



HABITAT HOTLINE ATLANTIC

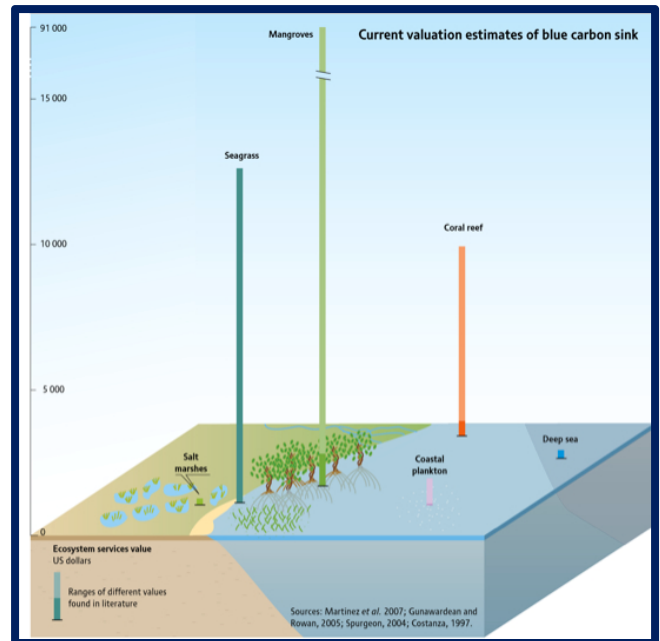
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HEALTHY OCEANS NEW KEY TO COMBATING CLIMATE CHANGE: SEAGRASSES TO SALT MARSHES AMONG THE MOST COST EFFECTIVE CARBON CAPTURE AND STORAGE SYSTEMS ON THE PLANET

CAPE TOWN, NAIROBI, ROME, PARIS, 14 October 2009 – A Blue Carbon Fund able to invest in the maintenance and rehabilitation of key marine ecosystems should be considered by governments keen to combat climate change. A new Rapid Response Report released today estimates that carbon emissions- equal to half the annual emissions of the global transport sector- are being captured and stored by marine ecosystems such as mangroves, salt marshes, and seagrasses. A combination of reducing deforestation on land, allied to restoring the coverage and health of these marine ecosystems could deliver up to 25% of the emissions reductions needed to avoid ‘dangerous’ climate change. But the report warns that far from maintaining and enhancing these natural carbon sinks humanity is damaging and degrading them at an accelerating rate. It estimates that up to 7% of these ‘blue carbon sinks’ are being lost annually, or seven times the rate of loss of 50 years ago.

“If more action is not taken to sustain these vital ecosystems, most may be lost within two decades,” says the report *Blue Carbon: the Role of Healthy Oceans in Binding Carbon* launched by the United



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Nations Environment Programme (UNEP), the Food and Agriculture Organization (FAO), and the Intergovernmental Oceanographic Commission of UNESCO.

Achim Steiner, UN Under-Secretary General and UNEP Executive Director, said: “We already know that marine ecosystems are multi-trillion dollar assets linked to sectors such as tourism, coastal defense, fisheries, and water purification services-



Blue Carbon Report Continued

now it is emerging that they are natural allies against climate change. Indeed this report estimates that halting losses and catalyzing the recovery of marine ecosystems might contribute to offsetting up to 7% of current fossil fuel emissions and at a fraction of the costs of technologies to capture and store carbon at power stations.”

The new report comes less than 60 days before the crucial UN climate change convention meeting in Copenhagen where governments need to Seal the Deal on a comprehensive new agreement. It is likely that nations will agree to pay developing economies to maintain the ‘green carbon’ in forests under a partnership- Reduced Emissions from Deforestation and Forest Degradation (REDD). Mr. Steiner added: “The links between deforestation and climate change are firmly on the political radar and there is optimism that REDD will form part of a new global climate partnership, but the role and the opportunity presented by other ecosystems are still overlooked. If the world is to decisively deal with climate change, every source of emissions and every option for reducing these should be scientifically evaluated and brought to the international community's attention- that should include all the colors of carbon including now **blue carbon** linked with the seas and oceans.”

