

Cetacean Conservation Measures in the Pacific Islands Region, with a focus on Oceania Humpback Whales

(submitted by Australia)

The Islands of the Pacific Ocean are distributed across approximately 30 million square kilometres of ocean. Excluding Australia and New Zealand, the countries and territories of the region consist of approximately 500 000 square kilometres of land with an estimated population of 32.5 million (2008). This represents one of the lowest population densities in the world. Some 200 high islands and 2,500 low islands or atolls make up the 22 Pacific Island countries and territories of the region, excluding Australia and New Zealand. The region extends from Australia and Papua New Guinea in the west to Pitcairn Islands in the east, and Northern Mariana Islands in the north to New Zealand in the south.

Sixty cetacean species have been recorded migrating through or residing in the Pacific Islands region (over two-thirds of all cetacean species in the world), making this region a critical area for cetacean biodiversity.

Cetaceans are an important and integral element of Pacific Island cultures, economies and biodiversity. Their economic, social, ecological and intrinsic value is widely acknowledged throughout the region, as is the need to implement conservation measures to ensure their protection and recovery.

At the 2011 annual meeting of the International Whaling Commission, the Conservation Committee discussed a proposal to compile a global inventory of cetacean conservation measures, on a regional basis. In accordance with these discussions, Australia has commissioned this preliminary inventory of cetacean conservation measures in the Pacific Islands region.

The preliminary inventory encompasses the following states and territories: American Samoa (United States of America [USA]), Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia (France), Guam (USA), Kiribati, Marshall Islands, Nauru, New Caledonia (France), New Zealand, Niue, Northern Mariana Islands (USA), Palau, Papua New Guinea, Pitcairn Island (United Kingdom), Samoa, Solomon Islands, Tokelau (New Zealand), Tonga, Tuvalu, Vanuatu and Wallis and Futuna (France).

The preliminary inventory has demonstrated its utility in identifying the nature and extent of conservation measures in the region. It could also be used as a tool to identify potential opportunities for range states to further expand the depth and coverage of cetacean conservation measures across the region.

It is hoped that this inventory of cetacean conservation measures in place in the Pacific Islands region will act as a model for similar inventories in other regions, ultimately contributing to a global inventory.

Considerable additional information has been compiled on the cetacean conservation, research and education in the region by the Secretariat of the Pacific Regional Environmental Programme (SPREP). Recognising SPREP's leadership on these matters and subject to the views of SPREP and Pacific Island contracting parties, if this preliminary inventory is considered a useful model, action could be undertaken by the IWC to further refine this inventory.

Importance of cetaceans in the Pacific Islands region

Cetaceans have always had a special significance in the Pacific; culturally, biologically and more recently, economically, through whale watching.

Cetacean species in the region are respected as an important element of the Pacific Islands' culture and heritage. Stories and legends of whales are featured in a variety of cultures throughout the Pacific with whales often identified as guardians or even ancestors and cetacean products, such as bones and teeth, used in cultural ceremonies.

The value of cetaceans in this region is also demonstrated by the number of research projects and education activities involving cetaceans within the region. Meanwhile appreciation is growing of the economic value of cetaceans as a result of the global boom in whale and dolphin watching ecotourism (whale watching). Whale watching is one of the world's fastest growing tourism sectors and the Pacific Island region is no exception. It is estimated that in 2005, whale watching generated USD21 million per annum to the regional economy¹.

By way of example, whale watching contributes strongly to the Kingdom of Tonga's economy, with whales an iconic species for the tourism industry. In 2008, there were more than 9,800 whale watch participants in Tonga, representing average annual growth of 15% since 1998. Whale watchers in Tonga generated a total estimated expenditure of approximately USD2.1 million in 2008.

One of the most charismatic and unique of the cetacean species in the Pacific Islands region is the humpback whale. Humpback whales are large baleen whales with dark coloration, a highly varied acoustic call ("song") and a diverse repertoire of behaviour.

