



Marine Megafauna in Sailing

Best practices for sailors,
events and route planning.

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sport / nature / technology



Six Strategic Pillars for Ocean Stewardship

At the core of this **guidance** are six strategic pillars recommended by the Marine Mammal Advisory Group. This practical framework outlines the actions required to responsibly interact with marine megafauna, reduce the risk of collisions and embed ocean stewardship into every stage of sailing activity – from route planning and risk mitigation to hazard reporting, education and collaboration. Whether racing offshore or cruising coastal waters, these principles offer a blueprint for creating your Nature Action Plan to reduce your impact and contributing to marine protection.

1 Source and Share Information

Source and disseminate the most recent information, guided by expert advice and interpretation.

2 Risk Assessment and Planning

A risk assessment to identify key issues, exclusion zones to separate boats from biodiversity, other mitigation measures as may be necessary.

3 Observe and Report

Establish live hazard reporting as a standard safety requirement, ensuring hazards observed by one vessel are shared in real time with others, and the data is compiled for future reference. This includes citizen science observations to support data collection for the marine science community.

4 Technology

Support the development of relevant technologies to improve watchkeeping, detection and collision avoidance.

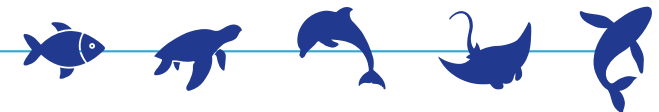
5 Education and Outreach

Educate and engage with key stakeholders, notably sailors, race organisers, marine science community and safe shipping organisations, fostering a culture of ocean stewardship.

