

**CONVENTION ON MIGRATORY SPECIES**  
**MOU FOR THE CONSERVATION OF CETACEANS AND**  
**THEIR HABITAT IN THE PACIFIC ISLAND REGION**

**WHALE AND DOLPHIN ACTION PLAN**  
**2009–2012**

*NB: This Action plan is very closely based on the SPREP Whale and Dolphin Action plan 2008-12. It differs only in the second theme of threat reduction. It was adopted at the 2<sup>nd</sup> meeting of Signatories to the above MOU, held in Auckland, 28-29 July, 2009.*

### **Goal**

**To conserve whales and dolphins and their habitats for the people of the Pacific Islands region.**

### **Introduction**

Whales and dolphins are an important component of the marine biological diversity of the Pacific Islands region. Over half the world's known species of whales and dolphins are found in this region, and for some species, such as humpback whales, the region is a vital breeding area. Whales and dolphins are widely regarded as flagship species for Pacific marine ecosystems, and feature prominently in promotional tourism material. Many Pacific Island cultures have legends about whales and dolphins, and the people have traditional uses for them. These species are generally long-lived and have low reproductive rates.

For many species of large whales, commercial whaling during the nineteenth and twentieth centuries, largely by countries from outside the region, has reduced the breeding populations of South Pacific whales to extremely low levels, possibly to local extinction for some species. Recently, many Pacific Island countries and territories have declared whale sanctuaries or marine sanctuaries for marine animals including whales and dolphins.

### **Species Distribution**

Based on largely opportunistic and anecdotal records, one report<sup>1</sup> states that at least 30 different whale and dolphin species occur within the Pacific Islands region, although this number is actually more than 40 species when Hawaii, New Zealand and Australia are also considered. The checklist of country-specific whale and dolphin species records, classified according to the "reliability" of the record, for the 22 Pacific Island countries and territories is given in Table 1. The limited research efforts in the region, coupled with the very large expanse of marine area, make it plausible that there may be still unreported species that inhabit these waters.

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<sup>1</sup> Miller, C. 2007. Current state of knowledge of cetaceans' threat, diversity and habitats in the Pacific Islands region. A report by the Whale and Dolphin Conservation Society for the First Meeting of the Signatories to the Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands region.

Current understanding of whale and dolphin diversity and distribution in the Pacific Islands region is considered to be incomplete as there are many locations that have not been surveyed. For example, only five whale and dolphin species have been reported to occur in Tuvalu's waters, however records for additional species have been reported in the Exclusive Economic Zones (EEZs) of adjacent countries, which suggests that these species may also be part of Tuvalu's whale and dolphin fauna. In addition, as capacity and research within the region is strengthened, data and information that is gathered will produce increasingly accurate records for the Pacific Islands region.

Sperm whales are the most widely reported cetacean species in the Pacific Islands region, with all 22 PICTs having records of this species. Rare species for the region include the southern bottlenose whale and the Indo-Pacific humpback dolphin. A relatively high number of records were reported for both Papua New Guinea and Solomon Islands, while very few records were available for the Pitcairn Islands and Wallis and Futuna.

**Table 1: Checklist of country/territory-specific whale and dolphin species records in the Pacific Islands region.**

Cetacean Species	American Samoa	Cook Islands	Federated States of Micronesia	Fiji	French Polynesia	Guam	Kiribati	Marshall Islands	Nauru	New Caledonia	Niue	CNMI	Palau	PNG	Pitcairn Islands	Samoa	Solomon Islands	Tokelau	Tonga	Tuvalu	Vanuatu	Wallis and Futuna
Minke whales*	1	2		1	U			2		1	1		U		U	U			1			
Sei whale		U				U				2				1								
"Bryde's-like" whales*		U	1	1	U	U		U	2	1		U	2	U		2	U				U	
Blue whales*		2		U			U	2		1							2					
Fin whale				2	U			2														
Humpback whale	1	1		1	1	2		2		1	1	1		U	U	1	U		1		1	1
Common dolphins*		2		U				2		2		U					U					
Pygmy killer whale					1					1			U	U					1			
Short-finned pilot whale	1	1	1	1	1	2	2	2		1	2	2	U	1	2	1	1		1		2	
Risso's dolphin		U			1	2				1		1	U	1		2	1		1			
Fraser's dolphin		1	1	U	1		1		2				U	1		2	2					
Irrawaddy/snubfin dolphin														2			U					
Orca	2	1	U	U	1	U	2	2		1	1	U	2	2		1	1	U	1	2	2	
Melon-headed whale		1	1		1	U	U	2	2	1		1	U	1		2	2		1		2	
False killer whale	1	U		1	1		U			1	1	U	U	1		1	2		1			
Indo-Pacific humpback dolphin														2								
Pantropical spotted dolphin	2	1	U	1	1	U	2	2		1			U	1			1		1	U	1	
Striped dolphin		U	1			U	U	2				U	2			2	2				U	
Spinner dolphin	2	1	1	1	1	2	1	2		1	1	1	U	1		1	1		1	1	1	
Rough-toothed dolphin	2			U	1		2	U		1		1		U		1	1					
Bottlenose dolphins*	2	U	2	2	1	U	1	2		1		U	U	1		1	1		1	2	2	
Dwarf/pygmy sperm whale	U			U	1	2				1		2		1		1						
Sperm whale	1	1	2	1	1	U	1	U	2	1	2	U	1	U	1	1	1	1	2	1	U	U
Southern bottlenose whale							2															
Blainville's beaked whale		1		2	1		U			1				U			U					
Cuvier's beaked whale	2	1	U		1	U	U		U	1		2	U	1		1	U					

Source: Miller 2007.