Humpback whales in the region undertake an annual migration from their summer feeding areas in Antarctic waters to sub-tropical breeding areas, in the austral winter months². The migration of about 5000 kilometres each way takes several months and individuals travel alone or in temporary aggregations³. Humpback whales are usually sighted in the region between July and November. Highest densities in this region occur along the coast of East Australia, whereas lower numbers are recorded near the Pacific Islands, such as Fiji, French Polynesia, Tonga, New Caledonia and Samoa.

The population structure of humpback whales is complicated and not fully understood. Whale stocks are classified into different breeding units by the IWC and four breeding stocks are recognised around the South Pacific and Australia (Stock D, E, F and G). The Oceania population of humpback whales consists of IWC breeding populations E and F as a distinct sub-population of humpback whales.

The Oceania humpback population numbers only about 3,500 individuals. This estimate indicates a decline of over 70 per cent from pre-whaling levels. It is estimated that at least another 50 years will be needed for Oceania humpback whales to recover to the extent that they can fulfil the ecological role they had prior to the industrial whaling pressures of the 20th century⁴.

Although little is known about their feeding grounds in the Southern Ocean, recent research tracking the migration of an individual humpback whale from Antarctica to American Samoa, indicates that they may travel further afield to breeding grounds than previously known⁵. Their diet consists mostly of krill and they are not known to feed while present in their tropical breeding grounds.

¹ O'Connor S, Campbell R, Cortez H, & Knowles T (2009), *Whale Watching Worldwide: tourism numbers, expenditures and expanding economic benefits*, a special report from the International Fund for Animal Welfare, Yarmouth MA, USA, prepared by Economists at Large.

² Rasmussen K, Palacios D, Calambokidis J, Saborío M, Dalla Rosa L, Secchi E, Steiger S, Allen J, Stone G. (2007) Southern Hemisphere humpback whales wintering off Central America: insights from water temperature into the longest mammalian migration. *Biology Letters* 3:302-305

³ Valsecchi E, Hale P, Corkeron P, Amoss W (2002) Social structure in migrating humpback whales (*Megaptera novaeangliae*). *Molecular Ecology* 11:507-518

⁴ SPREP and SPWRC (2011) Oceania Humpback Whale Recovery Plan. 22SM/WP.8.1.2/Att.1 Available: <http://www.sprep.org/2011SM22/>

⁵ Robbins J, Dalla Rosa L, Allen JM, Matilla DK, Secchi ER, Friedlaender AS, Stevick PT, Nowacek DP and Steel D (2011) Return movement of a humpback whale between the

The Oceania population of humpback whales are listed as endangered in the IUCN⁶ red list.

In the North Pacific, humpbacks feed from Northern California to British Columbia, Alaska, the Aleutian Islands and Kamchatka Peninsula and migrate to Hawaii, Mexico, Japan, Costa Rica, and the Philippines for mating and calving purposes.

Although in the North Pacific humpback whales are known to assemble in five different areas during the winter (, individual whales may move between different breeding grounds. For instance, humpback whales seen in Mexico one year have been seen in Hawaii the next year. On one occasion, a humpback whale was seen in Mexico and Hawaii during the same winter.

Recent studies have demonstrated that the number of humpback whales in the North Pacific Ocean has increased over recent decades with populations rebounding from around 1,400 when whaling ceased in the North Pacific in 1966, to upwards of 21,000 over 40 years later. However, some isolated populations of humpbacks, especially those in the Western Pacific Ocean, have not recovered at the same rate and still suffer low numbers.

Conservation concerns for cetaceans

Worldwide cetaceans are being exposed to a range of human-induced threats due to the global impacts of population growth, urban expansion and industrialisation. In particular, for migratory species such as the humpback whale, the number and scale of human-whale interactions continues to increase. Threats include:

- Whaling: Oceania humpbacks, including those migrating to the Pacific Islands region, are currently listed by Japan as a target species for whaling in their feeding grounds in the Southern Ocean. Minke and fin whales are also targeted.
- By-catch and entanglement: By-catch from fisheries interactions and entanglement are a significant cause of cetacean mortality.

