

National Recovery Action Plan

*for the*

**LEATHERBACK TURTLE**  
***(Dermochelys coriacea)***

*in*

Pacific Canadian Waters

Draft (September 2003)

*This Action Plan is designed to implement the 'National Recovery Strategy for Leatherback Turtles in Pacific Canadian Waters'. Refer to the Recovery Strategy for more complete information on the species, its status and threats.*

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## **ACKNOWLEDGEMENTS**

This Recovery Action Plan for Leatherback Turtles in Pacific Canadian waters was produced through the collective efforts of the Recovery Team (see Appendix II), all of whom were generous in contributing time in meetings and in many revisions of the document. Brian Harvey wrote the text, based on input from individual team members and from group discussions. The team also thanks Cory Paterson for researching and writing Section 5 (Socio-Economic Evaluation) and is grateful for the peer reviews provided by Cynthia Vernon, Milani Chaloupka, Frank Paladino and Kitty Simonds. The front cover of the document was designed by Gillian Harvey. The cover photo was provided by Scott Eckert.

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## 1. INTRODUCTION

This National Action Plan is a legal requirement under the Species at Risk Act (SARA) which came into force on June 5, 2003. The purposes of the Act are:

“... to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened.”

Action plans under SARA provide concrete measures for implementing Recovery Strategies. The Act requires that action plans specifically include an identification of the species' critical habitat and protection measures, measures that are to be taken to implement the recovery strategy and monitor the recovery of the species, and an evaluation of the socio-economic costs and benefits of the actions (SARA s. 49.(1)). The present Action Plan thus describes the activities and associated costs that will lead to recovery of the leatherback turtle in Pacific Canadian waters.

The Pacific leatherback turtle is the largest reptile in the world and the widest ranging, capable of annual journeys of more than 15,000 km that traverse entire oceans. Pacific and Atlantic stocks of leatherbacks make extensive feeding migrations to Canadian coastal waters from nesting beaches in tropical seas, and Pacific leatherbacks are sighted along the coast of British Columbia, including in areas close to shore. The species is listed as “Endangered” under SARA, and was declared “Critically Endangered” by IUCN in 2001. The species' occurrence in Canadian waters and its increasing global rarity demand aggressive conservation measures that involve not only actions in Canada but also the participation of Canadians in international programs and projects.

The main reasons for global population decline are collection of eggs, destruction of nesting habitat, killing of nesting females and incidental take in fisheries. In Pacific Canada, the major threats are probably accidental capture or entanglement, collision with boats, and ingestion of debris, although a critical lack of information on basic turtle biology and sightings makes it very difficult to assign risk to any particular threat. Within the leatherback's Pacific Canadian range, the main knowledge gaps concern the animal's occurrence, distribution, behaviour and interaction with fishing gear.

A Pacific Leatherback Turtle Recovery Team, representing government, industry, academia and the NGO sector and chaired by DFO, was assembled in 2002 to prepare a *National Recovery Strategy for the Leatherback Turtle in Pacific Canadian Waters*. This National Recovery Action Plan for the Leatherback Turtle in Pacific Canadian Waters identifies specific measures to implement the Recovery Strategy. The Action Plan summarizes what is known of the biology and status of the Pacific leatherback turtle, and proposes conservation actions that reflect not only our limited knowledge about this animal but also the need for international cooperation in its recovery. The **goal** of the recovery strategy is the long-term viability of the leatherback turtle population(s) that frequent Pacific Canadian waters. The goal will be reached through five **objectives**:

- Conduct and support research that makes possible the development of measurable recovery criteria, within five years, for leatherback turtle population(s) that frequent Pacific Canadian waters;
- Identify and understand threats to the leatherback turtle and its habitat resulting from human activities in Pacific Canadian waters;
- Mitigate human-caused threats to leatherback turtles in Pacific Canadian waters and protect their critical migratory and foraging habitats;
- Support the efforts of other countries to promote the recovery of the leatherback turtle population(s) that frequent Pacific Canadian waters;
- Raise awareness of Pacific leatherbacks and engage Canadians in stewardship projects.