1 = Class 1 record = relatively recent field (or specimen record) confirmation of a given species within EEZ

2 = Class 2 record = potentially Class 1 record that is either dated, or may be marginally outside of a given EEZ

U = unconfirmed record that either was not definitely identified, has not been confirmed by field observations, is from an unobserved stranding event, or is an anecdotal report that for various reasons may be difficult to corroborate.

## Species status

The population status of virtually all species of whales and dolphins in the Pacific Islands region is unknown. The exception to this is for the South Pacific humpback whale and local population for certain species (e.g. spinner dolphins in Moorea, French Polynesia).

The humpback whales are widely distributed and were heavily exploited in the 20<sup>th</sup> century. The total takes on the humpback whale in the Southern Ocean International Whaling Commission (IWC) Management Areas IV, V and VI were approximately 80,000. Recent work by the South Pacific Whale Research Consortium (SPWRC) has shown that there are likely to be at least three genetically distinct populations of humpback whales in eastern Australia and eastern Polynesia, and two distinct populations in central and western Polynesia. Based on closed population models, Baker *et al.* (2006)<sup>2</sup>, in a paper submitted for consideration by the Inter-Sessional Workshop for the Comprehensive Assessment of Southern Hemisphere Humpback Whales (Hobart, Tasmania, 3–7 April 2006), estimated the regional abundance number of humpback whales in Oceania as 472 for the New Caledonia stock, 2,311 for Tonga and 1,057 for French Polynesia. However, the open-population models yield 15–25% lower estimates. In comparison, the eastern Australia humpback abundance has been estimated to be approximately 8,000, and this population is increasing by about 10% per annum (Paton *et al.*, 2006).<sup>3</sup> This difference in abundance could be because the South Pacific populations have been so depleted or were always smaller and/or because some South Pacific whales have shifted migration routes to Australia.

Several whale and dolphin species are listed on Appendix I<sup>4</sup> of CITES, and the remaining species are listed on Appendix II.<sup>5</sup> The CMS also lists whale and dolphin species needing protection on its Appendices I<sup>6</sup> and II.<sup>7</sup> The IUCN Red List of Threatened Species 2006 lists several whale and dolphin species as endangered and vulnerable with a number of species having deficient data for categorising.

## Traditional knowledge and customs

Whales and dolphins are important to the cultures, legends, traditions and heritage of many Pacific Island peoples. In Fiji, sperm whale teeth have particular cultural significance. Whales and dolphins are associated with identity, lifestyle and well-being. Migrations of whales are used as an environmental cue on some islands, and ceremonies and ritual surround cetaceans across the region. In some traditions, they are viewed as incarnations of humans.

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<sup>2</sup> Baker, C. Scott, C. Garrigue, R. Constantine, B. Madon, M. Poole, N. Hauser, P. Clapham, M. Donoghue, K. Russell, T. O’Callahan, D. Paton and D. Mattila. 2006. Abundance of humpback whales in Oceania (South Pacific), 1999 to 2004. Submitted for consideration by the Inter-sessional workshop for the Comprehensive assessment of southern hemisphere humpback whales, Hobart, Tasmania 3-7 April 2006.

<sup>3</sup> Paton, David A., L. Brooks, D. Burns, T. Franklin, W. Franklin, P. Harrison, and P. Baverstock. 2006. First abundance estimate of east coast Australia humpback whales (*Megaptera novaeangliae*) utilizing mark-recapture analysis and multi-point sampling. Inter-sessional workshop for the Comprehensive assessment of southern hemisphere humpback whales, Hobart, Tasmania 3-7 April 2006.

<sup>4</sup> Appendix I lists species that are the most endangered among CITES-listed animals and plants, which are threatened with extinction. CITES prohibits international trade in specimens of these species, except when the purpose of the import is not commercial (e.g. for scientific research). In these exceptional cases, trade may take place provided it is authorised.

<sup>5</sup> Appendix II lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled. International trade in specimens of Appendix II species may be authorised by the granting of an export permit or re-export certificate.

<sup>6</sup> Migratory species that have been categorised as being in danger of extinction throughout all or a significant proportion of their range are listed on Appendix I of the Convention. States strive towards strictly protecting these animals, conserving or restoring the habitats in which they live, mitigating obstacles to migration and controlling other factors that might endanger them.

