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# Pacific Region Cold-water Coral and Sponge Conservation Strategy:

## Summary & Overview

*March 3, 2010*

Canada

# Presentation overview

- History – Kate Ladell
- Strategy overview – Kate Ladell & Jim Boutillier
- Overview of Sustainable Fisheries Framework (SFF)  
– Guy Parker
- Summary of feedback received to date – Kate Ladell

# History

- In 2006 DFO collaborated with CPAWS to host a workshop to gather feedback for the development of a Cold-Water Coral and Sponge Conservation Strategy.
- An internal DFO working group was established in 2007 to ensure a cohesive Departmental approach to the Strategy. The working group consists of representatives from OHEB (Oceans & Habitat), Science, Policy and Fisheries & Aquaculture Management (FAM).
- A multi-stakeholder workshop was held in November 2008 to receive feedback on an initial draft of the Strategy; the Workshop Report was released in July 2009.

# History

- Throughout July-October 2009, revisions to the Strategy were made based on feedback from DFO's Regional Management Committee (RMC), DFO Ottawa staff, the province of BC, and the 2008 Workshop Report.
- The Working Group met in November 2009 to finalize the Strategy, which now includes clearer objectives, strategies and associated actions.
- The Strategy was approved by RMC for public consultation in December 2009.

# Why a Strategy?

- While existing legislation and policy provides some guidance on conservation of cold-water corals and sponges, there is a need to implement a comprehensive regional approach to their conservation and management and codify existing processes under a common framework.
- There are additional threats to cold-water corals and sponges that are unanticipated by existing policy, and there is a dearth of scientific information. Both of these issues need to be remedied.
- The Strategy implements legislation and DFO policies.

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# Purpose of the Strategy

The Strategy has been developed to:

- Consolidate information on cold-water corals and sponges in the Pacific Region including state of knowledge, key issues and known impacts;
- Identify conservation, management and research objectives and associated strategies and actions;
- Discuss socio-economic and conservation implications with respect to cold-water coral and sponge conservation;
- Outline a departmental approach to managing ocean-based activities that may have an impact on these species; and
- Increase coordination and coherence of management and research efforts within DFO.

# Rationale, Scope & Principles

- Slow growth rate, long lifespan and late age of sexual maturity of some cold-water corals and sponges increase vulnerability to human and/or natural threats resulting in need for appropriate conservation.
- The Strategy applies to entire Pacific Region; Must be considered in the context of ongoing departmental management policies and integrated management efforts.
- The Strategy does not include a cost-benefit analysis, percentage of coral and sponge habitats to be protected, an inventory or plan for specific protection measures.
- The Strategy is guided by the principles of Ecosystem-Based Management, Precautionary Approach, Integrated Management, and Sustainable Development.

# Legislative and Policy Context

## ***Oceans Act (1997)***

- Oceans Strategy
- Federal MPA Strategy

## ***Fisheries Act (1985)***

Conservation and sustainable use of fish and fish habitat; protection of fish and fish habitat from disruptive and destructive activities

- Sustainable Fisheries Framework
- Sensitive Benthic Areas Policy
- Policy for the Management of Fish Habitat

## ***DFO's Program Activity Architecture***

Strategic Outcome: Healthy and Productive Aquatic Ecosystems

## ***International Commitments***

Protection of vulnerable marine ecosystems (cold-water coral and sponge grounds)

- UN Convention on Biological Diversity
- UN Resolution on Sustainable Fisheries

# Goal

Conserve the health and integrity of Canada's Pacific Ocean cold-water coral and sponge species, communities and their habitats as valued components of a healthy and productive ecosystem providing for economic and ecological value and sustainable use.



# Objectives

## **Conservation Objective:**

To conserve the health, composition and function of cold-water coral and sponge species, communities and habitats in support of a healthy ecosystem.

## **Management Objective:**

To manage efficiently and effectively in support of a healthy ecosystem and sustained economic benefits, within a risk assessment framework, human activities with impacts on cold-water coral and sponge communities.

## **Research Objective:**

To support decision making through the provision of scientifically based peer-reviewed advice on the health and integrity of cold-water corals and sponges and their contributions to the conservation of a healthy ecosystem.

# Conservation & Management Strategies

1. Define and identify important cold-water coral and sponge areas
2. Identify threats and stressors to cold-water corals and sponges
3. Assess risks to cold-water coral and sponge areas and determine whether management measures are needed
4. Protect important areas through implementation of new or existing management measures
5. Monitor and evaluate effectiveness of management measures
6. Foster public involvement and participation in conservation and management

# Research Strategies

1. Enhance ongoing benthic habitat research activities to include cold-water corals and sponges
2. Determine the ecological significance of identified cold-water coral and sponge areas
3. Provide opportunities for information sharing and research collaboration

# Short-Term Actions - Science

1. Determine extent and location of cold-water coral and sponge areas using existing data
2. Define “important cold-water coral and sponge areas”
3. Develop encounter protocols
4. Develop methods to detect and assess cold-water corals and sponges
5. Standardize quality and nature of collected data

# Priority Actions – OHEB

1. Assemble and map existing information on fishing and non-fishing activities in cold-water coral and sponge areas
2. In collaboration with other sectors, determine risk of serious, irreversible harm to cold-water coral and sponge areas using Ecological Risk Assessment Framework
3. In collaboration with other sectors, develop internal communication and integration protocols on cold-water corals and sponges