Pollution: Various substances are released into the marine environment which degrade habitat for cetaceans and potentially affect their health. Significant levels of Persistent Organic Pollutants (POPs) and heavy metals can be found in long-lived cetaceans. These pollutants can result in impaired reproduction and in sufficient quantities lead to mortality.

- Noise: Cetaceans are vulnerable to anthropogenic noise with some types of noise pollution being linked to mass strandings of whales. Noise from large vessels, exploration, marine construction and sonar could disrupt humpback resting, feeding courtship, calving, nursing, migration or other activities.
- Vessel Strike: Large ships pose a threat to cetaceans and incidences of trauma as well as suspected fatal collisions have been cited.
- Climate Change: Rising ocean temperatures are predicted to cause changes in oceanographic processes, such as upwelling events. Reductions in Antarctic sea ice is likely to reduce critical foraging habitats for species such as humpbacks.
- Krill Fishery exploitation: Krill populations, the main food source for baleen whales, are under significant pressure by commercial fisheries, who harvest the product for use in the pharmaceuticals industry and as feedstock for fish farming, reducing its availability for baleen whales.

Antarctic Peninsula and American Samoa: a seasonal migration record. Endangered Species Res.13: 117-121

⁶ International Union for Conservation of Nature

To complement the inventory compiled in this report, a parallel inventory on the specific threats faced by cetacean populations in the Pacific Islands region would be useful in further identifying regional priorities for cetacean protection. Assessments of major threats are priority actions in the current regional Whale and Dolphin Action Plan 2008-2012. These will also be listed as priority in the revised 2013-2017 Action Plan to be submitted to the 2012 SPREP annual meeting for endorsement.

Towards an inventory of conservation measures

Cetaceans are a diverse group of organisms; some, such as humpback whales, are highly migratory and depend on multiple ecosystems whereas others have very restricted geographic ranges and habitat requirements. Some species can be threatened across a large proportion of their entire range, others only across some of their range, while for others there is very little known about their distribution, abundance or conservation status. Therefore, responding to the conservation needs of cetaceans poses a number of difficulties. Effective conservation at a regional level requires a prioritised and flexible strategy and international collaboration – all of which needs to be informed by the latest science.

The Pacific Islands share a number of common characteristics, such as small physical size (excluding Australia, New Zealand and Papua New Guinea), geographic isolation, unique endemic ecosystems vulnerable to damage, relatively rapid human population growth rates, limited land area, a dependence on marine resources and economic and environmental vulnerability. This coupled with limited resources constrains the extent of implementation of individual management actions for cetacean conservation.

Despite these constraints, countries in the region have been active in implementing cetacean conservation measures at the international, regional or national levels. A range of measures are currently in place across the region which act to support conservation of humpback whales and other cetaceans.

With regard to humpback whales these include:

- A number of **international agreements** exist which aim to improve the conservation status of humpback whales and therefore, aid in their protection.
 - The International Convention for the Regulation of Whaling is the primary body for direct protection of cetaceans, including humpback whales. Eight Pacific Islands region countries and four countries with eight territories in the Pacific Islands are members⁷. The IWC adopted a global moratorium on commercial whaling in 1982, which was implemented in 1986 and remains in effect today.
 - Oceania humpback whales are described as endangered on International Union for Conservation of Nature Red List (IUCN 2008). Previously described as ‘vulnerable’, this uplisting to ‘endangered’ status arose largely from work conducted in the Pacific Islands region by members of the South Pacific Whale Research Consortium. Listing often provides the impetus for the provision of species specific protection.
 - Eight Pacific Islands region countries and a further four countries with a total of eight territories in the region are members of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES works to prevent international trade threatening species survival, by subjecting trade in specimens to certain controls. Humpbacks are listed as vulnerable under Appendix II. This Appendix includes species which are not necessarily threatened with extinction, but in which trade needs to be controlled in order to avoid utilisation incompatible with their survival.
 - The Convention of Migratory Species of Wild Animals (CMS), signed by five Pacific Islands region countries and two countries with a total of four territories in the region, lists humpbacks as endangered under Appendix I. CMS establishes obligations for each member country to protect these animals, to conserve or restore their habitats, to mitigate obstacles to migration and to control other factors which might endanger them. This

