

Rhode Island

*National Wildlife
Refuge Complex*

Kettle Pond Visitor Center
Rhode Island
National Wildlife Refuge Complex
50 Bend Road
Charlestown, RI 02813
401/364 9124
401/364 0170 FAX

Federal Relay Service
for the deaf and hard-of-hearing
1 800/877 8339

U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>

June 2006



For information on nature walks and lectures go to www.friendsnwr-ri.org.

Directions to Kettle Pond Visitor Center and Rhode Island National Wildlife Refuge Complex Office, Charlestown:
From U.S. Route 1 in Charlestown, RI heading south, past Ninigret NWR entrance, travel .5 mile and take right onto Bend Road. Heading North, past the sign for Burlingame camping area, look on left side for Bend Road. Make u-turn onto Route 1 South, travel .5 mile, take right onto Bend Road.



*“Come forth
into the light
of things;
Let nature
be your
Teacher.”*

—William Wordsworth



Discover Rhode Island's Refuges



This goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

Waterfowl drift in the sea mist by the rocky shoreline. The harmonic calls of songbirds echo from a field of native grasses. Pond water ripples as a snapping turtle surfaces near a red maple swamp. Dotted along the state's Atlantic coastline, Rhode Island's five refuges offer a wide variety of natural settings that appeal to both the people who visit and the wildlife that live there.

All National Wildlife Refuges were established for the conservation of wild things, and Rhode Island's five refuges were established specifically for migratory birds. Over 400 species of songbirds, shorebirds, waterfowl, and raptors use the refuges to rest and feed during spring and fall migrations. Year-round resident birds, as well as seasonal visitors such as the federally-threatened piping plover, nest in the shelter of the refuges.

Birds are not the only attraction of Rhode Island's refuges. Uplands, lowlands, and coastal environments provide a home for many species of animals and offer any outdoor enthusiast a richness of plant life to explore. These protected lands are critical as increasing development encroaches on local, natural spaces.

Although wildlife protection is a principle focus, the refuges also exist to provide visitors with a place to learn about nature firsthand. Come explore visitor center exhibits. Speak with dedicated staff and volunteers. Walk the quiet trails, and experience the diversity that is the heart of Rhode Island's refuges.

(right)
Trustom Pond
© Sari Ecklund

Explore Rhode Island's Only Undeveloped Coastal Salt Pond ...

Trustom Pond, a 160-acre coastal salt pond, is the centerpiece of Trustom Pond National Wildlife Refuge. It is the only pond near Rhode Island's coast that does not have a developed shoreline. The entire refuge is 787 acres and is the second largest of the five refuges. Its gently rolling terrain slopes gradually to the Atlantic Ocean, and the types of habitats found there include beaches, red maple swamp, grass fields, forests, and tall shrublands.

Wintering Waterfowl and Other Wildlife

The diversity of vegetation on the refuge and the lack of development around the pond provide an undisturbed home for almost 300 species of birds. Trustom Pond National Wildlife Refuge is well-known in southern New England as a premiere spot to view waterfowl that migrate in the spring and fall, as well as those that remain for the winter. Hooded and red-breasted mergansers, common goldeneye, and ruddy ducks are just a sample of the 31 species of waterfowl that visit the pond. The refuge is also a popular place to find shorebirds and grassland birds, and it is a haven for many amphibian species.

Navigating the Trails

Two main trails lead visitors through the varied landscape and provide ample opportunities for encountering





*Trustum Pond
NWR Contact
Station*

the refuge's wildlife. Both trails begin at the refuge parking lot near the visitor contact station. A stop at the contact station offers visitors a chance to gain valuable information, such as recently-sighted species and upcoming activities, from dedicated volunteers. The trail system is approximately 3 miles and leads to Otter and Osprey Points at opposite ends of Trustum Pond. Both points have viewing platforms that offer a superb opportunity for wildlife observation and photography.

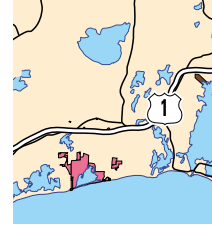
River otter



Did You Know?

The refuge was established by the generous gift of Ann Kenyon Morse. In 1974, she donated 365 acres, including Trustum Pond.

Need Directions?