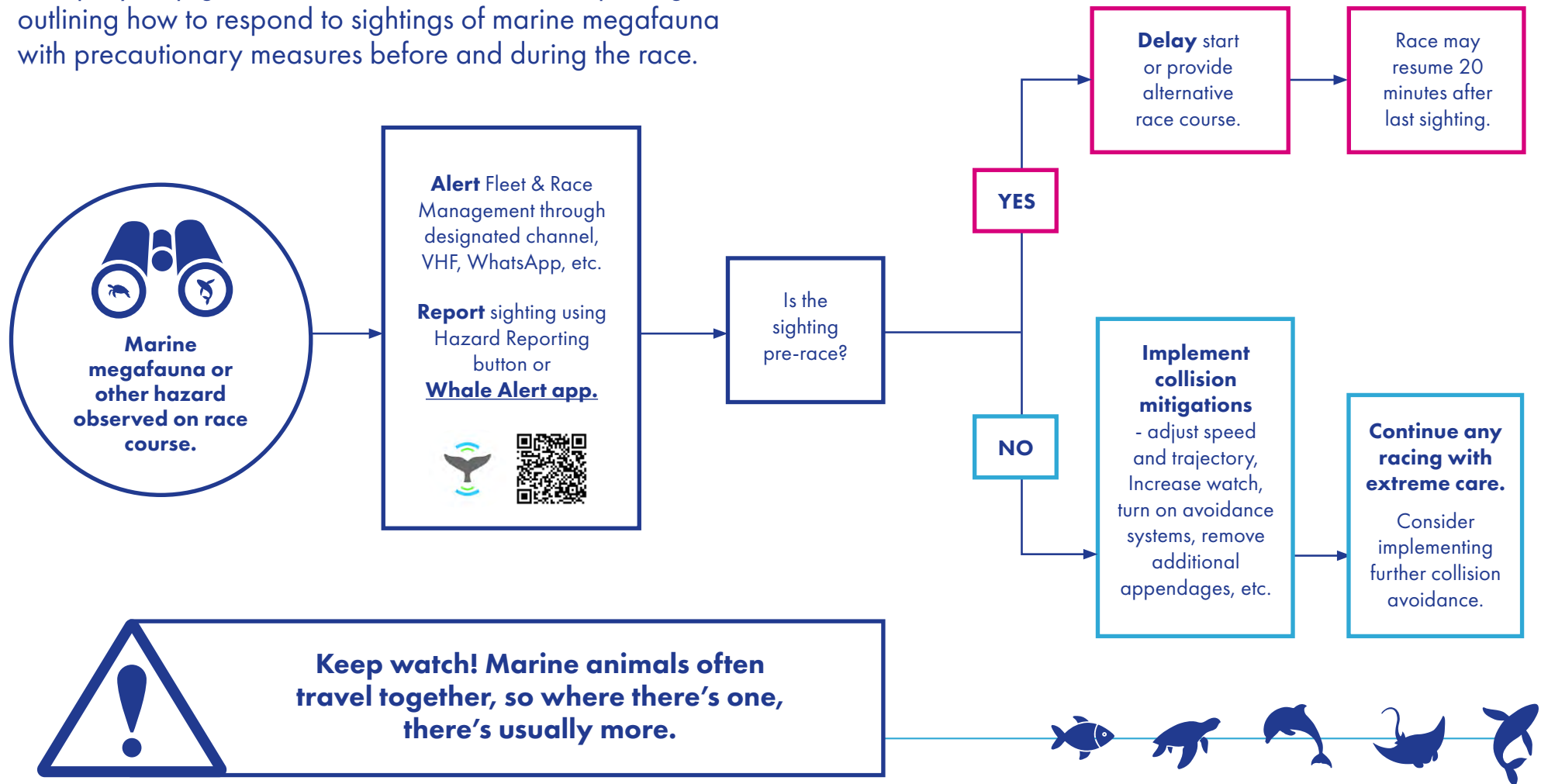
6 Collaboration

Enable collaborative solutions by matchmaking the needs of the marine science community with the responsibilities and resources