between Australia and Indonesia, and in the Red Sea. Some of the tagged Whale Sharks also indicated instances of potential deaths, as their tracks abruptly ceased in the middle of busy shipping lanes. The study found that Whale Sharks may spend 50 per cent of their time in the top 20 metres of the water column, and as such be prone to vessel collisions. This paved the way for an important follow-up study.

Expert assessment of the risk of vessel strikes for Whale Sharks

19. Under an initiative by CMS and the Sharks MOU to implement aspects of the Concerted Action for Whale Sharks ([CA 12.7 \(Rev.COP13\)](#)), the Marine Research and Conservation Foundation (MARECO) investigated the collision risk for Whale Sharks from ship traffic through a project aimed at identifying areas of importance for Whale Sharks, collating shipping data for these areas, and conducting an expert assessment of vessel strikes on Whale Sharks. Maps were developed to show the risk of Whale Shark collisions in critical areas, and policy mechanisms were reviewed to understand how they could be used to limit the impact on Whale Sharks from vessel strikes. The results of the study are provided in [UNEP/CMS/COP14/Inf.27.2.3 Limiting global ship strike on whale sharks - Understanding an increasing threat to the world's largest fish](#).
20. The study focused on key aggregation sites where Whale Sharks are known to occur. The 'core habitat zones' were delineated for the species (from 40 aggregation sites

³ In population biology and demography, generation time is the average time between two consecutive generations in the lineages of a population. Whale sharks are thought to have a long generation time of at least 15–37 years (see Sequeira A, Mellin C, Meekan MG, Sims DW, Bradshaw CJA. 2013 Inferred global connectivity of whale shark *Rhincodon typus* populations. *J. Fish Biol.* 82, 367–389. (doi:10.1111/jfb.12017))

⁴ Womersley, F. C. et al. (2022). Global collision-risk hotspots of marine traffic and the world's largest fish, the whale shark. *PNAS* <https://doi.org/10.1073/pnas.2117440119>.

representing over 12,000 Whale Sharks) and overlaid with shipping traffic data from 2017–2019. The study shows that many of these aggregation sites, particularly in the Arabian Sea and adjacent waters, the Gulf of Mexico, the Gulf of California, and in Southeast and East Asia, are at relatively higher risk of experiencing vessel strikes within the core habitat zone.⁵ The risk was found to be further increased as shipping traffic is highest at the same time of year as the peak aggregation times for Whale Sharks.

21. Focusing on global Whale Shark core habitats is an important first step as mitigation measures here can have a positive impact on a large number of sharks. In addition, the costs to shipping are lower because of the relatively small size of these core habitat zones. Better Whale Shark protection could be achieved through the designation of Areas To Be Avoided (ATBAs) or vessel exclusion zones, even if temporarily assigned; traffic separation schemes that concentrate ships and reduce the area of overlap with Whale Sharks; speed limits within these critical areas; and the use of alert networks that can complement these or be used at local levels. Further work to develop site-specific mitigation mechanisms is required, in collaboration with industry, government and research stakeholders.
22. Action is therefore required by Parties to mitigate vessel strikes. The recommended monitoring and enforcement measures, as well as other policy and legislative options are presented in *Guidance on Reducing the Risk of Vessel Strikes for Whale Sharks (Rhincodon typus)* in Annex 2 of this document – and are proposed to be annexed to the Resolution.
23. In light of the potential vulnerability of various shark and ray species (including the filter-feeding basking sharks and mobulid rays) to the heightened risk of vessel strikes, it is imperative to investigate the use of identified Important Shark and Ray Areas (ISRAs) as a means to inform the development of effective mitigation strategies. By examining the potential synergy between these critical areas and the implementation of appropriate measures, we can enhance our efforts to safeguard these species from the perils posed by vessel traffic.