<sup>7</sup> Migratory species that have an unfavourable conservation status or would benefit significantly from international co-operation organised by tailored agreements are listed in Appendix II to the Convention. For this reason, the Convention encourages the Range States to conclude global or regional agreements for the conservation and management of individual species or, more often, of a group of species listed on Appendix II

## Income-generating opportunities through tourism

A recent review of the status of marine mammal tourism activities in the Pacific Islands region, commissioned by the International Fund for Animal Welfare (IFAW) in collaboration with SPREP, SPWRC and the South Pacific Tourism Organisation (SPTO), showed that the industry experienced strong annual growth for the period 1998–2005. The study indicates that between 1998 and 2005, both the number of whale watchers and the number of countries offering whale watching activities significantly increased (Table 2). Whale watching is becoming an important component of tourism development in the region with a total estimated direct economic value of USD \$7.5 million and USD \$21 million in total value in 2005.

Table 2: Growth of whale and dolphin watching in the Pacific Islands region (EcoLarge, 2006<sup>8</sup>)

Year	No. whale watchers	Countries with whale watching operations	Average annual growth in whale watchers (1998–2005)	Estimated direct value of whale watching industry (USD)	Estimated total value of industry (USD)
1998	10,308	9			\$1,185,000
2005	110,746	14	45%	\$7,525,500	\$21,012,000

## Threats

Whales and dolphins in the Pacific Islands region face various threats and there are a number of important issues relating to their effective conservation and management.

**Fishery interactions:** Depredation and incidental by-catch in longline fisheries is categorised as a high threat for small- and medium-toothed whales, and may be a serious concern for small localised populations. Depredation is also recognised as a significant economic threat to longline fishermen due to the loss of catch or bait.

**Directed take:** Directed take is categorised as a high threat. Scientific whaling on minke, fin and humpback whales is of specific concern. The take of humpbacks could directly impact the recovery of small, vulnerable humpback populations in the waters of SPREP member countries and territories. An additional issue is the recovery of other large whale species that have been affected by previous unsustainable commercial harvesting.

The drive hunt in the Solomon Islands is categorised as a high threat, as the three species taken may be highly localised, and the impacts to these populations are unknown. Capture of animals for public display has also recently occurred and any resumption of this activity would be of concern.

**Climate change:** Climate change is potentially a high threat to whales, dolphins and their habitats in the region through the potential disruption of ocean circulation, changes in the amount and distribution of prey, changes in salinity, temperature and acidity and other parameters. Current climate change models include a wide range of potential scenarios.

**Tourism/human interaction:** Whale and dolphin watching is an important economic opportunity for many countries and territories in the Pacific Islands. If managed according to responsible wildlife viewing practices, it should pose only a low threat to whale and dolphin populations. However, if not managed properly this form of tourism could pose a medium

8 Ecolarge. 2006. Pacific Islands Whale Watch Tourism: 2005. A Region Wide Review of Activity. A report on the research commissioned by International Fund for Animal Welfare, Secretariat of the Pacific Regional Environment Programme, South Pacific Tourism Organisation, and the South Pacific Whale Research Consortium.

threat to the fitness of animals, and potentially a high threat for specific, localised populations that may be vulnerable to disturbance in certain areas such as resting bays. Recent studies show that in some circumstances whale and dolphin watching can impact on the individuals and populations being watched.

Habitat degradation: Habitat degradation, which is considered to be a medium threat, includes coastal development, sedimentation of coastal waters, aquaculture, nutrients and other habitat impacts. The most significant type of habitat degradation could be localised point-source activities.

Pollution: Plastics are categorised as a medium threat to whales and dolphins in the region. Species that consume soft-bodied prey such as squid may be susceptible to plastic ingestion, and this has been shown in necropsy results of stranded animals. Toxic chemicals are considered a largely unknown but low threat, but may be of higher concern in specific areas due to impacts from mining operations, port and urban development, and ship groundings.

Ship strikes, acoustics, disease: Ship strikes, acoustics and disease are considered largely unknown but low threats to whales and dolphins in the region. Ship strikes may be a potential concern in areas with fast vessels and high concentrations of whales and dolphins.

## Themes and Objectives

Theme	Objectives
<b>1. National, Regional and International Collaboration and Cooperation</b>	1.1: Promote and enhance national, regional and international coordination, collaboration and partnership for whale and dolphin conservation in the Pacific Islands region.
<b>2. Threat Reduction</b>	<p>2.1: Develop, test and disseminate effective mitigation techniques that reduce depredation and incidental by-catch.</p> <p>2.2: Document the impacts of illegal, unreported and unregulated fishing on whales and dolphins in the Pacific Islands region.</p> <p>2.3: Address threat of direct take and ensure favourable conservation status of whale and dolphin populations.</p> <p>2.4: Improve our understanding of the impacts of climate change on whales and dolphins.</p> <p>2.5: Minimise impacts of pollution on whales and dolphins.</p> <p>2.6: Identify and mitigate any significant impact from marine whale and dolphin-based tourism.</p> <p>2.7: Ensure coastal development takes account of potential impacts on whale and dolphin populations.</p> <p>2.8: Improve understanding of unknown but potential threats to whales and dolphins, including ship strikes, entanglement, acoustics and disease.</p>
<b>3. Ecosystem / Habitat Protection</b>	<p>3.1: Support the designation and management of national whale/marine sanctuaries in the EEZs of SPREP members.</p> <p>3.2: Identify key critical habitat, hotspots and migratory pathways that are candidates for improved conservation.</p>
<b>4. Capacity Building</b>	4.1: Increase in-country expertise and capacity.

