

Small cetaceans and the IWC: A contribution to the discussions on the 'Future of the IWC'

Submitted by Belgium and co-sponsored by Australia, Brazil, Switzerland and UK

Authors' note: in developing this paper, the authors recognized that there is disagreement among Contracting Governments regarding the IWC's competence to address small cetaceans. The authors would therefore like to stress that the sole objective of this paper is to provide information and recommendations to be used in future discussions by the Commission, as to be decided at IWC/62.

INTRODUCTION

There are over eighty recognised species of cetaceans (whales, dolphins and porpoises), the majority (sixty-nine) of which are the small toothed whales, dolphins and porpoises known collectively as 'small cetaceans'. The rest of the species (thirteen) are the baleen whales and the sperm whales, known as the 'great whales'.

This paper considers the direct and indirect threats to small cetaceans, the Multilateral Environment Agreements (MEAs) that are equipped to address them, and the gaps that exist in these agreements. It focuses in particular on the International Whaling Commission (IWC) and considers opportunities for the IWC to take a greater role in addressing direct threats to small cetaceans.

The paper is motivated by concerns about the recent extinction of one species of small cetacean, the potential extinction and poor status of many additional species, and the lack of information on others. Moreover, scientists are gaining much useful information about the "large cetaceans" by studying small cetaceans. A case in point is the SC's work on pollutants, which got off the ground by starting with small cetaceans. Thus, small cetaceans are already an integral, important part of the IWC's deliberations. Its timing is prompted, in part, by opportunities afforded by the current discussions under the Commission's agenda item, 'Future of the IWC'. Under this agenda item, the 'Small Working Group' (SWG) created by the Commission at its 60th meeting in 2008, was mandated to assist *"the Commission to arrive at a consensus solution to the main issues it faces and thus to enable it to best fulfill its role with respect to the conservation of whale stocks and the management of whaling"* (IWC/61/6).

The Commission identified small cetaceans amongst 33 issues of importance to members of the IWC. The SWG then determined that small cetaceans qualified as a priority issue ('category a'), which, *"if not addressed in the short term may fail to alter the status quo or even result in an irreparable break in the system via the withdrawal of governments from the Convention"*. Small cetaceans are strongly linked with other category a) issues such as bycatch and whale-watching. Additionally, several 'category b' issues have direct relevance to small cetaceans, such as environmental threats, cooperation with other bodies and animal welfare.

Despite the high priority status afforded to small cetaceans, the SWG report of 18 May 2009 did not give much consideration to this issue, determining that *"the Scientific Committee has continued to provide advice on small cetaceans and this state of affairs may be sufficient to avoid the need for further process at this stage"*. Appropriately however, it also acknowledged that there are *"outstanding issues related to small cetaceans not currently being dealt with under existing procedures"*.

The SWG *"recommended that a widely representative group of no more than ten members consider issues relating to small cetaceans, propose a package or packages for the consideration of the Commission on these and other issues no later than one year before the end of the five year interim period, and provide annual progress reports to the Commission"*. Believing this timeframe to be unnecessarily long, we decided to assist the process by offering background information and some proposals on a way forward for the Commission to consider.

To this end, at IWC61, Belgium stated its intention to contribute to the discussions on the future of the IWC through a paper on small cetaceans. Our intent is to foster progress, inter alia, on the small cetacean issues identified in Annex 6 (Outline of issues for Category (a) elements/issues) of the first report of the Small

Working Group presented by Chair Alvaro de Soto to the Rome intersessional meeting in March 2009¹. This paper is the outcome of extensive discussion on these and other relevant issues since that time.

The Chair's proposed consensus decision (doc. IWC/62/7 rev), in its future work plan, foresees that a Working Group could be established at IWC/62 to examine reform of the Commission, including [...] small cetaceans.

In closing, we note that the Commission last discussed small cetaceans as part of its core business as long ago as 1993. Much has changed since then; not least the membership of the IWC which has increased by 139 percent. We sincerely hope that the 50 countries that have joined the Commission in the last 15 years, 41 of which are coastal states², will bring fresh knowledge, experience and perspective to these discussions. Together we hope we can find a way forward so that the future of the IWC includes a constructive vision for small cetaceans building on the already significant work conducted.

¹ Annex G to IWC/M09/4: The Chair noted "some issues that have been raised (in no particular order and may overlap):

- (a) Are they fully covered under the Convention or not – degree of management competence?
- (b) Level to which addressed in Commission and its subsidiaries (e.g. Scientific Committee which does discuss small cetaceans through a standing sub-committee).
- (c) Whether it is appropriate to use Resolutions with respect to management of small cetaceans and, if so, the nature of the language used (e.g. exhortation versus condemnation)
- (d) Relationship with regional agreements (co-operation exists at scientific level with e.g. ASCOBANS and ACCOBAMS and CMS)".

² Currently, all but nine contracting governments are coastal states, including two which have coastlines on the Black Sea.

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I. THREATS TO SMALL CETACEANS

Cetaceans face a wide range of threats in a rapidly changing world. Many populations are formally categorised as vulnerable or endangered, the baiji was recently declared extinct and several other species are in immediate danger of extinction. However, the status of most small cetacean populations is poorly known. In many cases, too little is known to even assess the population's probability of survival.

A. DIRECT THREATS

1. Deliberate hunts

The dramatic decline in 'great whale' populations worldwide last century was primarily due to commercial whaling. Since the late 1940s, hunting of great whales has been regulated by the International Whaling Commission (IWC), which implements the 1946 International Convention for the Regulation of Whaling (ICRW). The IWC has banned commercial whaling since 1986 (the 'moratorium'), although Norway, Iceland and Japan continue to hunt great whales through, respectively, an 'objection' to the moratorium decision under Article V of the ICRW, a 'reservation' to the moratorium, and under Article VIII which allows 'special permit' whaling for scientific research.

The IWC has long exempted whaling by indigenous people to meet subsistence needs from its regulation of commercial whaling; permitting aborigines whose cultural, subsistence and nutritional need for whales and whaling it recognises, to hunt some baleen species exclusively for local consumption. The Commission establishes five year blocks of annual Aboriginal Subsistence Whaling (ASW) quotas that are based on nutritional, cultural and subsistence needs.

Small whales, dolphins and porpoises are also hunted, for both subsistence and commercial use, in South Asia, East Asia, South East Asia, Africa, South America, the Pacific Islands Region, North America and Europe. In addition, the belief that cetaceans compete with fisheries or damage fishing nets has prompted retaliatory measures by fishermen in some regions³.

Table 1 at the end of this document provides a summary of recent information on directed takes of small cetaceans, but does not purport to be comprehensive.

2. Live capture

Small cetaceans have long been popular performers in commercial captive display facilities. Captive small cetaceans have also been used for research and employed in military operations. In some jurisdictions, cetacean display facilities have been phased out or prohibited, and in some countries most of the small whales and dolphins now in captivity have been captive-bred. However, unsustainable international trade in wild caught dolphins still represents a significant threat to some populations, mainly in the North Pacific (Japan), South Pacific (Solomon Islands) and the Caribbean (Cuba)⁴.

B. INDIRECT THREATS

Development of conservation and protection regimes must be informed by the understanding that most small cetaceans do not face single threats, such as hunting or live capture, but are impacted by multiple threats that act cumulatively or synergistically to dramatically increase the harm to an individual, population or species.

Many small cetacean populations are subject to bycatch, chemical and noise pollution, habitat destruction, over-fishing or climate change, often simultaneously. Other indirect threats to cetaceans include activities that may disturb, frighten, displace or harm them, such as underwater noise pollution. Sources include shipping and recreational traffic, wind farms, seismic surveys and military sonars.

A summary of indirect threats to small cetaceans, including fisheries, bycatch, chemical pollution, ship strikes, noise, disturbance, harassment, habitat loss and degradation, including climate change, is provided below.

³ Reid, A. 2008. The looming crisis: interactions between marine mammals and fisheries. *Journal of Mammalogy* 89(3):541-548.

⁴ Fisher, S.J. and Reeves, R.R., 2005. The global trade in live cetaceans: implications for conservation. *Journal of International Wildlife Law and Policy* 8 (4): 315-340;

Bycatch and fisheries

Global fisheries are increasing in intensity and range. The use of destructive fishing methods and the growth of many modern commercial fisheries continue to impact many small cetacean populations around the world. The impacts can be both direct through bycatch and indirect through loss of prey species and suitable habitat. The introduction of more sustainable fishing techniques can reduce this pressure.

Large numbers of small cetaceans become entangled in many gear types, including long-lines, set and drift nets, trap lines, mid-water trawls and certain types of aquaculture, but the largest problem remains with coastal gill nets, drift nets and purse-seine nets. The continued use of gill nets is endangering an increasing number of coastal species of dolphin and porpoise.

Some small cetacean populations may also be threatened by the sheer scale of modern fisheries and aquaculture operations. As fisheries compete with one another for fish and habitats, less and less prey and habitat is available for cetaceans and other wildlife.

Chemical pollution

There are many different sources of chemical pollution, including domestic sewage, industrial discharges, seepage from waste sites, atmospheric fallout, domestic run-off, accidents and spills at sea, operational discharges from oil rigs, mining discharges and agricultural run-off. Many rivers, estuaries and coastal waters near large human population centres are strongly affected by eutrophication and heavy metal contamination. Toxic algal blooms are increasingly common around estuaries and bays.

The impacts of chemical pollution on cetaceans range from direct and indirect physical poisoning to degradation of important habitats. The chemicals that are probably of most concern for small cetaceans are the persistent organic pollutants (POPs) including pesticides, such as DDT, and industrial chemicals; most famously the PCBs. These substances enter marine food chains and accumulate along the chain to the marine top predators. Toothed whales, including the small cetaceans, which consume fish, accumulate enormous burdens, usually much higher than the filter feeding baleen whales.

Damage to the reproductive and immune systems of marine mammals (and other species) are the likely consequences of their extraordinary contaminant burdens. Many small cetacean populations are known to be carrying heavy burdens which contribute to increased mortality in neonates.

There has been a worldwide increase in reports of viral and bacterial diseases affecting marine species as well as an apparent increase in toxic algal blooms. Habitat degradation, in particular increased chemical contamination, is thought to have facilitated disease outbreaks and the immunotoxic effects of some substances has been associated with marine mammal mass mortalities.

The increasing and cumulative pressures on small cetaceans and the current trends of climate change may make cetaceans more susceptible to disease. The transport of pathogens around the world, through the movement of products and ballast water, may increase exposure to disease and environmental contaminants may be facilitating the emergence of new diseases. In addition, exposure to chemical substances that have immunotoxic effects may lower cetacean immune responses and algal bloom outbreaks may further increase the toll of weakened populations by reducing their food supply as fish die.

Vessel strikes, noise, disturbance and harassment

Hearing is the most important sense for cetaceans, and the ability to hear well is vital in all key aspects of their lives including finding food, navigating and social interactions. Any reduction in hearing ability – whether by physical damage or masking by other sound – may seriously compromise the viability of individuals and, therefore, populations and ultimately whole species.

Human-created noise in the marine environment adds to an already significant natural biological and ambient level of sound. Introduced noise pollution comes from shipping and other vessels, military activities, fisheries anti-predation devices, offshore construction sites and facilities, ocean research, and the air-guns used in seismic testing to find oil and gas deposits and an emerging threat to cetaceans are the potential impacts of marine wind farms.

Whilst many of the sources of introduced noise are localized, some recent military technologies have utilized powerful detection mechanisms that may radiate over thousands of miles of the ocean.

Potential impacts of human-created noise on cetaceans range from physical damage to these animals (especially to those in close proximity to the noise source) to altering behavior, increasing stress and displacement from important habitats/migration corridors.