## 2. CRITICAL HABITAT IDENTIFICATION<sup>1</sup>

"Critical habitat" is defined under the Species at Risk Act (SARA) as "the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species". Under the SARA legislation, defining critical habitat for leatherback turtles is a legal requirement. However, as is made clear in the *National Recovery Strategy for the Leatherback Turtle in Pacific Canadian Waters*, identification of leatherback critical habitat in Pacific Canada remains a problem for research and must itself be a specific recovery objective. Recommended research requirements for the identification of critical habitat and associated costs are found in section 3.1(a) and in Table 1.

Habitats that need to be considered for the leatherback include nesting, breeding and foraging habitats. Each life stage has different requirements, and some stages are poorly known. The coast of British Columbia provides foraging habitat. Nesting females require a sandy beach with a deep ocean approach and few obstructions like rock or coral (Pritchard 1971). Habitat requirements for hatchlings and juveniles appear to be almost exclusively tropical until the turtles exceed 100 cm in carapace length (Eckert 2002). Large juveniles and sub-adults probably share habitats with adult leatherbacks, who frequent cooler waters, including the continental shelves off eastern Canada and the northeastern United States (Shoop and Kenney 1992).

## 3. RECOVERY ACTIVITIES<sup>2</sup>

This Action Plan summarizes and prioritizes recovery activities that may take place over the next five years. The activities fall into five general categories: **Research, Threat Clarification, Mitigation, International Cooperation, and Stewardship and Awareness.**

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<sup>1</sup> SARA requires "an identification of the species' critical habitat, to the extent possible, based on the best available information..." s.49 (1a).

<sup>2</sup> SARA requires "a statement of the measures that are to be taken to implement the recovery strategy..." s.49 (1d).

### 3.1 Research

Prior to commencing full-scale recovery activities, research is required to fill current knowledge gaps and to obtain baseline information on the threats, basic biology, stock structure and distribution of this species in Pacific Canadian waters.

(a) Conduct research in Canada and collaborate in international research programs to identify critical habitat and habitat that is important to the recovery of leatherbacks in Pacific waters:

- Evaluate seasonality of occurrences in BC and assess distribution;
- Collaborate in international research programs to identify migratory routes;
- Identify and investigate distribution of prey/food sources;
- Model biotic and abiotic factors that influence the distribution of leatherbacks in Pacific Canadian waters in order to identify and track foraging areas and predict locations and times where leatherback turtles may be found.

(b) Contribute to and collaborate in projects to identify population(s) of leatherbacks that are found in Pacific Canadian waters and distinguish them from other Pacific populations:

- Assess and establish a program to collaborate in studies on geographical distribution, abundance and population characteristic already established and underway (eg., satellite telemetry and tagging programs);
- Establish programs in Canadian waters to obtain genetic samples and undertake DNA analysis to collaborate in ongoing projects determining the stock structure of Pacific leatherback turtles;
- Identify source beaches of leatherback turtle populations that frequent Pacific Canadian waters;
- Develop and implement assessment programs for leatherback turtles in Canadian waters and on appropriate source beaches.

(c) Contribute to projects on basic demographic parameters for leatherbacks in order to predict the effectiveness of actions to promote recovery:

- Develop a method for age determination;
- Determine maximum age and age at first nesting;
- Develop a life history table;
- Estimate prospects for recovery at various levels of mortality.

(d) Contribute to projects on the basic biology, physiology and behaviour of the Pacific leatherback turtle:

- Identify the distribution and diet of all sexes and age classes;
- Investigate diving and foraging behavior and physiology to allow correcting aerial censuses and assessing the ability to survive different types of entanglement;
- Identify juvenile distribution and diet;
- Determine metabolic rate and food requirements;

- Collect data on leatherback health and collaborate in global health assessments.

