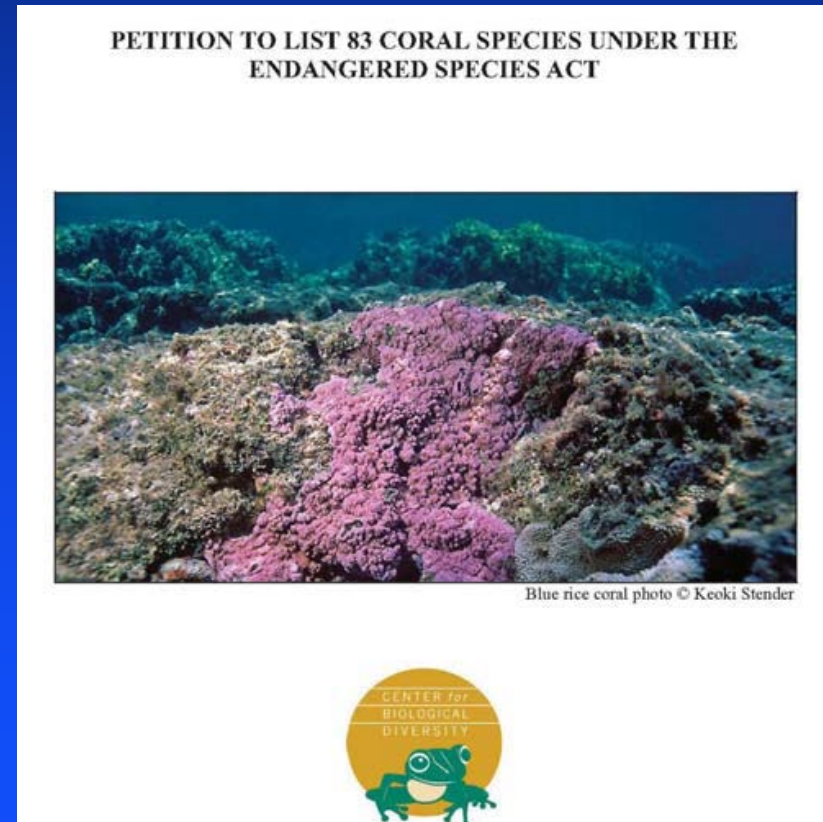


**NOAA Fisheries and ESA
Endangered Species Act
Listing Process for 82
Species of Coral**

**Marta Nammack
National Marine Fisheries Service
Office of Protected Resources
February 24, 2010**

Overview

- Petition background
- Review process
- Protections for listed species
- Experience with Acroporid listings



Petition background

Who, what, and why?

- **The Center for Biological Diversity petitioned NOAA Fisheries (NMFS) to list 83 species of coral as threatened or endangered under the ESA on October 20, 2009.**
- **75 of the species occur in the Indo-Pacific (9 in Hawaii), and 8 occur in the Caribbean.**
- **Petition asserts that each of these species has declined by at least 30% over a 30-year period.**
- **Species petitioned are all those identified by the World Conservation Union (IUCN) as vulnerable, threatened, endangered, or critically endangered.**
- **The petition asserts that mass bleaching events, disease and predation, destructive fishing practices and overharvest, pollution, sedimentation, and physical damage due to human land and sea uses have caused these coral species to decline in abundance.**
- **The petition also asserts that anthropogenic climate change and ocean acidification pose the most serious short- and long-term threats to the survival of these corals.**

