



CHAPTER 2.

The Narragansett Bay National Estuarine Research Reserve

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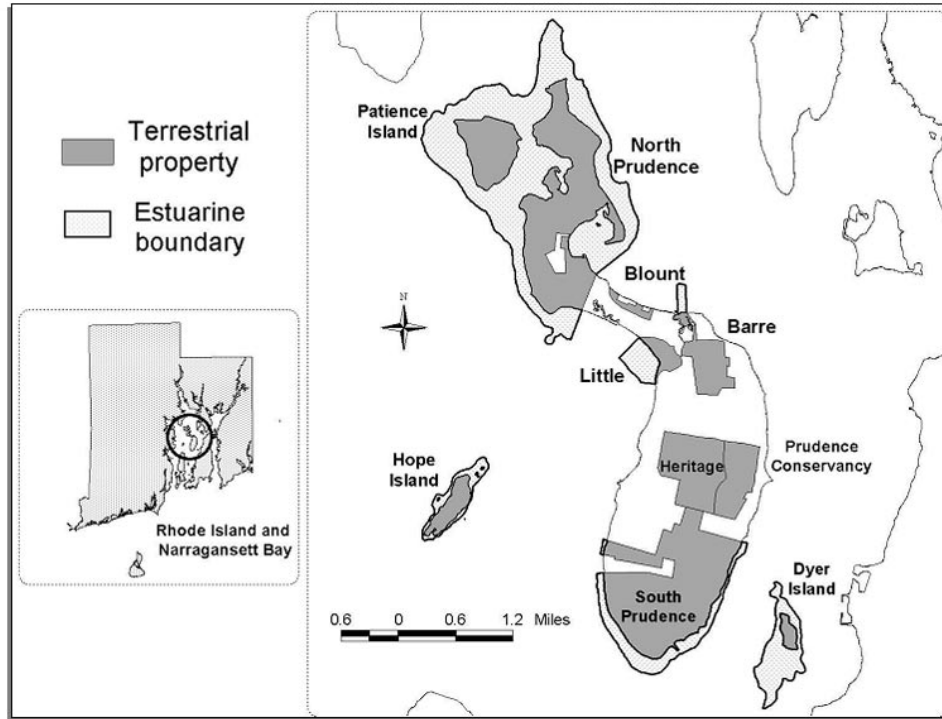


Figure 2.2. Estuarine boundary and terrestrial units of the NBNERR. GIS data sources courtesy of the Rhode Island Geographic Information System (RIGIS; www.edc.uri.edu/rigis/).



Figure 2.3. Aerial view of the T-wharf area on the South Prudence Unit of the NBNERR. Photo from NBNERR photo library.

Previous page—Figure 2.1. Entrance sign to the NBNERR at the T-wharf in the South Prudence Unit. Photo from NBNERR photo library.