Christian Nellemann, editor of the Rapid Response report, said: “There is an urgency to act now to maintain and enhance these carbon sinks - since the 1940s, over 30% of mangroves, close to 25% of salt marshes, and over 30% of seagrass meadows have been lost. We are losing these crucial ecosystems much faster than rainforests and at the very time we need them - on current trends they may be all largely lost within a couple of decades.”

“Fishing and aquaculture communities will be heavily impacted by climate change and have a key role to play in maintaining healthy ocean ecosystems in the face of change,” said Ichiro Nomura, Assistant Director-General for Fisheries and Aquaculture at FAO. “An ecosystem approach to the management of ocean and coastal areas cannot only enhance their natural carbon sink capacity, but also offers a way to safeguard and strengthen food and livelihood security for fisheries-dependent communities,” he added.

Officials with UNESCO also underlined the important role the oceans are already playing in offsetting climate change and its impacts on humanity, but warn that this is having consequences too.

“Because the ocean has already absorbed 82% of the total additional energy accumulated in the planet due to global warming, it is fair to say that the ocean has already spared us from dangerous climate change,” says Patricio Bernal, Assistant Director-General of UNESCO, IOC Executive Secretary. “But each day we are essentially

We know that land use change is part of the climate change challenge. Perhaps less well known is that the global loss of what we could call our ‘blue carbon sinks’, such as mangroves and seagrasses, are actually among the key components of the increase in greenhouse concentrations from all land use changes.

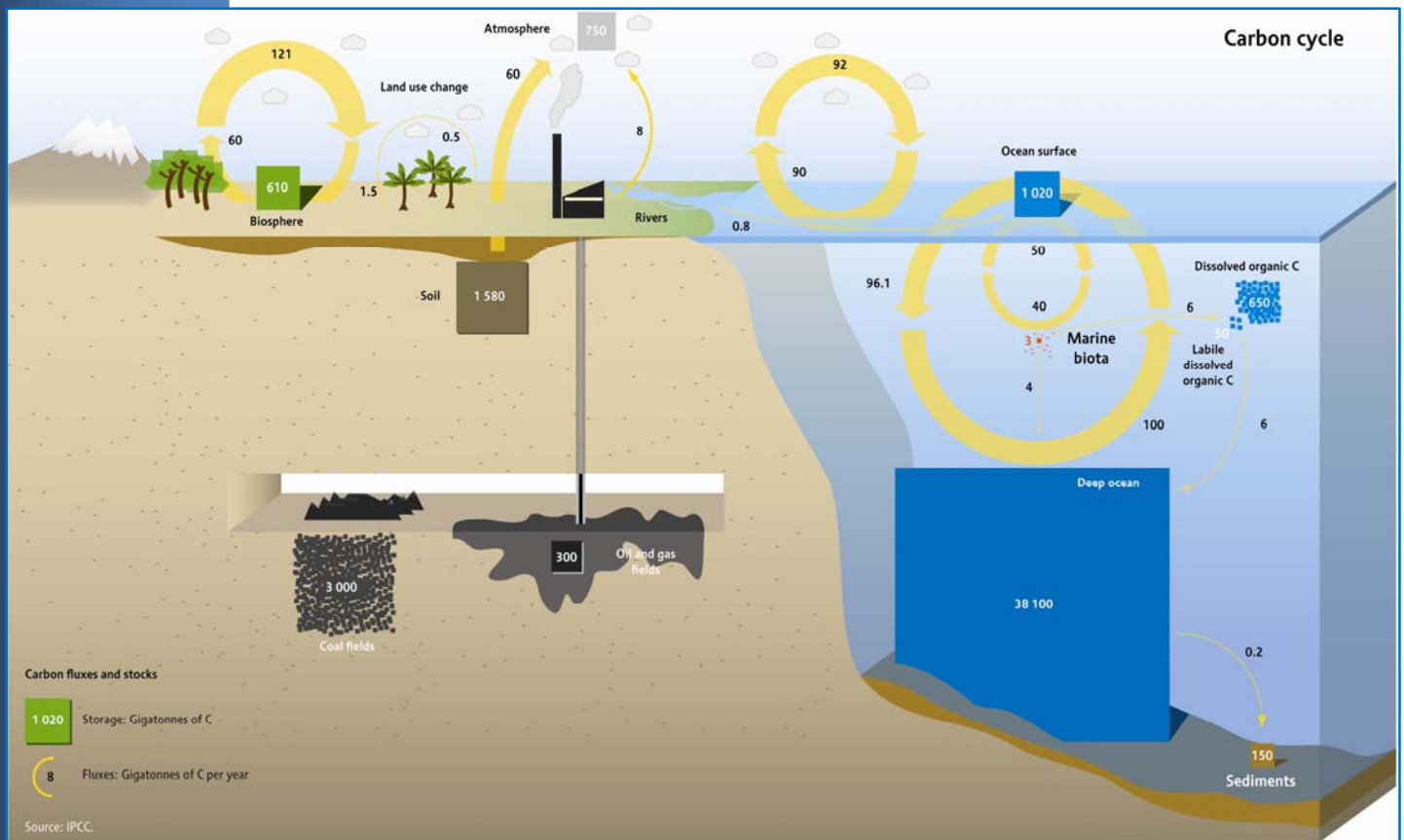
Dr. Carlos Duarte
(Mediterranean Institute of Advanced Studies in Spain)



