



Update on Scientific Collecting in Marine Protected Areas



Marine Resources Committee Meeting
November 5, 2014
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California Department of Fish and Wildlife



Presentation Overview

- Brief background
- Overview of Ecological Impact Assessment
- Highlight timeline and completion date





Background

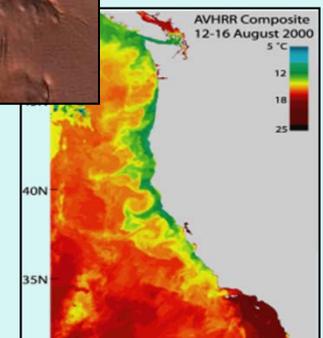
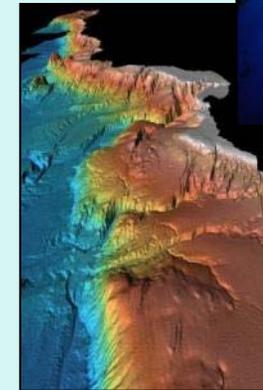
Workgroup purpose:

- Assess ecological impacts of scientific collecting activities within Marine Protected Areas (MPA)
- Identity potential conflicts between collecting activities and MPA conservation goals
- Provide objective Scientific Collecting Permit (SCP) reviewing tool
- Potential broader applications



Marine Life Protection Act Goals

1. To protect the natural diversity and function of marine ecosystems.
2. To help sustain and **protect populations**.
3. To improve recreational, educational, and **study opportunities** in areas with minimal human disturbance.
4. To protect representative and unique marine life habitats.
5. Clear objectives, **effective management**, adequate enforcement, sound science.
6. To ensure that MPAs are designed and managed as a network.



* Note that this language paraphrases the MLPA goals, FGC §2853



Conflicts in MLPA Goals

Goal 2

**Protect
Populations**

Goal 3

**Study
Populations**

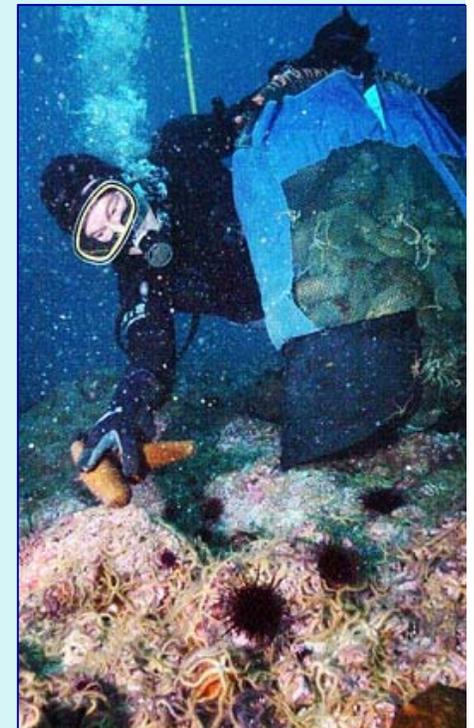
**Goal 5
Manage
Effectively**



Ecological Impact Assessment

Three Primary Components:

1. Management Review Module
 - decision tree
2. Risk Tolerance Module
 - MPA specific risk threshold
3. Ecological Impact Module
 - single project impacts
 - cumulative impacts across projects





Management Review Module- Decision Tree

**Project
A**

Is the take for MPA-related research?

↓ No

Is the collection for an ongoing long-term study located in a new MPA?

↓ No

Is the collection for display or educational purposes?

Yes ↘

Yes ↗

Yes →

Are the methods for collecting appropriate?