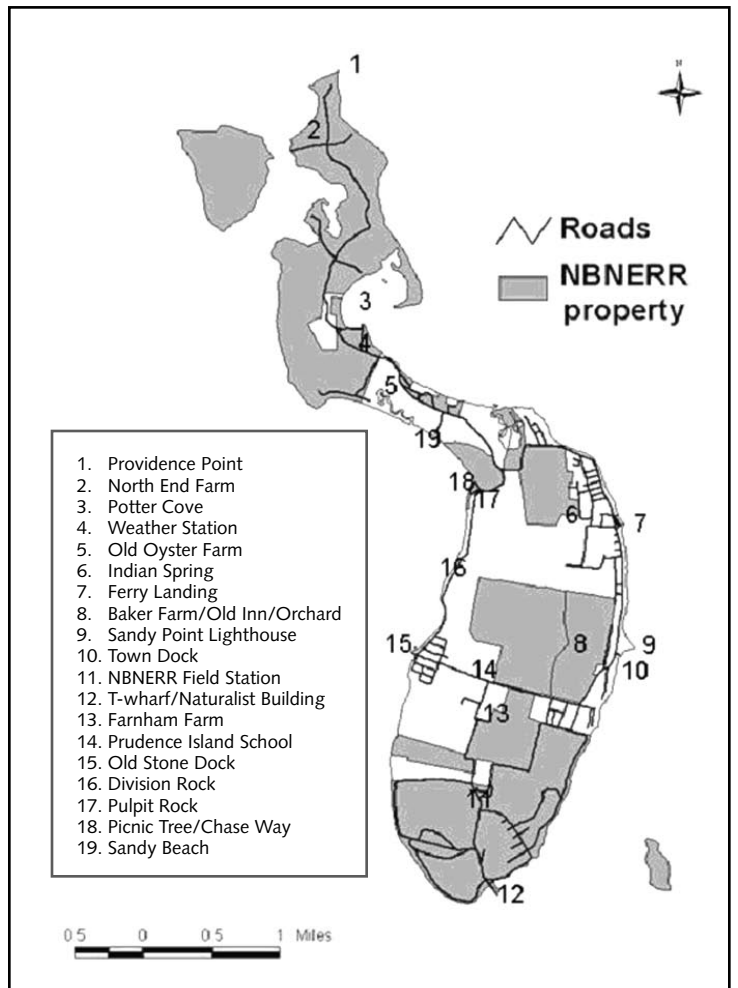


Figure 2.5. NBNERR facilities and other local points of interest on Prudence Island.

The Narragansett Bay National Estuarine Research Reserve

The Narragansett Bay National Estuarine Research Reserve (NBNERR or Reserve) is composed of 10 property units on four islands that are located roughly in the center of Narragansett Bay, R.I. (Figs. 2.1, 2.2). Seven units are located on Prudence Island, including the South Prudence (Fig. 2.3) and North Prudence units, which are the two largest units in the Reserve. The full extent of the three other smaller islands, Patience Island, Hope Island, and Dyer Island, comprise the remaining three units (with the exception of one private inholding remaining on Patience Island) (Table 2.1). The NBNERR also bounds all estuarine waters surrounding coastal units out to a depth of 5.4 meters (18 feet), except for waters adjacent to the Blount Unit on central Prudence Island (Fig. 2.2). As of 2006, the NBNERR contained 2,586 acres of land and 1,809 acres of surrounding estuarine water, for a total of 4,395 jurisdictional acres.

The NBNERR was incorporated in 1980, becoming the seventh unit in the NERR System. At the time, the NBNERR was called the Narragansett Bay National Estuarine Sanctuary and was composed of only the North Prudence, Patience Island, and Hope Island units. Other units were incorporated into the Reserve as they were acquired in later years (Table 2.1). The most recent acquisition was Dyer Island, which was purchased in 2002 and remains in the process of being incorporated into the Reserve. The R.I. Department of Environmental Management (RIDEM) owns most of the units, except for the Prudence Conservancy Unit, which is owned by the Prudence Conservancy (a local land trust).

All areas in the NBNERR are designated as either ‘core’ or ‘buffer’ areas; and permitted uses in a given area are dependent on this designation. The NBNERR defines core areas as those “that are essential and representative of natural habitats in the biogeographic region in which the reserve is located. Recreation, habitat manipulation, and other disruptive uses are restricted in core areas”; likewise buffer areas are defined as “those areas that are set aside to further protect core areas. Low-impact recreation, habitat manipulation, and research are permitted in buffer areas” (Beck and Beck, 1998). Current core and buffer designations for Reserve areas can be found on the Reserve’s website at: www.nbnerr.org.

As the Reserve’s state partner, RIDEM provides support that is essential to the proper functioning of the NBNERR, including enforcement, administration, and maintenance of grounds, facilities, and vehicles. Additional assistance comes from other partners, including the town of Portsmouth, R.I., in which the Reserve lies, the Prudence Conservancy (Fig. 2.4), the Audubon Society of Rhode Island (ASRI), and the University of Rhode Island (URI). The latter two agencies have cooperative agreements with the NBNERR, and ASRI assists with staffing, equipment, transportation, and other necessary infrastructure.