Evidence is emerging that collisions between vessels and cetaceans are increasing and may be happening more frequently than previously suspected. Thus they may, especially in the case of endangered or geographically isolated cetacean populations, pose a serious threat (or conservation issue).

In addition, harassment of cetaceans, whether intentional or incidental, by whale-watching vessels is likely to be growing as the whale watching industry continues to grow worldwide and some coastal populations are subjected to increasing pressure.

The impact of greatest consequence associated with noise pollution, harassment and ship strikes may be the cumulative and long-term impact that we are currently unable to assess and evaluate.

Habitat loss and degradation (including Climate Change)

It is important to both the individual and the survival of the population (or species) that its habitats continue to be suitable to support it.

Habitat loss is especially critical for small cetaceans with limited range, such as species dependent on coastal or estuarine habitat and river dolphins. In many areas habitat loss is caused by dams, fishing structures and withdrawal of water for human use. In some parts of the world water management, flood control and major river modification, including the removal of surface water, has led to population decline. Dams prevent migration and create barriers which fragment populations, especially those of freshwater species. Prey species may be reduced, while sedimentation, nutrient over-enrichment and salinity, and in turn eutrophication, increase.

Habitat loss is also a concern for offshore species. Changes in the atmosphere, weather patterns and marine ecosystems are currently being observed. Predictions include sea surface changes and sea level rise. Changes in the ice-caps may affect rainfall and salinity, and temperate changes may impact on coastal upwelling regions causing a possible reduction in nutrient concentrations and 'productivity' which in turn can impact whole food chains.

The modification of habitats may cause shifts in cetacean food sources (through change in upwelling patterns and prey aggregation). Species that have evolved to find food in a highly patchy environment may have difficulty securing prey.

The implications of climate change for cetaceans are compounded by the apparent rate of change (some 3 to 4 degrees Celsius in higher latitudes in only 50 years) which is thought to be much faster than anything that cetaceans have been exposed to in the past. When considered in the context of cumulative impacts, the ability of cetacean populations to adapt to this rapid change may be compromised. Arctic small cetaceans, including the narwhal, are considered the most vulnerable marine mammals to the impacts of climate change.

II. ADDRESSING THE THREATS TO SMALL CETACEANS

At this time, no single multilateral environmental agreement addresses all the direct and indirect threats to cetaceans, covers all relevant waters and all species of cetaceans, or includes all relevant countries as Parties (see Annex I). Instead, different agreements address different issues, regions or species, and provide differing levels of protection. Experts argue as to whether the United Nations Convention on the Law of the Sea (UNCLOS) actually intends one single convention to address all cetacean conservation and management, since Article 65 states, in the case of cetaceans specifically, that States shall work "*through the appropriate international organizations (note the plural) for their conservation, management and study*".

It is generally accepted in the context of Article 65⁵ (and Article 120 which extends the provisions of Article 65 to the high seas⁶) that the IWC is the most appropriate international organisation for management of cetacean hunting. Additionally, United Nations' Agenda 21 recognises the responsibility of the International Whaling

⁵ Article 65: Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

⁶ Article 120: "*Article 65 also applies to the conservation and management of marine mammals in the high seas*".

Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the ICRW, as well as the work of the Scientific Committee in undertaking studies of large whales in particular, as well as of other cetaceans⁷. Agenda 21 also acknowledges the work of other organizations in the conservation, management and study of cetaceans and other marine mammals, such as the Inter-American Tropical Tuna Commission (IATTC) and the Agreement on Small Cetaceans of the Baltic and North Sea (ASCOBANS) under the Convention on Migratory Species of Wild Animals (CMS). It notes that States should cooperate for the conservation, management and study of cetaceans.

Although the preamble to the ICRW declares the desire to conclude a “*convention to provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry ...*”, disputes exist within the IWC as to whether its mandate actually extends to the conservation of all cetaceans, not just great whales.

A. Management

While the IWC has remained unable to reconcile the varied positions of its members in respect of its competence regarding small cetaceans, all regulation of direct removals of small cetaceans has continued to be undertaken at state level, with some regional agreements giving management advice, but not actually going as far as setting quotas for removals (i.e. regulating hunts). For example, the North Atlantic Marine Mammal Commission (NAMMCO) has an active role in the management of small cetacean exploitation by its only members, Greenland, Norway, Faroe Islands and Iceland, in terms of giving scientific and management advice (including on the sustainability of certain catch limits) to the range states. Although the NAMMCO Scientific Committee recommends quotas that are used to challenge the often more precautionary advice of the IWC, NAMMCO has never actually set quotas for any cetacean species.

Similarly, the Joint Commission on the Conservation and Management of Narwhals and Belugas gives advice on narwhal and beluga management to its only members, Canada and Greenland, but has no explicit regulatory role itself and does not set quotas.

In the European Community, all cetaceans are listed in Annex A of the Habitats Directive (Directive 92/43/EEC) which obliges Member States to prohibit all forms of deliberate capture or killing and prohibit the keeping, transport, sale, exchange, and offering for sale or exchange, of specimens taken from the wild. Notably, the Faroe Islands and Greenland are not part of the EU.

CMS prohibits Parties from taking a migratory species listed in CMS Appendix I, with exceptions for science that enhances the survival of the affected species or where the taking is to accommodate the needs of traditional subsistence users of the species; but CMS has no explicit regulatory role and has made no mention of developing such a role since its inception in 1979. Three of the four CMS daughter agreements relating to cetaceans mirror this take prohibition.

B. Conservation

Conservation (in terms of mitigating indirect threats) of small cetaceans has become a growing focus of several other multilateral and regional environmental agreements including, most importantly, CMS and its daughter agreements. Additionally, a growing number of regional fisheries management organisations (RFMOs) are taking an interest in conservation issues relating to cetacean species beyond the ‘original’ threat of bycatch. The following agreements are most relevant to small cetacean management and conservation.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

CITES regulates international trade in live specimens, parts and derivatives of endangered species, including all species of cetaceans. CITES explicitly defers to IWC’s specific expertise in cetaceans and the primacy of its

⁷ Chapter 17:61: States recognize:

- a. The responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling;
- b. The work of the International Whaling Commission Scientific Committee in carrying out studies of large whales in particular, as well as of other cetaceans;
- c. The work of other organizations, such as the Inter-American Tropical Tuna Commission and the Agreement on Small Cetaceans of the Baltic and North Sea under the Bonn Convention, in the conservation, management and study of cetaceans and other marine mammals.

management mandate⁸. CITES applies scientific and trade criteria to determine the management status of species threatened by international trade. Appendix I lists species threatened with extinction in which international trade is banned except under special circumstances and subject to both an export permit and import permit. Trade in Appendix II specimens is regulated by export permits that are, inter alia, subject to confirmation by an independent Scientific Authority of the State of export that the export will not be detrimental to the survival of the species (a Non Detriment Finding). Twelve species of small cetaceans (and all species of great whales⁹), are listed on Appendix I, with all others on Appendix II.

Convention on Migratory Species (CMS)

CMS and its 'daughter agreements' focus on mitigating indirect threats such as bycatch, chemical and noise pollution, habitat destruction, harassment, vessel strikes, over-fishing and climate change. The daughter agreements that relate to cetaceans are the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) and the Agreement on Small Cetaceans of the Baltic and North Sea (ASCOBANS) and two Memoranda of Understanding: CMS Pacific Cetaceans MoU and CMS Western African Marine Mammals MoU. These and other planned agreements in South East Asia and the Indian Ocean form part of a growing network of cetacean-related conservation instruments under CMS addressing the indirect threats to great whales and small cetaceans, as well as conserving and restoring habitats of importance and removing barriers to migration.

Thirty-three of the sixty-nine species of small cetaceans are currently listed on CMS Appendices. Of these, four are listed on Appendix I of CMS, which includes migratory species and populations in danger of extinction throughout all or a significant proportion of their range. As noted above, Parties that are Range States of a migratory species listed in Appendix I "*shall prohibit the taking of animals belonging to such species*"¹⁰. Appendix II lists migratory species "*which have an unfavorable conservation status and which require international agreements for their conservation and management, as well as those which have a conservation status which would significantly benefit from the international cooperation that could be achieved by an international agreement*"¹¹.

SPAW Protocol of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)

The Cartagena Convention came into force in 1986, providing varying degrees of protection to wildlife species in the wider Caribbean region according to their conservation status. All cetaceans are listed in Annex II of the Protocol which mandates that each contracting Party shall ensure total protection for whales and dolphins by prohibiting:

1. the taking, possession or killing (including, to the extent possible, the incidental taking, possession or killing) or commercial trade in such species, their eggs, parts or products;
2. to the extent possible, the disturbance of such species, particularly during periods of breeding, incubation, estivation or migration, as well as other periods of biological stress.

In addition, the SPAW mandates the creation of protected areas in the marine environment. The SPAW Protocol came into force on 18 June, 2000. In September 2008, SPAW members adopted a Marine Mammal Action Plan (MMAP), establishing a framework to protect whales, dolphins and manatees from a variety of threats, such as entanglement in fishing nets, bycatch, habitat degradation and coastal development. The MMAP also aims to promote regional cooperation on research, information and education and enhance the exchange of technical expertise¹².

The Pacific Islands Regional Environment Programme (SPREP)

SPREP is the Pacific Islands region's major intergovernmental organisation charged with protecting and managing the environment and natural resources, with 25 member Countries and Territories. Its mandate is "*to promote cooperation in the Pacific Islands Region and to provide assistance in order to protect and improve the*

⁸ CITES Res. Conf. 11.4 Conservation of cetaceans, trade in cetacean specimens and the relationship with the International Whaling Commission

⁹ The West Greenland population of minke whale is listed on Appendix II.

¹⁰ http://www.cms.int/documents/convtxt/cms_convtxt.htm

¹¹ *Ibid.*

¹² <http://www.cep.unep.org/publications-and-resources/promotional-material/publications/spaw/mmap>

environment and to ensure sustainable development for present and future generations”¹³. SPREP’s Marine Species Programme outlines a regional strategy for the cooperative conservation and management of dugongs, marine turtles, whales and dolphins to be implemented through Action Plans during 2008–2012. The threat-reduction objectives of SPREP’s Whale and Dolphin Action Plan include development and testing of mitigation techniques to reduce bycatch and documenting and considering the impact of traditional dolphin hunting. The Action Plan specifically identifies “limiting direct takes to sustain populations”.

The Agreement on the International Dolphin Conservation Program

The Agreement on the International Dolphin Conservation Program (IDCP), a legally-binding multilateral agreement which entered into force in 1999, mainly addresses incidental catches of dolphins in the eastern Pacific Ocean. The Inter-American Tropical Tuna Commission (IATTC) has significant responsibilities for the implementation of the IDCP and provides the programme’s Secretariat. The IDCP’s objectives are:

- To progressively reduce incidental dolphin mortalities in the tuna purse-seine fishery in the Agreement Area to levels approaching zero, through the setting of annual limits;
- With the goal of eliminating dolphin mortality in this fishery, to seek ecologically sound means of capturing large yellowfin tuna not in association with dolphins; and
- To ensure the long-term sustainability of the tuna stocks in the Agreement Area, as well as that of the marine resources related to this fishery, taking into consideration the interrelationship among species in the ecosystem, with special emphasis on, inter alia, avoiding, reducing and minimising bycatch and discards of juvenile tunas and non-target species.

III. THE COMPETENCE OF IWC FOR SMALL CETACEANS

As noted above, there is a longstanding and unresolved debate within the Commission as to whether the IWC has competence over small cetaceans and what that means in practical terms. For the purpose of advancing the IWC’s efforts to address direct threats to small cetaceans, in particular hunting, this paper concludes from the arguments below that the IWC has legal competence to both manage and conserve small, as well as large, cetaceans but that the full scope of that competence has yet to be determined and realized.

