



NOAA

Habitat
Blueprint

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...an excellent opportunity to build on the extensive oyster restoration under way and further improve habitat.

...an ideal location to see how habitat...can be a part of increased coastal resilience.



Delmarva/Choptank River Complex Selected as NOAA Habitat Focus Area

The Delmarva/Choptank River Complex, which includes the Choptank and Little Choptank Rivers, is located on Maryland's Eastern Shore. The Choptank River, with headwaters in Delaware, is the longest river on the Delmarva Peninsula. This area is a treasured part of the Chesapeake Bay ecosystem, representing critical habitat for spawning striped bass and river herring, as well as historically abundant oyster reefs. Residents of the watershed—including many families who have lived there for multiple generations—have traditionally been employed in agriculture or commercial fishing.



IAN/Jane Thomas

But times are changing in this region. Continued human population growth and land development threaten key habitats for fish and aquatic resources. The historical loss of wetlands in the upper Choptank River subwatershed is estimated to be 47,400 acres—approximately 11% of the total watershed area. Climate change and sea level rise, combined with land subsidence, further threaten losses of nearshore marshes and coastal environments. While the rivers and Bay have supported major annual seafood harvests in previous years, fishery resources are at risk.

Focus Area Objectives at a Glance

- Restore degraded oyster reef habitat and significantly increase native oyster populations
- Rebuild and sustain important fish populations (including striped bass, shad, herring, American eel and other species)
- Document and quantify the benefits oyster reefs and associated habitats provide
- Improve the decisionmaking and resilience of coastal communities by improving the delivery of NOAA's habitat and climate science



Native oysters (*Crassostrea virginica*) in the Chesapeake Bay have declined dramatically over the past century due to overfishing, habitat loss (including poor water quality), and disease. Their populations are estimated to be less than one percent of historic levels. As filter feeders, oysters help clean the water; they grow in reefs that provide needed habitat for many Bay species.

Building on Work Already Under Way

By designating the Choptank Complex as a Habitat Focus Area, NOAA will concentrate agency resources and leverage the many activities already under way in this watershed to improve and sustain ecological health.

Several subestuaries in the Choptank River Complex were recently designated by Maryland as oyster sanctuaries, establishing the basis for oyster restoration on an unprecedented scale. NOAA is working with federal, state, and non-profit partners to restore oysters in Harris Creek; nearly 190 acres of oyster reef habitat had been reestablished as of spring 2014. In addition to continuing this work in Harris Creek and other Choptank tributaries, NOAA will:

- *Map and characterize tidal in-water and near shore habitats* to identify critical fish, shellfish, and protected resources habitat, conserve and manage habitat, and identify priority areas for restoration and conservation.
- *Explore removal of fish blockages* in the Choptank River at priority locations identified through the Chesapeake Fish Passage Prioritization tool.
- *Identify priority wetlands restoration sites* in the Choptank River through a collaborative effort with The Nature Conservancy and Ducks Unlimited.
- *Demonstrate the benefits of oyster reef ecosystem services* through applied research and living resource assessments, including benefits to coastal and ocean fish species that utilize the Chesapeake Bay during their life cycle.
- *Apply NOAA science to inform better management* and encourage complementary conservation actions across federal, state, and local government.
- *Engage coastal communities* to ensure their increased involvement in and ownership of the protection and restoration of coastal habitats.

Partners

NOAA partner offices include the National Marine Fisheries Service, National Ocean Service, National Weather Service, National Environmental Satellite Data and Information Service, and Office of Oceanic and Atmospheric Research. NOAA also will work with partners including (but not limited to):

- Maryland Department of Natural Resources
- Chesapeake Bay Foundation
- Chesapeake Bay Program
- Chesapeake Conservancy
- Maryland Sea Grant
- National Fish and Wildlife Foundation
- The Nature Conservancy
- Oyster Recovery Partnership
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- University of Maryland Center for Environmental Science



NOAA's work in the Delmarva/Choptank River Complex, including oyster restoration and research on how a variety of Bay species use restored oyster reefs, will contribute to a healthier and more sustainable river system.

For more information on the Choptank Complex Habitat Focus Area, contact Peyton Robertson, Director, NOAA Chesapeake Bay Office, at peyton.robertson@noaa.gov or 410-267-5652.