

# Species Recovery Grants to States

## Accomplishments Report

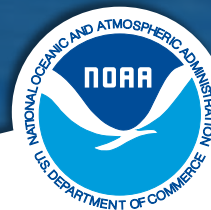


NOAA

NOAA Fisheries Service

Office of Protected  
Resources

FY 2003–2012



# TIMELINE

**1973** Endangered Species Act of 1973 (ESA) is enacted; section 6 of the ESA highlights the need to work cooperatively with the states in conserving listed species.

**1977** Congress amends the ESA, making it easier to enter into cooperative agreements with states under section 6. Such agreements allow NOAA Fisheries Service to grant funding to support state conservation programs.

**1984** South Carolina enters into the first section 6 agreement with NOAA Fisheries Service.

**1990** Georgia enters into a section 6 agreement.

**1992** New York enters into a section 6 agreement.

**1996** Massachusetts enters into a section 6 agreement.

**1998** Maryland enters into a section 6 agreement.

**2000** North Carolina enters into a section 6 agreement.

**2003** Congress appropriates \$1 million in funding to support grants to states under section 6 of the ESA. NOAA Fisheries Service institutes the “Protected Species Cooperative Conservation Grant Program” to competitively award grant funding to states with section 6 agreements on an annual basis.

Florida, Puerto Rico, and the U.S. Virgin Islands enter into section 6 agreements.

**2004** New Jersey enters into a section 6 agreement.

**2005** Maine enters into a section 6 agreement.

**2006** Hawaii enters into a section 6 agreement.

**2007** Delaware enters into a section 6 agreement.

**2008** Washington enters into a section 6 agreement.

**2009** Fiscal Year 2010 funding is increased from an annual appropriation of \$1M to \$15.6M. The Protected Species Cooperative Conservation Grant Program is renamed “Species Recovery Grants to States.”

Alaska, California, Commonwealth of the Northern Mariana Islands, Louisiana, Mississippi, Oregon, Texas, and Virginia enter into section 6 agreements.

**2010** Alabama enters into a section 6 agreement.

# Species Recovery Grants to States

## Accomplishments Report

The Species Recovery Grants to States Program is NOAA Fisheries Service’s primary mechanism for providing funding to states<sup>1</sup> and other partners to implement high-priority recovery actions for marine and anadromous species<sup>2</sup> listed under the Endangered Species Act. Partnerships with states, which share management authority and responsibilities for listed species, are essential to achieving our shared recovery goals. Recovery of listed species requires a suite of activities, including on-the-ground management activities, monitoring, scientific research, and education and outreach—all of which are supported through this Program. This report provides an overview of our Species Recovery Grants to States and summarizes how the funding supports species recovery. The report also presents a cross section of the diverse efforts states are undertaking to recover threatened and endangered marine and anadromous species.

<sup>1</sup> The term “state” is used throughout this report as defined in section 3 of the Endangered Species Act (ESA) and thus includes U.S. Territories.

<sup>2</sup> Species discussed in this report do not include ESA-listed Pacific salmonid species, which receive grant funding from NOAA through the Pacific Coastal Salmon Recovery Fund. The term “species” is used as defined in section 3 of the ESA.