Legal background

The purpose of the International Convention for the Regulation of Whaling (ICRW), which established the IWC, is “*to provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry*”¹⁴. The final version of the ICRW (amended on November 19, 1956) does not explicitly exclude small cetaceans from that management competence; nor does it explicitly include them. Instead, Article V.1. of the ICRW entitles the Commission to define species of both protected and unprotected whales. I.e. it gives the Commission the right to amend the scope of the ICRW to include or exclude small cetaceans. However, the Commission has not resolved what the scope of its competence is, because its members cannot reach consensus, and no vote has been taken to define the scope in the Schedule. Without anything conclusive in the ICRW, members have relied on legal interpretation to infer or deny a management competence over small cetaceans.

The ICRW itself does not define ‘whale’ and an appendix to the Convention, the Annex of Nomenclature, which contains a list of translations of the common names used for the species most threatened by commercial whaling at the time the Convention was agreed, does not explicitly exclude any specific group or family of cetaceans from the Convention’s coverage (and explicitly includes the bottlenose whale). Similarly, the Interpretation section of the Schedule defines whales according to two categories, baleen and toothed whales, but makes no distinction between the small and large toothed species.

The Nomenclature Annex’s inclusion of the northern and southern hemisphere species of bottlenose whale, the inclusion of ‘toothed whales’ in the Interpretation section of the Schedule and the application of the commercial whaling moratorium in Schedule Paragraph 10 d to the killer whale support the argument that small cetaceans were not intended to be excluded from regulation by the IWC. The intention of the drafters appears to support

¹³ www.sprep.org/sprep/about.htm

¹⁴ Preamble to the International Convention for the Regulation of Whaling

that interpretation; the verbatim record from the time the Annex of Nomenclature was negotiated shows no sign that the drafters intended the Annex to be exclusive as to the cetacean species to be managed by the IWC.

However, as long as a three-fourths majority in favour of ‘small cetacean competence’ does not exist within the Commission, the IWC is unable to take conclusive (binding) action under Article V (for example by establishing catch limits, hunting seasons or management areas in the Schedule) to manage small cetaceans. Consequently, such measures are not proposed in this paper; instead a strategy of gaining competence by degrees is suggested.

A strategy of ‘creeping competence’ over small cetaceans has been pursued by conservation-minded countries within the IWC for decades, with a number of resolutions adopted that give both management and conservation advice. However, as the Commission’s membership grew in the 1990s, and as time and resources were increasingly occupied by various efforts to resolve other fundamental disagreements within the IWC, fewer efforts focused explicitly on small cetaceans (such as resolutions) have been attempted in recent years.

However, progress (essentially from zero) in building ‘small cetacean competence’ should not be underestimated. Annex III sets out the useful summary of IWC history (up to 2003) in respect of small cetaceans that was recorded in the Berlin Initiative on Strengthening the Conservation Agenda of the IWC (resolution 2003-1). The resolution documents 19 (now 20) resolutions adopted by the Commission on a range of small cetacean issues and notes that several members of the IWC which previously had reservations about IWC competence for small cetaceans, have since changed their views. Although only one small cetacean-specific resolution has been adopted by the Commission since that time (in 2007, by consensus, on the highly endangered vaquita), the Scientific Committee has continued to review threats to small cetacean species, undertake status assessments and make recommendations on both management and conservation issues. Meanwhile, the Commission has continued to make comments and recommendations on the management and conservation of small cetaceans, including through its adoption of the report of the Scientific Committee at each annual meeting. The next chapter suggests how the IWC might build on these efforts.

IV. SMALL CETACEANS AND THE ‘FUTURE OF THE IWC’

The IWC categorized small cetaceans as one of several “*controversial issues that ... if not addressed in the short term may fail to alter the status quo or even result in an irreparable break in the system via the withdrawal of governments from the Convention*”. However, the Report of the Small Working Group (SWG) on the Future of the International Whaling Commission (Document 61/6), produced in May 2009 before the 61st annual meeting, gives little consideration to small cetaceans. Noting that “*disagreement remains regarding the competence of the IWC concerning small cetaceans*”, it suggests that the continued work of the Scientific Committee “*may be sufficient to avoid the need for further process at this stage*”, although it adds that “*The issue of small cetaceans may also be addressed by the Conservation Committee and in conservation management plans*”.

In considering how the IWC could increase its consideration of issues relating to the management of small cetaceans and, thereby, its competence over small cetaceans, the next sections will consider, inter alia, the use of conservation management plans. Additionally, they will look at procedural options available within the framework of the IWC. These options lead to a series of recommendations linked to the relevant IWC organs (chapter V and table).

1. Maximise the effectiveness of the IWC Scientific Sub-committee on Small Cetaceans

Small cetaceans mandate of the Scientific Committee

The Commission has never identified any specific small cetacean mandate for the Scientific Committee (SC) beyond the preamble to its Rules of Procedure. This establishes “*Scientific aspects of small cetaceans*” as a specific “topic of concern” to the Commission and cites four small cetacean resolutions that direct the SC to undertake specific work (*Rep. Int. Whal. Commn.* 41:48; 42:48; 43:51; 45:41)¹⁵. Notably however, this list omits several later resolutions with directives to the Scientific Committee. From these can be interpreted an even broader remit for the Scientific Committee or, more specifically, the Small Cetacean Sub-committee:

Resolution 1996-4 on Small Cetaceans which “*recommends that the Scientific Committee continues to consider the problems facing small cetacean stocks, including reviewing developments on topics that were a subject of previous reports*”;

¹⁵ <http://www.iwcoffice.org/commission/procedure.htm#scientific>

Resolution 1998-5 on Environmental Changes and Cetaceans which “*directs the Scientific Committee to give high priority to implementing the research initiatives of the Standing Working Group on Environmental Concerns and to continue to produce costed scientific proposals for non-lethal research to identify and evaluate the impacts of environmental changes on cetaceans in all priority areas*”;

Resolution 1999-4 on the Health Effects from the Consumption of Cetaceans which “*requests the Scientific Committee to receive, review and collate data on contaminant burdens in cetaceans and forward these as appropriate to the World Health Organisation (WHO) and competent national authorities, and to report on this matter to the Commission*”;

Resolution 1999-9 on Dall’s Porpoise which “*directs the Scientific Committee to review the status of the impacted stocks in the 53rd Annual Meeting*”.

The Small Cetaceans Sub-committee (SCSC) of the IWC Scientific Committee was established in 1975 with a recommendation that “*the Commission initially consider the management of those small cetaceans that are taken in deliberate, direct fisheries*”, but also take into account additional exploitation from bycatch¹⁶. The Scientific Committee recommended that contracting governments report statistics on all direct and accidental takes of small cetaceans to the Commission and agreed that “*in view of its possible increasing involvement in studies of small cetaceans, the sub-committee be retained as a standing sub-committee*”. It is now one of the largest Scientific Committee sub-committees, with 90 participants in 2009.

The Commission’s Working Group on mechanisms to address small cetaceans (see page 14) examined the way in which the SCSC decides on priority stocks in the early 1990s. The Chairman of the Scientific Committee explained to the Working Group that the SCSC had in the past given priority to stocks or species subject to direct harvest or incidental mortality from fishery operations, but its remit had expanded following the adoption of resolutions on small cetaceans in 1990 and 1991 which “*confirmed that this conformed with the priorities of the Commission and provided further guidelines*”. Most notably, Resolution 1990-3 requested the Scientific Committee to “*commence a process of drawing together all available relevant information on the present status of the stocks of small cetaceans which are subjected to significant directed and incidental takes, on the impact of those takes on the stocks, and providing an assessment of the present threats to the stocks concerned*”¹⁷. The Working Group concluded in 1993 that it was content with the sub-committee’s criteria for selection of topics and noted general agreement that priority should be given to:

- endangered species;
- species or stocks under specific threat from direct or indirect take or from such effects as pollution or habitat degradation;
- global and regional reviews, bearing in mind the need to give due attention to regions in which little research had yet been done, or too little information available.

The Commission tacitly approved these provisions in a resolution adopted the following year, which commended “*the Scientific Committee for its work to date on identifying the problems facing small cetacean species and advising on way in which those threats can be eliminated*” (IWC1994-2). The same resolution requested the Scientific Committee to review its guidelines for the identification of stocks of small cetaceans at its future meetings, taking full account of the views of Contracting Governments expressed at the 46th Annual Meeting, and to present these, with any relevant explanatory information, to the Working Group for consideration. However, discussions broke down at the 47th meeting of the Working Group and the Commission has never formally approved terms of reference for the SCSC or guidelines for its selection process of priority issues or species.

Meanwhile, the SCSC has successfully reflected the wishes of the Commission that were expressed in 1993. In 1996, the Commission commended the Scientific Committee for its work identifying the problems facing small cetacean species and advising on ways to reduce or minimise them (Resolution 1996:4) and in 1997 it called for the work of the SCSC to be continued and for members to co-operate with it (Resolution 1997:8).

The SCSC has continued to undertake a series of species-specific status assessments on a rotating basis (usually determined by the region in which the annual meeting is held). As part of this review process, and where issues are brought to its attention by papers submitted to the meeting or through the interventions of participants, the

¹⁶ Report of the Scientific Committee in the 26th Report of the Commission (1975), Page 55.

¹⁷ 1990-Appendix 3. Resolution on Small Cetaceans. http://www.iwcoffice.org/meetings/resolutions/IWCRES42_1990.pdf

SCSC has provided important management as well as conservation recommendations to the Commission on several species. Many of these recommendations have been taken up by the Commission in calls on range states to, *inter alia*, reduce kills (Resolution 1990:4 on Japan's Dall's porpoise hunt); take appropriate conservation measures (Resolution 1992:11 on belugas and narwhals); take steps to reduce incidental catches (Resolution 1993:11 on harbour porpoises) and ensure that conservation needs are taken into account in development plans (Resolution 2000:9 on freshwater cetaceans).

The SCSC is also responsive to urgent and emergent issues as they arise. For example, the 2nd Climate Change Workshop which met in 2009 and reported to Scientific Committee at IWC61, recommended that the SCSC consider a series of hypotheses that link climate to the population trajectories of small cetaceans with the aim of identifying species, areas and research situations. Uniquely, the Commission agreed to "*establish an intersessional working group ... which will work by correspondence (unless funds become available to allow it to meet)*"¹⁸. Notably, there was no discussion of the use of Commission funds (the voluntary fund) to pay for such a meeting, even though the work is primarily an initiative of the Climate Change Workshop in 2009 which was half funded from Scientific Committee central funds and half from voluntary contributions.

Besides the work being conducted within the SCSC, many issues discussed by the Scientific Committee's Standing Working Group on Environmental Concerns (Standing Working Group) are as relevant to small cetaceans as to the great whales, and this forum must be considered in any review of mechanisms addressing small cetaceans at the IWC. Work, including modeling and risk assessment, undertaken by the Standing Working Group to improve understanding of the impacts of various environmental threats, frequently include consideration of small cetacean species, both through papers presented by participants and the preparation of formal case studies. In recent years, the Standing Working Group has considered impacts on small cetaceans in respect of infectious diseases (2008), anthropogenic noise (including seismic exploration activities (2007)), climate change (2009) and pollution (ongoing through Pollution 2000+), health effects from consumption of cetaceans (2000-2002), habitat degradation (2004) and cetacean/fisheries interactions (2002).