<b>5. Education and Awareness</b>	5.1: Develop communication strategies, training programmes and protocols for key issues within the Whale and Dolphin Action Plan.
	5.2: Increase awareness and understanding of whales and dolphins in the region.
	5.3: Promote awareness regarding the value of traditional knowledge and practices in the management of whales and dolphins.
<b>6. Cultural Significance and Value</b>	6.1: Document the range of cultural practices, values and knowledge associated with whales and dolphins and encourage a more cohesive approach in policies and legislation.
	6.2: Preserve and protect the traditional knowledge and values associated with whales and dolphins.
	6.3: Ensure appropriate cultural knowledge, practices and values inform and underpin management measures.
<b>7. Legislation and Policy</b>	7.1: Develop country-level legal, policy and an institutional framework to support the effective implementation of the Whale and Dolphin Action Plan.
<b>8. Research and Monitoring</b>	8.1: Improve information received on stranding events in the Pacific Islands region.
	8.2: Identify key species and areas for baseline surveys.
	8.3: Identify significance of and priorities for toxicological research.
<b>9. Whale and Dolphin-based Tourism</b>	9.1: Foster sharing of lessons learned and undertake regular assessment of the industry.
	9.2: Ensure best practice management of the whale- and dolphin-based tourism in the Pacific Islands region.
	9.3: Maximise educational and economic values of whale- and dolphin-based tourism watching.



## Themes, Objectives and Priority Actions

Theme 1 – National, Regional and International Collaboration and Cooperation		
<i>Objective 1.1: Promote and enhance national, regional and international coordination, collaboration and partnership for whale and dolphin conservation in the Pacific Islands region.</i>		
Actions:	Lead	Priority
Promote understanding by facilitating effective information sharing mechanisms to assist in addressing cross-sectoral issues and migratory species conservation.	SPREP	High
Encourage and support PICTs in removing internal cross-sectoral barriers in order to effectively implement the WDAP at the local, island and government levels.	members	High
Facilitate PICTs' involvement and participation in relevant international meetings and initiatives for whales and dolphins conservation.	SPREP/ partners	High
Promote cooperation and highlight achievements and lessons learned in whale and dolphin conservation at regional and international conferences and fora.	SPREP	High
Ensure whale and dolphin conservation needs are integrated into the development and implementation of the SPREP Environment Ministers Regional MPA framework.	SPREP	High
Develop linkages with relevant regional organisations and processes, such as RFMOs (e.g. MOUs, information exchange and cross-sectoral integration).	SPREP/ members	Medium
Develop linkages with relevant private sector organizations to reduce threats to whales and dolphins such as by-catch, depredation and marine debris (such as fishing and tourism industries, NGOs).	members/ SPREP/ partners	High
Effect improved integration of whale and dolphin conservation into national, regional and international initiatives including: National Biodiversity Strategic Action Plan (NBSAP), National Sustainable Development Strategies (NSDS); Pacific Islands Regional Oceans Policy, Action Strategy for Nature Conservation, CROP Marine Sector Working Group, RFMOs, NBSAP Working Group).	members/ SPREP/ partners	High
<b>Indicators:</b>		
Number of national, regional and international organizations, processes and frameworks incorporating PIR whale and dolphin conservation needs.		
Number of national, regional and international partnerships created to support WDAP implementation.		

Theme 2 – Threat Reduction		
<b>Fisheries Interaction</b>		
<b>Objective 2.1: Develop, test and disseminate effective mitigation techniques that reduce depredation and incidental by-catch.</b>		
<b>Objective 2.2: Document the impacts of illegal, unreported and unregulated fishing on whales and dolphins in the Pacific Islands region.</b>		
Actions	Lead	Priority
Depredation / fishery interactions:		
<ul style="list-style-type: none"> <li>Collaborate with regional fisheries management organisations (RFMOs) and share information on fisheries/ marine mammal interactions, and successful and unsuccessful tactics for mitigation.</li> </ul>	members, SPREP/ RFMO/ WCPFC/ SPC/ FFA/ FAO/ CBD/ DWFNs/ partners	High
<ul style="list-style-type: none"> <li>Encourage distant-water fishing nations (DWFNs) to support the Pacific Islands region in ensuring sustainable and responsible fishing practices and to maintain the health of the ocean and regional economies.</li> </ul>	members/ RFMOs/ WCPFC/ SPC/ FFA/ FAO/ DWFNs/ SPREP/ partners	Medium
<ul style="list-style-type: none"> <li>Foster industry/research institutions/governments partnerships to develop and test mitigation techniques to reduce by-catch and depredation.</li> </ul>	members/ DWFNs/ RFMOs	High
<ul style="list-style-type: none"> <li>Examine information on illegal, unreported and unregulated fishing (IUU) to better understand potential impacts on marine mammals including by-catch and depredation.</li> </ul>	SPREP/ SPC/ FFA/ FAO/ research institutions/ partners	High
<ul style="list-style-type: none"> <li>Collect and disseminate information on the scale of depredation and by-catch from fishing operations in order to better assess level of priority and possible mitigation actions.</li> </ul>	FFA/ SPC/ RFMOs/ SPREP/ members	High
Fishery Ecological Interactions (low, but regional concern on this issue is high):		
<ul style="list-style-type: none"> <li>Support outreach and educational programmes that provide understanding of the scientific principles of the low level of competition between whales/dolphins and fisheries in this region.</li> </ul>	partners	Low/ High