### **3.2 Threat clarification**

(a) Synthesize and evaluate existing data on activities that potentially harm leatherbacks that frequent Pacific Canadian waters:

- Gather and collate historical sightings from all available sources including observer programs, tour operators, fishers, charter boat operators, coastal communities, media etc. to evaluate degree of impact on leatherbacks;
- Estimate potential human-leatherback interactions based on available data.

(b) Implement programs to collect new information on leatherback turtle sightings in Pacific Canadian waters from as broad a range of sectors as possible:

- Develop a sightings reporting network;
- Establish a program for maritime industry to record sightings and entanglements (target whale watch operators, fishing industry, coast guard, shipping vessels);
- Engage the public, e.g., via a hotline and website;
- Establish an incident reporting network to report and coordinate leatherback turtle incidents;
- Determine incident reporting requirements (diseases or parasites identification, collisions, debris problems, entanglement);
- Develop a protocol for incident response and necropsy procedures;
- Develop and maintain a centralized database for sightings and incident data;
- Link programs with other sightings and incident reporting networks (e.g., marine mammals sightings network);
- Add observers to fishery vessels to record sightings, entanglements and captures;
- Exchange information with other jurisdictions;
- Expand research surveys undertaken for other species to include leatherback turtle sightings (eg., cetacean vessel surveys) and train observers to collect tissue samples for DNA studies.

### **3.3 Mitigation**

The *National Recovery Strategy for the Leatherback Turtle in Pacific Canadian Waters* contains general strategies for mitigation whose further development depends on a better understanding of threats. As information becomes available, the Recovery Strategy will be updated to provide more specific strategies. The associated actions, with measurable outputs, will be reflected in this Action Plan.

The Recovery Team believes that encounters between leatherbacks and the fishing sector in Pacific Canadian waters are infrequent and do not presently justify fisheries closures. At this preliminary stage, recovery of the leatherback turtle is more likely to be aided by the kinds of activities described throughout this Action Plan (sections 3.1 - 3.5), including threat clarification research, working collaboratively with the maritime industry and general public to gather much-needed data on sightings and interactions with humans in Canada,

and facilitating international research and conservation efforts that target the nesting beaches.

At present, broad strategies include, but may not be limited to:

- (a) In consultation with the maritime industry, implement mitigation measures to reduce threats to leatherback turtles in Pacific Canadian waters once they are better understood;
- (b) Once identified, protect the critical habitats of leatherback turtles in Pacific Canadian waters;
- (c) Develop and implement recovery procedures for strandings and/or entanglements, and, as appropriate, other emergency planning and response procedures (e.g., regarding oil spills).

### **3.4 International cooperation**

(a) Ratify, respect and/or contribute to international instruments (conventions, treaties, memoranda of understanding, codes of conduct) that promote leatherback protection and recovery:

- Join the Convention on Migratory Species (CMS or Bonn Convention), including specific geographic Memoranda of Understanding;
- Promote Canada's participation in the Inter-American Convention for Protection and Conservation of Sea Turtles;
- Work jointly with the US to make use of the Canada-US Framework for Cooperation on Protection and Recovery of Wild Species at Risk;
- Review existing international instruments that Canada has already signed to ensure Canada is meeting its international commitments with respect to leatherback turtles, including FAO Code of Conduct for Responsible Fisheries (1995); Agreement for Implementation of Provisions of the Convention Relating to Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; Convention on Biological Diversity (1993); Convention on International Trade in Endangered Species of Wild Flora and Fauna (1975).

(b) Initiate agreements and collaborative projects with countries that share populations of leatherbacks that frequent Pacific Canadian waters, for example:

- Collaborate in Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle (1998);
- Participate in Memoranda of Understanding within the Convention on Migratory Species.