From U.S. Route 1 North, take the Trustum Pond National Wildlife Refuge exit (right) to Moonstone Beach Road. Follow 1 mile South to Matunuck Schoolhouse Road and turn right. Follow 0.7 mile to the refuge entrance on the left. From U.S. Route 1 South, make a u-turn across the median and proceed North to the Moonstone Beach Road exit.

Harlequin ducks



Encounter the Harlequins ...

Sachuest Point National Wildlife Refuge is the place to see colorful harlequin ducks, which are named after the clowns that some people say they resemble. In fact, the refuge is home to the second largest wintering population of harlequins on the Atlantic coast. These can be seen along the refuge's rocky shoreline between November and March



Snowy owl

each year. By scanning the coastline, visitors also can spot loons, eiders, and gannets. More than 200 bird species visit the refuge seasonally, and other occasional migrating travelers include the peregrine falcon, northern harrier, as well as snowy and short-eared owls.

From Military Defense to Wildlife Protection

During World War II, the area that is now Sachuest Point National Wildlife Refuge was used by the U.S. military, first as a rifle range and later as a communications center. By 1970, the process of establishing a refuge had begun with a 72-acre donation of marshlands by the Audubon Society of Rhode Island. However, it was not until 1984 that a final exchange of land between the Town of Middletown and the refuge occurred, establishing the current 242-acre refuge.

From Shrub to Shore

Walking the nearly 3 miles of trails around Sachuest Point offers visitors the opportunity to experience several habitats, or environments where animals and plants are usually found. The refuge includes 40 acres

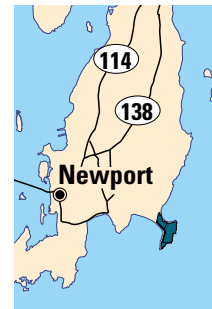
of salt marshlands and steep rocky shorelines around the perimeter. Most visitors enjoy year-round bird-watching, and elevated observation platforms along the trails provide unobstructed views of the refuge.

A stop at the newly-renovated visitor center is an ideal way to begin or end a trail walk. Volunteers, staff, and creative exhibits are available to visitors and provide another perspective of Sachuest Point National Wildlife Refuge.

Did You Know?

Sachuest Point was once an island separated from the mainland by a salt marsh.

Need Directions?



From U.S. Route 1, take Route 138 exit East across Newport Bridge to Miantonomi Avenue. Travel East 0.6 mile to Green End Avenue. Without turning, follow that road 1.2 miles East to Paradise Avenue. Turn right onto Paradise Avenue (sign on right). Continue straight until the road forks and then bear left. At the stop sign take a left on Sachuest Point Road. Sachuest Point NWR is at the end of the road.

Rocky coastline





Five acres planted 1998

Locate the Restored Runways ...

Ninigret National Wildlife Refuge has a past that has not yet been completely disguised. As visitors often realize from the remnants of asphalt runways, the area that is now a refuge was once an airfield. It was called the Charlestown Naval Auxiliary Landing Field, and it was established during World War II to allow pilots-in-training to simulate aircraft carrier landings. The process of restoring the former airfield began in 1970 when 28 acres were transferred from the U.S. Navy to the U.S. Fish & Wildlife Service. Since that time, the refuge has expanded to 872 acres, and the process of converting the old airfield into wildlife habitat is ongoing.

Learning the Layout

Hidden beneath the asphalt, biologists have found evidence of wetland sites, which are transition zones between dry lands and waterways. Wetlands are commonly referred to as swamps, bogs, or

marshes. Returning these wetlands to their pre-runway state is part of an extensive restoration process, and when it is complete, both visitors and wildlife will enjoy a mosaic of shrubland and wetlands. The refuge currently is dominated by coastal forests, and it has a 3-mile shoreline that borders Ninigret Pond, the largest salt pond in southern Rhode Island.

Touring the Terrain

Over four miles of walking trails lead visitors around the refuge, and portions of most of those trails provide a view of Ninigret Pond. More than 250 bird species visit seasonally, and 70 species nest on the property, making bird-watching and wildlife photography popular refuge activities.

Trails Through Time is a recent addition to the refuge that allows visitors to learn about the history of the area. While hiking along these trails, panels highlight glacial history, past agricultural practices, early Indian society, uses of Ninigret Pond, and the change from airfield to refuge.

Did You Know?