of the sailing and boating sectors.

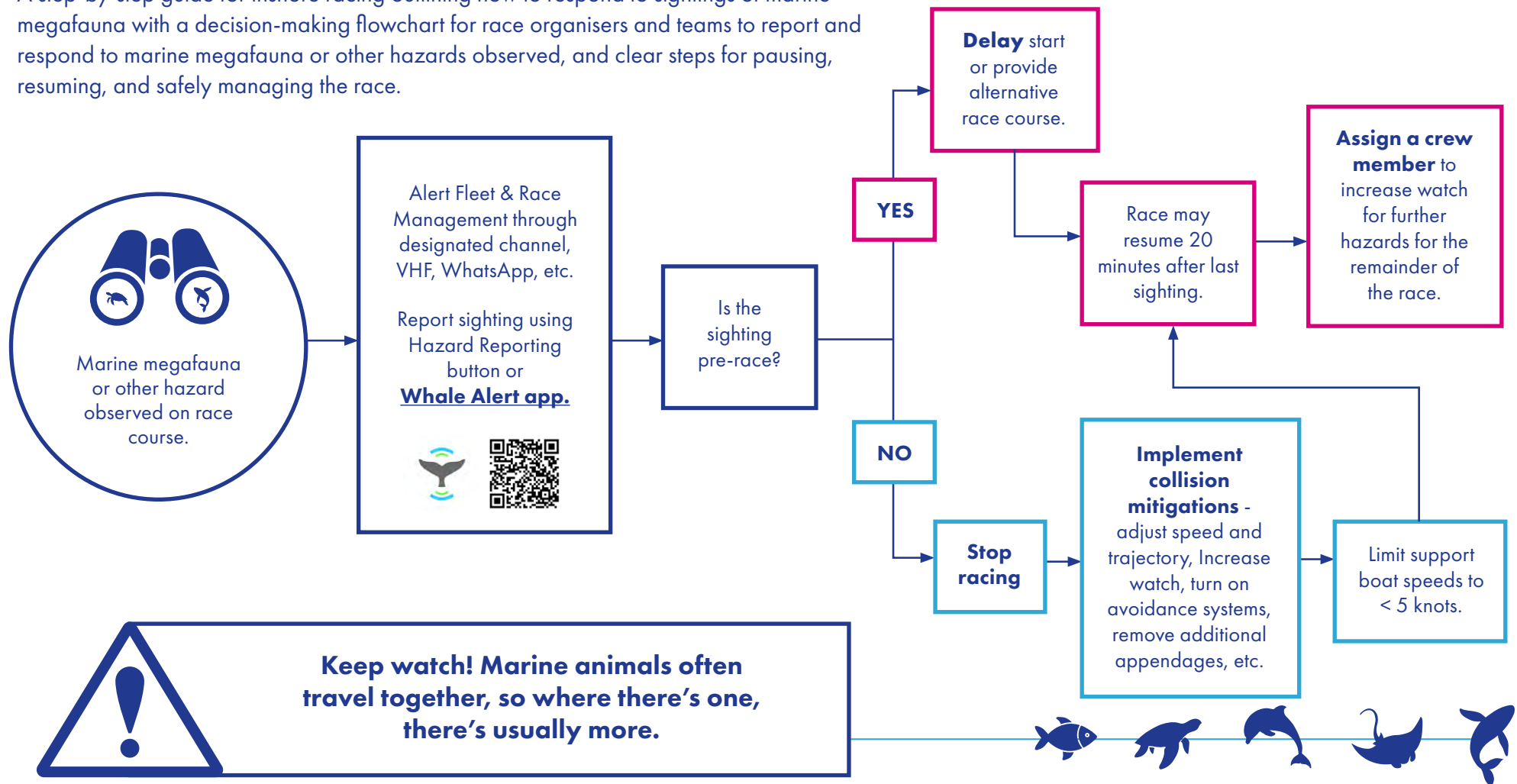
Each element of the strategy is important... there is no single solution to mitigating collision strikes.