Environmental issues relating to small cetaceans are also regularly documented in the annual State of the Cetacean Environment Report (SOCER). Consistent with the Standing Working Group's practice of holding joint meetings with other Sub-committees of the Scientific Committee, it has hosted at least one workshop jointly with the SCSC (on infectious and non-infectious diseases of marine mammals and impact on cetaceans in 2007). The Standing Working Group has also considered (although not necessarily followed) the SCSC's future workplan in determining its own future priority topics.

Small cetacean issues are also addressed in the Scientific Committee's Sub-committee on Whale Watching. Like the Standing Working Group and SCSC, its mandate is considered by some governments to be beyond the competence of the IWC but, unlike the SCSC, both the SWG and the Sub-committee on whale watching have received core (Commission-allocated) funds for their work (for example, the Sub-committee on whale watching hosted in 2000 a Workshop on Assessing the Long-term Effects of Whale watching on Cetaceans which was part funded by the IWC).

Recommendations to broaden the mandate and increase the effectiveness of the SCSC

The SCSC currently has a standing agenda item, "*Progress on Previous Recommendations*". However it only considers one resolution under this item - IWC Resolution 2001-13 which directs the Scientific Committee to review progress on previous recommendations relating to critically endangered stocks of cetaceans on a regular basis. As noted above, several other resolutions direct the Scientific Committee to undertake specific tasks and it could be useful to include a review of progress on work mandated in other resolutions under this agenda item.

Similarly, the IWC could formally consolidate the mandate of the SCSC, by agreeing (or adopting by simple majority if a decision is necessary) terms of reference reflecting its breadth of work over the last two decades.

The SCSC reviews annually the information on direct takes provided voluntarily by contracting governments in National Progress Reports and compiled by the Secretariat and it continues to undertake an annual assessment of one or more threatened species as a standing agenda item. These reviews serve as a series of overviews, but,

¹⁸ The workshop would include 10-12 participants and meet for 3 days. Its report would be provided to the IWC Scientific Committee, Conservation Committee and Commission meetings.

unlike CMS and the IUCN/SSC Cetacean Specialist Group which have published reviews of cetacean status¹⁹, the IWC has not compiled its reports into a single source of information on all exploited small cetacean species. It could do this, perhaps in conjunction with CMS or IUCN, for consideration by the Commission.

It should be noted that the data on direct hunts (and other sources of mortality) provided by contracting governments is incomplete. For example in 2008 only the USA provided data on small cetacean takes. The Commission might consult the SCSC and consider how to encourage data sharing by contracting governments who are reticent to report direct takes for fear of criticism. It might also (perhaps as first step to inform the Future of the Commission discussions) ask the SCSC to provide (or collaborate with IUCN or CMS to provide) a summary of all available data on small cetacean species subject to direct takes.

Lack of information on the status on many small cetacean species (and populations) remains a significant challenge to effective management and conservation of small cetaceans. As WWF notes in a recent report on small cetaceans²⁰, far fewer data exist on the status of small cetaceans than of the great whales. *“40 out of 69 small cetacean species, or 58%, are classified by IUCN as data deficient, meaning there is simply not enough information available to determine whether they are threatened or not”*. Clearly the IWC Scientific Committee has the technical expertise to address this global challenge. Furthermore, it should be non-controversial work considering that species assessments have been the activity most often sought from the SCSC by the Commission. To expedite and enhance such work, the Commission could seek formal cooperation between the SCSC and

- the IUCN Species Survival Commission’s Cetacean Specialist Group, to conduct Red List Assessments of small cetaceans;
- CITES, to conduct Reviews of Significant trade;
- the Scientific Council of CMS, to undertake work of mutual interest when the programme of work to review *“potential synergies, collaboration and priorities for action”* under CMS resolution 8.22 is complete.

See section 5 for more details. Means to fund such enhanced activity are addressed in the next section.

Finally, the status and effectiveness of the SCSC recommendations could be increased by the Secretariat reinstating its practice of the early 1990s (mandated in IWC1991/5) of forwarding to contracting and non-contracting governments, intergovernmental organisations and other entities as appropriate, copies of the relevant sections of the Scientific Committee’s report on small cetaceans. The Secretariat drew to their attention to any particular scientific advice contained therein and offered to provide more detailed advice if that should be sought.

In respect of the suggestions above, the Commission and Scientific Committee would need to consider the impact on the workload of the SCSC and the need for additional time and, if necessary, resourcing of additional meetings.

2. Extend/clarify TORs for using money from the Small Cetaceans Fund

In 1994, the Commission established a Voluntary Fund for the participation at Scientific Committee meetings of scientists from developing countries working on small cetacean issues. As pointed by several delegations in the past, direct and indirect catches and threats need to be reviewed in the presence of scientists from the countries concerned. However, although Appendix I to the Scientific Committee’s Rules of Procedure states the purpose of the fund to be participation at SC meetings, the rules on distribution of the funds envisage their disbursement on a broader range of activities; specifically *“provision of support for research in areas, species or populations or research methodology in small cetacean work identified as of direct interest or priority in the advice provided by the Scientific Committee to the Commission”* and *“other small cetacean work in developing countries that may be identified from time to time by the Commission and in consultation with intergovernmental agencies as requiring, or likely to benefit from support through the Fund”*²¹, subject to the

¹⁹ For example, Culik, M. 2004 Review of Small Cetaceans. Distribution, Behaviour, Migration and Threats. Marine Mammal Action Plan/Regional Seas Reports and Studies no. 177. Prepared for UNEP/CMS.

http://www.cms.int/publications/pdf/culik_report/Cetacea_Part1_84.pdf and Reeves, Randall R, Smith, Brian D., Crespo, Enrique A. and Notarbartolo di Sciara, Giuseppe (compilers). 2003. Dolphins, Whales and Porpoises: 2002-2010 Conservation Action Plan for the World’s Cetaceans. IUCN/SSC Cetacean Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK. ix +139pp

²⁰ Elliot, W., Sohl, H. and Burgener, V.. Small Cetaceans: The Forgotten Whales. WWF publication, June 2009. p.5.

²¹ <http://www.iwcoffice.org/commission/procedure.htm#scientific>

normal procedures for review of proposals and recommendations by the Scientific Committee, and reporting and review of outcomes.

This broad mandate makes the Voluntary Fund an important mechanism for the Commission to extend its competence over small cetaceans; not just through research, but by initiating or supporting other small cetacean work in developing countries that it identifies as important.

Since 1999, a total of £352,374 has been contributed to the Fund in sixteen separate contributions (see Annex III). This includes AUD500,000 contributed by Australia in 2009. The discussion at IWC61, about how this particular contribution to the Fund may be disbursed, points to the need for governments to strategize on how best to deploy the Voluntary Fund.

3. Establish a Commission Sub-Group on Small Cetaceans

Issues relating to small cetaceans, most notably the report and recommendations of the SCSC, are currently only considered by the Commission as a sub-item under its agenda item *Other Scientific Committee Activities, its Future Work Plan and Adoption of the Scientific Committee Report*. This effectively limits the Commission's consideration of small cetacean issues to items raised in the report of the Scientific Committee.

In 1992, at its 44th meeting, the Commission established a Standing Working Group to Consider a Mechanism to Address Small Cetaceans in the IWC. Its purpose was to seek a consensual procedure for action on small cetaceans “while respecting the differing views of Contracting Governments” (IWC1993-Appendix 4). Its terms of reference were to “initiate the discussions aiming at a framework under which the IWC could address the issue of small cetaceans without prejudice to the different positions held by member states and to set up an interim arrangement for dealing with the issue until the completion of the framework”²². Ultimately, the Working Group did not propose any specific mechanisms, or establish an interim arrangement to address small cetacean issues, and it was disbanded after three meetings but, while it existed, it elevated the status of discussions of small cetacean issues within the IWC to core business of the Commission.

Such a sub-group is a model worth re-considering. By establishing a sub-group of the Commission – either a standing working group or a Sub-committee – the Commission could assume a greater (and more focused) role in directing and responding to the efforts of the SC, and take a more proactive role in directing discussion, research or cooperation with bodies outside the IWC. Adopting the model of the Working Group on Whale Killing Methods and Associated Welfare Issues, a sub-group could hold expert workshops, or simply undertake a more detailed discussion of small cetacean issues away from the more political atmosphere of the plenary.

Two mechanisms for establishing sub-groups are provided under Rule M of the Commission's Rules of Procedure. Either the Chair of the Commission may “constitute such *ad hoc* committees as may be necessary from time to time”, or the Commission (by simple majority) may “designate such Sub-committees and working groups to consider technical issues as appropriate”²³.

Alternatively, or in the meantime, the Commission could:

- strike a temporary working group mandated specifically to consider how the IWC might address small cetacean takes in the future (akin to the previous working group);
- establish a working group to meet at a forthcoming annual meeting and/or intersessionally on small cetaceans under the agenda item Future of the Commission.

4. Conservation Management Plans

Australia has proposed a specific mechanism within the Conservation Committee that provides another opportunity in respect of small cetaceans; the development of conservation management plans. In 2008, Australia proposed conservation management plans “as a modern, flexible, and adaptive tool for the conservation management of cetaceans as they face a wide range of established and emerging threats” and set out the essential elements of a plan to use conservation management plans as “a tailored management tool to be applied to improve conservation outcomes for cetacean populations through targeted management of human activities”.

²² IWC47/17

²³ <http://www.iwcoffice.org/commission/procedure.htm#procedure>

At IWC61²⁴, Australia outlined a strategic approach to developing and implementing conservation management plans within the IWC. Noting that the Scientific Committee is already focusing on the need to implement a conservation management plan for the critically endangered western gray whale, Australia contributed \$AUD 500,000 towards development of a gray whale conservation management plan, towards identifying and prioritizing other species for which active management of human activities will benefit cetacean conservation outcomes, and to support the development and implementation of conservation management plans to achieve those outcomes.

Australia convened an advisory group to compile a prioritised list of candidate species for conservation management plans, based on conservation need and likelihood of successful conservation outcomes. We recommend the inclusion of small cetaceans in this process and propose that the small group involves small cetacean experts. Cooperation with coastal States, including those which are not members of the IWC, will be key.

5. Enhance collaboration between the IWC and other Multilateral Environmental Agreements

The recommendation that the IWC improve collaboration with other relevant MEAs with which its mandate overlaps applies to all preceding suggestions, but the following specific recommendation is noteworthy.

Although an entire agenda item of the Commission is devoted to ‘Cooperation With Other Organisations’, it has no terms of reference and serves mainly as a report-back mechanism on the attendance of representatives of IWC (usually members of the Secretariat) at meetings of other agreements, and vice versa. Development of terms of reference for this agenda item would afford a useful opportunity for a proactive strategy of cooperation and coordination between relevant international organizations.

The importance of such cooperation and coordination is acknowledged in a number of IWC resolutions, including Resolution 2003-1, which directs the Conservation Committee to explore how the Commission can coordinate its conservation agenda through greater collaboration with a wider range of other organisations and conventions including, *inter alia*, CMS, the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), the International Maritime Organisation (IMO), IUCN, and UNEP. It is also acknowledged in a series of resolutions adopted by the IWC²⁵, CITES²⁶ and CMS²⁷ (including an MOU signed in 1999²⁸) which elaborate the history of the relationship between the agreements.

Other IWC resolutions seek contact with other organisations, including *inter alia*, the IMO, the World Health Organisation (WHO), the Stockholm Convention on Persistent Organic Pollutants, the Global Environment Facility (GEF), the Convention on Wetlands of International Importance (Ramsar), the Convention on Biological Diversity (CBD) and the Committee on Fisheries (COFI) of the Food and Agriculture Organisation (FAO). The IWC has observer exchanges with the IMO, North Pacific Marine Science Organisation (PICES), the International Council for the Exploration of the Sea (ICES), the Eastern Caribbean Cetacean Organisation (ECCO), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and

²⁴ IWC/61/CC 23: A Strategic Approach to the development and implementation of Conservation Management Plans Submitted to the IWC61 Conservation Committee by the Government of Australia.