The refuge and the pond it borders are named for Chief Ninigret, the leader of southern Rhode Island's Niantic nation in the 17th century.

Need Directions?



There are two access points to the refuge. For the West entrance, take U.S. Route 1 North or South and exit at the Ninigret National Wildlife Refuge sign. For the East entrance, take U.S. Route 1 North and follow signs to Ninigret Park. Upon entering Ninigret Park, follow signs for refuge parking.



Northlight Block Island

Seek An Out-Of-The-Way Adventure ...

Block Island National Wildlife Refuge is unique in several ways. Unlike Rhode Island's other four refuges, it is not located on the mainland but rather 12 miles off the state's southern shore on Block Island. Totalling 129 acres, the refuge is distinctive because it works closely with other conservation organizations in an effort to protect land. Most importantly, the refuge is exceptional because of its location on an internationally recognized island.

A Last Great Place

Block Island has achieved international conservation significance for at least two important reasons. Foremost, the island is a critical migratory bird stopover point

Yellow warbler



© Paul Fusco

Finding the Way

on the Atlantic Coast. Hundreds of small ponds and fruit-bearing shrubs provide essential water and food for more than 250 species of birds who come to rest there. Secondly, Block Island's international fame is that it is home to 15 rare or endangered species. For these reasons Block Island was named a "Last Great Place" by The Nature Conservancy.

As with all National Wildlife Refuges, the refuge on Block Island maintains wildlife conservation as its first priority. However, refuge beaches are open for walking, bird-watching, and on the northern parcel, visitors can enjoy surf fishing.

Further visitor opportunities are being developed, and the Refuge Manager can provide more information on the status of the public use plan. Visitors seeking an out-of-the-way adventure will be delighted by the impressive landscape, the diversity of wildlife, and the knowledge that they are experiencing an exceptional environment when they visit Block Island National Wildlife Refuge.

American burying beetle

Chris Raithel, RI DEM

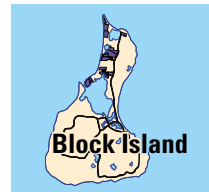


Did You Know?

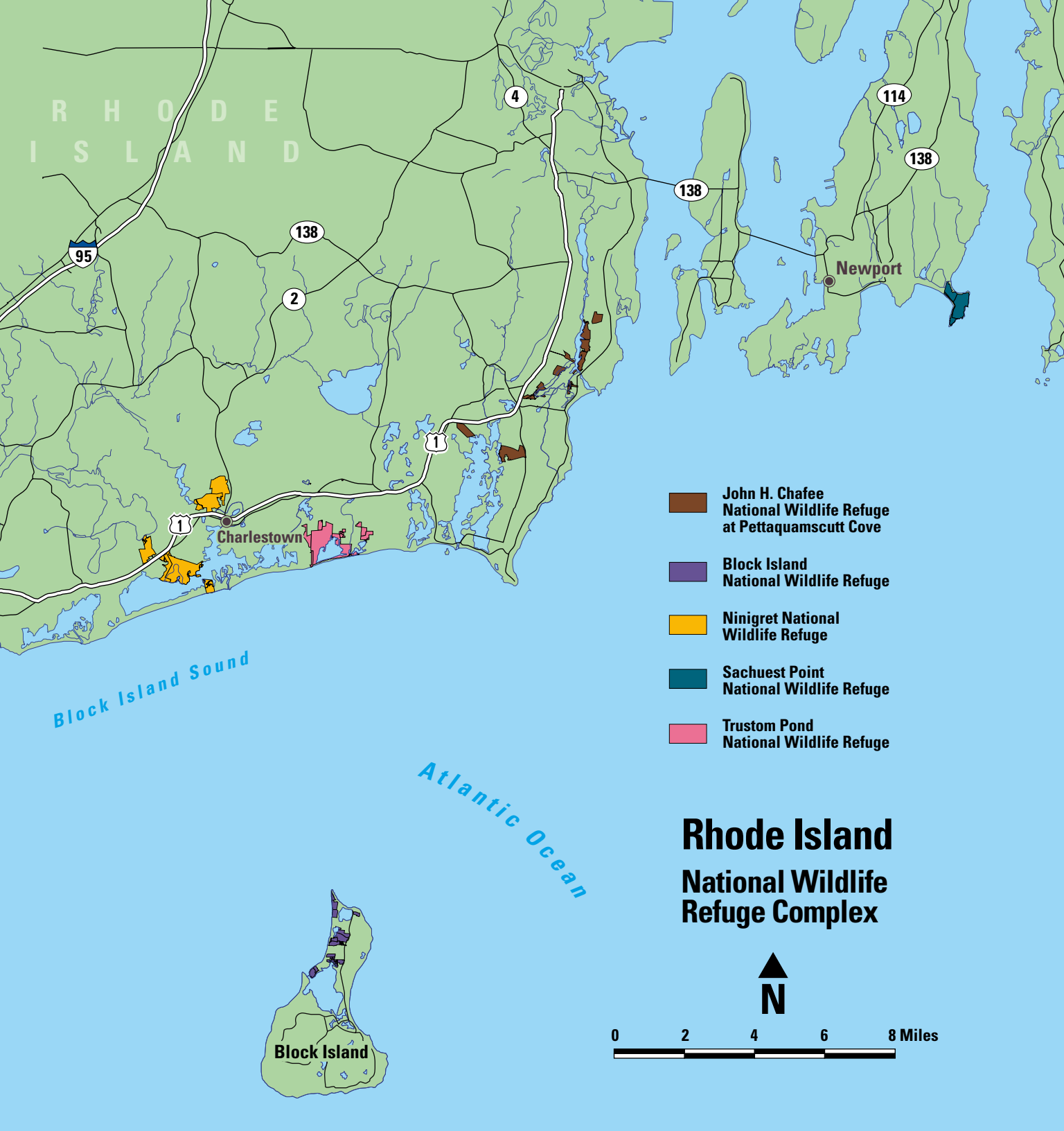
The rarest species found on Block Island is the American burying beetle. It was federally listed as endangered in 1989.