dumping 25 million tons of carbon into the ocean. As a consequence, the ocean is turning more acidic, posing a huge threat to organisms with calcareous structures.”

Maintaining and Recovering Marine Ecosystems: The Wider Benefits

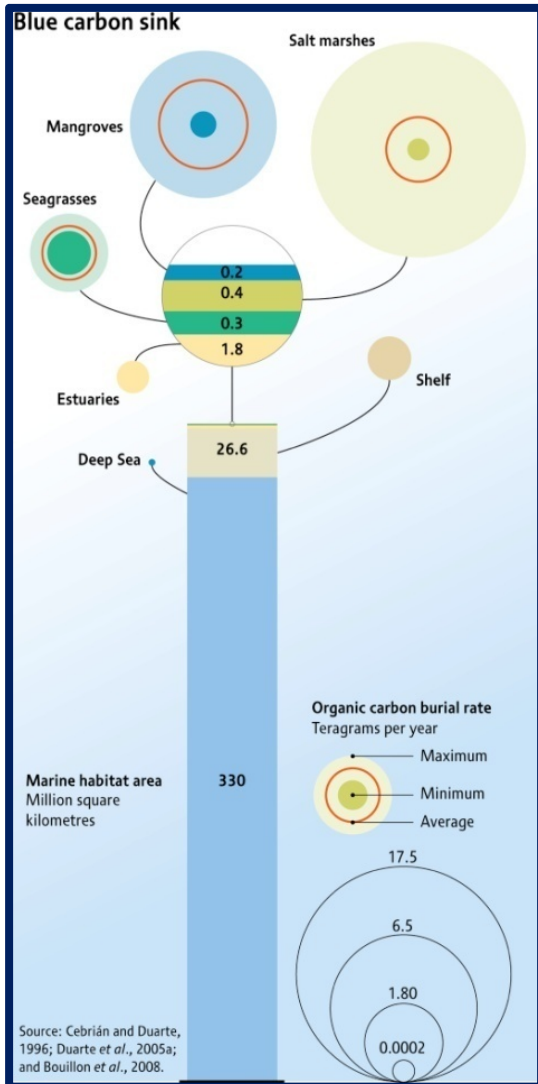
Coastal waters account for just 7% of the total area of the ocean. However, the productivity of ecosystems such as coral reefs, and these **blue carbon** sinks mean that this small area forms the basis of the world's primary fishing grounds, supplying an estimated 50% of the world's fisheries. Marine ecosystems provide vital nutrition for close to three billion people, as well as 50% of animal protein and minerals to 400 million people of the least developed countries in the world.



The coastal zones, of which these **blue carbon** sinks are central for productivity, deliver a wide range of benefits to human society. Benefits include: filtering water, reducing effects of coastal pollution, nutrient loading, sedimentation, protecting the coast from erosion, and buffering the effects of extreme weather events. Coastal ecosystem services have been estimated to be worth over \$25,000 billion annually, ranking among the most economically valuable of all ecosystems.

Much of the degradation of these ecosystems not only comes from unsustainable natural resource use practices, but also from poor watershed management, poor coastal development practices, and poor waste management. The protection and restoration of coastal zones, through coordinated integrated management would also have significant and multiple benefits for health, labor productivity, and food security of coastal communities.