⁷ Individual countries and territories are identified in Table 1 of Appendix 1

Appendix refers to migratory species that have been categorised as being in danger of extinction throughout all or a significant proportion of their range.

- Further agreements which provide indirect conservation benefits for humpbacks through the protection of the marine environment include the United Nations Convention on Law of the Sea (UNCLOS; 17 Pacific Islands region countries and two countries with a total of four territories in the region), Convention on Biological Diversity (16 Pacific Islands region countries and three countries with a total of five territories in the region), and the Convention on Wetlands of International Importance (seven countries in the Pacific Islands region and four countries with eight territories in the region). Highly migratory species, such as humpback whales, are afforded special protection under Appendix 1 of UNCLOS.
 - These International agreements offer a variety of mechanisms by which to enhance local and regional cetacean conservation. Despite high levels of participation, opportunities exist to build upon the current participation rate of Pacific Island countries and territories as signatories to these agreements.
- The Pacific Island countries and territories have also recognised the need to take immediate direct and coordinated action for the conservation and management of humpback whales and other cetaceans at a **regional level**:
 - Humpback whales are conserved under the Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region (Pacific Cetaceans MoU), which was negotiated under the auspices of the CMS, in partnership with SPREP.
 - The CMS Pacific Cetaceans MoU (signed by 16 Pacific Islands region countries and territories, plus France) outlines measures to conserve and protect Pacific cetaceans and their habitats. The MoU management plan is based on the SPREP Whale and Dolphin Action Plan 2008 – 2012.
 - SPREP (25 members including France and the United States) plays an important coordination role in the Pacific Islands region on environmental matters, fostering cooperation between the countries and territories in liaison with other international organisations.
 - SPREP has been facilitating the development of 5-year Whale and Dolphin Action Plans in the region. The action plans include priority actions identified under theme areas that include; National, Regional and International Collaboration and Cooperation, Threat Reduction, Ecosystem / Habitat Protection, Capacity Building, Education and Awareness, Legislation and Policy, Research and Monitoring, and Whale and Dolphin-based Tourism. The current action plan is being revised for the next five years (2013-2017).
 - Collaboration with the South Pacific Whale Research Consortium and SPREP resulted in the development of an Oceania Humpback Recovery Plan, to provide a framework for a coordinated effort to ensure recovery of this species within the Oceania region through appropriate science based management. This plan links to the key theme areas of SPREP Whale and Dolphin Action Plan 2008 – 2012 and the current and potential threats to humpback whales in the region have been outlined and given timelines for completion. However delivery of the plan in its entirety is dependent on appropriate resources becoming available. Additionally, recommendations are not prioritised, resulting in difficulties in enacting actions if funding is only available to deliver some of the plan.
 - Most countries in the Pacific Islands region have also incorporated cetacean conservation measures within **national environmental legislation**. The presence of such legislation often fulfils the country or territory's obligations as a signatory to one or more international agreements.
 - 11 countries and territories have legislation in place which offers full protection for all cetaceans, including humpback whales.
 - Six countries and territories afford protection to cetaceans, through legislation referring to fisheries, endangered species or conservation areas.

In general, protection is afforded under legislation preventing the deliberate killing of whales. However, various levels of legislative protection also apply to interference with cetaceans as well as the development of recovery plans for endangered populations and regulations or guidelines governing whale watching. Penalties are generally specified for breaches of these regulations.

