



**NOAA Fisheries Service  
Southeast Regional Office  
Protected Resources Division**

# **Final ESA Threatened Listing of**



# **Elkhorn and Staghorn Corals**



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## How did we get here?

- **March 4, 2004:** the Center for Biological Diversity (CBD) petitioned NOAA Fisheries Service to list three *Acropora* spp., elkhorn, staghorn, and fused-staghorn coral, as either threatened or endangered under the Endangered Species Act (ESA) and to designate critical habitat.
- **June 23, 2004:** NOAA Fisheries Service made a positive 90-day finding (69 FR 34995) that CBD presented substantial information indicating that the petitioned actions may be warranted and announced the initiation of a formal status review by convening an Atlantic *Acropora* Biological Review Team (BRT).
- **March 2005:** The status review (available at <http://sero.nmfs.noaa.gov/pr/protres.htm>) incorporates and summarizes the best available scientific and commercial data to date; and it addresses the status of the species, the five ESA listing factors, and current regulatory, conservation and research efforts that may yield protection.



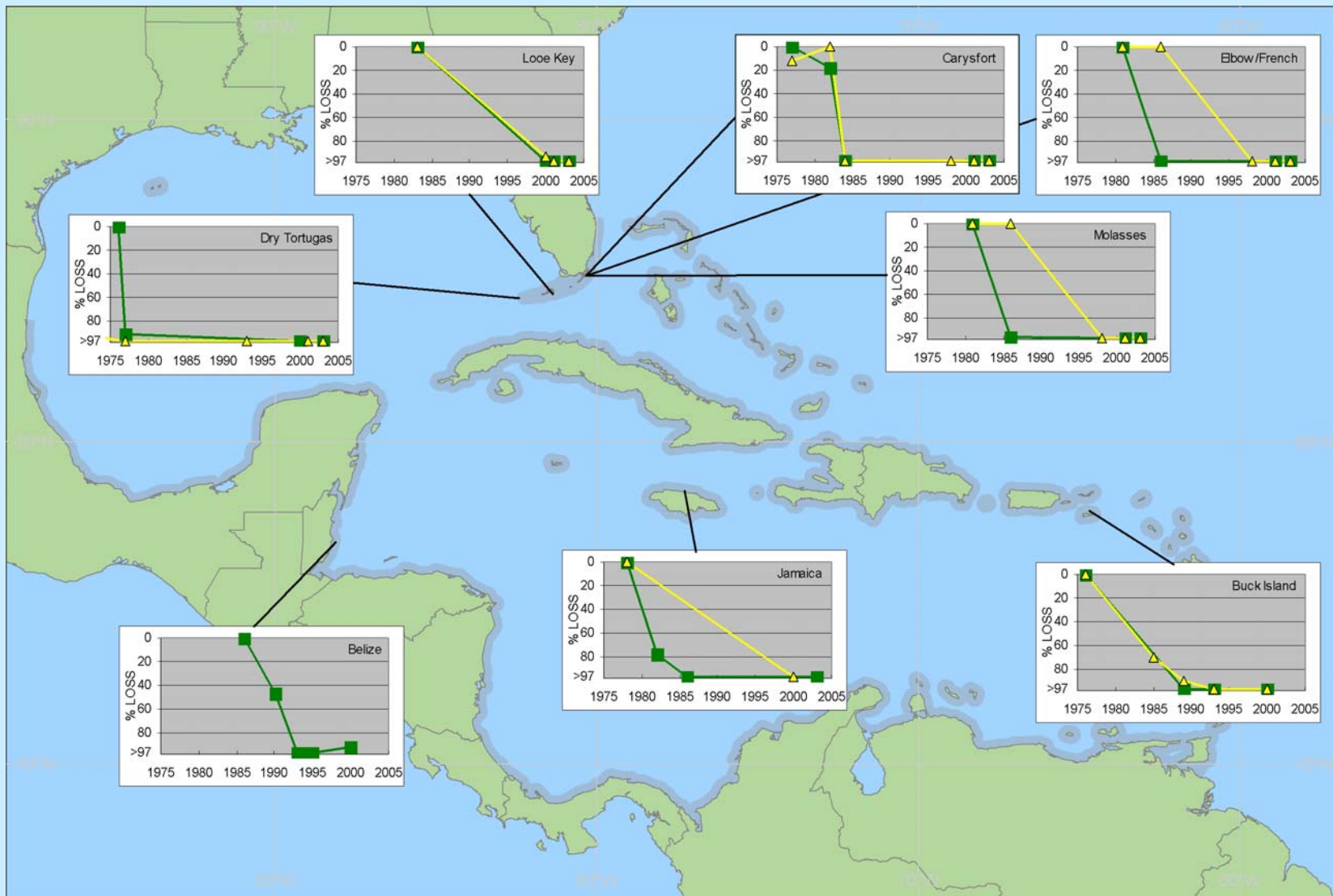


## How did we get here? (cont'd)

- **March 18, 2005:** NOAA Fisheries Service determined that a threatened listing was warranted for both elkhorn and staghorn corals (70 FR 13151) because they are likely to become in danger of extinction throughout all or a significant portion of their range in the foreseeable future from a combination of factors.
- **May 9, 2005:** NOAA Fisheries Service published a **proposed rule** to list the two *Acropora* species as **threatened** (70 FR 24359).
- **May 4, 2006:** NOAA Fisheries Service issued its final determination to list elkhorn and staghorn corals as **threatened**. This rule also determined that a critical habitat designation is not determinable at this time because more information is required to identify those features essential to the conservation of the species.
- The **Final Rule** will publish in the Federal Register soon.









- Both species underwent precipitous declines in the early 1980s throughout their ranges
- Declines in abundance (coverage and colony numbers) are estimated at >97% (e.g., Florida Keys, Dry Tortugas, Belize, Jamaica and the U.S.V.I.),
- The decline continued at a slower rate through the 1990s until present, but local extirpations (i.e., at the island or country scale) have not been rigorously documented
- Recruitment of new colonies has been reported in various geographic locations, but new recruits appear to be suffering mortality faster than they can mature






- Present or threatened destruction, modification or curtailment of its habitat or range
- Overutilization for commercial, recreational, scientific, or educational purposes
- Disease or predation
