



## GREAT SALT POND STUDY – Part 1 of 6: Overall description of the work and testing methods

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### A LITTLE BIT ABOUT TNC

Founded in 1951, The Nature Conservancy (TNC) is a global conservation organization dedicated to conserving the lands and waters on which all life depends. TNC has been working on Block Island since 1972, and officially launched the Block Island Program in 1991. Since then, we've developed a multi-faceted program of land conservation and restoration, scientific research, nature education, public outreach, and community science.



Block Island

### TNC ON THE GREAT SALT POND

Spring 2024 will mark over ten years of scientific monitoring in the Great Salt Pond. The goal of this long-term study is to become more knowledgeable of the pond's ecological function as essential fish habitat and offshore refuge for many species. To support this goal, TNC standardized a suite of research projects to learn as much as we can about key biological and physical factors happening in the Great Salt Pond. Collectively, these projects, their respective datasets, and our experiences out on the pond informs our work and conservation efforts in helping to keep the Great Salt Pond a sustainable resource.

### GREAT SALT POND STUDY

To date, TNC is committed to the following surveys: beach seine survey, fish pot survey, bay scallop survey, habitat characterization survey, salt marsh monitoring, and water quality monitoring. Each project has a discrete set of goals, objectives, and protocols, and are scheduled accordingly throughout the field season. The different types of data collected during each survey were designed to complement each other so that we can gain a fuller understanding of what is happening in Great Salt Pond over time.

The beach seine, fish pot, and bay scallop surveys target species of commercial and recreational importance at varying life stages. We gain insight on how resident and migratory species utilize this offshore estuary at different times of the year. Fish sampling has been performed annually on the island since 2014 when we entered into a cooperative agreement with the Rhode Island Department of Environmental Management, Division of Marine Fisheries. Our combined datasets contribute to state and regional stock assessments used for fisheries management.

The habitat survey and salt marsh monitoring characterize physical features and habitat types that define the places we sample at for the fisheries assessments, helping us to better understand species presence or absence in the system. Water sampling is another crucial part of our overall study because physical and chemical conditions are key indicators of health in an ecosystem. Taking these point-in-time measurements — water temperature, salinity, and dissolved oxygen — help us understand how these physical conditions influence and dictate metabolic rate of the species occupying the Great Salt Pond.

What do we gain from all this effort from May to November? We gain a tremendous amount of data on species diversity, how size structures vary according to species and habitat types, as well as seasonal dynamics and patterns.

### COMMUNITY-BASED CONSERVATION

All of our work is made possible because of our strong partnerships, donors, seasonal staff, and volunteers. In tandem with our local staff's extensive knowledge of Block Island's ecology and our proven-use of science-based strategies, our work is enhanced by this collective approach to community-based conservation.

To learn more about TNC on Block Island, please visit [natureblockisland.org](https://natureblockisland.org) or call 401.466.2129.



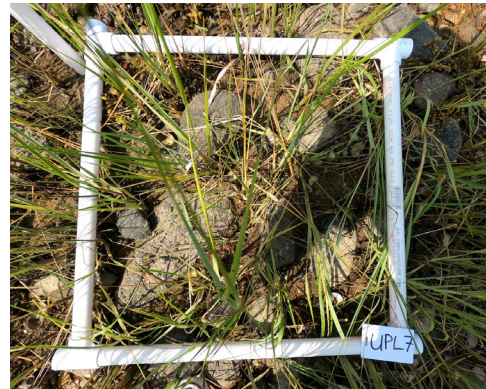
Nature program participants helping deploy the 130-ft long seine net used for the beach seine survey. We often use this net for public outreach events to allow people of all ages and abilities the chance to experience science and nature in a hands-on way.



Young scientists helping with data collection in the field.



Grey triggerfish caught in one of our fish traps used in the fish pot survey.



Habitat characterization survey plot.



Veg plot monitoring in the one-mile stretch of salt marsh, Andy's Way to Beane Point.



Bay scallop survey happens each year before the harvesting season in the fall. Sampling techniques include diving and snorkeling!

**OUR MISSION:** To protect and enhance the environmental quality of the Great Salt Pond, including its shorelines and wetlands, and to promote appropriate and productive uses of the Pond's resources by residents, visitors and local businesses.

**FUNDING:** Individual contributions, membership dues, special events, program grants. IRS 501(c)3 non-profit. Contributions are tax-deductible to the extent allowed by law.

Please consider becoming a member of The Committee for the Great Salt Pond. For information and details, visit our website at [cgspblockisland.org](http://cgspblockisland.org).