Block Island is one of only two places in the world where barn owls nest in sea cliffs rather than in man-made structures or inland cliffs.

Need Directions?



Passenger ferries run from Newport, RI and Montauk, Long Island, NY during the summer months. Automobile ferry service runs from Point Judith, RI all year. The refuge is about 4 miles from the ferry landing. Taxis and bicycle or moped rentals are all available on the island.



Uncover the Elusive ...

John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove can be elusive to many human visitors. However, it is well-known to the migratory waterfowl that rely on it, including the largest population of black ducks in Rhode Island. In fact, the 368-acre refuge was established specifically to protect the population of black ducks that winter there. The refuge's tidal salt marshes and forests attract many types of birds, and it is one of the few places in



American black ducks

© Paul Fusco

Rhode Island that is home to the salt marsh sharp-tailed sparrow.

Many visitors are able to view the periphery of the refuge as they canoe the Narrow River. Although there is no refuge trail system, visitors can gain a vantage point of the refuge from the Middle Bridge pull-out and Sprague Bridge on Route 1A. Designated fishing access points also provide visitors an opportunity for shoreline fishing. Visitors can find parking across the street on town property.

Did You Know?

Chafee National Wildlife Refuge used to be known as Pettaquamscutt Cove National Wildlife Refuge. It was renamed in 1999 and dedicated to the memory of U.S. Senator John H. Chafee, who proposed the legislation that created the refuge.



Locating the Hidden Treasure



Kimberly Hayes/USFWS

Kayaking

Investigating Behind the Scenes

Some of the natural beauty that visitors experience at Rhode Island's refuges is the result of hard work by dedicated refuge staff. These management activities take place behind the scenes and take several forms.

Refuge Restoration

Habitat restoration is one such activity, and it is actively occurring at Trustom Pond, Sachuest, and Ninigret Refuges. The process of restoration attempts to return land to its natural state, prior to the effects of agriculture and development.

A notable example of habitat restoration is the Sachuest Point Salt Marsh Project. The existing 45-acre Sachuest Salt Marsh was once part of a much larger salt marsh system. The construction of a reservoir during the early twentieth century converted most of the original marsh into a fresh water lake. The waste dumping, as well as road and military construction that followed in later years, further reduced the tidal flow into the marsh. Salt marsh species gradually declined, and the habitat was altered dramatically.

In 1997, restoration of the Sachuest Salt Marsh began. The restoration project involved installing pipes and deepening creeks in order to reconnect the salt marsh with the



Phragmites control

waters of Narragansett Bay. The result is an improved habitat for wildlife that more closely resembles the original salt marsh conditions.