A step-by-step guide for offshore race hazard reporting, outlining how to respond to sightings of marine megafauna with precautionary measures before and during the race.

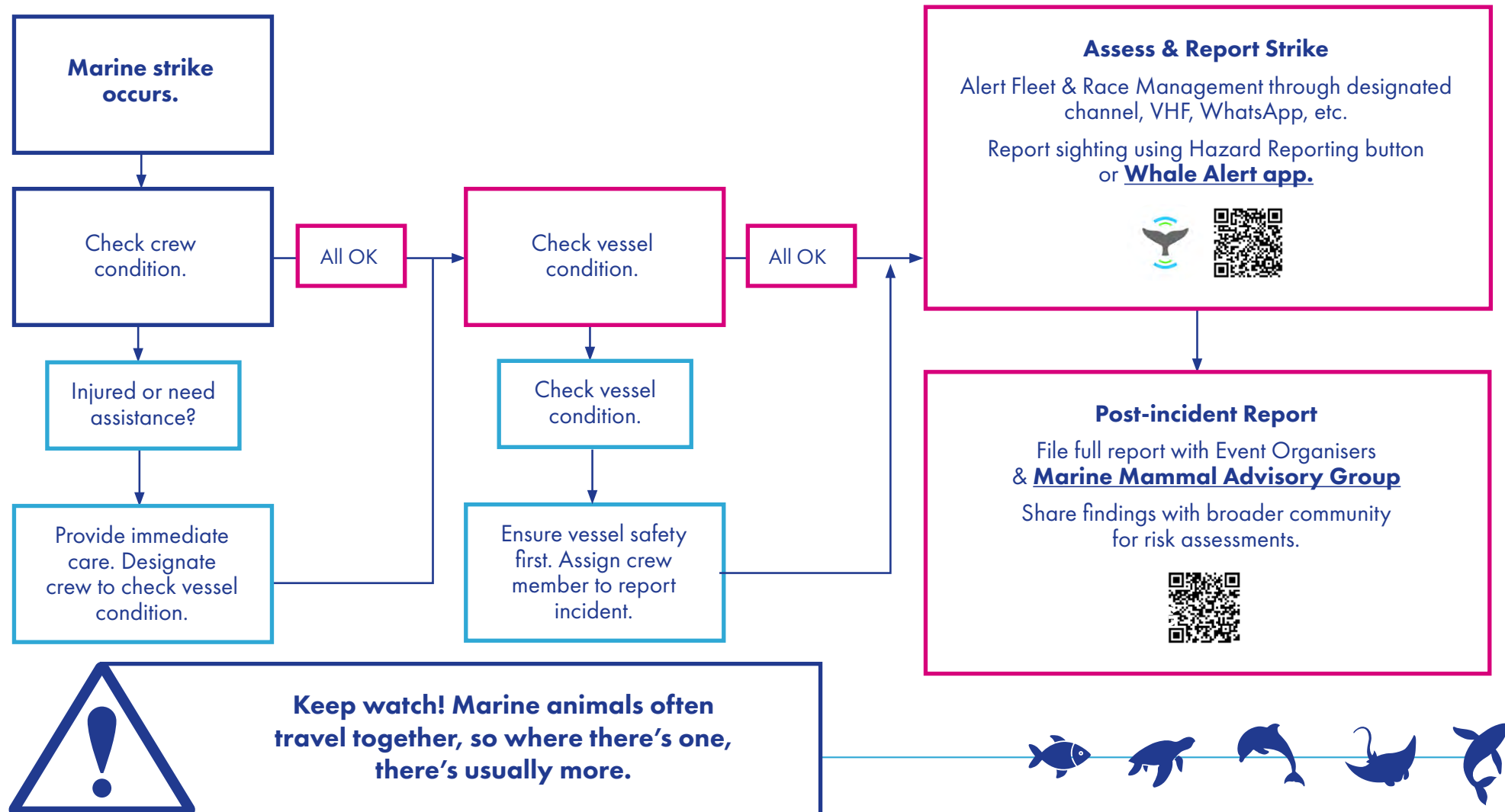


A step-by-step guide for inshore racing outlining how to respond to sightings of marine megafauna with a decision-making flowchart for race organisers and teams to report and respond to marine megafauna or other hazards observed, and clear steps for pausing, resuming, and safely managing the race.



Marine Strike | Offshore/Inshore

This flowchart outlines the step-by-step response protocol for marine mammal strikes, from immediate onboard checks to post-incident reporting and data sharing.





Best Practice Guidelines Sailors



BEFORE

- Prepare your **watchkeeping systems** and integrate available technology where relevant, example - onboard cameras.
- Configure any onboard cameras to record incidents and sightings automatically if possible.
- During **route planning** understand the species and sensitive habitats you will encounter.
- Take into account relevant **information** such as maritime regulations, restricted areas, marine strike log data, and marine protected areas in your route planning.
- Be prepared to make voluntary adjustments to reduce the risk of collision, the priority action is **separate your boat from biodiversity**, and then to take further **mitigating measures** as needed, discuss what these additional mitigating measures might be with your crew.
- Install and be familiar with your onboard **hazard reporting system**, examples relevant to your boat might include: VHF, WhatsApp, **WhaleAlert**, or hazard reporting within navigation systems such as **Adrena** or **Expedition**.
- Carry a marine megafauna ID chart onboard to aid in species identification, and **citizen science observations**.
- Expect to see and ask for your events' **Nature Action Plan**, as part of the **sailing instructions** and **skippers briefing**.
- Understand the protocol for reporting observations to the rest of the fleet and communicate this to your crew.
- Ask what **collaborations** the event is undertaking with the marine science community.

DURING

- Report** all uncharted hazards seen or encountered as soon as safely possible to ensure the **prompt transmission** of safety information to other vessels.
- Record** any observations (including time, date, location, any species identifiers, etc.) to report as a citizen scientist observations which are also valuable for the marine science community.

AFTER

- Share** any encounters with the event organisers for their final report.
- Share all event and historic encounters with the **Marine Strike Survey**, an anonymised database.
- Request the **Post-event report**.