Discussion and analysis

24. In conclusion, the threat posed by vessel strikes to marine megafauna species listed in the CMS Appendices is a pressing issue that remains largely unaddressed by Parties. Collaboration between CMS and the IWC is under way to tackle this concern, primarily focusing on cetaceans. However, it is imperative to recognize that vessel strikes also endanger other CMS-listed species, including sirenians and pinnipeds, marine turtles, sharks and rays. Whale Sharks are known to be particularly vulnerable. Regrettably, apart from the important work undertaken for cetaceans, there has been little international policy attention devoted to this matter – a significant gap that CMS can effectively bridge.
25. It is important that Parties undertake proactive measures aimed at reducing the risk of vessel strikes, conducting research and monitoring programmes, and fostering cooperation with other nations to implement robust conservation measures. By fulfilling their responsibilities under CMS, Parties can play a pivotal role in safeguarding the

⁵ In the context of this document, whale shark core habitat zones are defined as areas where highest densities of whale sharks are observed by experts. These are generally small, with a median area of 116 km² (Table 1). For example, the core whale shark zone in southern Mozambique was 144 km², and in St Helena it was 98 km². The smallest core zones were at two provisioning sites in Gorontalo (<0.1 km²) and Oslob (0.1 km²), and off Darwin Island in the Galápagos (1.1 km²). By far the largest core zone is in the northern Gulf of Mexico (~91,000 km²; Table 1), although it is possible that further examinations of whale shark habitat use there will be able to identify smaller core habitat zones within this large area.

long-term survival of these vulnerable species and preserving the overall health of the marine ecosystems they inhabit.

26. As shipping traffic continues to increase, coupled with future shifts in species distribution due to climate change, the need for an adaptive management approach is becoming increasingly apparent. It is crucial to embrace strategies that can adapt to these evolving circumstances, ensuring the protection of marine life and the delicate balance of our ecosystems.

Recommended actions

27. The Conference of the Parties is recommended to:
- a) note the Report provided as [UNEP/CMS/COP14/Inf.27.2.3](#);
 - b) adopt the draft Resolution contained in Annex 1, including the Guidance contained in Annex 2 of this document;
 - c) adopt the draft Decisions contained in Annex 3 of this document.

ANNEX 1

DRAFT RESOLUTION

REDUCING THE RISK OF VESSEL STRIKES FOR MARINE MEGAFUNA

Recalling Article III(4) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), which implies that “Parties that are Range States of a migratory species listed in Appendix I shall endeavour to: (a) conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction, b) to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species; and (c) to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species”,

Further recalling that Resolution 10.15 (Rev.COP12) *Global Programme of Work for Cetaceans* addresses ship strikes as a threat to cetaceans and that it calls upon Parties to facilitate the development of thematic Resolutions addressing priority threats for COP13 and COP14,

Recognizing the significant increase in vessel traffic in recent years, which has led to a corresponding increase in the risk of vessel strikes to CMS-listed marine megafauna;

Reminding Parties that a "Range State" in relation to a particular migratory species means any State that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species,

Noting the negative impacts of vessel strikes on the conservation of marine megafauna, including mortality, injury and population decline,

Acknowledging the ongoing work undertaken by the International Maritime Organization (IMO) to minimize collision risk between vessels and marine wildlife, through measures including Particularly Sensitive Sea Areas (PSSAs) and Areas To Be Avoided (ATBAs),

Acknowledging the work of the International Whaling Commission (IWC) in addressing the risk of ship strikes to whales, dolphins and porpoises, and

Recognizing the need for immediate and effective action to reduce the risk of vessel strikes to marine megafauna,

*The Conference of the Parties to the
Convention on the Conservation of Migratory Species of Wild Animals*

1. *Urges* Parties to adopt measures to reduce the risk of vessel strikes on marine megafauna, including marine mammals, marine turtles, sharks and rays, applying most effective practices and technologies, ensuring that mitigation measures are based on the best available scientific data to achieve positive conservation outcomes;
2. *Encourages* Parties to designate core aggregation zones and known migration corridors of vulnerable marine megafauna, for example as identified through Important Marine Mammal Areas (IMMAs) and Important Shark and Ray Areas (ISRAs), where there is a significant risk of vessel strikes as Areas To Be Avoided (ATBAs) as a protective measure or take other effective area-based measures;