<p><b>Indicators:</b></p> <p>Properly tested mitigation technique.</p> <p>Acceptance and use of a successful technique by longline fisheries in the region.</p> <p>System of collecting data from fishing operations on by-catch and depredation developed and used.</p>		
<p><b>Objective<sup>9</sup> 2.3: Address threat of direct take and ensure favourable conservation status of whale and dolphin populations.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Support non-lethal research on abundance, structure, trends and assessments of impacts, particularly on humpback, minke and fin whales.	SPREP/ partners/ members	High
Drive hunts and live capture:		
<ul style="list-style-type: none"> <li>Support research on abundance, structure, distribution, trends and assessments of affected whale and dolphin species.</li> </ul>	SPREP/ partners/ members	High
<ul style="list-style-type: none"> <li>Take actions to ensure a favourable conservation status of affected whale and dolphin species.</li> </ul>	members	High
<ul style="list-style-type: none"> <li>Ensure compliance with all relevant international regulations and agreements.</li> </ul>	members	High
<p><b>Indicators:</b></p> <p>Non-lethal research carried out on abundance, population structure, trends and assessments of impacts, particularly on affected whale and dolphin species.</p> <p>Compliance with all relevant international regulations, agreements and obligations.</p>		
<p><b>Objective 2.4: Improve our understanding of the impacts of climate change on whales and dolphins.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Facilitate the collation and dissemination of current knowledge of the impacts of climate change on marine mammals and their habitats.	SPREP/ scientific institutions/ CBD Secretariat/ UNFCCC Secretariat/ partners	High

<sup>9</sup> This Objective (ii) is the only one which differs from the text of the SPREP Action Plan 2008-2012.

<b>Indicators:</b>		
Document/presentation on climate change impacts to whales and dolphins provided to SPREP members by 2009.		
<b>Objective 2.5: Minimise impacts of pollution on whales and dolphins.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Plastics and marine debris:		
<ul style="list-style-type: none"> <li>Encourage improved waste management at community and national levels to reduce plastics and other debris in the marine environment.</li> </ul>	members	Medium
<ul style="list-style-type: none"> <li>Develop and promote the use of guidelines for fishing operations related to discarding of waste.</li> </ul>	SPREP/ SPC	Medium
<ul style="list-style-type: none"> <li>Collect information on the potential impact of plastics and fishing gear on whales and dolphins, including from stranding networks.</li> </ul>	members/ partners	High
<ul style="list-style-type: none"> <li>Request that necropsies, where possible, include examination for plastic ingestion.</li> </ul>	members	High
<b>Indicators:</b>		
Better information on the impacts of plastics and other debris to whales and dolphins.		
Guidelines developed for proper waste management at all levels including from fishing boats.		
<b>Objective 2.6: Identify and mitigate any significant impact from marine whale and dolphin-based tourism.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Identify potential for significant impact/localised effects from tourism activities on whales and dolphins.	partners/ SPREP/ members	Medium
Develop management and mitigation strategies to reduce identified impact.		
Assess the potential impacts of whale and dolphin watching activities on the animals:	partners/ SPREP/ members	High
<ul style="list-style-type: none"> <li>Spinner dolphin watching;</li> <li>Swim-with programmes;</li> <li>Vessel interactions.</li> </ul>		

<p><b>Indicators:</b></p> <p>Significant adverse effect from whale and dolphin watching tourism identified and threat mitigated. Lessons learned promoted and widely shared in the region.</p> <p>Studies on impacts of whale/dolphin watching completed in New Caledonia, Tonga. Studies undertaken in Guam, French Polynesia, Hawaii.</p>		
<p><b>Objective 2.7: Ensure coastal development takes account of potential impacts on whale and dolphin populations.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Encourage consultation/consideration of impacts on whales and dolphins in national legislative and environmental impact assessment (EIA) processes.	members	High
Identify particular localised areas and populations, and develop appropriate monitoring and mitigation of any significant impacts.	members/ partners	Medium
Provide information on potential impacts of coastal development to whales and dolphins to decision makers and public.	members	Medium
<p><b>Indicators:</b></p> <p>Consideration of impacts on whales and dolphin incorporated into national legislation and other processes such as EIA and potential impact information made available.</p> <p>Monitoring of identified localised populations initiated.</p>		
<p><b>Objective 2.8: Improve understanding of unknown but potential threats to whales and dolphins, including ship strikes, entanglement, acoustics and disease.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Encourage anecdotal and opportunistic recording and documentation for ship strikes, entanglement and disease.	members	Low but unknown
Identify any significant source of acoustic noise pollution that could affect whales and dolphins.	members	Low
<p><b>Indicators:</b></p> <p>System in place and operational to collect anecdotal opportunistic data and to respond if one of these becomes a significant threat at local, national or regional level.</p>		