- The inventory provides range states with the opportunity to examine the breadth and depth of legislative protection measures currently in place across the region. This information would be a useful adjunct to any domestic review of cetacean conservation measures as well as an invaluable foundation data source should countries decide in the future to nominate the region for a Conservation Management Plan (CMP).
- In addition to domestic legislation, within the Pacific Islands region there is a wide-spread practice of countries and territories in the region dedicating their exclusive economic zone (EEZ) as **whale sanctuaries**.
 - To date, twelve countries and territories (half the total number of countries and territories in the region) have declared their EEZs to be whale sanctuaries, effectively creating a chain of sanctuaries in a belt extending from the east coast of Australia to French Polynesia (see Figure 1). Approximately 23 million square kilometres of ocean has been declared a whale or cetacean sanctuary, providing multi-species protection.
 - Sanctuary descriptions vary, including whale, whale and dolphin, cetacean, marine mammal sanctuaries and marine sanctuaries for a broader suite of marine animals including whales and dolphins. However despite name differences, similar protections are provided. Declarations have varied from Prime Ministerial announcement, to Cabinet Approval, and establishment under legislation.
 - In addition, other countries such as New Zealand and Tonga have legislation in place which protects marine mammals within their EEZ, but haven't declared their waters a cetacean sanctuary. Additionally, countries also have site-specific (not EEZ-wide) sanctuaries for cetaceans, and the Phoenix Islands Protected Area in Kiribati includes protection of all endangered species.
 - Together with the IWC Southern Ocean Sanctuary, these sanctuaries cover a considerable proportion of the range of migratory cetacean populations, such as the humpback whale, affording crucial protection to both breeding and feeding grounds.
 - However, despite the encouraging presence of many cetacean sanctuaries in Pacific Island EEZs, there remain large gaps where cetaceans remain unprotected by sanctuaries, particularly in areas of the high seas beyond the jurisdictions of the Pacific Island countries and territories.
- Humpback whales are a prime focus of **whale watching** industries in the Pacific Islands region, and a mix of legislation, regulations and guidelines are in place across the region to manage impacts such as the number of vessels per unit area and/or vessel approach distances.
 - Frequently, legislation, regulations and guidelines are accompanied by additional conservation measures, such as educational programs.
 - For example, whale watching guidelines are currently in place for the established commercial whale watching businesses in Australia, Cook Islands, French Polynesia, New Caledonia, New Zealand, Niue, Samoa and Tonga. Regulations are stipulated in legislation in Australia, French Polynesia and New Zealand. Furthermore, New Caledonia, Niue, Palau and Tonga are in the process of reviewing/developing national regulations in line with regional whale watching guidelines developed by Operation Cetaces, International Fund for Animal Welfare (IFAW), Fonds Français pour l'Environnement Mondial and SPREP.
 - IFAW, Whales Alive and the South Pacific Whales Research Consortium have helped to implement operator training in Vanuatu, New Caledonia and Tonga.

IWC implications

The preliminary inventory has highlighted the impressive and varied range of cetacean conservation measures across the region. The inventory could equally be useful in identifying opportunities to enhance the level of protection afforded to cetaceans country by country and across the region. While useful, an inventory can only ever be a snapshot of the dynamic process of cetacean conservation and it will therefore be necessary for the inventory to be periodically reviewed and updated.

While many efforts to enhance cetacean conservation can be undertaken at the national level, the regional Whale and Dolphin Action Plan and the Pacific Cetaceans MoU demonstrate the utility of addressing the issue at a broader regional level. And it is at the regional level that the IWC would be best placed to assist countries, should they desire, to build upon these cetacean conservation efforts – specifically through the development of a CMP.

CMPs were introduced into the IWC to provide the commission with an adaptive, flexible, tailored management tool that can be applied to improve conservation outcomes for threatened cetacean populations through the targeted management of human activities.