Best Practice Guidelines Events



BEFORE

- Allocate a **Person in charge** and resources for the events Nature Action Plan, this is often someone close to the race management, or the events' sustainability team.
- Identify sources of **expert information**.
- Implement additional **monitoring systems**, including an on-the-water network of MMOs, (Include race officials, drone operators, spectator fleets, and infrastructure systems) and a protocol for integrating any information into decision-making on the race day.
- Commission and compile the relevant marine megafauna, species, habitat, marine protected areas, and marine traffic **information**. Include information from past events.
- Create a **Nature Action Plan** for the event, identifying zones to take into account in racecourse and route planning.
- As part of registering your event with the appropriate authority, **upload** the Nature Action Plan (Example to: Local authorities, and World Sailing etc.)
- Be prepared to implement **mitigation measures** by modifying race routes, event dates, and on-course procedures for both sailors and event committee boats where relevant.
- Define a **reporting** platform for participants that enables the fleet to send and receive hazard reports as close to real-time as possible (VHF, WhatsApp, **WhaleAlert**, Hazard reporting system, etc.)
- Consider offering or requiring **pre-event education** for event management, sailing class, and teams.
- Race instructions** include a specific requirement for hazard reporting, along with any other racecourse information, and other potential mitigation actions required of the fleet.
- Skipper briefing** provides relevant information from the Nature Action Plan including: specific race instructions, exclusion zones, marine traffic obligations, and potential mitigating actions required of participants, including a protocol for reporting and reacting to incidents.
- Test** the hazard reporting system pre-start.
- Prepare** an event emergency and communications plan.
- Build **Ocean stewardship** within your event, for participants and the public.
- Develop matchmaking/legacy** collaborations with relevant marine conservation organisations along the race route, with a particular focus on **Marine Protected Areas**.

DURING

- Monitor** the racecourse and hazard reporting system, promptly **implement mitigation measures** as may be required.
- Promote ocean biodiversity** by sharing the observations and ocean stories supported by marine mammal specialists with the fans and followers.

AFTER

- Compile observations and/or incidents reported from the fleet.
- Engage with event participants (e.g., sailors, race management, MMO's, etc.) gathering feedback on the Nature Action Plan and reporting mechanisms.
- Prepare a **post-event report** summarising key success and challenges of your Nature Action Plan and reporting systems, include any observations and/or incidents reported by participants.
- Distribute the post-event report to relevant authorities, and World Sailing, and participating sailors.
- Contact the Marine Mammal Advisory Group to contribute your post-event report to the resource library and the **Global Routing Study**.
- Build the events **matchmaking legacy** collaborations to contribute to long-term conservation goals.

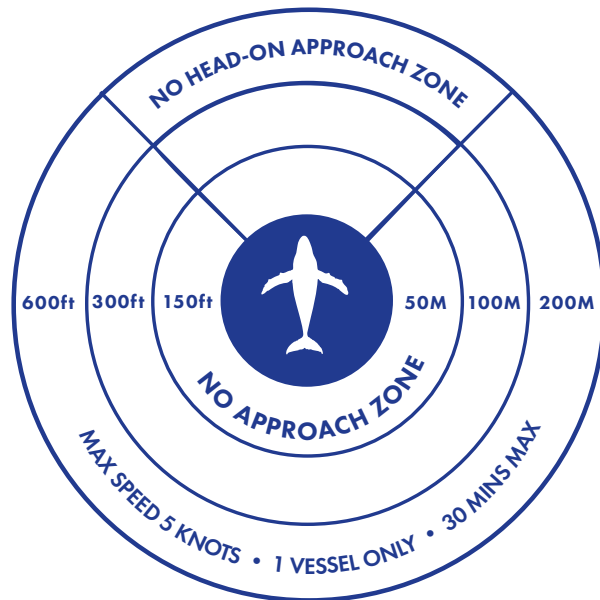




Best Practice Guidelines for all Vessels in the Proximity of Cetaceans

Legislation

Understand the specific guidelines and legislation regarding the protection of endangered species and marine life in your area. Example: USA - **The Marine Mammal Protection Act 1972.**



Distance

You should remain at least 100 meters (300 feet) from cetaceans and at least 50 meters (150 feet) from pinnipeds.