<b>Theme 3 – Ecosystem / Habitat Protection<sup>10</sup></b>		
<b>Objective 3.1: Support the designation and management of national whale/marine sanctuaries in the EEZs of SPREP members</b>		
<b>Objective 3.2: Identify key critical habitat, hotspots and migratory pathways that are candidates for improved conservation.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Support the declaration of EEZ-wide whale sanctuaries by SPREP members and support these sanctuaries in developing and implementing management plans and strategies.	SPREP/ partners	High
Establish a working group on ecosystem/habitat protection that will identify critical habitats, hotspots and migratory pathways and environmental linkages (spatial and temporal).	SPREP/ partners/ members	Medium
Evaluate and support marine protected areas and networks where they are a suitable method and benefit to the protection of whales and dolphins and their habitats in the identified areas.	SPREP/ partners	High
Integrate, where relevant and appropriate, whale and dolphin conservation into the development of marine protected areas (MPAs) and marine managed areas (MMAs).	members	High
<b>Indicators:</b>		
Additional SPREP members designate national EEZ whale sanctuaries.		
Management strategies/plans developed, finalised and implemented for existing sanctuaries.		
Working group identifies potential areas for marine protected area designation and management.		

<b>Theme 4 – Capacity Building</b>		
<b>Objective 4.1: Increase in-country expertise and capacity.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Identify training needs and support proposal writing to implement WDAP at the country and regional level, using existing processes such as National Capacity Self Assessment (NCSA).	members/ SPREP	High
Develop training packages on common priorities (e.g. stranding, data recording, legislation, communication, etc.) based on regional priorities and convene workshops based on identified needs.	SPREP/ partners	High
Support internship training on whales and dolphins in existing research centres.	partners	High

<sup>10</sup> There are two general terms often used in regard to ecosystem protection of whales and dolphins: “sanctuaries” and “marine protected areas”. Typically in the Pacific Islands region, and for the use in this Plan, “sanctuaries” refer to EEZ-wide whale sanctuary declarations with a principle objective of prohibiting commercial whaling. “Marine protected areas” may be smaller in scale and often refer to specific critical habitats, hotspots, or pathways.

Build in-country capacity to prepare relevant regulation, legislation and policy.	members/ SPREP	High
Conduct local and/or regional training workshops on necropsy, including collection and storage of tissues, skeletal remains and analysis.	SPREP/ Auckland University	High
Conduct training and verification of whale and dolphin sightings and reporting, and develop database complementary to that under Marine Turtle Action Plan.	SPREP/ partners	Medium
Conduct at least one specialist regional workshop in abundance estimation techniques (sighting surveys) followed by field training cruise.	SPREP/ CMS/ WDCS	High
Develop surveillance and enforcement capacity for implementation of national protection measures including whale and dolphin watching tourism operations.	members	High
Conduct industry training and certification programs for whale/dolphin watching operators and guides, which should be required to attain a whale & dolphin watching permit/license where applicable.	partners	High
<b>Indicators:</b>		
Training needs identified and addressed.		
Training packages prepared and made available.		
Increased technical capacity to obtain information and assist in the conservation of whales and dolphins in the region.		
Improved capacity to develop and implement policies and legislation.		
Whale/dolphin operator training and certification programs are implemented in SPREP nations.		

<b>Theme 5 – Education and Awareness</b>		
<b><i>Objective 5.1: Develop communication strategies, training programmes and protocols for key issues within the Whale and Dolphin Action Plan.</i></b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Identify key issues for each member and support development of appropriate education strategies and programs (e.g. known threats, species ID, status).	members/ partners	High
Develop appropriate educational and awareness tools for different target audiences at a regional and national level including producing a template to facilitate production in local dialect.	SPREP/ members/ partners	High
Capacity building of government agencies and community trainers to facilitate stewardship, and to develop and deliver outreach programmes.	members	Medium

<p><b>Indicators:</b></p> <p>Community and school educational programmes implemented.</p> <p>Regionally relevant fact sheets to inform governments and industry on key issues are produced (e.g. fisheries interactions, cultural practices, regulations, biology, natural history).</p> <p>Training programmes carried out in-country for key government agencies and identified local community stewards.</p>		
<p><b>Objective 5.2: Increase awareness and understanding of whales and dolphins in the region.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Use existing community networks and venues to deliver public presentations.	members	High
Provide materials and information to community media (TV and radio stations) in-country to inform public.	members/ SPREP/ partners	High
Disseminate educational materials targeted at recreational/ private boaters to ensure minimum impact.	members/ SPREP/ partners	Medium
<p><b>Indicators:</b></p> <p>Presentations on whales and dolphins carried out in schools, village halls, and during annual festivities.</p> <p>Whales and dolphins are profiled through documentaries, interviews and regular spots in local media.</p> <p>ID guides, fact sheets and guidelines brochures are distributed to boaters, marinas, yacht clubs, through government agencies and NGOs.</p>		
<p><b>Objective 5.3: Promote awareness regarding the value of traditional knowledge and practices in the management of whales and dolphins.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Integrate traditional knowledge, stories and customs into education, and develop awareness.	members/ SPREP	High
Encourage the use of informal/traditional methods of education within villages (e.g. using elders as resource people).	members/ partners/ SPREP	Medium
<p><b>Indicators:</b></p> <p>Educational programmes implemented in schools, education centres, and museums.</p> <p>Informal/traditional methods of education are employed at community level.</p>		



