REPORT OF THE INTERSESSIONAL WORKING GROUP ON GUIDING PRINCIPLES DEVELOPMENT

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Development of the General Principles for Cetacean Watching

General principles, general management considerations and guidelines for cetacean watching were developed for the Pacific Island Region in 2008,[1] taking into account the existing national guidelines in the Region. Although more detailed, they were the reference point for the development of general best practice codes for the Wider Caribbean Region (WCR) at the Regional Workshop on Marine Mammal Watching in the Wider Caribbean Region[2]. The following guiding principles, developed at the 2013 Scientific Committee (SC) meeting[3], are an adaptation of the WCR Principles and the General Principles for Whalewatching developed by the SC at the 1994 meeting[4]. While a number of the identified principles also relate to human safety, guidance on human safety during whalewatching needs to be sourced from the appropriate experts and management agencies. The main purpose of the attached principles is to mitigate impacts watching activities on cetaceans. The overarching principles are to:

a) ensure the conservation of cetaceans and their habitats;
b) ensure a precautionary approach to the development and management of cetacean watching;
c) minimise the impact of viewing activities on cetaceans, other species and the marine environment
d) provide long-term socio-economic benefits for the livelihood of local communities; and
e) promote local knowledge, cultural importance and understanding of cetaceans and the marine environment through training, education and dedicated research.

Role of the Intersessional Working Group

The Intersessional Working Group was tasked to develop a 'background document' to annotate the guiding principles, with an explanation of their origin and evolution, as well as definitions of terms and other explanatory background. This report is a first step towards drafting a comprehensive annotated document.

Key

Where applicable individual principles will be followed by **(R)** indicating principles that are based at least in part on research findings or **(BP)** indicating principles based on best practices. Many of the principles labelled **(BP)** are based on the Precautionary Principle (see Appendix 1) and have been used in various management schemes. Some may have been drafted in workshops over the past few decades, others reflect principles that are commonly used in many areas; for most, the exact origin is unknown.

Principles based on research will be followed by references identified at the 2014 Scientific Committee meeting. It is important to note that these references will represent a subset of the studies that have been published, including those specifically designed to assess potential impacts of whalewatching, and are not exhaustive.

A glossary of terms is found in Appendix 1.

Management considerations

In an effort to minimise the risk of adverse impacts of cetacean watching and to ensure the sustainable development of such activities, effective management strategies need to be implemented. Several tools and approaches should be considered:

• National/regional licensing or permitting schemes to regulate:

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[1] IFAW/SPREP. 2008. Pacific Islands Regional Guidelines for Whale and Dolphin Watching. 17pp.
[2] UNEP. Report of the Regional Workshop on Marine Mammal Watching in the Wider Caribbean Region. Panama City, Panama: 40-4, 2011
[3] Rep. Int. Whal. Commn 64: Annex M, 2013
[4] Rep. Int. Whal. Commn 47:250-1, 1997

− the number, size, type and speed of vessels **(R)**,
− standards of operation **(BP)**,
− capacity building,
− site specific and species specific requirements **(R)**,
− permitted research and access by media **(R)**,
− training for operators **(BP)**, and
− sanctions for non-compliance, such schemes subject to adaptive management (as new information becomes available, regulations change to incorporate this new information);

• National/regional measures to regulate approaches, frequency, length and type of exposure (i.e., codes of conduct) in encounters with marine mammals **(R), (BP)**;

• Development of management provisions through cooperation amongst stakeholders, such as government agencies, non-governmental organisations, and operators wherever appropriate **(BP)**;

• National/regional management measures, to include closed seasons, exclusion zones, speed limits, and 'no approach times', to provide additional protection to habitats, populations, and individuals **(R), (BP)**;

• Assessment of the numbers, distribution and other characteristics of the target cetacean population/s before the implementation of tourism operations to establish the feasibility of the industry and a baseline for monitoring **(R)**;

• Employment of adaptive management and precautionary industry development, especially where watching operations are evolving, until sufficient information on populations and species is available to guide further development, especially where cetacean watching operations are evolving, the industry should proceed with caution, moderating activity and adapting management until sufficient information on populations and species is available to guide further development **(R), (BP)**;