↓ Yes

↑ No

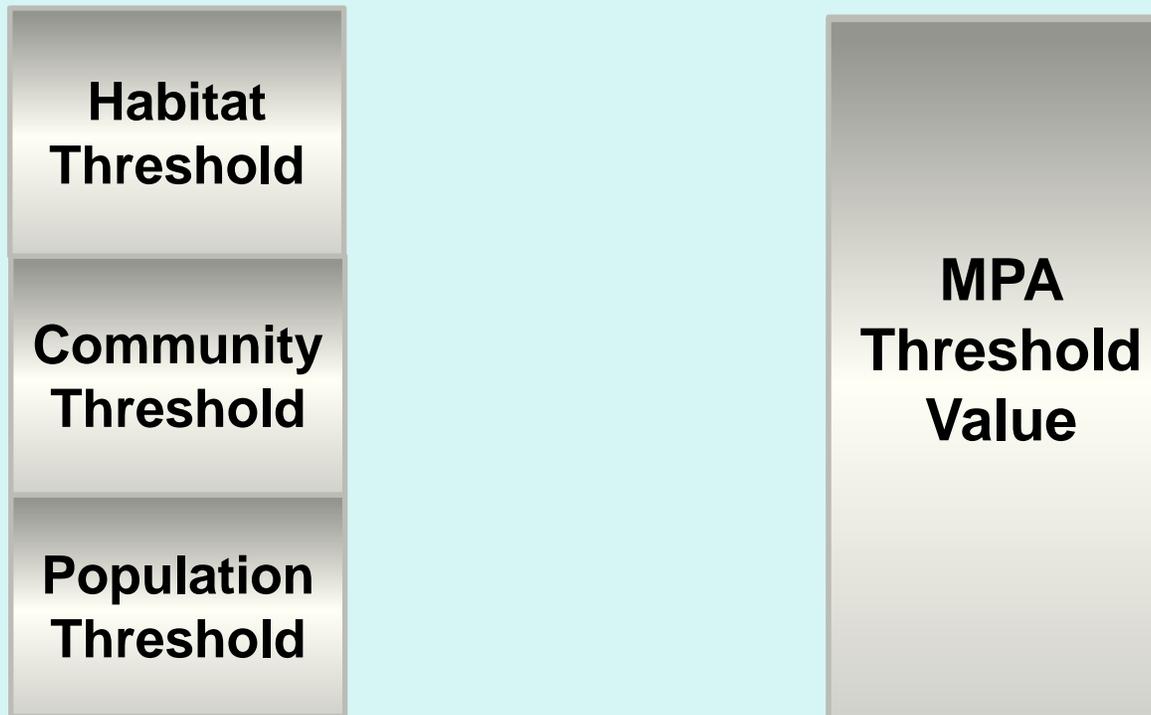
Approve?

Is the species available outside MPAs?



Risk Tolerance Module

- Evaluation based on the MPA's goals and objectives, allowed uses, habitats protected, etc.
- Establishes thresholds of acceptable risk for each component of ecosystem and the whole of the ecosystem:





Ecological Impact Module

Assessed on Potential Project Impacts To:

- **Target (population)**
 - depletion of target species abundance
- **Assemblage (community)**
 - depletion of functional group abundance through incidental take
- **Habitat**
 - damage to physical habitat
- **Ecosystem (MPA)**
 - impacts at the ecosystem level



Ecological Impact Assessment

Project A



Management Review Module

Is proposed research appropriate for an MPA?

Yes

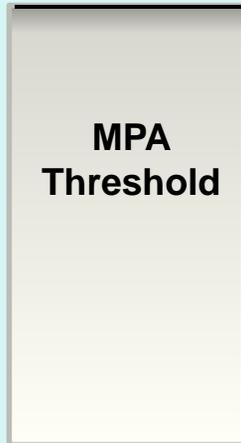
Ecological Impact Module

Evaluates impacts on populations, communities, habitats, and the ecosystem

Project A's Impact Value

Risk Tolerance Module

Does the project's impact value fall within the acceptable risk thresholds for this MPA?



Risk Threshold Value

MPA Threshold



Ecological Impact Assessment

Management Review Module

Ecological Impact Module

Project D

Risk Tolerance Module

Project D

Risk Threshold Value

←NO

Project C

—Yes→ Approve SCP

Project B

—Yes→ Approve SCP

Project A

—Yes→ Approve SCP

Does the project's impact value fall within the acceptable risk thresholds for this MPA?

Recommend that research is modified to reduce impacts or relocated to another area



Project Timeline

Past:

- Since June 2012, workgroup has met 28 times

Current :

- Completed - Conceptual design of the Ecological Impact Assessment
- Near completion - Ecological Impact Module
 - core component of assessment
- In Progress- Risk Threshold Module

Goals:

- Produce two peer reviewed manuscripts
- June 2015 - anticipated implementation of Ecological Impact Assessment



Thank You  Questions



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