As with all NERRs, the NBNERR is staffed by three core positions: a reserve manager, research coordinator, and education coordinator. Additional staff includes a coastal training program coordinator, a natural resources/research specialist, a natural



Table 2.1. Selected characteristics of units in the NBNERR. Year acquired reflects when the property was obtained, not necessarily the year it was incorporated into the Reserve.¹ Additional, smaller parcels were acquired in later years and merged with the North and South Prudence units.

Unit Name	Year Acquired	Acres (land only)	Owner
Blount	1974	23	State
Hope Island	1975	78	State
North Prudence	1978 ¹	749	State
South Prudence	1980 ¹	820	State
Patience Island	1980	214	State
Barre	1988	153	State
Little	1991	56	State
Heritage	1992	291	State
Prudence Conservancy	1992	167	Prudence Conservancy
Dyer Island	2002	36	State

Figure 2.4. Entrance sign to the Prudence Conservancy Unit of the NBNERR. The Prudence Conservancy owns the land in this unit and functions as one of the Reserve’s primary partners. *Photo from NBNERR photo library.*



resources/geographic information systems (GIS) specialist, and a marine research specialist. All staff members are dedicated to carrying out the three main NERR functions of research and monitoring, education, and stewardship. The NBNERR research and monitoring program emphasizes research conducted both by Reserve staff and by visiting scientists and students and includes studies conducted in coastal upland and estuarine habitats. The Reserve education program currently focuses on reaching out to the local Prudence Island community and the broader community throughout Rhode Island to educate them on estuarine and other Reserve issues. It is also focusing on providing coastal decision makers with the scientific tools that are necessary for them to make informed management decisions. The goal of the NBNERR stewardship program is to use information gathered through sound research and monitoring practices in order to properly steward and manage the resources in the Reserve in accordance with federal and state guidelines and sound science. To carry out these functions, the NBNERR emphasizes integration and cooperation among staff members and collaborations with other organizations and partners.

To support its main functions, the NBNERR provides its staff and professional visitors with various facilities that include laboratory space and supplies, a library and conference room, a multi-parameter meteorological station, limited docking facilities, free overnight housing, and a visitor's center (Figs. 2.5, 2.6). The Reserve's education center is located within the Reserve's headquarters, as are the staff offices. A small educational kiosk also operates at the T-wharf in the South Prudence Unit during the summer season. Patience, Hope, and Dyer islands are undeveloped and do not have any support facilities.



Figure 2.6. The overnight cottage can be used by visiting scientists and anyone else who is working for or at the Reserve. *Photo from NBNERR photo library.*

The Reserve's setting is predominantly natural or rural, in contrast to much of coastal mainland Rhode Island, which is generally heavily developed. Patience, Hope, and Dyer islands are completely uninhabited. Prudence remains mostly undeveloped, but supports small clusters of residential housing and other limited development. The year-round human population on Prudence Island is approximately 150 people, although this peaks to nearly 2,000 people at times during the summer. Prudence Island lacks many amenities, although one small year-round and one summer general store are available, as is an island post office. Transportation to the NBNERR is by private boat or by the Prudence Island auto and passenger ferry (Fig. 2.7), which makes multiple daily round-trips between Bristol, R.I., and Homestead on Prudence Island. All visitors to the Reserve are encouraged to provide their own ground transportation while on Prudence Island. For more information about any aspect of the Reserve, visit the NBNERR website at www.nbnerr.org.

Literature Cited

- Beck, A. and M. Beck. 1998. Narragansett Bay National Estuarine Research Reserve Revised Management Plan 1998. Prepared by RIDEM Narragansett Bay National Estuarine Research Reserve Program and NOAA Sanctuary and Reserves Division. Rhode Island Sea Grant, Narragansett, R.I. 145pp.



Figure 2.7. The Prudence Island Ferry transports people and vehicles between Prudence Island and Bristol, R.I. *Photo from NBNERR photo library.*