Uninvited Guests

Another activity occurring behind the scenes involves removing plant species that are not native to this geographic ecosystem. These invasive species have been introduced as a result of both unintentional and intentional human activity. Once established, invasive species often crowd out native plant species. Some examples of invasive plant species found on Rhode Island's refuges include Asian bittersweet and phragmites. Asian bittersweet, brought to the area because of its attractive color, can be found on 80% of the land at Sachuest Point Refuge. The battle with phragmites, also called common reed, is occurring on

Asian bittersweet



most of the refuges. This plant offers poor nutritional value to local wildlife and kills other wetland plants by robbing them of room to grow.



Piping plover

Protecting the Piping Plover

In 1986, the Atlantic piping plover population was listed as threatened under the Endangered Species Act. At that time, it was estimated that there were less than 1,000 pairs remaining. Beginning in early spring, Rhode Island's beaches become breeding grounds for a small portion of the plover population. Piping plovers nest on four of the state's five refuges as well as other public and private beaches in southern Rhode Island.

Rhode Island's plover restoration program began in 1991, and it employs several techniques in order to protect the birds during nesting season. Exclosures, which are similar to cages, are constructed



Plover enclosure

around individual nests. These allow the adult birds to come and go but prevent predators from entering. Additionally, nesting beaches are monitored daily by diligent volunteers and biologists.

Some beaches, such as Moonstone Beach on Trustum Pond National Wildlife Refuge, are closed to the public from April 1 to September 15 each year. Beach closure is necessary as humans can unintentionally crush nests or chicks and stress parent birds causing them to abandon their nests. The beach closure also benefits other shorebirds that migrate in the fall.

Posting boundary
Patrick Roche/
USFWS volunteer



The protection provided by the Rhode Island restoration program has been a success. During the last 10 years, the number of pairs returning to Rhode Island's beaches increased from 10 to 44, and the number of chicks that survived to adulthood increased from 20 to 90.

Understanding Refuge Rules

Everyday from sunrise to sunset, visitors enjoy a variety of activities at National Wildlife Refuges. However, not every refuge offers the same opportunities. The activities permitted at Rhode Island's five refuges are listed in the table opposite.

Things to Do at Rhode Island's Refuges

	<i>Block Island</i>	<i>Chafee</i>	<i>Ninigret</i>	<i>Sachuest Point</i>	<i>Trustum Pond</i>
hiking trails			●	●	●
wildlife observation	●	●	●	●	●
canoeing/kayaking access		*	*		
cross-country skiing			●	●	●
surf fishing †	●		●	*	●
shell fishing †			*		
shoreline fishing †		*	*		
waterfowl hunting		●			*

* From designated access points only

† Beaches are closed April 1 through September 15 above the mean high water line for the protection of migratory birds.

More About Fishing

A night fishing permit system exists at Sachuest Point National Wildlife Refuge. Visitors should contact the Sachuest Point Visitor Center at 401/847-5511 to inquire about obtaining a permit. Surf fishing spots can be accessed by foot or by motorized vehicle on refuges where they are allowed. Block Island's Beane Point is closed to motorized



Officer assisting a young visitor

Lynda Bogdahn/USFWS volunteer

vehicles. State laws and regulations apply to shell fishing. Visitors should contact the refuge office for more information.

More About Hunting

Waterfowl hunting is permitted at Trustum Pond National Wildlife Refuge on a 20-acre upland site administered by the Rhode Island Department of Environmental Management and primarily targets resident Canada geese. Hunting is not permitted on the pond itself. Waterfowl hunting at Chafee National Wildlife Refuge is available by boat access only. Visitors should contact the refuge

office for a list of open areas and current regulations.

Wildlife First

Because all National Wildlife Refuges were established for the protection of wildlife, activities that are not wildlife dependent (those that do not require the presence of wildlife or that pose a threat to wildlife) are not permitted. They include:

- dogs, horses, and other domestic pets;
- collecting, removing, or damaging plants or animals;
- camping;
- bicycling, in-line skating, skateboarding, and roller-blading;
- swimming and sunbathing;
- kite flying;
- jogging;
- feeding wildlife;
- littering;
- wandering from designated trails.

This list is not comprehensive. Visitors are asked to learn and follow the regulations of the refuges they visit. The wildlife thank you for your cooperation.