<b>Theme 6 – Cultural Significance and Value</b>		
<b>Objective 6.1: Document the range of cultural practices, values and knowledge associated with whales and dolphins and encourage a more cohesive approach in policies and legislation.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Undertake a review of customary practice and knowledge related to the conservation and management of whales and dolphins.	SPREP/ partners	High
Promote the adoption and integration of customary practices related to the conservation and management of whales and dolphins, where appropriate.	members	High
Review and identify gaps and conflicts in relevant policies and legislation that supports/limits the protection and promotion of traditional resource management (TRM), traditional knowledge (TK), intellectual property rights (IPR), access and benefit sharing (ABS), and customary marine tenure (CMT).	members	High
Encourage the need to address gaps and conflicts found in the review where required, in consultation with local communities and relevant stakeholders.	members/ SPREP	High
Support and promote the introduction of appropriate formal protection of IPR, TK and ABS at a national, regional and international level.	members/ SPREP	High
Support the documentation of traditional knowledge, practices, heritage and values, using existing networks.	members/ SPREP	High
<b>Indicators:</b>		
TK and other customary practices and values documented and incorporated where relevant.		
Review on gaps carried out and report published and disseminated.		
Artefacts and narratives (oral histories) documented and conserved in local museums.		
<b>Objective 6.2: Preserve and protect the traditional knowledge and values associated with whales and dolphins.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Identify and empower appropriate in-country authorities to hold, maintain and promote traditional knowledge.	members	High
Establish documentation protocols and agreed partnerships with cultural groups/chiefly bodies and individual knowledge holders regarding appropriate use and dissemination of information.	members	High
<b>Indicators:</b>		
Each country has identified appropriate authority to house and promote cultural information.		
On going promoting and support for TK, ABS in national, regional and international fora.		

**Objective 6.3: Ensure appropriate cultural knowledge, practices and values inform and underpin management measures.**

Actions	Lead	Priority
Assess the sustainability of cultural practices involving whales and dolphins that may represent a threat to whales and dolphins (e.g. Fijian tabua, Solomon Islands dolphin drive).	members/ SPREP	High
Ensure biological survey designs respect and draw upon traditional knowledge.	members	High
Ensure national and local policies and management respect and draw upon traditional knowledge.	members	High
<p><b>Indicators:</b></p> <p>Case studies supported on sustainability of cultural practices in country's interested supporting sustainability assessments.</p> <p>Relevant whale and dolphin traditional knowledge and cultural values are used and acknowledged in scientific survey design and execution and formulation of national management policies.</p>		

**Theme 7 – Legislation and Policy**

**Objective 7.1: Develop country-level legal, policy and an institutional framework to support the effective implementation of the Whale and Dolphin Action Plan.**

Actions	Lead	Priority
<p>Complete legislative and policy review and disseminate the final report. The review will include:</p> <ul style="list-style-type: none"> <li>Identifying legislative inconsistencies and gaps within PICTs as well as USA, United Kingdom, Pitcairn, France, Australia and New Zealand;</li> <li>Assessing country capacity to implement the WDAP, CMS Cetacean MOU, CITES and CBD where relevant;</li> <li>Habitat and species protection measures;</li> <li>Sanctuary declaration;</li> <li>Regulation of distant water and local fleets, including observer programme coverage to document commercial fishing impact on whales and dolphin.</li> </ul>	IFAW/ SPREP	High
Further develop policies, regulations and legislation for the effective conservation management of whales and dolphins, including measures to mitigate threat and ensure habitat protection.	members/ SPREP/ partners	High
Identify and respond to country/territory legal and policy capacity needs.	members/ SPREP/ partners	Medium

Assess processes and outcomes used for NCSA and other related biodiversity mechanisms, to address legal and policy capacity needs for whale and dolphin conservation.	members	Medium
<p><b>Indicators:</b></p> <p>Regional legislative/management review completed and widely disseminated.</p> <p>Harmonization of in-country/territory policy and legal instruments.</p> <p>Capacity strengthened to draft, manage and enforce legislation and policy in-country/territory.</p> <p>Number of NBSAPs or equivalent strategies integrating WDAP actions.</p>		

<p><b>Theme 8 – Research and Monitoring</b></p> <p>This Action Plan promotes only non-lethal techniques for research.</p>		
<p><b>Objective 8.1: Improve information received on stranding events in the Pacific Islands region.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Develop a web-accessible regional stranding database, with verification process for species identification.	SPREP/ Te Papa/ members	High
Collect community records and knowledge on whales and dolphins and incorporate into the regional stranding database.	members	High
Produce a regional booklet/stranding manual with species identification, forms and instructions in English, Pidgin and French.	SPREP	High
Encourage an MOU between the University of Auckland and SPREP for processing and storage of tissue samples for genetic work.	SPREP/ CMS	High
Provide basic stranding kits (for genetic samples) to members.	Auckland University/ donors	High
Assist in funding for experts to attend national workshops in the region.	SPREP	Medium
<p><b>Indicators:</b></p> <p>Stranding database and network established and operational.</p> <p>Stranding manual produced in three languages and distributed.</p> <p>Tissue archive and protocols for deposition and access established.</p> <p>Kits for genetic sampling distributed and used.</p> <p>Improved information on stranding events in all PICTs.</p>		