Definitions E and T

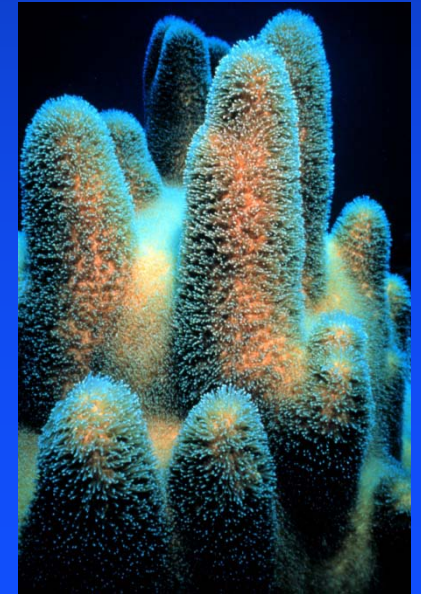
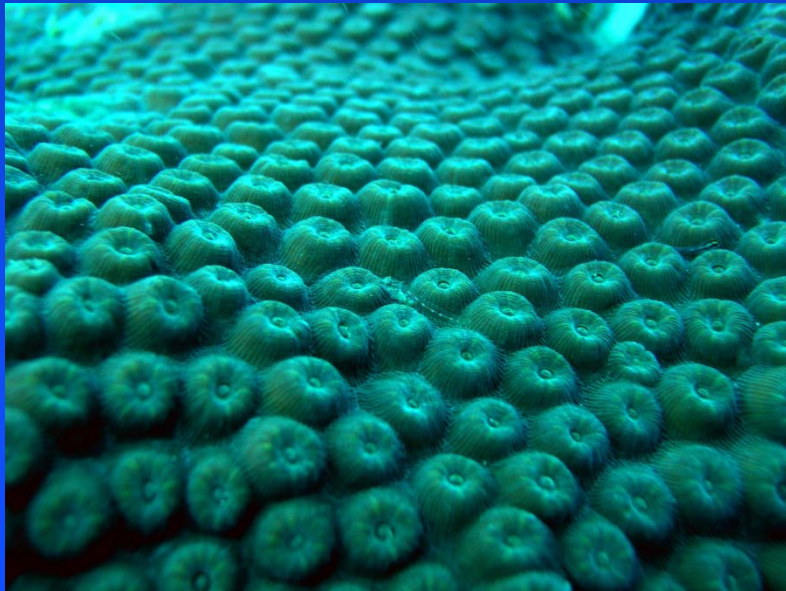
- **Endangered species = any species in danger of extinction throughout all or a significant portion of its range**
- **Threatened species = any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range**

Review process

- **90-day finding**
- **Status review**
- **12-month finding/proposed rule**
- **Final determination**

90-day finding

- Reviewed petition and determined that it presented substantial information indicating that the petitioned action may be warranted
- Published a 90-day finding, initiating a status review of 82 of the 83 species on February 10, 2010.
- Solicited information from the public, due April 12, 2010.
- The status of *Oculina varicosa* will not be reviewed.



Status review

- **The ESA requires us to determine whether any species is endangered or threatened because of any of the following factors:**
 - **The present or threatened destruction, modification, or curtailment of its habitat or range;**
 - **Overutilization for commercial, recreational, scientific, or educational purposes;**
 - **Disease or predation;**
 - **The inadequacy of existing regulatory mechanisms;**
or
 - **Other natural or manmade factors affecting its continued existence.**

Status review (cont.)

- **NMFS will compile and analyze the best available scientific and commercial information on:**
 - **historical and current distribution and abundance and condition;**
 - **population density and trends;**
 - **effects of climate change on the distribution and condition of these corals and other organisms;**
 - **the effects of dredging, coastal development, coastal point source pollution, agricultural and land use practices, disease, predation, reef fishing, aquarium trade, physical damage from boats and anchors, marine debris, and aquatic invasive species; and**
 - **management programs for conservation of these species.**
- **NMFS recommendations on whether to propose a listing as T or E will be based solely on this information.**

12-month finding/proposed rule

- If we determine that any species is T or E, we will publish a proposed rule to list the species within one year from receipt of the petition, and we will solicit public comments on that proposal.
- If we determine that any species is not T or E, we will publish a 12-month finding denying the petition for those species.
- Another option that we rarely use is to publish a “warranted, but precluded” finding.

Final determination

- One year from the date of publication of proposed rule, we must publish a final rule.
- Address public comments
- Exception - if there is substantial disagreement regarding the sufficiency or accuracy of the available data, may extend the one-year period for not more than 6 months for purposes of soliciting additional data.