Birdwatching is a popular activity at the refuges.

© Carletta DeProspero

**Searching by
Season: Nature's
Calendar**

Spring

The breeze stirs recently green trees as songbirds raise their voices in full chorus. Wild strawberries bloom, while turtles, salamanders, and frogs emerge from freshwater ponds. Osprey return to the nesting platforms they use each year. Woodcocks dance in courtship flights, and the beaches become a breeding ground for the piping plover and least tern.

Summer

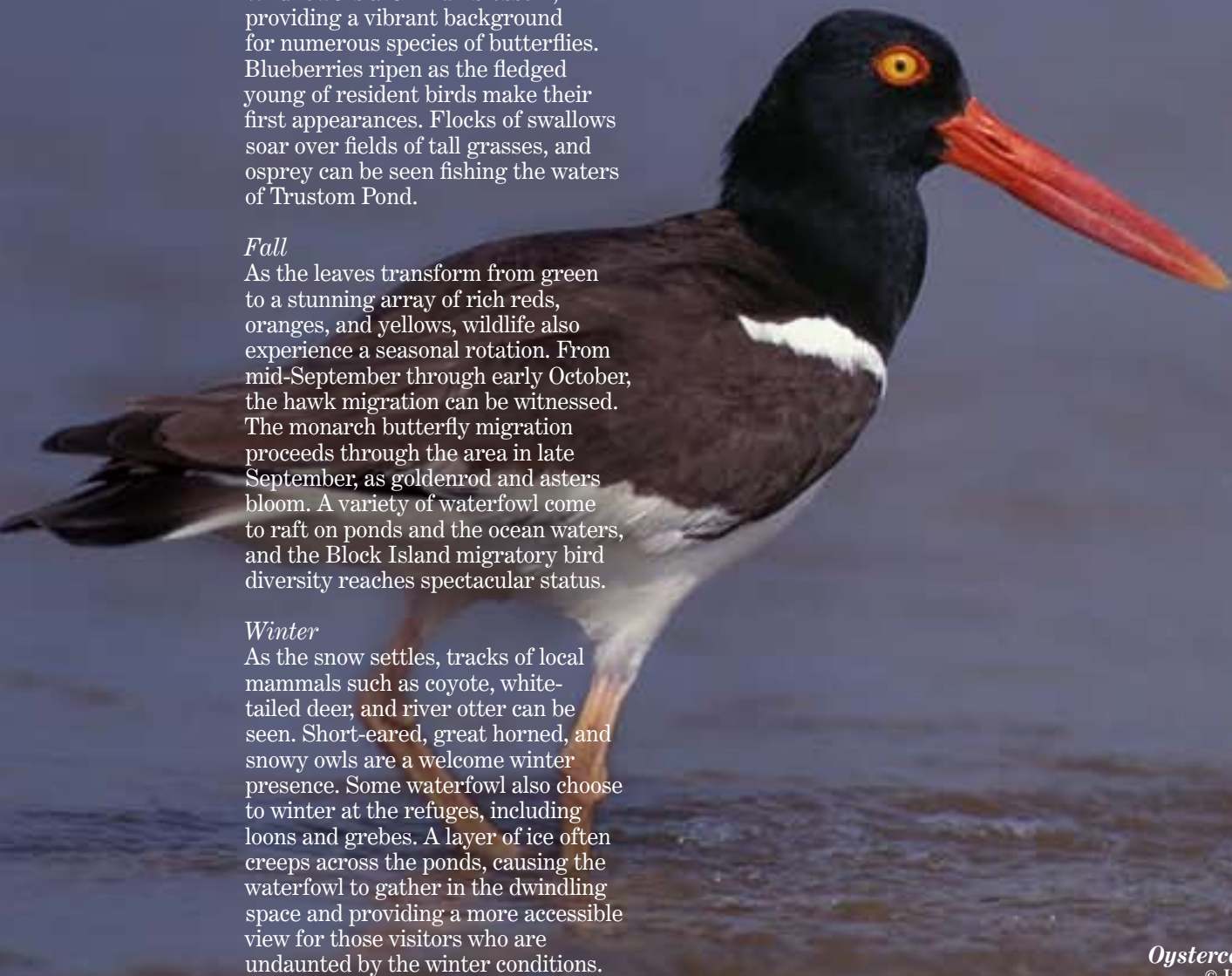
Wildflowers are in full blossom, providing a vibrant background for numerous species of butterflies. Blueberries ripen as the fledged young of resident birds make their first appearances. Flocks of swallows soar over fields of tall grasses, and osprey can be seen fishing the waters of Trustom Pond.