3. *Urges* Parties to consider integrating such areas into broader Marine Protected Area (MPA) designations, also with a view to implementing Target 3 of the Kunming-Montreal Global Biodiversity Framework which was adopted by Parties to the Convention on Biological Diversity (CBD) at their 15th Conference of the Parties “calling to ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities including over their traditional territories.”
4. *Agrees* to promote and support the development and implementation of best practices for reducing the risk of vessel strikes to marine megafauna, including but not limited to:
 - a. Speed restrictions in areas with high marine megafauna activity;
 - b. Use of technology such as acoustic detection systems to detect and avoid marine megafauna; and
 - c. Education and training of vessel crew on marine megafauna conservation and vessel strike prevention;
5. *Urges* Parties to encourage the shipping industry to take proactive measures to reduce the risk of vessel strikes to marine megafauna;
6. *Requests* Parties to review and update their national laws, regulations and policies related to the conservation of marine megafauna and the reduction of vessel strikes, as necessary, to ensure their effectiveness and alignment with this resolution;
7. *Strongly encourages* Parties to cooperate with each other, relevant organizations, and stakeholders to promote and support the implementation of measures to reduce the risk of vessel strikes to marine megafauna, including sharing information on best practices and lessons learned, collaborating on research and monitoring of marine megafauna and vessel strikes, and promoting international cooperation and coordination on the conservation of marine megafauna and the reduction of vessel strikes;
8. *Invites* Parties, industry and other stakeholders to report information on vessel strikes involving cetaceans to the IWC Ship Strikes Database;
9. *Invites* Parties to work with IMO to employ their management tools (e.g. ATBAs or PSSAs) to reduce vessel strikes on marine megafauna;
10. *Instructs* the Secretariat to facilitate the exchange of information and best practices among Parties, relevant organizations, and stakeholders; and
11. *Adopts* the species-specific *Guidance on Reducing the Risk of Vessel Strikes for Whale Sharks (*Rhincodon typus*)* attached as Annex [...] to this Resolution.

ANNEX 2

[Draft Annex to the Resolution]

**GUIDANCE ON REDUCING THE RISK OF VESSEL STRIKES
FOR WHALE SHARKS (*Rhincodon typus*)**

Based on the CMS report on *Limiting global ship strike on whale sharks - Understanding an increasing threat to the world's largest fish*⁶ ([COP14/Inf.27.2.3](#)).

Parties that are Range States to Whale Sharks are recommended to:

1. Identify and implement suitable mitigation measures in their Whale Shark core habitat zones

Due to the pressing need for conservation action, Range States are encouraged to develop mechanisms to reduce the risk of vessel strikes on Whale Sharks. They should investigate the best approach in their Whale Shark core habitat zones, in consultation with researchers and the shipping industry. Range States should base mitigation measures on the best available scientific data to ensure positive conservation outcomes.

2. Designate Whale Shark core zones as Areas To Be Avoided (ATBAs) under IMO

Given the relatively small size of the core habitat zones (median ~116 km²), and the limited impact on shipping time from small changes to shipping lanes, this approach would be the most cost-effective and would have a high conservation impact. Moreover, ATBAs would benefit other species of interest that are also at risk from vessel strikes such as marine turtles and marine mammals. Whale Shark ATBAs should be incorporated into wider Marine Protected Area (MPA) designations, supporting the current global effort to protect 30 per cent of the ocean by 2030.

3. Consider Traffic Separation Schemes (TSSs) when ATBAs are not an option

Narrowing shipping lanes will reduce the size of the areas with a high risk of vessel strikes. This may be an alternative option in constellations⁷ with a relatively large area, such as the Gulf of Mexico, where ATBAs may not be feasible.

4. Reduce speed in core zones for Whale Shark

A speed limit of 10 knots or less can potentially reduce mortality from vessel collisions with Whale Sharks. This mechanism is also a smaller change to ship navigation than re-routing and is therefore more likely to be accepted by shipping stakeholders. Go-slow zones can be applied to all ships, including small ones. Given the small spatial footprint of go-slow zones, similar benefits to the designation of ATBAs would also follow.

⁶ Araujo G, Rohner CA & Womersley FC (2023). Limiting global ship strike on whale sharks: Understanding an increasing threat to the world's largest fish, prepared for the Convention on the Conservation of Migratory Species of Wild Animals (CMS), 74 pp.

⁷ Whale shark constellations refer to specific sites or hotspots in the tropics and sub-tropics where a large number of whale sharks predictably gather, making them easily accessible for researchers. These constellations are scattered across various locations. They are characterized by three key aspects that are crucial in mitigating ship strikes: the predictability of their occurrence, the extensive utilization of surface waters by whale sharks, and the observed separation of populations within the species.