- Inadequacy of existing regulatory mechanisms
- Other natural or manmade factors affecting its continued existence





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- A decorative vertical border on the left side of the slide, featuring a stylized illustration of a coral reef with various marine life, including a large brown coral structure at the top and bottom, and green and yellow branching corals in the middle.
- Disease
  - Elevated sea surface temperature
  - Hurricanes
  
  - Predation
  - Competition
  - Sedimentation
  - Nutrients
  - Contaminants
  - Over-harvest
  - CO<sub>2</sub>
  - Sponge boring
  - African Dust
  - Loss of genetic diversity
  - Anthropogenic abrasion and breakage





- Species should be endangered instead of threatened
- Should list fused-staghorn coral under various authorities
- Inappropriate “Significant Portion of Its Range” Analysis
- List a particular population off Broward County, FL as endangered
- 30-year “foreseeable future” was not protective enough
- Reliance upon a draft hybrid policy
- Information on threats to the species
- Adequacy of Clean Water Act
- Future Regulatory Actions
- “Take”
- Economic value of coral reefs
- Support





- We did not receive any comments which presented data that changes our determination
- Therefore, we are finalizing the proposed rule
- Elkhorn and Staghorn corals are listed **rangewide** as **Threatened** under the ESA
- The rule takes effect 30 days from publication in the Federal Register





## What are the immediate effects of the listing?

- Federal Agencies' responsibility to utilize their authorities to carrying out programs for the conservation listed species
- Federal Agencies' responsibility to consult with NOAA Fisheries Service on their actions which may affect the species, to insure that their action will not jeopardize the continued existence of the species
- Federal actions include projects funded, authorized and carried out by the agency





## What a threatened listing means for *Acropora* spp.

- Species listed as **endangered** automatically receive certain protections, including prohibition on “take” for the species

**“Take” is defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.”**

- For species listed as **threatened**, TAKE is **not** automatically prohibited
- NOAA Fisheries Service must propose and publish a special rule to issue protective regulations and exemptions that it finds necessary and advisable to provide for the conservation of threatened species
- Called a 4(d) rule





How does NOAA Fisheries determine what is “necessary and advisable to provide for the conservation of the species”?

- Evaluate the biological status of the species
- Evaluate the potential impacts of various activities and programs on the species
- Determine whether these activities provide for the conservation of the species

What does a 4(d) rule do?