²⁵ Resolution 1992:9 on small cetaceans, noting the decisions taken by UNCED: called on States with small cetacean populations subject to anthropogenic threats, to seek advice from the IWC; invited other relevant organizations, including ICES and agreements concluded under CMS, to exchange information with the IWC; Resolution 1993:11 on harbour porpoises in the North Atlantic and Baltic Sea, called on the range States to meet the Scientific Committee’s request for more data on population, abundance, incidental catches, and pollutant levels in harbour porpoises, to take steps to reduce incidental catches, and to report on progress the following year. It also agreed on co-operation with the new Agreement on Small Cetaceans in the North and Baltic Seas (ASCOBANS) established under CMS; Resolution 1994:2 adopted by consensus: specified efforts to be made to improve collaboration with coastal States on small cetacean issues; established a voluntary fund for the participation of scientists from developing countries in small cetacean work; and agreed to co-operate with UNEP and organizations established under the auspices of CMS.

²⁶ Res. Conf. 11.4 (Rev. CoP12) on the Conservation of cetaceans, trade in cetacean specimens and the relationship with the International Whaling Commission.

²⁷ CMS Resolutions and Recommendations specifically on small cetaceans are present from CoP1 (1985) all the way through to CoP9.(2008): Resolution 7.9 (2002) welcomed and endorsed the Memorandum of Understanding between the Secretariats of CMS and IWC; Resolution 8.22 (2005) was passed requesting the CMS Secretariat and the CMS Scientific Council to develop a Programme of Work addressing human-induced impacts on cetaceans. The same resolution also called specifically for co-operation by the CMS Secretariat and the CMS Scientific Council with the IWC, including the IWC Scientific and Conservation Committees; Resolution 9.09 (2008) reaffirmed Resolution 8.22 and established a schedule of delivery in the following year

²⁸ A Memorandum of Understanding was signed in 1999 with UNEP/CMS to ensure ongoing co-operation between the UNEP/CMS and IWC Secretariats with respect to cetaceans.

NAMMCO²⁹. As far as bycatch is concerned, contacts could also be established with the UN Fish Stocks Agreement and General Assembly which adopts a resolution on sustainable fisheries every year.

Greater collaboration, in particular, between the IWC Scientific Committee and the CMS Scientific Council, and CITES Animals Committee would be beneficial and could include a shared workplan, and joint meetings. This could be coordinated by the IWC Scientific Committee or Conservation Committee or, if one is established, by a dedicated new Commission sub-group on small cetaceans. For example, CITES' Animals Committee (which hires consultants to conduct status reviews of species listed on the CITES Appendices known as Reviews of Significant Trade) could cooperate with the Small Cetaceans Sub-committee of the IWC Scientific Committee to conduct reviews of cetacean species.

CMS, in collaboration with the scientific advisory bodies of CMS cetacean-related Agreements, is already progressing a review of the extent to which CMS, CMS cetacean-related Agreements and other relevant bodies (such as the IWC Scientific Committee and Conservation Committee, the IMO, the Convention for the Protection of the Marine Environment of the North-East Atlantic, the United Nations Informal Consultative Process on Oceans and the Law of the Sea and the UNEP Regional Seas Programme) are addressing a set of human-induced impacts. These include entanglement and by-catch, climate change, ship strikes, pollution, habitat and feeding ground degradation and marine noise. The review, which will be presented to the CMS Standing Committee in 2010, will identify points of collaboration and synergies between these bodies while analysing gaps and overlaps. CMS will then use this review to develop a CMS Programme of Work to address Adverse Human-Induced Impacts on Cetaceans. This process would offer a valuable opportunity for the IWC (or more specifically its Scientific Committee) to enhance and formalize its collaboration with CMS's Scientific Council.

6. IWC legal analysis of IWC competence to regulate small cetaceans

Although several legal opinions have been undertaken on this topic, the IWC has not commissioned its own independent review.

²⁹ See for example: http://www.iwcoffice.org/_documents/commission/IWC58docs/58-4.pdf

V. RECOMMENDATIONS

These recommendations could be considered by the Working Group proposed in the Chair's consensus decision, if and when established (see above, Introduction).

Level	Recommendation (with reference to section heading)	Justification /precedent	Procedure	Time frame ³⁰
Commission	(3) Establish an ad-hoc working group as a sub-group of the Small Working Group (SWG). And/or Establish a working group of the Commission on small cetaceans.	'Group of ten' mandated by the Small Working Group. A similar working group existed in the 1990s	Commission could agree a temporary ad hoc working group Rule M of the Commission's Rules of Procedure allows the Chair of the Commission to " <i>constitute such ad hoc committees as may be necessary from time to time</i> ", or the Commission (by simple majority) to " <i>designate such Sub-committees and working groups to consider technical issues as appropriate</i> ".	The SWG recommended a five year process, but preference would be for two years. I.e. group could meet intersessionally and present recommendations to IWC64. An ad-hoc or standing working group could be established to provide a forum for the discussion mandated by the SWG on the Future of the Commission.
	(5) Agree a proactive strategy of cooperation between IWC and other relevant international organizations.	Such cooperation is mandated in various resolutions.	Commission could agree MOUs with other agreements relating to the work of the Commission, Scientific Committee and/or Conservation Committee.	
	(2) Extend/clarify TORs for using money from the Small Cetaceans Fund		Commission could instruct the Scientific Committee to amend terms of reference.	Possible immediately.
	Consider how IWC could manage small cetaceans hunts in practice		Commission could instruct SCSC to undertake status reviews of hunted small cetacean populations and advise on the sustainability of removals (see below); Instruct SC (or SCSC directly) to advise generally and specifically (case by case) on what would be necessary to ensure that small cetacean hunts are sustainable (e.g. more data, management model (like	

³⁰ Any time frame is dependent upon the outcome of the discussions on the Chair's consensus decision. We therefore leave it open for the moment.

			RMP), management regime (like RMS)).	
Scientific Committee	(1) Expand SC's terms of reference in relation to small cetaceans	Several resolutions direct the Scientific Committee to undertake specific tasks. These are referenced in the SC's rules of procedure but the list is not comprehensive.	Amend SC's rules of procedure to include the full range of resolutions directing the SC to undertake work in respect of small cetaceans.	
	(1) Establish terms of reference for SCSC	Not required, but most sub-committees have terms of reference.		
	(5) Instruct Secretariat to circulate recommendations of the Scientific Committee's report relating to small cetaceans to relevant countries or agreements.	Mandated in IWC Res 1991/5.	Compliance with IWC Res 1991/5.	
	Prioritise population assessments of the status of hunted small cetaceans and populations considered to be most at risk. Could be undertaken in conjunction/cooperation with other bodies, such as the IUCN/SSC Cetacean Specialist Group	A core term of reference	Commission could instruct SCSC.	
Conservation Committee	(4) Include small cetaceans in the development of Conservation Management Plans		An advisory group has been convened to compile a prioritised list of candidate species for conservation management plans, based on conservation need and likelihood of successful conservation outcomes.	

Table 1: Summary of directed takes of small cetaceans.

Region	Species targeted
Asia & Asia/Pacific	
Chinese Taipei	Live capture of bottlenose dolphins for captivity ³¹ .
Japan	Dall's porpoises, bottlenose dolphins, short-finned pilot whales, Risso's dolphins, false killer whales, pantropical spotted dolphins, striped dolphins and Pacific white-sided dolphins are hunted for human consumption in coastal (drive hunts) and offshore (harpoon) hunts ³² . Baird's beaked whales, pilot whales and Risso's dolphins are hunted in 'Small Type Whaling' operations.
Indonesia	Fraser's dolphins ³³ and pantropical spotted dolphins taken opportunistically by harpoon ³⁴ .
Malaysia	Opportunistic hunting of dolphins by fishermen in Sabah, East Malaysia for human consumption and fishing bait ³⁵ .
Philippines	Pantropical spotted, spinner and Fraser's dolphins taken opportunistically by harpoon ³⁶ . Targeted catch of dolphins for use as bait in a nautilus fishery in Balabac, Palawan ³⁷ .
Solomon Islands	Various dolphin species hunted and live-caught, mainly spotted, spinner and bottlenose dolphins ³⁸ .
Indian Ocean	
India	Dolphins (including Ganges River dolphin ³⁹) killed for fishing bait, meat and oil ⁴⁰ .
Madagascar	Spinner, Indo-Pacific bottlenose dolphins and Indo-Pacific humpback dolphins are hunted ⁴¹ .
Seychelles	Direct takes of bottlenose dolphins and probably other species ⁴² .
Sri Lanka	Harpooning of Risso's and spinner dolphins in combination with drift and gillnets ⁴³ .
Americas	
Brazil, Colombia, Peru, Venezuela	Botos are killed deliberately for fish bait. Botos and tucuxis are also killed deliberately by fishermen who regard them as competition or because the dolphins damage fishing nets ⁴⁴ .

³¹ Hammond, P.S., Bearzi, G., Bjørge, A., Forney, K., Karczmarski, L., Kasuya, T., Perrin, W.F., Scott, M.D., Wang, J.Y., Wells, R.S. & Wilson, B. 2008. *Tursiops truncatus*. In: IUCN 2009. IUCN Red List of Threatened Species;

³² Reeves, R.R. 2009. Hunting Marine Mammals, In [Eds] Perrin W.F., Wursig, B., and Thewissen, J.G.M. Encyclopedia of Marine Mammals – Second Edition. Academic Press – Elsevier, San Diego, New York, London and Direct takes of small cetaceans in Japan by type of fishery and Prefecture of departure port, 1997-2007, Appendix 2 of the Report of the Subcommittee on Small Cetaceans, IWC61/Rep. 1/Annex L.

³³ Dolar, M. L. L., Perrin, W. F., Taylor, B. L., Kooyman, G. L. and Alava, M. N. R. 2006. Abundance and distributional ecology of cetaceans in the central Philippines. *Journal of Cetacean Research and Management* 8(1): 93-112

³⁴ Hammond, P.S., Bearzi, G., Bjørge, A., Forney, K., Karczmarski, L., Kasuya, T., Perrin, W.F., Scott, M.D., Wang, J.Y., Wells, R.S. & Wilson, B. 2008. *Stenella attenuata*. In: IUCN 2009. IUCN Red List of Threatened Species.

³⁵ Saifullah A. Jaaman, Yuhana U. Lah-Anyi and Graham J. Pierce (2009). Directed Fisheries for Dolphins and Dugong in Sabah, East Malaysia: past and present. In prep.

³⁶ *Op. cit.* Dolar, 2006.

³⁷ Dolar, M.L.L., Aquino, T., Perrin, W.F. and Alava, M.N.R. Preliminary results of the cetacean survey in Balabac Strait, Philippines. 17th Biennial Marine Mammal Conference, Capetown, South Africa. Nov. 27-Dec. 3, 2007. (Poster).

³⁸ Reeves, R.R. and Brownell, R.L. Jr. (eds.). 2009. Indo-Pacific bottlenose dolphin assessment workshop report: Solomon Islands case study of *Tursiops aduncus*. Occasional Paper of the Species Survival Commission 40, IUCN, Gland, Switzerland. 53pp.

³⁹ Wakid, A. and Braulik, G. Protection of endangered Ganges River Dolphin in Brahmaputra River, Assam, India. IUCN Technical Report 2009

⁴⁰ Sathasivan, Kumaran. Marine Mammals of India. Universities Press of India. 2004 pp. 135-136. In Kakinada and Kanyakumari, there have been references to use of dolphin meat as bait for fish.