5. Create alert networks with temporary avoidance zones

Supported by the general public as citizen scientists, Whale Shark sightings could be communicated among a broad array of boat users to create temporary vessel exclusion zones. Similarly, satellite tracking of Whale Sharks within constellations could help create near-real time avoidance zones. This would also help with general Whale Shark monitoring across larger spatial scales, providing invaluable data about seasonality, abundance and site use.

6. Create a centralized database for documenting vessel strikes on Whale Sharks

With the increasing number of large vessels, understanding the level of impact will be critical for mitigation strategies. A centralized database, which could use the existing global database, Sharkbook.ai, would benefit the long-term monitoring of this threat. Coordination with the IWC Ship Strikes Database may be useful for holistic management in the future

7. Increase awareness of this issue with the shipping sector and the public

Successful mitigation of vessel strikes on Whale Sharks will require the collaboration of stakeholders from industry, government and the conservation sector. As this threat is largely unknown outside the Whale Shark research community, awareness-raising will be an important first step, particularly by instigating direct conversations with the shipping industry.

8. Use adaptive management and monitor and evaluate mitigation strategies

Any mitigation measures aimed at reducing ship strikes on Whale Sharks will need monitoring and evaluating. This will include compliance to regulations (voluntary or otherwise) set by Range States, such as adherence to traffic separation schemes or ATBAs, as well as data sharing and observer reports. As shipping traffic is increasing, and species move in response to climate change, an adaptive management approach is needed. This means evaluating agreed mitigation strategies and reviewing and updating them over time.

ANNEX 3

DRAFT DECISIONS

REDUCING THE RISK OF VESSEL STRIKES FOR MARINE MEGAFaUNA

Directed to Parties that are Range States⁸ to CMS-listed species of marine megafauna that are subject to vessel strikes

14.AA Parties that are Range States are requested to:

- a) reach out to relevant stakeholders engaged in commercial, recreational or other vessel traffic to encourage systematic reporting of all vessel strike incidents involving whales, dolphins or porpoises to the Ship Strikes Database of the International Whaling Commission;
- b) review and apply, as appropriate, the findings of [and recommendations provided] in the CMS report *Limiting Global Ship Strike on Whale Sharks - Understanding an increasing threat to the world's largest fish*;
- c) collaborate with other Range States on the implementation of the *Guidance on Reducing the Risk of Vessel Strikes for Whale Sharks (Rhincodon typus)*, annexed to Resolution 14.[] *Reducing the Risk of Vessel Strikes for Marine Megafauna*;
- d) report to the Conference of Parties at its 15th meeting on the progress in implementing the decision through their National Reports.

Directed to the Scientific Council

14.BB The Scientific Council is requested to:

- a) review the reports submitted by Parties through their National Reports on the implementation of Decision 14.AA (a) - (c) and make recommendations to Parties;
- b) identify areas where CMS-listed cetaceans are at high risk from vessel strikes, including by mapping shipping lanes against Important Marine Mammal Areas (IMMAs), develop a report on appropriate re-routing measures, including area avoidance and/or the establishment of vessel speed restrictions for key cetacean habitats, and make recommendations to Parties;
- c) subject to the availability of external resources, assess the collision risk for further CMS-listed marine megafauna taxa that are likely to suffer from vessel strikes, and identify areas where conservation measures are most needed, also considering existing information about identified Important Areas for Sharks and Rays (ISRAs);
- d) report to the Conference of Parties at its 15th meeting on the progress in implementing this decision.

⁸ CMS Article I, paragraph 1 (h) "Range State" in relation to a particular migratory species means any State (...) that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species;

Directed to the Secretariat

- 14.CC The Secretariat shall, subject to the availability of external resources,
- a) assist the Scientific Council with the implementation of Decision 14.BB (a) - (c);
 - b) engage with the International Maritime Organization (IMO) to reduce vessel strikes on CMS-listed marine species;
 - c) bring the following reports to the attention of the IMO:
 - i. The report to be developed by the Scientific Council on areas with a high risk of vessel strikes for cetaceans and the recommendations on appropriate mitigation measures;
 - ii. [Limiting Global Ship Strike on Whale Sharks - Understanding an increasing threat to the world's largest fish](#) and the *Guidance on Reducing the Risk of Vessel Strikes for Whale Sharks* which is annexed to Resolution 14.[] *Reducing the Risk of Vessel Strikes for Marine Megafauna*.