# Priority Actions - FAM

1. Identify fishing and non-fishing activities that may cause damage to cold-water corals and sponges
2. Where relevant, incorporate management mitigation options into Integrated Fisheries Management Plans and licensing requirements
3. Consider interim protection measures for cold-water coral and sponge areas identified as high risk in Ecological Risk Assessment Frameworks

# Challenges

## Impacts

- Bottom fishing
- Other commercial fishing techniques
- Net pen aquaculture operations
- Climate change
- Oil and gas exploration and development
- Marine log handling facilities
- Submarine cables
- Other

## Lack of information and available research

- “Undetermined” state of knowledge in most General Status Reports

# Implementation & Considerations

## Implementation

- Coordinated by Oceans Program
- Implementation Plan – identification of priority actions and associated activities, timelines, lead, and evaluation mechanism

## Socio-Economic Considerations

- Discussion and recognition of implications of Strategy to different industries and communities.

## Conservation Considerations

- A successful Strategy will help achieve targets and recommendations identified internationally and locally.

# Review and Responsibilities

## Review

- Reviewed and revised at a maximum of every 5 years
- Annual progress reports produced

## Responsibilities

- Responsibility rests with managers
- Oceans Program responsible for coordinating implementation within DFO
- Individual DFO sectors and programs responsible for ensuring priority actions implemented and considered
- Encourage support from other federal departments, the province, First Nations, industry, ENGOs and academia

# Appendices A & B: Biology & Factors

- What Appendix A and B do is put into context what we know and what we need to know to address priority questions.
- E.g. (science priority 2): Determining the “importance” of coldwater corals and sponges has to be done within DFO’s mandate. Importance needs to be considered at two levels: at the **species level** and at the **ecosystem functioning level**.
- Guidance on what is “important” can be found in both National Legislation and International ratified agreements.

# Species Level - National Mandate

- The National Regulatory authority is SARA.
- Under SARA the status of an animal is determined by: knowing what animals we have; distribution and trends; population size and associated trends; and key biological characteristics that would define the populations' resilience to impacts.
- Key biological parameters measuring resilience include: maximum age, age at first maturity, reproductive modes, potential reproductive outputs, ability to recolonize, dispersal mechanism of reproductive outputs, growth, ability to regenerate, ability to avoid the impact.

# Species Level - International

- The ratified international agreement is covered under the CBD
- “Importance” in CBD is defined as ‘Ecologically and Biologically Sensitive Areas’
- EBSAs have the following characteristics:
  - Uniqueness or rarity
  - Special importance for life-history stages of species
  - Importance for threatened, endangered or declining species and/or habitats
  - Vulnerability, fragility, sensitivity, or slow recovery
  - Biological productivity
  - Biological diversity
  - Naturalness

# Ecosystem Function - National

- Cold-water corals and sponges have functions in the trophic dynamics of their ecosystems and as ecosystem engineers.
- They form structural habitat that is of importance to ecosystem function.
- The Fisheries Act protects the ecosystem engineers in their role as fish habitat, meaning that impacts which decrease their ability to serve their ecological functions may constitute Harmful Alterations of habitat and either be not permitted or require compensation.

# Ecosystem Function - International

- UNGA resolution 61/105 (FAO guidelines)
- Importance addresses issues related alteration of the functioning of ecosystems and the goods and services they provide to humanity through the classification of Vulnerable Marine Ecosystems and Significant Adverse Impacts.
- Vulnerable Marine Ecosystems
  - *Uniqueness or rarity*
  - *Functional significance of the habitat*
  - *Fragility*
- Significant Adverse Impacts

# Appendix C: Management Tools

## Voluntary Measures

- Require a high level of cooperation among users, education and outreach, and need to be monitored for effectiveness

## Regulatory Measures

DFO	MPAs
	Fisheries Management Measures
	Integrated Management Planning
	Habitat Management Measures
	Species At Risk Act
Other Governments, Departments & Agencies	Province of BC Parks Canada (NMCAs) Environment Canada (MWAs, MBSs) CEAA (Environmental Assessments)

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# Summary of Written Feedback

- 26 submissions
  - DFO – National Headquarters (2) & Maritimes Region (1)
  - Province of BC – Ministry of Environment (2) & ILMB (1)
  - Federal Agencies – Parks Canada (1), Environment Canada (3), NRCan (1)
  - First Nations (2)
  - Fishing industry (2)
  - Forestry industry (2)
  - Energy industry (1)
  - Independent Consultants (1)
  - ENGOs (4)
  - Academics (3)

# Summary of Written Feedback

- Feedback received has made the Strategy a better document.
- Mostly constructive – useful edits and/or comments to improve clarity or statements; recognition of balanced approach; appreciation for completion.
- Areas identified for improvement – EBM definition; word order in management objective; wording of research objective; some citations and examples; tweaks to actions – wording, timing, lead and support sectors; minor corrections/clarifications in text.
- Majority of feedback received (~75%) has been incorporated; rationale recorded for feedback not incorporated.

# Next Steps

<b>Task</b>	<b>Deadline</b>
Stakeholder feedback session	March 3, 2010
Written and verbal feedback incorporated into final draft	March 15, 2010
Final Strategy produced and sent to Minister	March 31, 2010
Ministerial approval and public release	Spring – Summer 2010