⁴¹ Cerchio, S., Andrianivelo, N., Razafindrakato, Y., Mendez, M. and Rosenbaum, H.C. Coastal dolphin hunting in the southwest of Madagascar: status of populations, human impacts and conservation actions. IWC61/SC/61/SM15.

⁴² Kiszka, J., Berggren, P., Rosenbaum, H.C., Cerchio, S., Rowat, D., Drouot-Dulau, V., Razafindrakoto, Y., Vely, M., and Guissamulo, A. 2009. Cetaceans in the southwest Indian Ocean: a review of diversity, distribution and conservation issues. SC/61/O18

⁴³ Young, N and Iudicello, S. 2007. Worldwide Bycatch of Cetaceans. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-OPR-36, p 20.

Canada	Indigenous people hunt narwhals and belugas for human consumption in Northern Canada ⁴⁵ .
Caribbean	Pilot whales, pantropical spotted dolphins and other small cetaceans are hunted for human consumption on various islands of the Lesser Antilles ⁴⁶ .
Colombia	Dolphins (probably common bottlenose dolphin and pantropical spotted dolphin) killed for fishing bait in Bahía Solano, Chocó ⁴⁷ .
Guatemala	Dolphins harpooned for shark bait ⁴⁸ .
Peru	Targeted bycatch and harpooning of common dolphins, dusky dolphins, common bottlenose dolphins and Burmeister's porpoises for fishing bait and human consumption ⁴⁹ .
USA	Indigenous people hunt belugas for human consumption in Alaska ⁵⁰ .
Europe	
Faroe Islands	Pilot whales, Atlantic white-sided dolphins, bottlenose dolphins and bottlenose whales are hunted for human consumption in 'drive hunts' ⁵¹ .
Greenland	Inuit hunters hunt narwhals, belugas, pilot whales, killer whales and harbour porpoises in rifle hunts ⁵² .
Russian Federation	Belugas and orca hunted for human consumption and captivity.

⁴⁴ Reeves, R.R., Jefferson, T.A., Karczmarski, L., Laidre, K., O'Corry-Crowe, G., Rojas-Bracho, L., Secchi, E.R., Sloat, E., Smith, B.D., Wang, J.Y. & Zhou, K. 2008. *Inia geoffrensis*. In: IUCN 2009. IUCN Red List of Threatened Species. Version 2009.2. <www.iucnredlist.org>. Downloaded on 20 January 2010.

⁴⁵ Total Allowable Harvest Recommendations for Nunavut Narwhal and Beluga. Canadian Science Advisory Report 2008/035, DFO publication.

⁴⁶ Activities of the Caribbean Environment Programme (CEP) of UNEP on the Conservation of Marine Mammals in the Wider Caribbean. UNEP(DEC)/RS3/INF/4, 2000 and Vail, Courtney. Socio-Economic Assessment of Marine Mammal Utilization in the Wider Caribbean Region: Captivity, Viewing and Hunting. UNEP(DEC)/CAR WG.27/INF 6. 2005.

⁴⁷ Avila, I.C., García, C., and Bastidas, J.C. 2009. Use of dolphins for bait in the artisanal fisheries of Bahía Solano, Chocó, Colombia. SC/60/SM6

⁴⁸ Quintana-Rizzo, E. Human-related problems affecting wild dolphin populations in the Pacific Coast of Guatemala. SC/61/SM28

⁴⁹ Mangel, J., Alfaro-Shigueto, J., Van Waerebeek, K., Cáceres, C., Bearhop, S., Witt, M.J. and Godley, B.J. 2010. Small cetacean captures in Peruvian artisanal fisheries: High despite protective legislation. Biological Conservation 143 (1): 136-143

⁵⁰ Eastern Beaufort Sea Beluga Whales Stock Status Report E5-38. Canadian DFO publication; North Slope Borough Coastal Management Final Draft Plan Amendment, Chapter 7, Resource Inventory, Analysis and Designated Areas. 2004

⁵¹ Bernard HJ, Reilly B (1999) Pilot whales - Globicephala Lesson, 1828. In: Handbook of Marine Mammals (Ridgway SH, Harrison SR Eds.) Vol. 6: The second book of dolphins and porpoises. pp. 245 – 280

⁵² Greenland in Figures 2007, Statistics Greenland, Greenland Home Rule Government.. Available at www.nanoq.gl.

Table 2: Priority topics of the Scientific Committee Sub-committee on Small cetaceans

1981	White whales, narwhal, killer whales, pilot whales
1982	Black Sea dolphins; Eastern Tropical Pacific spotted and spinner dolphins (<i>Stenella</i> spp.) and striped dolphins (<i>Stenella coeruleoalba</i>) in the Western North Pacific
1983	Porpoises: harbour porpoise, vaquita and Dall's porpoise
1984	<i>Cephalorhynchus</i> spp.: Hector's dolphin (New Zealand), Heaviside's dolphin (Southern Africa), black dolphin (Chile) and Commerson's dolphin (Chile, Argentina, Kerguelen)
1985	Baird's beaked whale
1986-7	Pilot whales in the North Pacific and in the North Atlantic
1988	All beaked whales
1989	All pilot whales
1990	Porpoises: harbour porpoise, Dall's porpoise, vaquita and spectacled porpoise
1991	Small cetaceans stocks subject to significant directed and incidental takes
1992	Population biology of white whales, narwhals and species taken in Japanese drive fisheries
1993	Abundance and exploitation of small cetaceans in the Southeast Asia, Indo-Malay region
1994	Status and exploitation of small cetaceans in Latin America
1995	Harbour porpoises in the North Atlantic
1996	Global review of the genus <i>Lagenorhynchus</i>
1997	Small cetaceans in coastal waters of Africa
1998	Indian Ocean and Red Sea with special reference to the Middle East
1999	Status of Monodontid whales
2000	Freshwater cetaceans
2001	Dall's porpoise
2002	Genus <i>sousa</i>
2003	Small cetaceans of the Black Sea
2004	Franciscana
2005	Finless porpoise (marine populations)
2006	Small cetaceans in the Caribbean (excluding the Gulf of Mexico) and the western tropical Atlantic
2007	Killer whales
2008	Small cetaceans in the southeast Pacific
2009	Common dolphins
2010	Status of small cetaceans in the eastern tropical Atlantic ; takes of small cetaceans

ANNEX I. PARTIES TO RELEVANT AGREEMENTS (AS OF 13 NOVEMBER 2009)

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC/AIDCP	SPREP	SPAW	NAMMCO
Afghanistan		X										
Albania	X	X		X			X					
Algeria	X	X		X			X					
American Samoa*										M		
Andorra												
Angola	X					S						
Antigua and Barbuda	X	X	X	X								
Argentina	X	X	X	X								
Armenia	X											
Australia	X	X	X	X	S					X		
Austria	X	X	X	X								
Azerbaijan		X										
Bahamas	X	X										
Bahrain	X											
Bangladesh	X	X		X								
Barbados	X	X									X	
Belarus	X	X		X								
Belgium	X	X	X	X				X				
Belize	X	X	X								X	
Benin	X	X	X	X		S						
Bhutan		X										
Bolivia	X	X		X								
Bosnia and Herzegovina	X	X										
Botswana	X											
Brazil	X	X	X									
Brunei Darussalam	X	X										
Bulgaria	X	X	X	X			X					
Burkina Faso	X	X		X								
Burundi		X										
Cambodia		X	X									
Cameroon	X	X	X	X								
Canada	X	X										
Cape Verde	X	X		X		S						
Central African Republic		X										

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC / AIDCP	SPREP	SPAW	NAMMCO
Chad		X		X		S						
Chile	X	X	X	X								
China	X	X	X									
Colombia		X							X/		X	
Comoros	X	X										
Congo	X	X	X	X		S						
Cook Islands	X			X	S					X		
Costa Rica	X	X	X	X					X/X			
Côte d'Ivoire	X	X	X	X		S						
Croatia	X	X	X	X			X					
Cuba	X	X		X							X	
Cyprus	X	X	X	X			X					
Czech Republic	X	X	X	X								
Democratic Republic of the Congo	X	X	X	X								
Denmark	X	X	X	X				X				
Djibouti	X	X		X								
Dominica	X	X	X									
Dominican Republic	X	X	X								X	
Ecuador		X	X	X					X/X			
Egypt	X	X		X								
El Salvador		X							X/			
Equatorial Guinea	X	X				S						
Eritrea		X	X	X								
Estonia	X	X	X	X								
Ethiopia		X										
European Community	X			X					/[EU]			
Fiji	X	X			S					X		
Finland	X	X	X	X				X				
Faroe Islands*												X
France	X	X	X	X	S		X	X	X/	X	X	
France (St. Pierre et Miquelon)												
French Polynesia*										M		
Gabon	X	X	X	X		S						
Gambia	X	X	X	X								

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC/AIDCP	SPREP	SPAW	NAMMCO
Georgia	X	X		X			X					
Germany	X	X	X	X				X				
Ghana	X	X	X	X		S						
Greece	X	X	X	X			X					
Greenland*												X
Grenada	X	X	X									
Guam*										M		
Guatemala	X	X	X						X/X			
Guinea	X	X		X								
Guinea-Conakry												
Guinea-Bissau	X	X	X	X		S						
Guyana	X	X										
Haiti	X											
Holy See												
Honduras	X	X		X					/X			
Hungary	X	X	X	X								
Iceland	X	X	X									X
India	X	X	X	X								
Indonesia	X	X										
Iran (Islamic Republic of)		X		X								
Iraq	X											
Ireland	X	X	X	X								
Israel		X	X	X								
Italy	X	X	X	X			X					
Jamaica	X	X										
Japan	X	X	X						X/			
Jordan	X	X		X								
Kazakhstan		X		X								
Kenya	X	X	X	X								
Kiribati	X		X							X		
Korea, DPR	X								X/			
Korea (Rep. of S. Korea)		X	X									
Kuwait	X	X										
Kyrgyzstan		X										
Lao People's Democratic Republic	X	X	X									
Latvia	X	X		X								
Lebanon	X						X					

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC/AIDCP	SPREP	SPAW	NAMMCO
Lesotho	X	X										
Liberia	X	X		X		S						
Libyan Arab Jamahiriya		X		X			X					
Liechtenstein		X		X								
Lithuania	X	X	X	X				X				
Luxembourg	X	X	X	X								
Madagascar	X	X		X								
Malawi		X										
Malaysia	X	X										
Maldives	X											
Mali	X	X	X	X		S						
Malta	X	X		X			X					
Marshall Islands	X		X							X		
Mauritania	X	X	X	X		S						
Mauritius	X	X		X								
Mexico	X	X	X						X/X			
Micronesia (Federated States of)	X				S					X		
Moldova, Republic of	X	X		X								
Monaco	X	X	X	X			X					
Mongolia	X	X	X	X								
Montenegro	X	X		X			X					
Morocco	X	X	X	X			X					
Mozambique	X	X		X								
Myanmar	X	X										
Namibia	X	X										
Nauru	X		X							X		
Nepal	X	X										
Netherlands	X	X	X	X				X			X	
New Caledonia*										M		
New Zealand	X	X	X	X	S					X		
Nicaragua	X	X	X						X/X			
Niger		X		X		S						
Nigeria	X	X		X								
Niue	X				S					X		
Northern Mariana Islands*										M		
Norway	X	X	X	X								X
Oman	X	X	X									