Protections for listed species

- Section 9 prohibitions
- Section 4(d) rules
- Section 10 permits
- Critical habitat
- Section 7 consultations

Section 9 prohibitions

- **If E, section 9 take prohibitions are automatically extended to the species.**
 - **No U.S. citizen can import, export, take within the U.S. or territorial or high sea, possess, sell, deliver, carry, transport, ship, or sell an E species.**
 - **Certain exceptions are available through section 10(a)(1) permits.**

Section 4(d) rules (cont.)

- **If T, we extend section 9 prohibitions deemed necessary and advisable for the conservation of the species through a section 4(d) rule.**
- **A 4(d) rule provides the flexibility to tailor regulations according to the needs of the species.**

Section 10 permits

- **10(a)(1)(A) research or enhancement permits for Federal and non-Federal entities conducting research or conservation activities that involve directed take of listed species**
- **10(a)(1)(B) incidental take permits for non-Federal entities conducting otherwise lawful activities which may result in the incidental take of listed species**

Critical Habitat

- **Must be designated at the time of listing if prudent and determinable.**
- **If not determinable at the time of listing, we can extend deadline by not more than one additional year.**

Critical habitat includes:

- The specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those **physical or biological features essential to the conservation of the species and which may require special management considerations or protection;** and
- Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such **areas are essential for the conservation of the species.**

Critical habitat (cont.)

- Unlike the listing process, when we designate critical habitat, we are required to consider economic, national security, and other impacts.
- Section 4(b)(2) analysis - Consider impacts and balance benefits to determine whether the benefits of excluding particular areas from critical habitat outweigh the benefits of inclusion
- If so, we have discretion to exclude any such area from critical habitat designation, as long as this would not result in the extinction of the species.

Section 7 consultations

- **Federal agencies that authorize, fund, or carry out an action that may affect a listed species must consult with NMFS under section 7 of the ESA to ensure that the action is not likely to:**
 - **jeopardize the continued existence of the species;**
or
 - **destroy or adversely modify designated critical habitat.**

Experience with Acroporid listings



Staghorn coral
Acropora cervicornis



Elkhorn coral
Acropora palmata

Section 4(d) rule for Acroporids

- **Exceptions to the section 9 prohibitions for:**
 - **Research and enhancement activities conducted under seven existing permits;**
 - **Restoration activities carried out by an authorized Federal, state, territorial, or local natural resource agency.**
- **We determined that the existing permitting programs are restrictive enough to provide for the conservation of listed corals without the additional requirements of section 10(a)(1)(A) permits.**

