

Science, Service, Stewardship

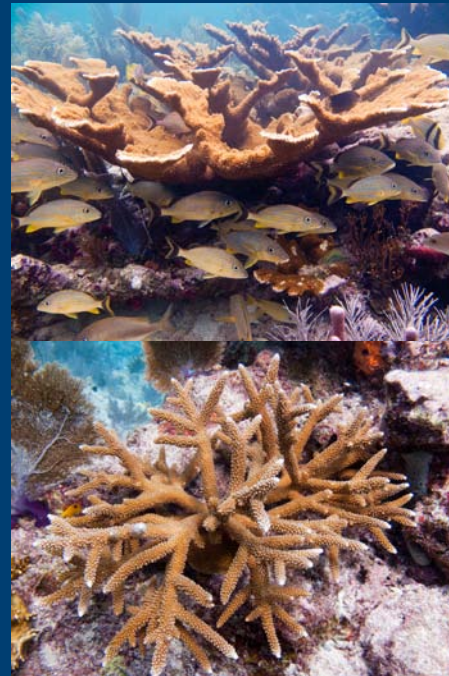


Update on the Acropora Recovery Plan

Where we are and how we got here

Jennifer Moore

November 17, 2009



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What is a Recovery Plan?

The ESA requires:

“...develop and implement plans for the conservation and survival...”



What is a Recovery Plan?

Must contain:

1. Site-specific management actions
1. Objective, measurable criteria
1. Time and cost estimates



Who writes a Recovery Plan?

ESA allows for the procurement of a “*Recovery Team*”

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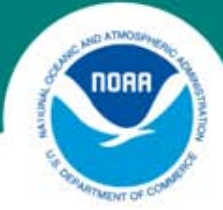
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Parts of a Recovery Plan

- Background
- Listing/Delisting Factors: Threats Assessment
- Existing Conservation Measures
- Recovery Strategy
- Recovery Goal
- Recovery Objectives
- Recovery Criteria
- Recovery Actions



Threats Assessment

1. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

Anthropogenic Abrasion and Breakage

Loss of Recruitment Habitat

3. Disease or Predation

Disease

Predation

4. Inadequacy of Existing Regulatory Mechanisms

Inadequacy of Existing Regulatory Mechanisms

5. Other Natural or Manmade Factors Affecting the Continued Existence of the Species

Temperature

Carbon Dioxide and Acidification

Nutrients

Sedimentation

Natural Abrasion and Breakage

Anthropogenic Abrasion and Breakage

Contaminants

Depensatory Population Effects



Existing Conservation Measures

legislative and policy advocacy for coral reef conservation; mapping, monitoring, and assessment of coral reefs; mooring buoy and coral reef demarcation programs; research on coral disease, microbiology, genetics, and reproduction; outreach and education about human impacts on coral reefs through printed media, public events (local, regional, and international), and volunteer programs; and physical restoration of degraded coral reefs



Recovery Goal

Increase the abundance and to protect the genetic diversity of elkhorn and staghorn coral populations throughout their geographical ranges while sufficiently abating threats to warrant delisting of both species.



Recovery Strategy

- Reduce demographic and genetic **uncertainty** (monitoring and experimental research).
- Curb **warming** and **acidification** (and possibly disease) threats via green house gases reduction while pursuing local intervention strategies to reduce climate change impacts and ways to enhance adaptation.
- Determine causal web and identify/implement actions, local mitigation/control strategies, to minimize or prevent compromised **health** (i.e., loss of fitness, diseases and disease-related mortality).
- Reduce **chronic** or **local mortality** sources (i.e., predation, anthropogenic physical damage, acute sedimentation) and local stresses (i.e., land-based sources of pollution, physical disturbance threats) to **“buy time”** for development of local mitigation and curtailment of global threats as well as provide physiological scope for **acclimation/adaptation** to worsening global stresses.
- Develop and implement appropriate strategies for **population enhancement**, through restocking and active management, in the short to medium term, to increase the likelihood of successful sexual reproduction and to increase wild populations.
- Implement ecosystem-level actions to improve **habitat quality** and restore keystone species and functional processes such as herbivory to sustain adult colonies and enable successful natural recruitment in the long term.



Next Steps

- Plan undergoing internal NOAA Fisheries review
- Early 2010 available for public comment
- Team and NOAA Fisheries will consider comments and finalize plan



How can the USCRTF help?

- Review plan during public comment period
- Need partnerships with all USCRTF agencies
- Recovery actions can also satisfy ESA Section 7(a)(1) proactive conservation responsibilities



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