- “Limits” the situations to which take prohibitions apply for threatened species
- Identifies activities representative of those to which take prohibitions do not apply
- May provide criteria for future activities to which take prohibitions will not apply





## What a threatened listing means (cont'd)

- NOAA Fisheries must designate Critical Habitat within one year after listing if prudent

**"Critical Habitat" is defined under the ESA as:**

- (1) Specific areas within the geographical area currently occupied by the species, on which are found those physical or biological features**
  - i. Essential to the conservation of the species and**
  - ii. That may require special management considerations or protection**
- (2) Specific areas outside the geographical area occupied by a species upon determination that such areas are essential for the conservation of the species**

- Critical Habitat designations are made based on the best scientific data available, *after taking into consideration the economic, national security, and other relevant impacts of making such a designation*



## Designation of Critical Habitat

- NOAA Fisheries may exclude an area from critical habitat if the benefits of exclusion outweigh the benefits of designation, unless excluding the area will result in the extinction of the species concerned.
- A critical habitat designation does not set up a preserve or refuge.
- A critical habitat designation applies only when Federal funding, permits, or projects are involved.
- Critical habitat requirements do not apply to citizens engaged in activities on private land that do not involve a Federal agency.





## *Southeast Florida*

| Date                      | Time        | Location   |
|---------------------------|-------------|--|
| Mon.<br>May 8,<br>2006    | 6 – 8<br>pm | International Game<br>Fish Association<br>300 Gulf Stream Way<br>Dania Beach, FL     |
| Tues.<br>May 9,<br>2006   | 6 – 8<br>pm | Holiday Inn – Ramada –<br>Marina Del Mar<br>99701 Overseas Hwy<br>Key Largo, FL      |
| Wed.<br>May 10,<br>2006   | 6 – 8<br>pm | Marathon Government<br>Center<br>2798 Overseas Hwy<br>Mile Marker 50<br>Marathon, FL |
| Thurs.<br>May 11,<br>2006 | 6 – 8<br>pm | Harvey Government<br>Center<br>1200 Truman Avenue<br>Key West, FL                    |

## *US Caribbean*

| Date                         | Time        | Location  |
|------------------------------|-------------|---|
| Tues.<br>May<br>23,<br>2006  | 5 – 7<br>pm | St. Croix Curriculum<br>Center<br>Kingshill, St. Croix<br>between the R. H.<br>Amphlett Leader Justice<br>Complex (Territorial<br>Court) and Central High<br>School |
| Wed.<br>May<br>24,<br>2006   | 6 – 8<br>pm | Holiday Inn Windward<br>Passage<br>Veterans Drive<br>Charlotte Amelie,<br>St. Thomas  |
| Thurs.<br>May<br>25,<br>2006 | 3 – 5<br>pm | Jardín Botánico<br>Barrio Venezuela<br>(Intersection of Rte. 1 and<br>Rte. 847)<br>Río Piedras,<br>Puerto Rico  |







## Why We Conducting Workshops?

- To ***gather information*** for:
  - Protective regulations and exemptions that may be necessary and advisable to provide for the conservation of threatened *Acropora* spp. (a.k.a., a 4(d) Rule)
  - Identification of possible areas of critical habitat, including identification of physical and biological features *essential* to the conservation of the species





- Identification of activities and programs that directly or indirectly affect *Acropora* spp.
- Identification of the **impacts** that these activities and programs have on *Acropora* spp.
- Identification of those activities and programs that **most/least allow** for the conservation of *Acropora* spp.
- Identification of **possible** areas of **critical habitat** and **essential** physical and biological features
- ***The information gathered during this workshop will be considered in the development of a potential 4(d) rules or critical habitat designations***



## Step 1: Divide Into 3 Break-Out Groups



### Fishing, Diving, and Recreational Uses of Coral Reefs

- includes commercial and recreational
- includes persons conducting and/or participating in these activities
- Includes boaters and PWC operators



### Coastal and Nearshore Construction & Related Activities

- Includes Federal, State, Territorial, and County



### Research & Recovery Efforts related to Coral Reefs



## **Step 2: Within each group, discuss the following focus questions**

1. What types of programs and activities currently exist that directly/indirectly affect elkhorn and staghorn corals?
2. What types of impacts do these programs and activities have on elkhorn and staghorn corals?
3. Of these, which most/least allows for the conservation of the species?
4. How do we best address the impacts of these programs and activities?
5. What geographical, physical, or biological features are important for identifying areas of critical habitat?





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