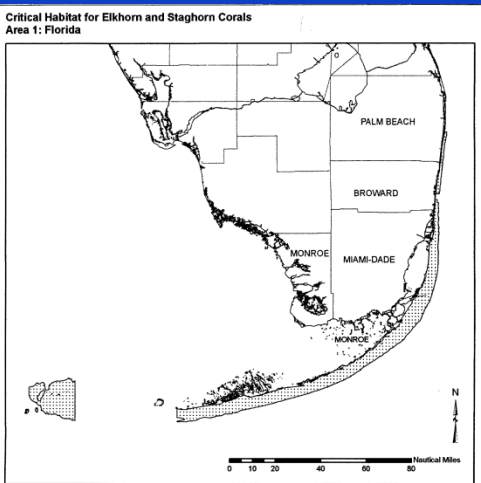
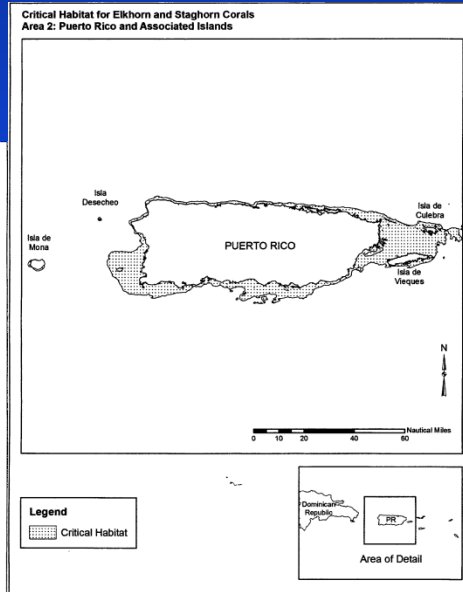
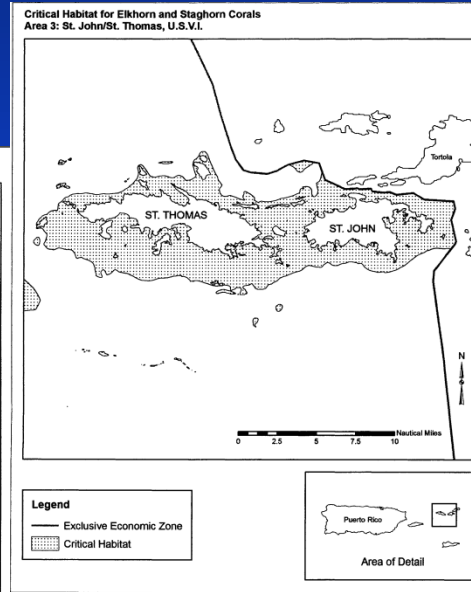
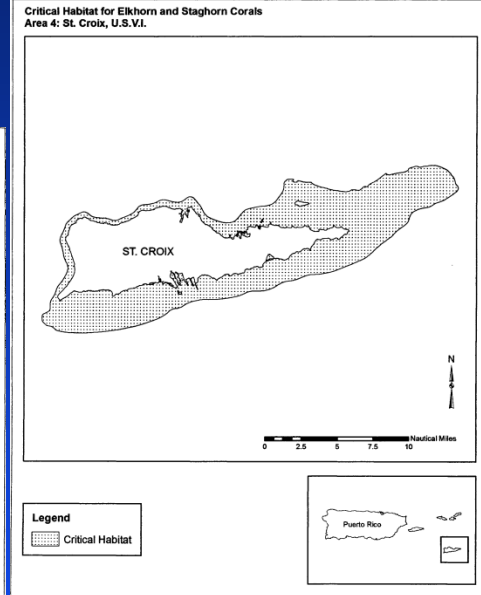
Staghorn and elkhorn coral critical habitat

126 sq. mi.

121 sq. mi.

1,383 sq. mi.

1,329 sq. mi.



Staghorn and elkhorn coral critical habitat (cont.)

The essential feature identified for staghorn and elkhorn coral critical habitat is consolidated hardbottom or dead coral skeleton that is free from fleshy macro algae cover and sediment cover, occurring in water depths from the mean high water line to 30 meters (98 feet).

Section 7 consultation on restoration activities

- **NOAA Restoration Center proposed a program to continue and establish elkhorn and staghorn coral nurseries in Florida and USVI.**
- **After reviewing the current statuses of elkhorn and staghorn corals, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, we determined that this program was not likely to jeopardize the continued existence of these corals.**

Section 7 consultation on research program

- **Programmatic consultation with the Florida Keys National Marine Sanctuary (FKNMS) on their research permit program**
- **Based on the exception we provided in the 4(d) rule and the Programmatic consultation with the FKNMS, researchers are completely unaffected by the listing. Permits are issued as quickly as they were before listing.**
- **We evaluated the criteria by which the FKNMS reviews permit applications and determined that they are sufficient to provide for the conservation of the corals, and thus a section 10 permit was not necessary.**

Section 7 consultation on stone crab fishing

- Section 7 consultation on commercial & recreational trapping for stone crabs
- The vast majority of these activities occur in seagrass beds, mud/sand flats, or low relief hardbottom, where the identified essential feature occurs so rarely, if at all, that any adverse effect on it is insignificant.
- Not likely to adversely affect the corals or their critical habitat.



Helpful web sites

- Endangered species program
www.nmfs.noaa.gov/pr
- Southeast Regional Office
<http://sero.nmfs.noaa.gov/pr/esa/acropora.htm>
- 4(d) rules
<http://sero.nmfs.noaa.gov/pr/pdf/060505%204d%20General%20FAQs.pdf>

“To keep every cog and wheel is the first precaution of intelligent tinkering.” (Aldo Leopold, 1953)



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