Blue Carbon Report Continued



Key Findings from the Rapid Assessment Report:

Of all the biological carbon, or **green carbon** captured in the world, over half (55%) is captured by marine-living organisms - not on land - hence the new term **blue carbon**.

The ocean's vegetative habitats, in particular, mangroves, salt marshes, and seagrasses, cover less than 1% of the seabed. These form the planet's **blue carbon** sinks and account for over half of all carbon storage in ocean sediment and perhaps as much as over 70%.

Blue carbon sinks and estuaries capture and store the equivalent of up to near half of the emissions from the entire global transport sector.

Preventing the further loss and degradation of these ecosystems and catalyzing their recovery can contribute to offsetting 3-7% of current fossil fuel emissions (totaling around 27,000 million tons) of CO₂ in two decades - over half of that projected for reducing rainforest deforestation.

The effect would be equivalent to at least 10% of the reductions needed to keep concentrations of CO₂ in the atmosphere below 450 ppm needed to keep global warming below 2°C.

Combined with action under REDD, halting the degradation and restoring lost marine ecosystems might deliver up to 25% of emission reductions needed to keep global warming below 2°C.

Unlike carbon capture and storage on land, where the carbon may be locked away for decades or centuries, that stored in the oceans remains for

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UNEP/GRID-Arendal Maps and Graphics Library. Available: <http://maps.grida.no/> (18 November 2009). The report "Blue Carbon - The Role of Healthy Oceans in Binding Carbon" can be accessed at www.unep.org.



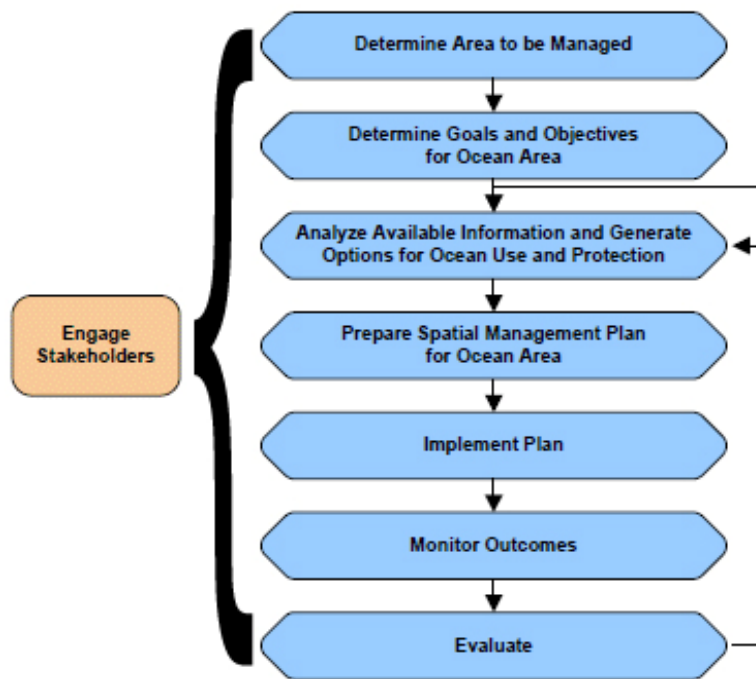
Spotlight on Marine Spatial Planning

What is it and why should we do it?

Recently, the concept of marine spatial planning (MSP) has become a hot topic in coastal regions. According to UNESCO, marine spatial planning is not an end in itself, but a practical way to create and establish a more rational use of marine space and the interactions between its uses, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives in an open and planned way.

On June 12, 2009, President Barak Obama issued a memorandum to the heads of executive departments and agencies establishing an Interagency Ocean Policy Task Force, led by the White House Council on Environmental Quality. The Task Force is charged with developing a recommendation for a national policy that ensures protection, maintenance, and restoration of oceans, our coasts, and the Great Lakes. It will also recommend a framework for improved stewardship, and effective coastal and marine spatial planning.

The following is a schematic of the general process that is followed during a marine spatial planning exercise:



What is Marine Spatial Planning?