Fall

As the leaves transform from green to a stunning array of rich reds, oranges, and yellows, wildlife also experience a seasonal rotation. From mid-September through early October, the hawk migration can be witnessed. The monarch butterfly migration proceeds through the area in late September, as goldenrod and asters bloom. A variety of waterfowl come to raft on ponds and the ocean waters, and the Block Island migratory bird diversity reaches spectacular status.

Winter

As the snow settles, tracks of local mammals such as coyote, white-tailed deer, and river otter can be seen. Short-eared, great horned, and snowy owls are a welcome winter presence. Some waterfowl also choose to winter at the refuges, including loons and grebes. A layer of ice often creeps across the ponds, causing the waterfowl to gather in the dwindling space and providing a more accessible view for those visitors who are undaunted by the winter conditions.





Volunteers provide assistance in numerous ways.

Getting Involved

Valuable Volunteers

The National Wildlife Refuge System enjoys a legacy of dedicated volunteers. The Rhode Island Refuge Complex is no exception, and those willing to share their time and talents are always welcome. Volunteers are involved in a variety of important activities, including:

- staffing visitor centers;
- conducting trail walks and environmental education programs;
- monitoring and maintaining trails;
- using carpentry skills around the refuges;
- participating in research studies and wildlife surveys.

Visitors who are interested in the local volunteer program should contact the Volunteer Coordinator at the Rhode Island National Wildlife Refuge Complex Headquarters.

Friends Find a Way

The Rhode Island National Wildlife Refuge Complex is continuously involved in activities that preserve and expand essential wildlife habitat. In an effort to aid the Refuge Complex, a group of citizens established a nonprofit association called Friends of the National Wildlife Refuges of Rhode Island. The association supports the refuge staff with projects that meet the Refuge's conservation goals.

Fulfilling the Promise



Rhode Island's Refuge Complex has been dedicated to the preservation of wildlife and habitat for more than thirty years, but the National Wildlife Refuge System has a much longer history. That history officially began in 1903, when President Theodore Roosevelt established the first National Wildlife Refuge on Pelican Island in Florida.

Public concern for wildlife protection had mounted by the early twentieth century, as the nation witnessed the devastation of well-known species such as the bison and passenger pigeon. After feather hunters had driven numerous bird species to near extinction, Pelican Island attracted attention as the last breeding ground for brown pelicans along the entire east coast of Florida. Using an Executive Order to establish the tiny island as a refuge, President Theodore Roosevelt set in motion a promise to preserve America's wildlife heritage for future generations.

Since that time, the National Wildlife Refuge System has grown to include more than 94 million acres on over 540 refuges. National Wildlife Refuges can be found in all 50 states and several U.S. territories, and they conserve a diverse display of the nation's lands, including deserts, forests, great rivers, marshes, prairies, and coral reefs.

National Wildlife Refuge visitors are often greeted by the sign of the flying blue goose, which is the symbol of the System. The lands behind those signs are critical not only to the wildlife who live there but also to our nation. Those lands are a timeless connection to the natural world, and they fulfill the promise made to generations yet to come.

Investing in Our Future

Rhode Island's five refuges provide both a home for the wildlife who live there and a rich natural environment for visitors to enjoy. These protected lands are especially valuable as increasing development reduces local, natural spaces.

For this reason, the conservation effort that visitors witness on the refuges and the work that happens behind the scenes are vital. From habitat restoration and land acquisition to community involvement and scientific research, the Rhode Island Refuge Complex strives to enhance Rhode Island's wildlife heritage.

Visitors to Rhode Island's Refuges enjoy a wildlife heritage that includes a diversity of landscapes, hundreds of animal and plant species, and year-round guided nature walks and environmental programs. Come and experience the Kettle Pond Visitor Center located at the northern unit of Ninigret National Wildlife Refuge.

The Center features exhibits and educational programs, highlighting the connection between wildlife, people, and the environments that they both share. Inside the Visitor Center and out on the refuges, visitors will discover the lessons nature offers and the importance of protecting Rhode Island's natural resources.



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