(c) Make use of existing bilateral and multilateral donor programs such as CIDA and IDRC to support collaborative research, training and awareness, including community participation in leatherback recovery;

(d) Provide Canadian expertise and other support to protect nesting leatherbacks, their eggs, and nesting beaches (e.g., public education, law enforcement, monitoring of coastal construction, alteration/reduction of artificial lighting, measures to improve hatching success);

(e) Facilitate participation of Canadians (government, academia, industry and NGOs) in international research and recovery programs (e.g. through letters of reference, permits, visas, internships, secondments).

### **3.5 Stewardship and awareness**

(a) Develop a public awareness campaign on the leatherback turtle and its recovery that covers identification, life-cycle and biology, threats, Canadian recovery efforts, and what individuals can do to minimize threats at home and abroad:

- Identify target groups that may have a direct impact on leatherback turtles and their habitat (e.g. fishing and tourism industries).
- Identify other target groups that have an interest in leatherback turtles and can affect their conservation (e.g. general public, coastal communities, schools);
- Develop a public communications and education campaign that focuses on biological information and what individuals can do to minimize threats.

(b) Promote professional awareness of Pacific leatherback issues in government departments, including:

- Federal ministries (Fisheries and Oceans including Coast Guard; National Defense; Environment);
- Provincial ministries (Agriculture, Fisheries and Food; Water, Land and Air Protection; Tourism);
- Affected municipalities.

(c) Facilitate participation of Canadians in stewardship projects throughout the leatherback's Pacific range:

- Encourage participation in projects involving Canadian pelagic habitat, international pelagic habitat, and nesting habitat.

## **4. IMPLEMENTATION**

Specific activities to recover leatherback turtles in Pacific Canadian waters are outlined in Table 1. Activities are given priorities and potential partners have provisionally been identified. The corresponding 'strategies' listed in the National Recovery Strategy are highlighted in bold. Under the Species at Risk Act, DFO is the lead agency responsible for leatherback turtle recovery in Canada. DFO will also participate as a technical partner in many of these activities. The list of partners is expected to grow as leatherback issues become better known and research results emerge.

The period covers five federal government fiscal years, April 2003 through March 2008. Implementation dates are proposed. Cost estimates are based on estimated increases in costs of pre-existing programs, and do not include core funding provided by lead agencies (i.e., DFO, Parks Canada, Environment Canada). **Cost estimates in Table 1 do not represent the total cost of achieving each objective but are recommended as the Canadian federal government contribution to initiate leatherback turtle recovery actions. Additional funds are anticipated from a variety of sources, including other federal government programs, foundations, international agencies and industry and from linkages with other research programs (eg., cetacean research programs, fisheries observer program, National Marine Fisheries Service).** To reduce costs, activities should be combined where possible. As leatherback recovery programs are just emerging in Pacific Region, there is a need for budgetary flexibility to allow for modifications resulting from changed objectives, new findings or a shift in focus in a direction that is currently unforeseen.

Actions that are **required** under the Species at Risk Act are so identified. The other two priority ratings ("urgent" and "necessary") are adapted from criteria being established by RENEW (A Working Draft - Recovery Operations Manual 20 November 2001). The distinction is one of timing rather than importance: **urgent** activities must be undertaken immediately to recover leatherback turtles in Pacific Canadian waters, while **necessary** activities follow logically upon the completion of urgent ones.

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**Key to Table 1:**

AMR	Archipelago Marine Research
ASL	Alaska SeaLife Centre
BC Province	Province of British Columbia
CIDA	Canadian International Development Agency
DAL	Dalhousie University
DFAIT	Department of Foreign Affairs and International Trade
DFO	Fisheries and Oceans Canada
EC	Environment Canada
IDRC	International Development Research Centre
NGOs	Non-Government Organizations
NMFS	National Marine Fisheries Service
NSERC	National Sciences and Engineering Research Council of Canada
NSLBTWG	Nova Scotia Leatherback Turtle Working Group
Parks	Parks Canada
TOPP	Tagging of Pacific Pelagics Program
UBC	University of British Columbia
VAMSC	Vancouver Aquarium Marine Science Centre
WWF	World Wildlife Fund Canada