The development and effective implementation of CMPs requires that they complement existing international conventions and agreements, as well as current national legislation and management regimes in participating range states. It is important to note that CMPs are designed to address, in a coordinated and collaborative way, transboundary gaps in existing conservation measures, but are not designed to supplant or ‘override’ domestic measures. Should countries elect to undertake a CMP at some future stage, the data provided in this inventory should be of valuable assistance.

For humpback whales, an additional resource that could inform the development of a CMP is the Oceania Humpback Recovery Plan, developed by the South Pacific Whale Research Consortium and SPREP. As it is endorsed by SPREP, all 25 member countries and territories could be considered potential range states in this plan.

The Oceania Humpback Recovery Plan would form a solid foundation for any future CMP. A CMP could build upon the primary aims of the recovery plan (to manage the recovery of the population) by also incorporating principles of threat abatement planning and developing an agreed process to identify and implement priority actions.

In an area such as the Pacific Islands region, where geographical coverage is extensive and capacity and resources are constrained, implementing prioritised actions will best ensure the effective conservation of the target population(s). A CMP would also facilitate the development of appropriate governance structures to ensure effective coordination of the plan and the inclusion of relevant stakeholders in the CMP development and implementation process.

If range states sought to progress a CMP for the region, the following measures would need to be progressed in the context of developing a nomination:

- A summary of the underlying science supporting the need for the plan to address threats to a population/populations and/or to a critical habitat.
- Overall objectives and anticipated short, medium and long term outcomes in terms of anticipated recovery or conservation benefits, and their relationship with aims and objectives of the IWC.
- Potential mitigation measures, including any critically urgent measures that may need to be pursued in parallel to development of a full plan.
- Agreed and anticipated partners (both within and outside the IWC) in the development and implementation of the planned CMP.
- Key elements of the process to be adopted in developing the plan.
- Anticipated timeframe for the development of a plan.

Key guiding documents to assist those member countries wishing to undertake a CMP are set out in IWC/63/CC 5

Signatory range states would be the primary source of funding for the development and implementation of the CMP. However, where there may be insufficient resources or expertise to nominate, develop, implement, monitor or review a CMP, parties may request access to funding support from the IWC.

Consistent with the outcomes of IWC63 and irrespective of whether a Pacific Islands region CMP nomination arises over time, we anticipate that the preliminary inventory and this accompanying analysis could be used as a model for additional analyses to be undertaken in other regions worldwide.

To assist potential CMP range states, it would be useful for the information provided in this inventory to be accompanied by an inventory of key threats to cetacean populations in the region.

Considerable additional information on the cetacean conservation, research and education in the region as well as on threats has been compiled by SPREP. Recognising SPREP's leadership on these matters and subject to the views of SPREP and Pacific Island contracting parties, if this preliminary inventory is considered a useful model, action could be undertaken by the IWC to further refine this inventory.

Recommendations

We propose that the Conservation Committee endorse the following recommendations for consideration by the Commission:

- that the Commission note the Review of Measures for Marine Mammal Conservation, Protection and Management in the Pacific Islands Region in 2007 by IFAW and SPREP;
- that the Commission acknowledge the significant cetacean conservation measures currently in place to protect cetaceans in the Pacific Islands region, as identified in this inventory;
- that the Commission recognise the leadership of SPREP in advancing cetacean conservation in the Pacific Islands region, including through implementation of its regional Whale and Dolphin Action Plan and its partnership with CMS on the CMS Pacific Cetaceans MoU, and the important role of organisations such as South Pacific Whale Research Consortium;
- that the Secretariat write to SPREP advising it of the work of the Standing Working Group on CMPs and inviting SPREP to participate as an observer to the Working Group;
- subject to the views of SPREP and the Pacific Island Contracting Parties, if this inventory is considered a useful model it is proposed that the Chair of the Working Group contact SPREP with a view to exploring options to further refine the inventory;
- that similar regional inventories be developed for regions around the globe as part of the work of the Conservation Committee; and
- that regional inventories of cetacean conservation measures should be updated periodically (every 5-10 years or as appropriate).