**Objective 8.2: Identify key species and areas for baseline surveys.**

<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Establish web-accessible sighting database.	SPREP	Medium
Improve species inventories for all PICTs, prioritising those recognised as data deficient.	members/ partners/ SPREP	High
Conduct dedicated surveys to estimate abundance and trends of whales and dolphins species.	SPWRC/ partners/ members	High
Provide adequate species identification and related information resources for all PICTs (e.g. IFAW and SPC identification kit for observer programme).	SPREP/ SPC/ IFAW/ partners	Medium
Increase use of platforms of opportunity (e.g. fisheries patrols and observers, aerial surveillance, naval and merchant shipping, other marine research programmes) for whale and dolphin sightings.	members/ SPREP/ partners	Medium
Increased use of remote sensing devices, especially acoustic.	SPWRC/ NOAA/ partners	Low

**Indicators:**

- Online regional sighting database established and operational.
- Species inventories for all data deficient SPREP members improved.
- Species inventories for at least three SPREP members improved by addition of further species.
- Cruises to estimate abundance of whales and dolphins species completed in at least two SPREP members.
- Species information and id kit assembled and distributed.
- Incorporation of whale and dolphin expertise to conduct sightings and research activities in cruises dedicated to other purposes (e.g. rapid ecological assessments).
- Increased reporting level for whales and dolphins sighted from fisheries enforcement patrols, fisheries observers, ferries, other commercial vessels and aerial surveillance flights conducted to combat IUU fishing.
- At least one remote sensing device deployed in the region for at least six months.

**Objective 8.3: Identify significance of and priorities for toxicological research.**

<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Investigate need and opportunities for toxicological research.	SPREP	Low
Identify suitable laboratories for toxicological analysis.	SPREP	Low

Identify funding sources.	SPREP/ partners	Low
<b>Indicators:</b> Regional expertise in and laboratories for toxicological analysis identified. Areas in the region where toxicological analysis would be a high priority identified.		

<b>Theme 9 – Whale- and Dolphin-based Tourism</b> <i>Ensure that the development of whale- and dolphin-based tourism is sustainable and conducted responsibly throughout the Pacific Islands region.</i>		
<b>Objective 9.1: Foster sharing of lessons learned and undertake regular assessment of the industry.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Develop a framework to maintain effort to document industry growth (building on IFAW/SPTO/SPREP/SPWRC work).	partners/ SPREP	High
Promote understanding of the industry, the lessons learned and their implications.	partners/ SPREP	High/ Medium
Foster communication between key in-country stakeholders, in particular industry and government, to promote understanding and assist in the management of the industry.	members	High/ Medium
Monitor, document and support PICTs where whale watching activities occur as models in addressing licensing, regulation and management issues, ensuring that industry development draws on lessons learned.	SPREP/ partners	High
<b>Indicators:</b> Reporting system developed to gather information on growth of the industry. Regional whale watching report updated and disseminated to relevant management bodies, industry, media and community. Industry, government and key stakeholders (e.g. NGOs, researchers, community groups) meet in-country as required to discuss issues and actions. Key resources and technical support (reports, examples, templates) available from SPREP.		
<b>Objective 9.2: Ensure best practice management of whale- and dolphin-based tourism in the Pacific Islands region.</b>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Develop region-wide whale and dolphin watching guidelines.	IFAW/ SPREP/ partners	High

Hold regional whale and dolphin watching workshop to promote best practice management and endorse regional guidelines.	Opération Cétacés/ IFAW/ SPREP	High
Support collaborative and best practice management of whale and dolphin watching activities involving all stakeholders.	members	High
Promote licensing/permitting of whale and dolphin watching tourism operations as a tool for management.	members	High
<p><b>Indicators:</b></p> <p>Workshop held, well attended by SPREP members and industry.</p> <p>Regional guidelines developed, accepted, published and used by SPREP members and industry.</p> <p>Stakeholders are consulted in the development of management measures.</p> <p>Licensing schemes are implemented in SPREP nations where whale- and dolphin-based watching tourism occur.</p> <p>Management agencies have on-water presence to monitor and enforce in-country licensing and permitting conditions.</p> <p>Whale and dolphin tourism in the region operating according to responsible wildlife viewing practices</p>		
<p><b>Objective 9.3: Maximise educational and economic values of whale- and dolphin-based tourism watching.</b></p>		
<b>Actions</b>	<b>Lead</b>	<b>Priority</b>
Develop programs for whale and dolphin watching operators to collect useful data.	members/ SPREP	High
Support countries to develop an education kit for onboard operations.	SPREP/ partners	High
Promote socioeconomic benefits of whale and dolphin watching to local communities.	members	High/ Medium
Assist countries to explore the potential for whale and dolphin watching through feasibility studies.	partners/ SPREP	High/ Medium
<p><b>Indicators:</b></p> <p>Data sheet developed and disseminated to operators and reported annually to SPWRC.</p> <p>Educational kits developed and disseminated to SPREP members.</p> <p>Community outreach programme conducted in-country targeted at local media, villages and community groups.</p> <p>Feasibility studies conducted in relevant SPREP members.</p>		