According to UNESCO, marine spatial planning is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process. Characteristics of marine spatial planning include ecosystem-based, area-based, integrated, adaptive, strategic, and participatory.

Economic Benefits of MSP include:

- Provides greater access and certainty to private sector when it plans new investments
- Identifies areas of compatible uses for development
- Reduces conflicts among incompatible uses and between uses and nature
- Streamlines permitting
- Promotes efficient use of resources and space and reduces cumulative impact on marine environment

Environmental Benefits of MSP include:

- Identifies areas of biological or ecological importance and reduces risk of conflict with development
- Enables biodiversity objectives to be at heart of marine spatial planning and management
- Ensures space for biodiversity and nature conservation
- Provides context for network of marine protected areas

The different sectors involved in MSP include:

Marine Transportation	Sand and Gravel Mining
Economic Development	Military
Energy	Environmental Quality
Marine Protected Areas	Fisheries
Aquaculture	

Around the Coast

TNC's Northwest Atlantic Marine Ecoregional Assessment

In recognition of the vital connection between marine habitats and the health of the planet, the challenges the ocean faces and human dependence on ocean resources, The Nature Conservancy (TNC) has made conservation and restoration of ocean and coastal habitats one of its top priorities. Just as on land, TNC's science-based marine conservation efforts usually begin with an ecoregional assessment.

Marine Ecoregional Assessments

Marine ecoregional assessments synthesize geophysical, biological, and socio-economic information within an ecoregion (i.e., a large, relatively distinct area defined by its climate, topography, habitat types, and species groups). For the past decade, TNC has worked with diverse stakeholders and partners to complete marine ecoregional assessments in the United States and internationally. The assessments have been used in many ways, from guiding climate change mitigation strategies to informing offshore energy development plans, catalyzing partnerships with fishing communities, and testing new fishing gear designed to reduce habitat impacts and bycatch.

The Northwest Atlantic Marine Ecoregional Assessment

TNC's newest and most comprehensive marine assessment focuses on the Northwest Atlantic. The project area covers brackish coastal waters to submarine canyons at the edge of the continental shelf, from North Carolina to Canada. Building on the foundation of many previous efforts, 11 technical teams spent more than two years integrating over 1200 datasets concerning oceanography, seafloor habitats, invertebrates, fish, sea turtles, marine mammals, and birds. Each team had a few TNC staff and several outside experts who worked together to develop summary reports and maps revealing abundance trends and ecologically important locations for each habitat type and species.

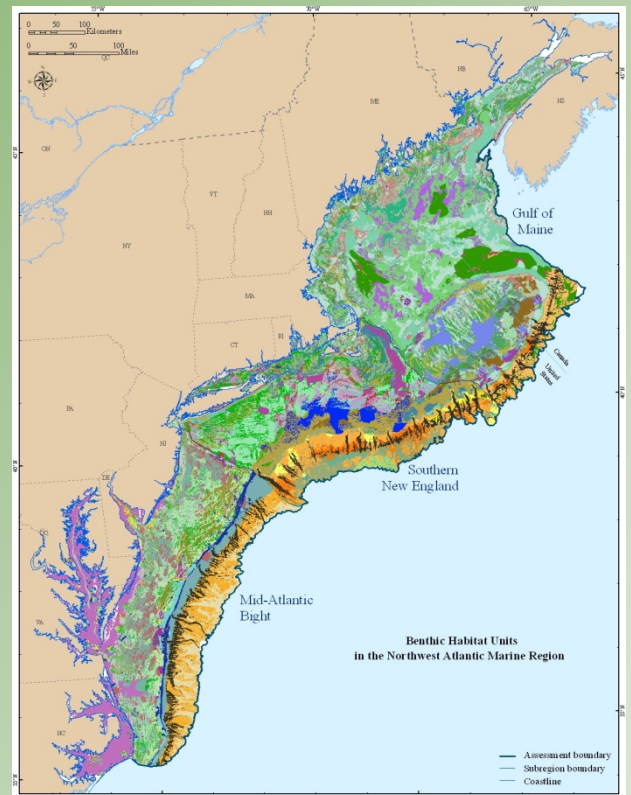
The assessment is being completed in two phases. The first phase provides a scientific baseline to serve as a resource for decision makers and resource stakeholders with wide ranging interests. The second phase further integrates the data to reveal some of the highest priority locations in consideration of multiple habitats and species. Many of the maps produced in both phases may be useful for marine spatial planning projects. Priority conservation areas are identified but the new maps are not a marine protected area blueprint— many different human activities may be found to be ecologically compatible with the identified areas.