Indicative distances provided here for reference may vary depending on species of concern and jurisdiction.

When observing marine mammals at sea, make sure your actions do not cause any change in their behaviour.

Avoid sudden changes to vessel speed and direction. Dolphins and whales may surface unpredictably at any time or location.

Never: follow behind, approach animals head-on, encircle or trap cetaceans between your vessel and shore.

If cetaceans approach your vessel, maintain your course and speed. If the animals cut your course, put the boat in neutral and wait until they clear your vessel.

Duration: Limit your viewing time to 30 min. to avoid creating unnecessary stress for the animals.

Report encounters and sightings promptly, 'live' reports improve the safety of all marine traffic, and sharing your sightings provide important citizen science data.

Live reporting: **The Whale Alert app.** allows you to report live encounters, sightings and strandings.



Report past incidents using the **Marine Strike Survey.**



Quick Start | Planning

1 Know your local species & migration habits

Know your local species, migration habits and associated risks. **WWF's Protecting Blue Corridors** reports are great resources in understanding the species in your respective ocean. NOAA also provides a comprehensive database of marine mammal species for research purposes.



2 Monitor any active alerts or traffic obligations

Monitor any **Important Marine Mammal Areas**, active alerts, Seasonal Management Areas (SMA's), marine traffic obligations or voluntary slowdown zones in your area. Check your local governing body that issues these alerts, such as NOAA or Transport Canada.



3 Create Nature Action Plan

Combine all research to create a formal nature action plan for your event or organisation.

Add **Nature Action Plan** to official event notices.

Share best practices with your network.



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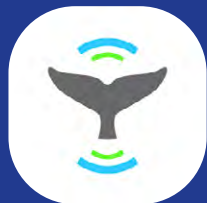
Establish watchkeeping & risk mitigation protocol.
Define a reporting platform for participants.
Be prepared to implement mitigation measures.

Quick Start | Reporting

Live hazards

Alert Fleet & Race Management through designated channel, VHF, WhatsApp, etc.

Promptly report sighting using Hazard Reporting button or **Whale Alert app**.