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***Table 1 provides a comprehensive summary of actions that could be done should funds be available. Implementation of specific actions is subject to appropriations, priorities, and budgetary constraints. Section 7 of the Fisheries Act provides that***

***the Minister of Fisheries and Oceans may "in his absolute discretion" accept all, some or none of the proposed action items identified in Section 4 of the Leatherback Turtle Action Plan in Pacific Canadian Waters.***

Table 1. Implementation of the National Recovery Strategy for Pacific Leatherback Turtle (2003-2008). Under the Species at Risk Act, DFO is the lead agency responsible for leatherback turtle recovery in Canada.

RECOVERY ACTIVITIES	PRIORITY	POTENTIAL PARTNERS <sup>3</sup>	START DATE (FISCAL YEAR)	ESTIMATED COSTS				
				03/04	04/05	05/06	06/07	07/08
<b>RESEARCH</b>								
<b>Critical Habitat identification</b>	Required							
i. Evaluate seasonality of occurrences in BC and assess distribution	Urgent		2003	15	15	15	15	15
ii. Identify migratory routes	Necessary	NMFS	2005			15	15	15
iii. Identify and investigate distribution of prey/food sources	Necessary		2004		10	10	10	10
iv. Model biotic and abiotic factors that influence distribution	Necessary		2004		10	10	10	10
<b>Population identification &amp; assessment</b>								
i. Satellite telemetry	Urgent	NMFS TOPP NSLBTWG	2004		15	15	15	15
ii. Genetic samples and DNA analysis	Urgent	NMFS VAMSC	2003	15	15	15	15	15
iii. Identify source beaches	Urgent	NMFS	2004		15	15	15	15
iv. Assess stocks of leatherback turtles	Urgent	NMFS TOPP		15	15	15	15	15
<b>Basic demographic parameters data collection</b>								
i. Age studies	Necessary	UBC	2003	50	30	30		
ii. Life history studies	Necessary	UBC	2003	20	20	20		
iii. Assess recovery prospects at various levels of mortality	Necessary	UBC	2005			20	20	20
<b>Basic biology, physiology and behaviour</b>								
i. Distribution and diet studies	Necessary	UBC ASL	2005			50	50	50
ii. Diving and foraging behavior and physiology studies	Necessary	UBC ASL	2005			50	50	50
iii. Investigate habitat use in foraging habitat and migratory corridors;	Necessary	UBC ASL	2005			50	50	50
iv. Identify juvenile distribution and diet	Necessary	UBC NSERC ASL	2003	40	20	20		
v. Determine metabolic rate and food requirements	Necessary	UBC NSERC ASL	1999	35	35	35		
vi. General health and global health assessments	Necessary	VAMSC NMFS	2004		55	30	55	30
<b>THREAT CLARIFICATION</b>								

<sup>3</sup> Preliminary list. Many of the proposed projects are not yet underway and partners have not yet been identified.