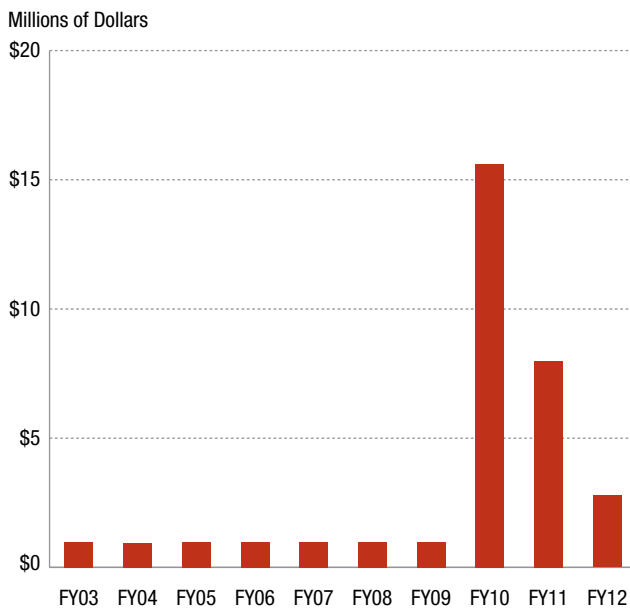


# Program Background

## SECTION 6 OF THE ESA

Section 6 of the Endangered Species Act of 1973 authorizes NOAA Fisheries Service to work cooperatively with the states and provide federal assistance to support state conservation programs for threatened and endangered species under NOAA's jurisdiction. NOAA Fisheries Service first received approximately \$1M in dedicated funding for this Program in fiscal year (FY) 2003. The Program received approximately level appropriations every year until FY 2010, when the appropriation increased to \$15.6M. As a result, NOAA Fisheries Service expanded the program by providing funding to more states and more listed species than previously possible. The total budget for the program declined to just under \$8M in FY 2011 and declined to \$2.8M in FY 2012. (Figure 1).

Figure 1: Funding History FY03-12

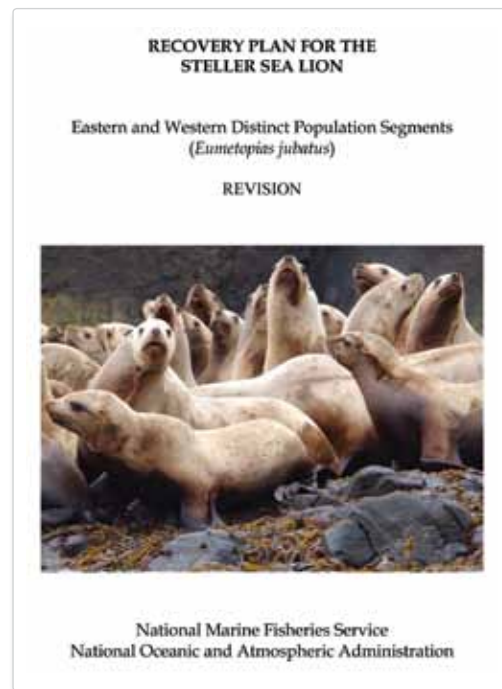


States must first enter into a cooperative agreement with NOAA Fisheries Service through their respective natural resource management agency to be eligible for federal assistance under section 6 of the ESA. To qualify for an agreement under the ESA, states must first demonstrate that they have an “adequate and active” conservation program for threatened and endangered species. In 2003,

seven states held section 6 agreements, and by early 2011, the number had more than tripled to 23. NOAA Fisheries Service is actively pursuing agreements with the six remaining eligible states (Rhode Island, Connecticut, New Hampshire, Pennsylvania, Guam, and American Samoa). Guam and American Samoa, areas in need of sea turtle and large whale recovery funding, are currently working with NOAA Fisheries Service to develop agreements and plan to submit agreement applications in 2012.

## RECOVERING LISTED SPECIES

Section 4 of the ESA requires that a recovery plan be developed and implemented for the conservation and survival of a species once it is listed. Section 4(f) of the ESA requires that these plans provide: a) a description of site-specific management actions necessary to achieve recovery; b) objective, measurable criteria which, when met, would allow the de-listing of the species; and c) estimates of the time and costs required to achieve the plan's goal. Recovery plans are typically developed with assistance and input from states, tribes, and other partners, and incorporate diverse sets of prioritized actions involving management, monitoring, research, and outreach. Essentially, the plans provide a comprehensive strategy for recovering species to the point where protection under the ESA is no longer necessary. Thirty-three plans are currently in place

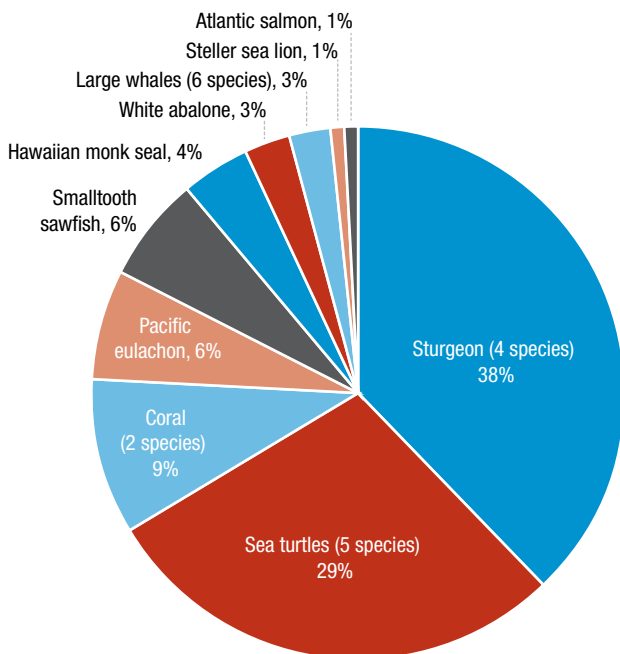


and another 14 have been, or are being, drafted. Recovery plans are available electronically at <http://www.nmfs.noaa.gov/pr/recovery/plans.htm>.