Strike data

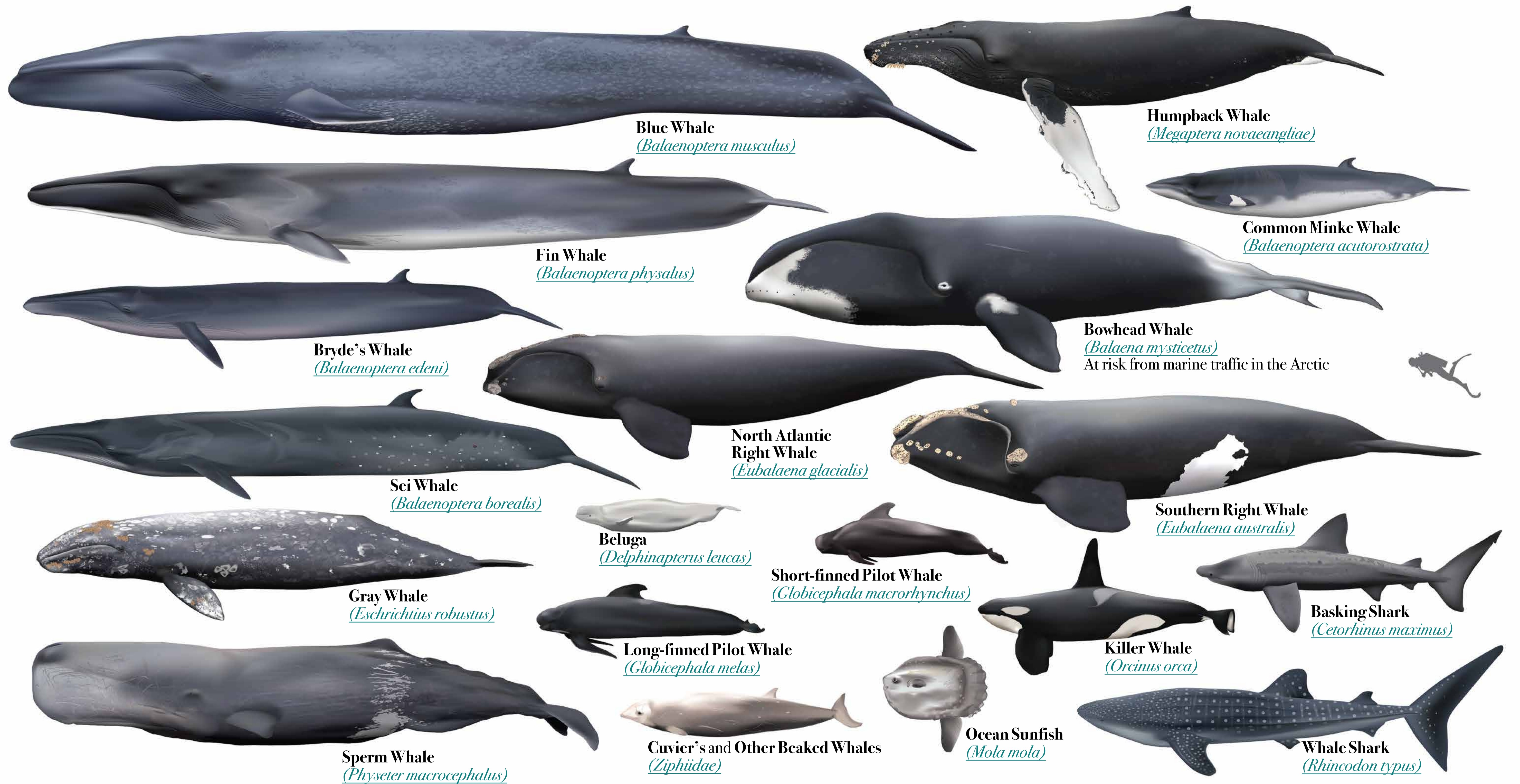
Post-incident Report

File full report with Event Organisers & **Marine Mammal Advisory Group**

MMAG
MARINE MAMMAL ADVISORY GROUP

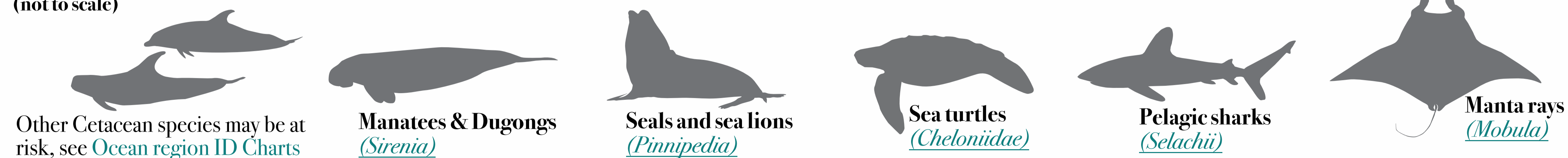


Marine Megafauna at Risk of Collision



At risk from marine traffic in the Arctic

Other: (not to scale)



Other Cetacean species may be at risk, see [Ocean region ID Charts](#)

Manatees & Dugongs
(*Sirenia*)

Seals and sea lions
(*Pinnipedia*)

Sea turtles
(*Cheloniidae*)

Pelagic sharks
(*Selachii*)

Manta rays
(*Mobula*)



Extract from World Sailing - [Marine Megafauna Guidelines](#)

Design and illustrations by [Zoltan Nemeth](#)



The full set of Marine Megafauna in Sailing guidelines is available from the **World Sailing** and **Marine Mammal Advisory Group**.

www.sailing.org

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