• Monitoring compliance with and the effectiveness of management provisions and modifying them as required to reflect new information and circumstances, with the consultation of stakeholders, such as operators and non-governmental organisations **(R)**;

• Establishment of an enforcement framework to ensure compliance with regulations **(R)**;

• Scientific and socio-economic research and monitoring, assessment of potential impacts on cetaceans, and collection and sharing of information by all stakeholders, such as scientists, operators, and non-governmental organisations **(R)**;

• Dissemination of information on best practice and research to improve public awareness, including all stakeholders **(BP)**;

• On-going operator, naturalist and industry training and accreditation programmes on the biology and behaviour of target species, local ecosystems, navigation, culture, best practice of cetacean watching operations, and the management provisions in effect **(BP)**;

• Development of on-board research protocols to collect data on sighting effort, sighting data and other relevant documentation (e.g., about injuries, entanglements, highly identifiable individuals, vessel-cetacean interactions) **(R), (BP)**;

• Supporting and empowering communities' participation and ownership of the cetacean watching industry **(BP)**;

• Development of educational standards for the provision of accurate and informative material to cetacean watching participants, to:

− develop an informed and environmentally responsible public (locals and tourists),
− encourage development of realistic expectations during encounters,
− encourage the provision of naturalist guides on all boats,
− encourage public participation in on-board research and education programmes (e.g., docent and intern training, opportunistic data collection, species identification, plankton tows),
− encourage awareness of species protection measures and enforcement, and
− assess and evaluate on an on-going basis on-board education programmes **(R), (BP)**.

Vessel design and maintenance to minimize the risk of adverse effects on cetaceans, including disturbance from noise:

Cetacean species may respond differently to sound frequencies, relative sound intensity or rapid changes in sound. Such responses may not only be species specific but also differ between individuals and/or age classes. Therefore:

• Vessels, engines and other associated equipment should be designed, maintained, and operated during cetacean watching to reduce as far as practicable adverse acoustic and physical impacts on the target species and their environment **(R)**;
• Vessel design and operation should minimize the risk of injury to cetaceans should contact occur; for example, shrouding of propellers can reduce risk of injury **(R)** and **(BP)**; and
• In order to avoid strikes, operators should keep track of cetaceans during an encounter and not engage engines until all cetaceans being watched are on the surface and a safe distance from the vessel **(BP).**

Guidelines for watching cetaceans

Cetacean watching activities can potentially have adverse impacts on populations, including disruption of behaviours, displacement from habitat, chronic stress and serious injury. Response behaviours to the presence of vessels will vary between species, between different behavioural states, and possibly between age/sex classes or even individuals. Therefore, all water-users should:

• Be able to distinguish between species **(BP)**;
• Be able to distinguish between different behaviours of the same species (e.g., travel, foraging, social);
• Be able to distinguish between age and sex classes within a species **(BP)**;
• Operate watercraft and aircraft so as not to disrupt the normal movement or behaviour of cetaceans **(R), (BP)**,
• Cease pursuing/watching a cetacean at any sign of disturbance or alarm (e.g., repeated evasive reactions, animals blowing bubbles below the surface) **(R), (BP)**; and
• Allow marine mammals to determine the nature and duration of the encounter. (BP)

Generally, the following recommendations should be considered:

• Do not touch cetaceans **(R), (BP)**.
• Do not feed cetaceans **(R), (BP)**.
• Do not make any loud or sudden noises that are transmittable under water **(R), (BP)**.
• Do not make sudden or repeated changes in direction or speed **(R), (BP)**.
• Do not carry out any activities that might condition cetaceans to approach watercraft **(R), (BP)**.
• Do not throw litter or pump effluent into the water **(BP)**.
• Dedicated observer(s) should be on duty, in addition to the captain of the vessel **(R), (BP)**.
• Do not place a vessel in a position where it will drift into cetaceans **(BP)**.
• Leave boat engine on and idling, or drop sails, when watching cetaceans. They should be able to detect a platform at all times **(R), (BP)**.
• Do not disperse or separate a group of cetaceans **(R), (BP)**.
• Watercraft should not chase, encircle, leap-frog, block the direction of travel of cetaceans or access to the open sea or position itself in the middle of a group **(R), (BP)**.
• If cetaceans approach the watercraft, maintain a constant speed and direction, or slow down gradually, and come to a full stop by putting engines in neutral or dropping sails **(R), (BP)**.
• If cetaceans approach a vessel to bow-ride or wake-ride, maintain a steady speed and avoid changes in course or heading **(R), (BP)**.
• When departing from cetaceans, determine where the animals are relative to the watercraft to avoid collisions or coming too close to the animals. Increase speed gradually only after confirmation the cetaceans are outside the region's posted no approach zone **(BP)**.
• Encounters with cetaceans with calves should be limited to no more than 30 minutes, or 3 dive sequences with sperm whales **(R), (BP)**.
• Any accidents or collisions with cetaceans should be documented immediately and reported to relevant authorities, and to the IWC ship strike data base.

Watercraft

Watercraft should meet appropriate regional safety and operational standards.

The following watercraft should not be used for cetacean watching: all motorized personal watercraft (e.g., jet skis and similar crafts), stand-up paddle-boards, personal sailboats, parasail, kayaks, remotely operated craft, wing in ground effect craft, hovercraft, wind boards, and kite boards. The use of aircraft and helicopters for cetacean watching is discouraged, except in the case of permitted scientific research and media **(R), (BP)**.

Angles and distances of approach

Approach:
The most appropriate method for approaching a cetacean is from the side and slightly to the rear of the animal. Avoid approaches from head on or directly from behind **(R), (BP)**.

In the case of sperm whales, approach animals from the rear and slightly to the side **(R), (BP).**

Caution zone:

A caution zone is an area in which watercraft should proceed at a no-wake speed (6 knots or less).

The caution zone is the area within 300m from a whale, and 150m from a dolphin **(R), (BP)**.

• No more than 3 watercraft should be within the caution zone of a cetacean at one time **(BP)**.
• When there is more than one watercraft in the caution zone, operators should coordinate movements and maintain radio or mobile phone contact **(BP)**.
• Always observe cetaceans at a speed not exceeding the speed of the slowest animal **(BP)**.

No approach zone:
The no approach zone is the minimum distance to which a watercraft may approach a cetacean. Engines should be in neutral, sails dropped and paddles out of the water **(R), (BP)**.

Watercraft:
Minimum approach distances for whales range from 50-250m, minimum approach distances for dolphins range from 30-100m, including the area directly in front of and behind a pod. However, there may be conditions under which it would be recognized that a greater distance would be appropriate, e.g., with mother-calf pairs, critically endangered species, and small resident populations **(R), (BP)**.

Aircraft:
If permitted as a viewing platform, aircraft should not approach (in height or distance) to within 500m of a cetacean **(BP), (R)**.

Mother-calf pairs

Exercise extreme caution with groups containing calves, which are particularly vulnerable to disturbance and require additional protection **(R)**. Site-specific restrictions on length of encounter and distance of approach should be considered for groups with calves.

Swimming and diving with cetaceans in the wild

Swimming with cetaceans may increase the potential for disturbance and displacement and puts cetaceans at additional risk **(R)**. There are existing swim-with-cetacean programmes (commonly known as swim-with programmes) but the further development of these programmes is discouraged **(R), (BP)**. For those countries where swim-with activities are currently being undertaken, it is recommended that the following standards be applied to these operations:

• Scientific studies should be initiated to assess: a) the associated risk to the safety of the people and the whales involved in swim-with activities; and b) the current and potential future impacts of these activities on the target species. Any accidents should be documented and reported to relevant authorities.
• Particularly sensitive animals (e.g., mothers with calves) and sensitive habitats (e.g., calving and feeding grounds) should be provided additional protection **(R), (BP)** (refer to Management Considerations)
• Sub-surface swimming by participants > 1 m should not be allowed, including the use of any underwater breathing apparatus and scooters **(BP)**.