The Species Recovery Grants to States Program seeks to fund the highest priority recovery actions—i.e., actions needed to prevent extinction—as identified in recovery plans. Conservation activities for species under consideration for listing or newly listed species without a completed recovery plan receive lower priority for funding but may also be supported by Species Recovery Grant funding.

As of this writing, the total number of species currently eligible for Species Recovery Grants is 159; this includes 59 listed species, 93 candidate species, and 7 proposed species (see <http://www.nmfs.noaa.gov/pr/species/>). Since its initiation in 2003, this Program has benefitted 23 listed species (see Figure 2). Seventeen of these species have completed recovery plans.

Figure 2: Allocation of Funding by Species FY03-12 (\$28.8M total funding)

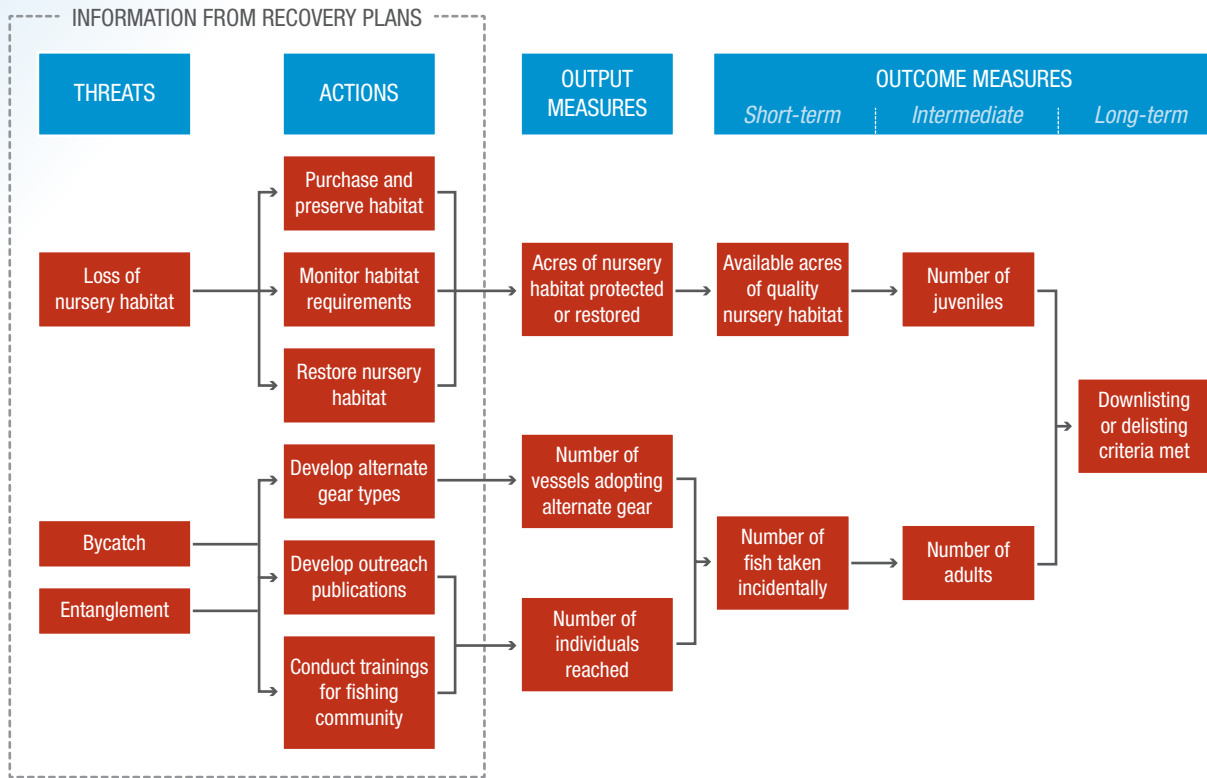


## Tracking Grant and Program Performance

Once species decline to the point at which they are considered ‘threatened’ or ‘endangered,’ their recovery is neither simple nor rapid. Achieving recovery requires dedicated efforts of multiple partners over a timescale dictated by the species’ life history, status, and threats. To track how Species Recovery Grants support the various aspects of species recovery and the efforts of multiple partners over time, NOAA Fisheries Service is developing the Species Recovery Grants Tracking Database. This comprehensive database will track Species Recovery Grant funding allocations, species funded, types of activities supported, and project outputs. The database, anticipated to be on-line in Summer 2012, will offer public access to project-level information as well as summary data that measure how the Program is contributing to species recovery. In addition to tracking Program accomplishments, the database will help ensure accountability for the dollars spent.