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC/AIDCP	SPREP	SPAW	NAMMCO
Pakistan	X	X		X								
Palau	X	X	X	X						X		
Panama	X		X	X					X/X		X	
Papua New Guinea	X	X			S					X		
Paraguay	X	X		X								
Peru		X	X	X								
Philippines	X	X		X								
Poland	X	X	X	X				X				
Portugal	X	X	X	X		S	X					
Qatar	X	X										
Romania	X	X	X	X			X					
Russian Federation	X	X	X									
Rwanda		X		X								
Samoa	X	X		X	S					X		
San Marino		X	X									
Sao Tome and Principe	X	X		X								
Saudi Arabia	X	X		X								
Senegal	X	X	X	X								
Serbia	X	X		X								
Seychelles	X	X		X								
Sierra Leone	X	X										
Singapore	X	X										
Slovakia	X	X	X	X								
Slovenia	X	X	X	X			X					
Solomon Islands	X	X	X		S					X		
Somalia	X	X		X								
South Africa	X	X	X	X								
Spain	X	X	X	X			X		X/			
Sri Lanka	X	X		X								
St. Kitts and Nevis	X	X	X									
St. Lucia	X	X	X								X	
St. Vincent and the Grenadines	X	X	X								X	
Sudan	X	X										
Suriname	X	X	X									
Swaziland	X	X										
Sweden	X	X	X	X				X				

Party	UNCLOS	CITES	IWC	CMS	CMS Pacific Cetaceans MoU	Western African Aquatic Mammals MoU	ACCOBAMS	ASCOBANS	IATTC/AIDCP	SPREP	SPAW	NAMMCO
Switzerland	X	X	X	X								
Syrian Arab Republic		X		X			X					
Taiwan*												
Tajikistan				X								
Tanzania, Republic of	X	X	X	X								
Thailand		X										
The Former Yugoslav Republic of Macedonia	X	X		X								
Timor-Leste												
Togo	X	X	X	X		S						
Tokelau*										M		
Tonga	X									X		
Trinidad and Tobago	X	X									X	
Tunisia	X	X		X			X					
Turkey		X										
Turkmenistan												
Tuvalu	X		X							X		
Uganda	X	X		X								
Ukraine	X	X		X			X					
United Arab Emirates		X										
United Kingdom	X	X	X	X	S			X				
United Kingdom (OTs)												
United States of America		X	X						X/X	X	X	
Uruguay	X	X	X	X								
Uzbekistan		X		X								
Vanuatu	X	X			S				X/X	X		
Venezuela		X							X/X		X	
Viet Nam	X	X										
Wallis and Futuna*										M		
Yemen	X	X		X								
Zambia	X	X										
Zimbabwe	X	X										
Total	159	175	88	112	12	16	22	10	8	25 (7M)	13	4

Notes

* indicates a territory

IATTC/AIDCP

- Cooperating Non-Parties to IATTC: Belize, Canada, China, Cook Islands, the European Union and Chinese Taipei
- States and Regional Economic Integration Organizations which are applying the AIDCP Agreement provisionally: Bolivia and Colombia

SPREP

- Territories as Members (M), but not Parties: American Samoa, French Polynesia, Guam, New Caledonia, Northern Mariana Islands, Tokelau, Wallis and Futuna. More research is needed to determine whether Members have the same rights as Parties.

CMS MoUs

- Participants in CMS MoUs are indicated by “S” for signatory. Because MoUs do not have the same legal status as a Convention, the members of an MoU are not considered “Parties”.
-

ANNEX II:

EXTRACT FROM THE BERLIN INITIATIVE ON STRENGTHENING THE CONSERVATION AGENDA OF THE IWC (2003-1)⁵³

The 55th Meeting of the International Whaling Commission, held in Berlin in 2003 adopted a resolution, denominated 'the Berlin Initiative', which established the Conservation Committee. Annex II of the Resolution provides an annotated compilation of many of the conservation-oriented resolutions adopted by the IWC between 1976 and 2001, and includes the following commentary on small cetaceans:

2. a) In its first 30 years of existence, the IWC concerned itself almost exclusively with the species of large whale of most interest to industrial whaling, in particular sperm whales and the larger baleen whales. Over the years, the range of species which the Commission has shown an interest in has been gradually extended as outlined chronologically here:

1974: First meeting of the IWC Scientific Subcommittee on "Small Cetaceans"

1975: Establishment of the Standing Scientific Subcommittee on Small cetaceans. It recommended to the Commission that members report statistics on all direct and accidental takes of small cetaceans to the Commission. Specific management recommendations were provided on spotted dolphins, Dall's porpoise, harbour porpoise and Indus river dolphins.

1976: Adoption of an agreed list of small cetacean species, including 64 species of smaller odontocetes and 2 species of smaller baleen whales (RIWC 27:30-31).

Resolution 1977:6 on reporting requirements for 'small-type' whaling, called on member Governments to submit statistics on all direct and incidental catches of small cetaceans. These are published by the IWC from 1979 onwards.

The northern bottlenose whale was included into the IWC Schedule as a Protected Stock (RIWC 28:35).

Resolution 1980:8 on the extension of the Commission's responsibility for small cetaceans, directed the Scientific Committee to continue to provide scientific advice on small cetacean stocks to member Governments, coastal States, and other interested governments and inter-governmental organizations.

2. b) During the 1980's, the Scientific Committee conducted an in-depth assessment of major exploited small cetacean species, on a rotating basis as follows:

1981	White whales, narwhal, killer whales, pilot whales;
1982	Black Sea dolphins; Eastern Tropical Pacific spotted and spinner dolphins (<i>Stenella</i> spp.) and striped dolphins (<i>Stenella coeruleoalba</i>) in the Western North Pacific;
1983	Porpoises: harbour porpoise, vaquita and Dall's porpoise;
1984	Cephalorhynchus spp.: Hector's dolphin (New Zealand), Heaviside's dolphin (Southern Africa), black dolphin (Chile) and Commerson's dolphin (Chile, Argentina, Kerguelen);
1985	Baird's beaked whale;
1986-7	Pilot whales in the North Pacific and in the North Atlantic;
1988	All beaked whales;
1989	All pilot whales;
1990	Porpoises: harbour porpoise, Dall's porpoise, vaquita and spectacled porpoise;

2. c) During the 1990's:

Resolution 1990:3 on small cetaceans. The Commission directed the Scientific Committee to prepare a comprehensive report on all stocks of small cetaceans subject to direct and incidental takes, and agreed to present a report of this work to UNCED (Rio 1992).

Resolution 1990:4 called on Japan to reduce its kill of Dall's porpoise as recommended by scientific advice.

Resolution 1991:5 on small cetaceans endorsed the Scientific Committee's report for UNCED and duly forwarded it. The report is published in RIWC Special Issue 15:73-130, and includes a revised list of 66 'small cetacean' species recognized by the Committee.

In Agenda 21, adopted in 1992 at UNCED, States agreed to recognize the work of the IWC Scientific Committee on all cetaceans (chapter 17.94).

Resolution 1992:9 on small cetaceans, noting the decisions taken by UNCED: called on States with small cetacean populations subject to anthropogenic threats, to seek advice from the IWC; invited other relevant organizations, including

⁵³ <http://www.iwcoffice.org/meetings/resolutions/resolution2003.htm#1>

ICES and agreements concluded under CMS, to exchange information with the IWC; invited member Governments to provide assistance to States with endangered small cetacean stocks; and instructed the Scientific Committee to continue its work on assessing threats to small cetacean populations.

In view of the long-standing dispute over the extent of the IWC's competence for the management of small cetaceans, the Commission agreed to establish a working group to consider a mechanism to address small cetaceans in the IWC (RIWC 43:50).

Resolution 1992:10, on the directed take of striped dolphins in drive fisheries, called on Japan to address the problem.

Resolution 1992:11 on directed takes of white whales and narwhals, called on States with white whales and narwhals in their waters to take appropriate conservation measures.

Resolution 1993:4 on addressing small cetaceans in the IWC, adopted by consensus, identified a need to improve mechanisms for handling small cetaceans in the IWC, including mechanisms to: ensure participation of coastal states, including non-members, in small cetacean research; improve availability and quality of data on small cetaceans; secure funding coastal State participation in small cetacean issues; develop the relationship between the IWC and regional organizations with respect to small cetaceans.

Resolution 1993:10 on the directed take of striped dolphins, again urged Japan to take appropriate action to conserve striped dolphins subject to its drive fishery.

Resolution 1993:11 on harbour porpoises in the North Atlantic and Baltic Sea, called on the range States to meet the Scientific Committee's request for more data on population, abundance, incidental catches, and pollutant levels in harbour porpoises, to take steps to reduce incidental catches, and to report on progress the following year. It also agreed on co-operation with the new Agreement on Small Cetaceans in the North and Baltic Seas (ASCOBANS) established under CMS.

Resolution 1994:2 adopted by consensus: specified efforts to be made to improve collaboration with coastal States on small cetacean issues; established a voluntary fund for the participation of scientists from developing countries in small cetacean work; and agreed to co-operate with UNEP and organizations established under the auspices of CMS.

Resolution 1994:3 on the Biosphere Reserve of the Upper Gulf of California and the Colorado River Delta, commended Mexico on its efforts to protect the vaquita and invited other members to provide assistance.

Resolution 1996:4 reminded members of the previous Resolutions on small cetaceans, and invited member Governments to report on progress with the previous recommendations.

Resolution 1997:8 called for the work of the Scientific Committee on small cetaceans to be continued and for members to co-operate with it.

Resolution 1998:9 on white whales, called on States with beluga populations to collaborate in the Scientific Committee's assessment of beluga.

Resolution 1999:9 on Dall's porpoises, instructed the Scientific Committee to conduct an assessment of Dall's porpoises in 2001, and invited Japan to submit information.

2. d) A Memorandum of Understanding was signed in 1999 with UNEP/CMS to ensure ongoing co-operation between the UNEP/CMS and IWC Secretariats with respect to cetaceans.

2. e) In the 2000's:

Resolution 2000:9 on freshwater cetaceans, called on States with freshwater cetaceans to collect and supply information and to ensure that conservation needs of freshwater cetaceans are taken into account in river development plans.

Japan indicated in 2000 that it would cease scientific collaboration on small cetaceans, if the Commission pursues its plan to conduct an assessment of Dall's porpoise in 2001. As from the 2001 Annual Meeting, Japan withdrew its participation in Scientific Committee work on small cetaceans, and declined to supply any data on Dall's porpoise.

Resolution 2001:12 on Dall's porpoise, called for the Scientific Committee to conduct a full assessment of Dall's porpoise and for Japan to supply the required information.

Resolution 2001:13 called on members to respond to Scientific Committee recommendations on small cetaceans and for the Committee to regularly review the implementation of its recommendations. It further encouraged members to provide technical, scientific and financial support to range States to assist their small cetacean conservation measures.

2. f) During the 1990's and beyond, the Scientific Committee continued its assessments of small cetaceans on a rotating basis, as follows:

1992	White whales and narwhals; species taken in Japanese drive fisheries;
1993	Small cetaceans in Southeast Asia;

1994	Small cetaceans in Latin America;
1995	Harbour porpoises in the North Atlantic and Baltic Sea;
1996	Lagenorhynchus spp;
1997	Small cetaceans in coastal waters of Africa and striped dolphins throughout the world;
1998	Small cetaceans in the Indian Ocean, Red Sea, and coastal waters of the Arabian peninsula;
1999	By catch mitigation, acoustic devices; white whales and narwhals;
2000	Freshwater cetaceans;
2001	Dall's porpoise and
2002	Humpback dolphins (Sousa spp.);

2. g) Special Issues of the IWC Report on small cetaceans have been published as follows:

1988	The genus Cephalorhynchus;
1993	Pilot whales (N. Hemisphere only);
1995	Phocoenids (porpoises);

2. h) Although the issue of its competence to manage small cetaceans has long been a source of contention within the Commission, the attitude of members is gradually changing. Several members who had previously had reservations about the IWC's competence for small cetaceans, have since changed their views.