• Underwater flash photography or lighted filming should not be allowed **(BP)**.
• A precautionary, adaptive management approach should be taken when reviewing swim-with operating procedures. Consideration should be given to:

− regular review of operational standards as credible scientific information on the impacts of swim-with programmes becomes more available **(BP)**;
− all persons in the water with cetaceans should be accompanied by an appropriately trained naturalist or scientist **(R)**, **(BP)**;
− limiting the number of vessels permitted to undertake swim-with activities in a region **(BP)**;
− limiting the number of swimmers allowed in the water at any one time **(R), (BP)**;
− limiting the maximum duration of in-water time allowed, including maximum swim time for each interaction, time required between successive swims with each cetacean and maximum cumulative interaction time with each cetacean per day **(BP)**;
− appropriate drop-off distance for swimmers and minimum swimmer distance from cetaceans **(R)**, **(BP)**;
− entering the water with cetaceans during behaviourally sensitive (e.g., feeding/foraging) situations should be discouraged **(R)**, **(BP)**;
− swimming with mothers and calves should be discouraged **(BP)**; and
− prohibit leap-frogging of cetaceans **(R)**.

APPENDIX 1

Glossary

Adaptive management: Also known as adaptive resource management. This is a structured, iterative process of robust decision-making in the face of uncertainty, with an aim to reducing uncertainty over time via systematic monitoring.

Best practices: A set of guidelines, ethics or ideas that represent the most efficient or prudent course of action, often based on the Precautionary Principle and developed empirically (by doing). Best practices are often set forth by an authority, such as a governing body or management agency, but can be developed by associations, non-governmental groups or through workshops.

Bow-riding: One or more cetaceans swimming in the pressure wave in front of a vessel.

Critically endangered species: The highest risk category assigned by the IUCN Red List for wild species. Critically endangered species are those that are facing a very high risk of extinction in the wild.

Exclusion zone: A designated distance around whales or a defined area where vessels are not allowed to approach cetaceans.

Leap-frogging: Conduct whereby a vessel repeatedly places itself in the travel direction of a (group of) cetacean(s) so as to increase the chance of observing the animal(s) from a close distance.

No approach times: Times of the day or in some cases times of the year when vessels are not allowed to approach cetaceans. This may be based on behaviour or habitat use.

Opportunistic data collection: May also be referred to as citizen science. Data collection on board commercial vessels including tour boats, cruise ships, ferries and personal craft. When broad spatial or temporal (e.g., year-round) surveys of target cetaceans or other wildlife populations in marine and terrestrial environments are not practical or affordable, opportunistic data contributed by citizen science programs can be valuable in providing data on the occurrence and distribution of species at both local and global scales.

Plankton tows: Plankton, Greek for "drifter", are small plants (phytoplankton) and animals (zooplankton) that drift with the ocean's currents (they have little or no ability to move independently). They can be collected for study by towing fine-mesh nets through the water, behind vessels at slow speeds. The mesh openings must be small enough to concentrate the plankton while still allowing water to pass through.

Precautionary Principle: When an activity raises threats of harm to the environment or human health, measures should be taken even if some cause and effect relationships are not fully established scientifically.

Sighting effort: The amount of time spent looking out for cetaceans while on travel and direct observations. Estimates of sighting effort add an important dimension to species occurrence data by allowing additional inferences to be made about species' relative abundance and absence.

Small resident population: A known population consisting of a limited number of individuals that can be found in the same geographical area year-round.

Whalewatching: Whalewatching involves the viewing of cetaceans in the wild, i.e., free-ranging animals (Rep. Int Whal. Comm. 47, page 251). Whalewatching therefore does not include tourism activities where animals whose movements are deliberately restricted by humans and/or captive, either in sea pens, lagoons, pools or other form of enclosure. The term 'whale'-watching as currently used by the IWC Whalewatching Sub-committee equally refers to all cetacean species.[5]

[5] Parsons, E.C.M., Fortuna, C.M., Ritter, F., Rose, N.A., Simmonds, M.P., Weinrich, M., Williams, R. and Panigada S. 2006.Glossary of whalewatching terms. *Journal of Cetacean Research and Management* 8 (Suppl.): 249-251.