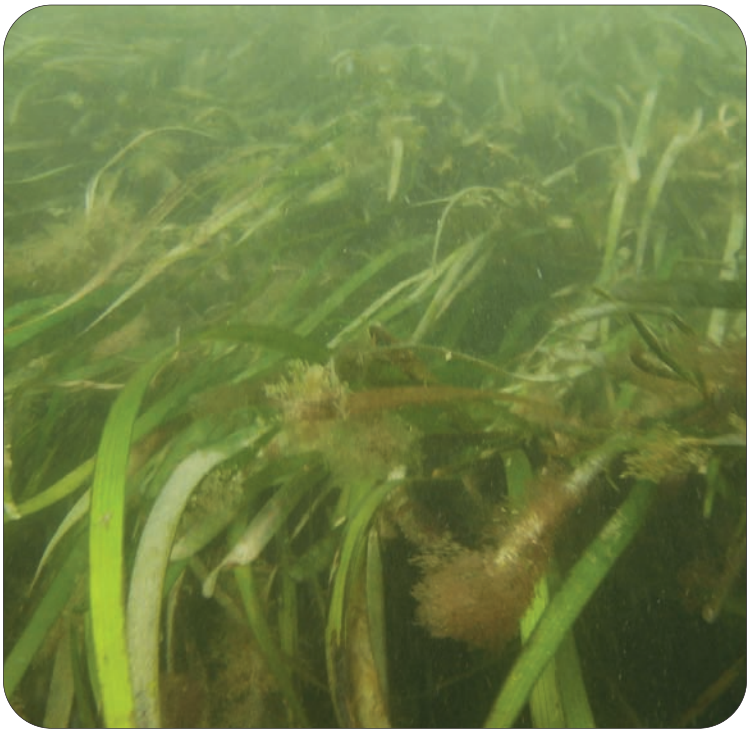
EELGRASS HABITAT RESTORATION IN THE ANNISQUAM RIVER

Can eelgrass habitat be successfully restored in the Annisquam River? That is the question being answered through a study by the Massachusetts Office of Coastal Zone Management (CZM), in partnership with the City of Gloucester, U.S. Environmental Protection Agency, and the Massachusetts Division of Marine Fisheries.

EELGRASS - AN IMPORTANT COASTAL HABITAT

Eelgrass, *Zostera marina*, is a flowering marine plant that forms one of the most—if not the most—valuable shallow-water coastal habitats in Massachusetts. Eelgrass, either as isolated clumps or continuous beds, forms a complex underwater landscape that stabilizes the seafloor and adjacent shorelines, filters the water of sediments and nutrients, and provides valuable habitat to a diversity of life. Eelgrass is home to both economically important species, such as American lobster and winter flounder, and relatively unknown creatures—chink snails, skeleton shrimp, and lumpfish, to name a few.



An underwater view of eelgrass habitat—an essential part of the coastal ecosystem.

WHY EELGRASS RESTORATION?

Eelgrass habitat is at risk, with significant losses in eelgrass abundance throughout Massachusetts. While conservation and protection of existing eelgrass beds are the best strategies for addressing this problem, restoring areas that supported eelgrass habitat in the past is a valuable management measure.

Eelgrass was historically found throughout the Annisquam River—but now this valuable habitat is largely absent. This study will improve our understanding of probable causes of eelgrass disappearance and identify ways to stimulate eelgrass recovery in the river.

THE STUDY APPROACH

Appropriate site selection is critical for eelgrass restoration. This study uses a systematic approach to identify potential restoration areas in the Annisquam River. This approach includes modeling environmental requirements of eelgrass, studying water quality, and planting test plots of eelgrass. These test plots are observed through time to determine which sites are appropriate for large-scale transplanting and/or seeding.

LOCATIONS IN THE ANNISQUAM RIVER

Through three years of research and consultation with the City of Gloucester, CZM identified five areas for test plots: Lobster Cove, Goose Cove, outside of Goose Cove, Mill River, and the mouth of the Little River. These areas are marked by orange floats and fiberglass rods with flags.

Map: Eelgrass was historically found throughout the Annisquam River. Test transplants will determine the feasibility of restoring eelgrass.

Raise awareness and help conserve and restore eelgrass habitat.

HOW TO HELP

Eelgrass habitat restoration is a long-term effort. To help us ensure the success of the Annisquam River study, please:

- Do not disturb test plots and restoration areas.
- Contact CZM with any observations and/or concerns.
- Help spread the word about the study and the importance of eelgrass habitat.

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