NOAA Fisheries Service began developing this database by using information in recovery plans to create conceptual models for tracking species recovery. The models incorporated threats information, actions needed to address those threats, and measurable outputs from completed actions for a given species. A simplified example of a generic conceptual model is shown in Figure 3. Grantees will report on their actions and outputs for the particular species and recovery plans their work addresses, and these data will be collected in the database. The quantitative outputs will support our ability to track progress towards meeting defined short-term, mid-term, and long-term goals for recovery. Documenting how each project contributes to recovery goals will allow us to understand how effectively Species Recovery Grants contribute to species recovery and will help inform how future grant funding should be directed. The database will include information that allows us to improve our tracking of the number and priority level of recovery plan actions being supported by Species Recovery Grants. Through the 23 ongoing awards currently supported under the program, approximately 40 high-priority recovery actions are being addressed. Overall performance of the Species Recovery Grants Program will be assessed in part by examining changes in this number.

Figure 3: Conceptual Model to Identify Grant Program Performance Measures



## Species Recovery in Action

All types of actions—management, research, monitoring, and outreach—necessary for achieving recovery of listed species can be supported through Species Recovery Grants to States. Several projects are highlighted here to illustrate how the grants contribute to the recovery process.<sup>3</sup> A complete list of currently funded grants is available on the Program website (<http://www.nmfs.noaa.gov/pr/conservation/states/funded.htm>) and detailed information on projects will become publicly available through the database starting in Summer 2012.



A "Baby Abalone Recruitment Trap," or BART, deployed at Santa Catalina Island, California. BARTs are being used as surrogate substrate in a designed study to test "out-planting" of various sizes of white abalone in different habitats and locations. *Photo: Derek Stein, California Department of Fish and Game.*

<sup>3</sup> For the projects discussed on the following pages, both the federal funding approved and the federal funding granted to each award are reported. These dollar amounts differ as a result of a decrease in annual appropriations for this program.

## PROTECTING HAWAIIAN MONK SEALS

### Hawaii Department of Land and Natural Resources

**Project Period: FY2010–FY2012**

The Hawaiian monk seal (*Monachus schauinslandi*) is one of the most endangered marine mammals in the world; fewer than 1,100 of these animals are thought to remain in the wild. While the core population of Hawaiian monk seals residing in the Northwest Hawaiian Islands continues to decline, a small population—numbering about 153 animals—on the main Hawaiian Islands (MHI) is actually growing. Through Species Recovery Grant funding, the Hawaii Department of Land and Natural Resources (HDLNR) is working cooperatively with NOAA Fisheries Service to minimize major threats to monk seals in the MHI, such as bycatch in fishing gear and disturbance of mother-pup pairs on beaches. HDLNR is taking much needed action by responding to stranding emergencies, preventing mother-pup disturbances at popular beaches, promoting use of “seal friendly” fishing gear, and conducting outreach and education to reduce harmful monk seal encounters. Given projected increases in beach use and inshore fishing in the MHI, the efforts of HDLNR are critical to protecting this vulnerable population.

- » Approved Funding: Federal \$1,550,657 / State Match \$531,319
- » Federal Funding Granted as of FY12: \$968,920



Mother (“R5AY”) taking her pup (“RK82”) for a swim in a protected cove at Turtle Bay, Oahu. Photo: Dera Look, NOAA.

## PREVENTING EXTINCTION OF WHITE ABALONE

### California Department of Fish and Game

**Project Period: FY2010–FY2012**

White abalone (*Haliotis sorenseni*) - the first marine invertebrate to be protected under the ESA - is nearing extinction. Remnant populations are dying of old age, and there have been no signs of successful reproduction in the wild. The California Department of Fish and Game is working with NOAA Fisheries Service, the University of California at Davis, Virginia Tech, and others to develop a captive breeding program and conduct experimental stocking of larval and juvenile white abalone in the wild. Near-term benefits of this work will be the development of effective white abalone spawning and rearing methods and an improved understanding of factors controlling disease susceptibility, reproduction, and larval and juvenile survival. The expected long-term benefits of this work include enhancement of wild populations with cultured white abalone and reversal of the current trajectory towards extinction. This work implements actions identified in federal (White Abalone Recovery Plan) and state (California Wildlife Conservation Challenges) conservation plans and most likely represents the best chance of preventing extinction.