2. i) Implications for the IWC of small cetacean work: Despite differing views on its competence to manage smaller cetacean species, the scope of the IWC's work has gradually extended over the last 25 years beyond the species of traditional interest to the whaling industry (the large baleen and sperm whales), to cover the full range of cetacean species. This has brought the following shifts of emphasis:

(1) A shift away from a concentration only for whales in the traditional high-latitude whaling grounds, of interest to relatively few countries, to also include species and populations in temperate and tropical waters, including in particular the coastal waters of many more countries, and of developing countries in particular;

(2) A shift away from concern exclusively with direct exploitation, towards addressing the panoply of threats, including accidental entanglement in fishing nets, habitat degradation and exclusion, and so on, that face cetaceans, especially smaller ones.

2. j) For this expansion in scope to be effective, it will be necessary to involve many more coastal States in the work of the IWC, preferably as full members. The need to improve the participation of coastal States, particularly developing countries, in the work of the Commission and its Scientific Committee, has been recognized in several IWC resolutions, including the need for financial assistance.

2. k) The discussions on the competence issue, have revealed that a distinction between cetacean species purely on the basis of body size is no longer the most useful distinction with respect to conservation and management issues. Rather than distinguishing between 'small' and 'large' cetaceans, the IWC should bring its classification into line with UNCLOS and distinguish between (a) highly migratory species of cetacean; and (b) other species. The highly migratory species include those listed in Annex A of UNCLOS, plus any other species subsequently confirmed to be highly migratory.

2. l) While the IWC remains the primary organization for the management and conservation of the highly migratory species, which Article 68 of UNCLOS requires States to co-operate with, primary responsibility for the remaining species rests with coastal States and regional organizations (such as those established under CMS). The IWC's main role here is to contribute in the form of scientific assessments and advice, assistance with the co-ordination of scientific research, and the building of scientific capacity.

ANNEX III. CONTRIBUTIONS TO THE SMALL CETACEANS VOLUNTARY FUND⁵⁴

Source	Amount	Date received	Comment
EIA	US\$5,000 (£3,000)	1995	
EIA	£2,000	1998	
Humane Society of the US	US\$5,000 (£3,121)	10/04/00	The funds were designated for projects related to the conservation of Small Cetaceans in South America, in particular research into the status and biology of <i>Delphinus capensis</i> and <i>D. delphis</i> off western South America (Columbia to Chile).
UK	£2,528	29/03/01	In recognition of the UK's continued support for the work of the Commission in this area
USA	US\$22,000 (£15,715)	04/10/01	Contribution to Small Cetaceans Fund
WWF	US\$50,000 (£31,795)	18/03/02	US\$75,000 to be provided to facilitate the work identified by the IWC Scientific Committee on alternative fishing methods and methods to reduce cetacean bycatch. \$50,000 has already been received, the remainder will be received once the work is complete and a report available.
Australia	AUD5,000 (£2,743)	30/03/04	Towards the participation of scientists from developing countries in the Standing Sub-committee on small cetaceans at IWC/56.

⁵⁴ Contributions to the Fund have been made since its creation in 1994 and funded the attendance of invited participants and research.

Ireland	EUR10,000 (£6,539)	24/06/05	Contribution to Small Cetaceans Fund
The Netherlands	EUR1,500 (£1,006)	30/05/06	Contribution towards travel/accommodation of NB Banos as co-author of paper SC/58/SM14
Ireland	£6,770	15/06/06	Contribution for IWC58 Invited Participants
Ireland	£9,738	18/01/07	Contribution to Small Cetaceans Fund
Ireland	£1,548	13/06/08	Contribution for IWC60 Invited Participants
The Netherlands	£5,000	16/09/08	Contribution for IWC60 Invited Participants
UK	£3,000	20/02/09	Contribution to Small Cetaceans Fund
Australia	AUD500,000 (£244,450)	18/06/09	Contribution towards small cetaceans conservation research
France	EUR7,500 (£6,421)	15/09/09	Contribution towards the Voluntary Fund for small cetaceans
TOTAL	£352,374		

ANNEX IV: SMALL CETACEANS BY REGION⁵⁵ *

Legend		PNW -	North West Pacific	ANW -	North West Atlantic	AP -	Pacific Arctic
		PNE -	North East Pacific	ES -	European Seas	AA -	Atlantic Arctic
IW -	West Indian	PCW -	Central West Pacific	ACW -	Central West Atlantic		
IE -	East Indian	PCE -	Central East Pacific	ACE -	Central East Atlantic	AntP -	Pacific Antarctic
		PSW -	South West Pacific	ASW -	South West Atlantic	AntA -	Atlantic Antarctic
FW -	Freshwater	PSE -	South East Pacific	ASE -	South East Atlantic	AntI -	Indian Antarctic

Common name	Scientific name	Atlantic Ocean						Indian Ocean		Pacific Ocean						Arctic		Antarctic		Rivers	
		ANW	ES	ACW	ACE	ASW	ASE	IW	IE	PNW	PNE	PCW	PCE	PSW	PSE	AP	AA	AntP	AntA	AntI	FW
Andrews' beaked whale	Mesoplodon bowdoini								X					X						P	
Arnoux's beaked whale	Berardius arnuxii					X	X	X	X						X			X	X	X	
Atlantic hump-backed dolphin	Sousa teuszii				X		X														
Atlantic spotted dolphin	Stenella frontalis	X		X	X	X	X										X				
Atlantic white-sided dolphin	Lagenorhynchus acutus	X	X														X				
Baird's beaked whale	Berardius bairdii									X	X		X								
black dolphin	Cephalorhynchus eutropia														X						
Blainville's beaked whale	Mesoplodon densirostris	X	X	X	X	X	X	X	X	X		X	X	X	X		X				
boto	Inia geoffrensis																				X
bottlenose dolphin	Tursiops truncatus	X	X	X	X	X	X	X	X	X		X	X	X	X		X				
Burmeister's porpoise	Phocoena spinipinnis					X									X						
clymene dolphin	Stenella clymene	X		X	X	X	X														
Commerson's dolphin	Cephalorhynchus commersonii					X									X					X	
common dolphin	Delphinus delphis	X	X	X	X	X	X	X	X	X		X	X	X	X		X				
Cuvier's beaked whale	Ziphius cavirostris	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				
Dall's porpoise	Phocoenoides dalli									X	X		X								
dusky dolphin	Lagenorhynchus obscurus					X	X							P	P						
Dwarf sperm whale	Kogia simus	X		X	X	X	X	X	X	X	X	X	X	X	X		X				
false killer whale	Pseudorca crassidens	X	X	X	X	X	X	X	X		X	X	X	X	X		X				
finless porpoise	Neophocaena phocaenoides							X	X	X		X									X
franciscana	Pontoporia blainvillei																				X
Fraser's dolphin	Lagenodelphis hosei			X	X	X	X	X	X	X		X	X		X						
Ganges river dolphin	Platanista gangetica																				X
Gervais' beaked whale	Mesoplodon europaeus	X		X	P		P										P				
ginkgo-toothed beaked whale	Mesoplodon ginkgodens							X	P	X		X	X	X	P						
Gray's beaked whale	Mesoplodon grayi					X	X	X	X				P	X	X				X	X	

⁵⁵ Prideaux, M., Small Cetacea and World Politics: Developing Regimes for Species Survival, PhD Dissertation (Centre for International Studies, University of South Australia, 2003)

harbour porpoise	<i>Phocoena phocoena</i>	X	X		X					X	X		X		X	X			
Heaviside's dolphin	<i>Cephalorhynchus heavisidii</i>							X											
Hector's beaked whale	<i>Mesoplodon hectori</i>					X	X	P	X				X	X	X				
Hector's dolphin	<i>Cephalorhynchus hectori</i>													X					
hourglass dolphin	<i>Lagenorhynchus cruciger</i>			X	X	?	X						X	X			X	X	X
Hubbs' beaked whale	<i>Mesoplodon carlhubbsi</i>									X	X		X						
Indo-Pacific hump-backed dolphin	<i>Sousa chinensis</i>					X	X	X	X			X		X					
Indus river dolphin	<i>Platanista minor</i>																		X
Irrawaddy dolphin	<i>Orcaella brevirostris</i>								X			X							X
killer whale	<i>Orcinus orca</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
long-finned pilot whale	<i>Globicephala melas</i>	X	X	X	X	X	X	X	X				X	X		X		X	X
Longman's beaked whale	<i>Indopacetus pacificus</i>							P				P							
melon-headed whale	<i>Peponocephala electra</i>	X		X	X	X	X	X	X	X	X	X	X	X					
narwhal	<i>Monodon monoceros</i>	X														X	X		
northern bottlenose whale	<i>Hyperoodon ampullatus</i>	X															X		
northern right whale dolphin	<i>Lissodelphis borealis</i>											X	X		X				
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>									X	X	X	X	X	X		X		
panropical spotted dolphin	<i>Stenella attenuata</i>	X		X	X	X	X	X	X	X		X	X	X	X				
Peale's dolphin	<i>Lagenorhynchus australis</i>				X								P		X				
pygmy beaked whale	<i>Mesoplodon peruvianus</i>												P		X				
pygmy killer whale	<i>Feresa attenuata</i>		X	X	X	X	X	X	X	X		X	X	X	X				
pygmy right whale	<i>Caperea marginata</i>					X	X	X	X					X	X			X	X
pygmy sperm whale	<i>Kogia breviceps</i>	X		X	X	X	X	X	X	X	X	X	X	X	X		X		
Risso's dolphin	<i>Grampus griseus</i>	X		X	X	X	X	X	X	X		X	X	X	X		X		
rough-toothed dolphin	<i>Steno bredanensis</i>		X	X	X	X	X	X	X	X	X	X	X	X	X		X		
Shepherd's beaked whale	<i>Tasmacetus shepherdi</i>					X	P	P	X					X	X				
short-finned pilot whale	<i>Globicephala macrorhynchus</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		
southern bottlenose whale	<i>Hyperoodon planifrons</i>					X	X	X	X					X	X		X	X	X
southern right whale dolphin	<i>Lissodelphis peronii</i>					X	X	X	X					X	X		X	X	X
Sowerby's beaked whale	<i>Mesoplodon bidens</i>	X		X												X			
spectacled porpoise	<i>Australophocaena dioptrica</i>					X	?		?					X	X			X	X
spinner dolphin	<i>Stenella longirostris</i>	X		X	X	X	X	X	X	X		X	X	X	X				
Stejneger's beaked whale	<i>Mesoplodon stejnegeri</i>									X	X		X						
strap-toothed whale	<i>Mesoplodon layardii</i>					X	X	X	X					X	X			X	X
striped dolphin	<i>Stenella coeruleoalba</i>	X	X	X	X	X	X	X	X	X		X	X	X	X		X		
True's beaked whale	<i>Mesoplodon mirus</i>	X		X			X		X								X		
tucuxi	<i>Sotalia fluviatilis</i>				X		X												X
vaquita	<i>Phocoena sinus</i>												X						
white whale	<i>Delphinapterus leucas</i>	X								X	X				X	X			
white-beaked dolphin	<i>Lagenorhynchus albirostris</i>	X														X			

* This table has not been reconciled with Perrin W.F., Würsig B. and Thewissen J.G.M. (Editors), (2009) Encyclopedia of Marine Mammals, Second edition, Academic Press, the standard reference used by the IWC, nor with the table of odontocetes currently recognized by the Scientific Committee at <http://www.iwcoffice.org/conservation/cetacea.htm>