RECOVERY ACTIVITIES	PRIORITY	POTENTIAL PARTNERS <sup>3</sup>	START DATE	ESTIMATED COSTS				
				(FISCAL YEAR)	03/04	04/05	05/06	06/07
<b>Data synthesis on known threats</b>								
i. historical sightings	Urgent		2002	5				
ii. Assessment of human-leatherback interactions	Urgent		2004	15	15	15	15	15
<b>Sightings and sources of potential impacts</b>								
i. Sightings network	Urgent	VAMSC BC Province Parks	2003	20	10	10	5	5
ii. Incident reporting network	Urgent		2003	10	5	5	5	5
iii. database development & maintenance	Urgent		2002	10	5	5	5	5
iv. Addition of observers to fishery vessels	Urgent	AMR	2003	10	10	10	10	10
v. Inclusion of leatherback sightings in research surveys	Urgent		2003	60	60	60	60	60
vi. Information exchange with other jurisdictions	Necessary	NMFS		5	5	5	5	5
MITIGATION								
<b>Threat reduction</b>	Necessary	BC Province	2005					
<b>Habitat protection</b>	Necessary	BC Province	2005					
<b>Development of recovery procedures (strandings and/or entanglement)</b>	Necessary	BC Province	2005					
INTERNATIONAL COOPERATION								
<b>Use of international instruments promoting protection and recovery</b>	Urgent	EC NGOs DFAIT	2003	5	5	5	5	5
<b>Initiation of agreements and collaborative projects</b>	Necessary		2004		10	5	5	5
<b>Bilateral and multilateral donor programs</b>	Necessary	DFAIT CIDA IDRC	2004		10	10	10	10
<b>Canadian expertise and support on nesting grounds</b>	Necessary		2004		10	10	10	10
<b>Facilitation of Canadian participation overseas (research and recovery programs)</b>	Necessary		2004		25	25	25	25
STEWARDSHIP AND AWARENESS								
<b>Public Awareness<sup>4</sup></b>								
i. Identification of target groups	Urgent	VAMSC EC NGOs	2002	28				
ii. Communication and education campaign	Necessary	VAMSC EC NGOs	2002	27	55	20	20	20
<b>Professional Awareness</b>	Urgent	BC Province EC Parks	2003	5	5	2	2	2
<b>Facilitation of Canadian participation throughout range</b>	Necessary	WWF EC DFAIT	2004	10	10	10	10	10

<sup>4</sup> Costs are currently estimated based on the expectation that awareness and stewardship programs will initially be directed on threats occurring locally in British Columbia.

## **5. SOCIO-ECONOMIC EVALUATION<sup>5</sup>**

### **5.1 Description**

The Species at Risk Act Bill C-5 Section 49 (1)(e) requires the responsible federal governmental department to undertake “*an evaluation of the socio-economic costs of the action plan and the benefits to be derived from its implementation*” (SARA). This section of the Leatherback Turtle Action Plan reports on the anticipated socio-economic costs and benefits of the proposed action items identified within the plan over the next five years.

The evaluation process includes a preliminary assessment of the anticipated socio-economic cost and benefits of each action item identified in the plan, web-based consultation with stakeholders on the anticipated impacts and consideration of the feedback received from the stakeholder consultations. The preliminary results of the assessment can be grouped into three broad areas: i. Research, Threat Clarification, and Mitigation; ii. International Co-operation, and iii. Stewardship and Awareness.

### **5.2 Evaluation**

#### **i. Research, Threat Clarification, Mitigation**

Government expenditures may increase by about \$2.07 million over the five years of the action plan. Expenditures will be used to: undertake research and recovery activities required to fill current knowledge gaps; evaluate existing data on potential harm to leatherback turtles; and identify general strategies for mitigation once threats are better understood. Of this increased expenditure, approximately \$0.35 million may be used to fund student research thus providing short-term employment opportunities and building our knowledge base about leatherback turtles.

#### **ii. International Co-operation**

Government expenditures may increase by about \$0.23 million over the five years of the action plan. Expenditures will be used to increase the effectiveness of international instruments that promote leatherback turtle protection and recovery. Approximately \$0.08 million of the increased government expenditure funds may be used to fund student research thus providing short-term employment opportunities and contributing to our knowledge base about the effectiveness of specific international instruments.

#### **iii. Stewardship and Awareness**

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<sup>5</sup> SARA requires “an evaluation of the socio-economic costs of the action plan and the benefits to be derived from its implementation.” s.49 (1e).

Governmental expenditure may increase by about \$0.24 million over five years of the action plan. Expenditures will be used to undertake sightings data collection, promote awareness of Pacific leatherback turtle issues through community campaigns, and educate broad groups of volunteer stewards.