Appendix 1**Table 1: Participation in international and regional agreements relevant to cetaceans in the Pacific Islands region.**

Country/Territory	International						Regional	
	CBD	CITES	CMS	ICRW	Ramsar	UNCLOS	Pacific Cetacean MOU	SPREP
American Samoa (USA)		+		+	+			✓
Australia	✓	✓	✓	✓	✓	✓	✓	✓
Cook Islands	✓		✓			✓	✓	✓
Federated States of Micronesia	✓					✓	✓	✓
Fiji	✓	✓			✓	✓	✓	✓
French Polynesia (France)	+	+	+	+	+	+	+	✓
Guam (USA)		+		+	+			✓
Kiribati	✓			✓		✓		✓
Marshall Islands	✓			✓	✓	✓		✓
Nauru	✓			✓		✓		✓
New Caledonia (France)	+	+	+	+	+	+	+	✓
New Zealand	✓	✓	✓	✓	✓	✓	✓	✓
Niue	✓					✓	✓	✓
Northern Mariana Islands (USA)		+		+	+			✓
Palau	✓	✓	✓	✓	✓	✓		✓
Papua New Guinea	✓	✓			✓	✓	✓	✓
Pitcairn Island (UK)	+	+	+	+	+	✓	✓	
Samoa	✓	✓	✓		✓	✓	✓	✓
Solomon Islands	✓	✓		✓		✓	✓	✓
Tokelau (NZ)	+	+		+	+	+		✓
Tonga	✓					✓	✓	✓
Tuvalu	✓			✓		✓	✓	✓
Vanuatu	✓	✓				✓	✓	✓
Wallis and Futuna (France)	+	+	+	+	+	+	+	✓

- ✓ Signatory to the treaty
- + Associated with the treaty due to being a Territory (Metropolitan Power indicated in brackets)

CBD - Convention on Biological Diversity
 CITES - Convention on International Trade in Endangered Species of Fauna and Flora
 CMS - Convention on the Conservation of Migratory Species of Wild Animals
 ICRW - International Convention for the Regulation of Whaling
 Ramsar - Convention on Wetlands of International Importance
 UNCLOS - United Nations Convention on the Law of the Sea
 Pacific Cetacean MoU - CMS Pacific Cetacean Memorandum of Understanding
 SPREP - Secretariat of the Pacific Regional Environment Programme

Table 2: Variances in national conservation measures

Country/Territory	EEZ-wide whale sanctuary	EEZ legislation	Small-scale sanctuaries	No specific cetacean legislation	Full protection of cetaceans by legislation	Partial protection of cetaceans by legislation	Penalties	Prominent whale watching	Guidelines	Whale watching regulations
American Samoa	✓				✓		✓			
Australia	✓	✓			✓		✓	✓	✓	✓
Cook Islands	✓			✓				✓	✓	
Federated States of Micronesia						✓	✓			
Fiji	✓			✓						
French Polynesia	✓	✓			✓		✓	✓	✓	✓
Guam					✓		✓	✓		
Kiribati			✓			✓				
Marshall Islands						✓	✓			
Nauru				✓						
New Caledonia	✓	✓			✓		✓	✓	✓	** ⁸
New Zealand			✓		✓		✓	✓		✓
Niue	✓	✓			✓		✓	✓	✓	**
Northern Mariana Islands					✓		✓			
Palau	✓			✓						**
Papua New Guinea	✓					✓		✓		
Pitcairn Island						✓	✓			
Samoa	✓	✓			✓		✓	✓	✓	
Solomon Islands			✓	✓				✓		
Tokelau	✓			✓						
Tonga					✓			✓	✓	**
Tuvalu			✓	✓						
Vanuatu	✓	✓			✓		✓		✓ ⁹	
Wallis and Futuna						✓				

⁸ ** : whale watching regulations in development with SPREP

⁹ In development