Phase one assessment results will be available in January 2010 and will include:

- A geospatial database of integrated regional scale information on marine ecosystems, habitats, species, and human uses.
- A comprehensive, peer-reviewed report describing analysis methods with ecological information, data, and maps for each habitat and species group.
- A publicly accessible online web mapping and data download service.

For more information, please contact Sally Yozell or Jennifer Greene at (617) 542-1908.



Atlantic Coastal Fish Habitat Partnership (ACFHP) Accepted by NFHAP

The National Fish Habitat Board approved the applications of five candidate Fish Habitat Partnerships for full recognition at the Board's meeting of October 7, 2009, in Arlington, Virginia.

The newly approved Partnerships are: Atlantic Coastal Fish Habitat Partnership, Ohio River Basin Fish Habitat Partnership, Reservoir Fisheries Habitat Partnership, Great Lakes Basin Fish Habitat Partnership, and the Great Plains Fish Habitat Partnership.

Fourteen Fish Habitat Partnerships are now recognized by the Board and are actively implementing the National Fish Habitat Action Plan.

The Atlantic Coastal Fish Habitat Partnership was formed in 2007 through an effort initiated by the Atlantic States Marine Fisheries Commission.

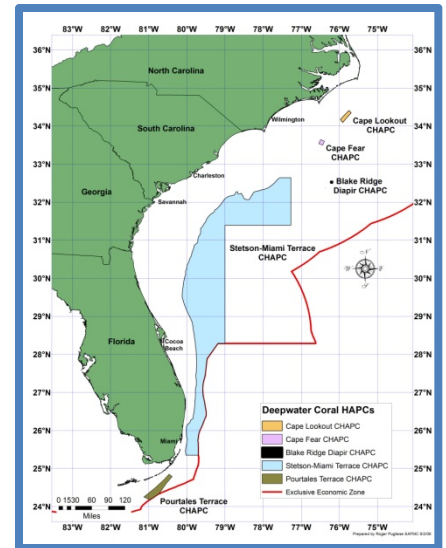
NOAA and Partners Announce South Atlantic Alliance

Representatives from NOAA, North Carolina, South Carolina, Georgia, and Florida, announced the formation of a partnership to better manage and protect ocean and coastal resources, ensure regional economic sustainability, and respond to disasters such as hurricanes. The *Governors' South Atlantic Alliance* will leverage resources to protect and maintain healthy coastal ecosystems, keep waterfronts working, enhance clean ocean and coastal waters and help make communities more resilient to natural disasters.

The Alliance will be a state-led partnership leveraging resources from the public and private sectors, business and industry communities, local governments, federal agencies, academic institutions, and NGOs to address region-wide priorities.

Source: NOAA

Council Approves Measures to Protect Largest Deepwater Coral Reef in the South Atlantic



Members of the South Atlantic Fishery Management Council voted unanimously to approve the Comprehensive Ecosystem-Based Amendment 1, a move that will bolster the layer of protection for over 23,000 square miles of complex deepwater corals. The amendment will protect specific areas of sensitive habitat, deemed Deepwater Coral Habitat Areas of Particular Concern (HAPCs) that house an invaluable array of deepwater coral species.

The South Atlantic region is home to what may be the largest contiguous distribution of deepwater corals in the world. The amendment aims to shield these areas from impacts associated with bottom-tending fishing practices. If approved for implementation by the Secretary of Commerce, regulations to establish the Coral Habitat Areas of Particular Concern would likely become effective in early 2010.

Source: SAFMC



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FUNDING



HABITAT PROGRAM MISSION

To work through the Commission, in cooperation with appropriate agencies and organizations, to enhance and cooperatively manage vital fish habitat for conservation, restoration, and protection, and to support the cooperative management of Commission managed species.

HABITAT PROGRAM VISION

Protected, revitalized habitat for all Atlantic coastal fish species or successful habitat restoration well in progress by 2015.

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