Approximately \$0.17 million of the increase in government funds may be transferred to the Vancouver Aquarium pending approval and distribution from the Species at Risk Habitat Stewardship Program (HSP). Approximately \$0.10 million of this transfer may benefit stakeholders by creating short-term employment opportunities. The Vancouver Aquarium will cover some of the program costs by contributing approximately \$0.17 million over five years, primarily through in-kind contributions.

### **5.3 Summary**

Implementation of the action plan is expected to increase government expenditure by \$2.54 million over five years. Of this amount, approximately \$0.17 million may be transferred to the Vancouver Aquarium through the HSP program. These funds will be used to implement specific recovery activities and in the process create short-term employment opportunities.

The estimated cost to stewards such as Vancouver Aquarium may be approximately \$0.17 million over five years, incurred primarily through in-kind contributions. As the plan is implemented, further avenues to work with stakeholders will be explored. This could further result in short-term employment opportunities and long-term capacity building.

The socio-economic impacts reported here are subject to re-evaluation five years after implementation of the recovery action plan, as required by the Species at Risk Act, Bill C-5 Section 55 states that the "*competent minister must monitor the implementation of the action plan and the progress towards meeting its objectives and assess and report on its implementation and its ecological and socio-economics impacts five years after the plan comes into effect*".

## **6. REFERENCES**

**Eckert, S. A.** 2002a. Distribution of juvenile leatherback sea turtle *Dermochelys coriacea* sightings. *Marine Ecology Progress Series* 230, 289 - 293.

**Pritchard, Peter, C.H.** 1971. The leatherback or Leathery Turtle *Dermochelys coriacea*. Unwin Brothers Limited, city. Page

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### **APPENDIX I: Record of Co-operation & Consultation**

The leatherback turtle is an aquatic species under federal jurisdiction, managed by Fisheries and Oceans Canada.

Fisheries and Oceans Canada worked in cooperation with NGO's, academics and international experts as members on the recovery team. Broad consultations were also undertaken on the recovery strategy to gain input and advice. The recovery team met on a number of occasions throughout 2002 and 2003 and continues to be the main group to coordinate recovery activities. The draft Leatherback Turtle Recovery Action Plan was made available publicly via the Fisheries and Oceans Canada webpage: ([http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/leatherback-turtles/default\\_e.htm](http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/leatherback-turtles/default_e.htm)).. Notice of the web posting was made via a DFO news release, notice to all commercial fishing industries (DFO 'notice to industry'), and in collaboration with the Vancouver Aquarium Marine Science Center a news release was issued via aquanews and information posted on the Vancouver Aquarium's webpage (<http://www.vanaqua.org/>). The document was also distributed through an international listserv via the Sea Turtle Biology and Conservation mailing list ('CTURTLE') and a Marine Mammal mailing list ('Marmam'). DFO also requested comments directly from several experts in the field of sea turtle research, industry members, First Nations and other government Departments including BC Ministry of Water, Land and Air Protection, Parks Canada, WWF Canada, Kitty Simonds (Western Pacific Regional Fishery Management Council), Dr Col Limpus (Queensland Parks and Wildlife Service, Australia), Dr Alan Bolton (Archie Carr Center for Sea Turtle Research, University of Florida), BC Aboriginal Fisheries Commission, Canadian Sablefish Association, and the Pacific Halibut Management Association.

The Recovery Team considered input from written submissions and external reviewers and incorporated many useful suggestions in the final document.

## **APPENDIX II: Pacific Leatherback Turtle Recovery Team**

Andrews, Russ	Assistant Research Professor, Institute of Marine Science, University of Alaska Fairbanks and The Alaska SeaLife Center,
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Jones, David	Professor of Zoology and Director of Zoology Animal Care.
Jones, Todd	PhD Student (metabolic rate of leatherback turtles at sea). Zoology Department.
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**APPENDIX III: External Peer Reviewers**

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