- » Approved Funding: Federal \$1,077,549 / State Match: \$434,248
- » Federal Funding Granted as of FY12: \$759,077



First generation offspring of captive-reared white abalone being held at the Cabrillo Marine Aquarium. Photo: Ben Higgins, Cabrillo Marine Aquarium.

# UNDERSTANDING THREATS TO SEA TURTLES IN THE CHESAPEAKE BAY

Virginia Department of Game and Inland Fisheries and Maryland Department of Natural Resources

**Project Period: FY2010–FY2012**

Each year, the coastal waters of Virginia and Maryland serve as an important seasonal home for hundreds of listed sea turtles. Recent abundance estimates obtained in the Virginia portion of Chesapeake Bay indicate a three-fold reduction in sea turtles compared to estimates reported in the 1980s and 1990s. These lower abundance estimates coincide with dramatic increases in turtle strandings. The causes for the abundance declines and strandings increases are not clear; and, to date, there has not been a coordinated bay-wide approach to sea turtle management in the Chesapeake Bay. Through the support of a Species Recovery Grant, the states of Virginia and Maryland have formed a partnership with the Virginia Aquarium and Marine Science Center Foundation to unravel some of the unknowns and develop a Bay-wide management framework for the two most common sea turtles species in the Bay, the threatened loggerhead (*Caretta caretta*) and endangered Kemp's ridley (*Lepidochelys kempi*). As part of this ambitious project, the partners will conduct research to fill significant data gaps, initiate outreach efforts to improve habitat quality for sea turtles in the Bay (e.g., reduce boat strikes and marine debris), and conduct training of enforcement agents to improve reporting of and response to injured, entangled, and hooked turtles.

- » Approved Funding: Federal \$4,090,044 / State Match \$517,188
- » Federal Funding Granted as of FY12: \$2,563,381



Trained stranding responders from the Virginia Aquarium and the U.S. Coast Guard removed 130 pounds of gill net gear from "Spooky," a juvenile loggerhead turtle found near the mouth of the York River in October 2010, unable to swim and struggling to reach the surface to breathe. Each year, about 200 sea turtles will be found stranded or entangled in the Chesapeake Bay. Interactions with derelict or "ghost" fishing gear is one known cause. *Photo courtesy of the Virginia Aquarium & Marine Science Center.*



Through Species Recovery Grant funding, Spooky is now providing data on habitat use patterns within the Chesapeake Bay. Spooky's and other sea turtles' tracks can be followed on [www.seaturtle.org](http://www.seaturtle.org). *Map and unpublished data courtesy of the Virginia Aquarium & Marine Science Center.*

Following 8 months of rehabilitation, Spooky was released from Virginia Beach, Virginia on June 27, 2011, with a GPS satellite transmitter attached. *Photo courtesy of the Virginia Aquarium & Marine Science Center.*



# CREATING A MULTI-STATE PARTNERSHIP FOR STURGEON RESEARCH

## Delaware Department of Natural Resources and Environmental Control / South Carolina Department of Natural Resources

### Project Period: FY2010–FY2012

Sometimes referred to as “living fossils,” shortnose (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) have suffered severe declines in abundance—mainly as a result of over-exploitation, bycatch, and habitat alteration and degradation. These species are the subject of two collaborative research efforts, one lead by the Delaware Department of Natural Resources and Environmental Control (DNREC) and one lead by the South Carolina Department of Natural Resources (SCDNR). DNREC is working with scientists from Delaware State University, Connecticut Department of Environmental Protection, New Jersey Department of Environmental Protection, North Carolina State University, and Delaware University to conduct extensive tagging and sampling to provide a better understanding of sturgeon movement patterns, habitats, genetics, and threats. This grant also supports the development and maintenance of the Atlantic Cooperative Telemetry (ACT) Network, a centralized database where individual researchers can report acoustic detections of fish tagged by other researchers and search for detections of their own fish by others. This database allows a regional acoustic tracking network to be created out of smaller-scale acoustic receiver systems, thereby greatly expanding the ability to capture data and information for sturgeon populations all along the East Coast.

Through the second Species Recovery Grant, SCDNR is partnering with the North Carolina Department of Environmental and Natural Resources, North Carolina State University, and the University of Georgia to determine movement patterns of sturgeon among rivers within the southern portion of the species ranges and develop a new genetic aging technique. These researchers are also participating in the ACT Network. Results of both grants will provide much needed data to inform when, where, and how management efforts and limited resources should be focused.

### Delaware Funding

- » Approved Funding: Federal \$2,738,272 / State Match \$367,337
- » Federal Funding Granted as of FY12: \$1,770,780

### South Carolina Funding

- » Approved Funding: Federal \$4,105,475 / State Match \$410,548
- » Federal Funding Granted as of FY12: \$2,817,512



An adult Atlantic sturgeon is captured by researchers off the coast of Delaware during their directed sampling efforts in spring 2011. Photo: Lori Brown, Delaware State University.



Acoustic receivers have been deployed in river systems of North Carolina, South Carolina and Georgia to help determine the seasonal and spawning migration patterns as well as inter-river basin transfer of shortnose and Atlantic sturgeon. Detections of tagged sturgeon entering these arrays from elsewhere will be reported into the ACT Network. Map: Bill Post, SCDNR.

## MANAGING PACIFIC EULACHON

### Oregon Department of Fish and Wildlife & Washington Department of Fish and Wildlife

#### Project Period: FY2010–FY2012

The Pacific eulachon (*Thaleichthys pacificus*), also called Columbia River smelt, is a calorie-rich fish important to both marine and freshwater food webs as well as commercial, recreational, and subsistence fishers. The threatened southern population is thought to be at or near historical lows, and existing data on the coast-wide status of eulachon are not adequate to properly manage the species. The Oregon and Washington Departments of Fish and Wildlife are developing a spawning stock biomass estimate for the Columbia River; conducting egg and larvae surveys in the Columbia River system and coastal river systems of Oregon and Washington; and clarifying the genetic structure of this eulachon population. Their grant also supports an observer program to determine bycatch rates in Washington's ocean shrimp trawl fishery and funds development and testing of shrimp trawl gear modifications to reduce the level of bycatch, which is considered one of the greatest threats to the persistence of this species. This project will improve the monitoring of trends in abundance, distribution, and bycatch; reduce the eulachon bycatch rate; and ultimately allow regional managers to decrease impacts from fisheries and other human activities on this threatened species.

- » Approved Funding: Federal \$1,637,429 / State Match \$328,033
- » Federal Funding Granted as of FY12: \$1,054,402



An underwater camera mounted on a bycatch reduction device (BRD) is used to study the escape behavior of eulachon when testing modified BRDs. Here a eulachon is shown being guided upwards and out of a shrimp trawl net by a rigid-grate BRD. Photo: Bob W. Hannah, Oregon Department of Fish and Wildlife, Marine Resources Program.

## ASSESSING THE STATUS OF LISTED CORALS

### Florida Fish and Wildlife Conservation Commission

#### Project Period: FY2010–FY2012

The declines in abundance of two reef-building corals, staghorn coral (*Acropora cervicornis*) and elkhorn coral (*A. palmata*), have contributed to the dramatic changes seen on Caribbean and Florida Key reefs over the past several decades. As these corals decline, so too have the diverse assemblages of fishes and invertebrate species that rely upon them as habitat. To better account for these losses, provide more accurate population abundance estimates, and to protect critical areas, the Florida Fish and Wildlife Commission is partnering with researchers at the Puerto Rico Department of Natural and Environmental Resources, the University of the Virgin Islands, and other academic institutions to conduct extensive population surveys and enhance law enforcement efforts. Targeted training of enforcement agents in both English and Spanish will increase agents' ability to differentiate listed corals from similar branching corals and enforce relevant protective regulations. This multi-agency monitoring program will also provide for comparable data across three jurisdictions (Florida, Puerto Rico, U.S. Virgin Islands), and the spatial and other datasets derived from this work will inform both local coral reef conservation efforts, as well as ESA recovery planning in Florida and the U.S. Caribbean.

- » Approved Funding: Federal \$4,258,551 / State Match \$384,882
- » Federal Funding Granted as of FY12: \$2,701,418



Elkhorn coral (*A. palmata*) at Molasses Reef, one of the few sites in the Florida Keys with extant stands, as opposed to isolated colonies, of elkhorn coral. Photo credit: Mark Chiappone, Nova Southeastern University - Oceanographic Science Center.

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