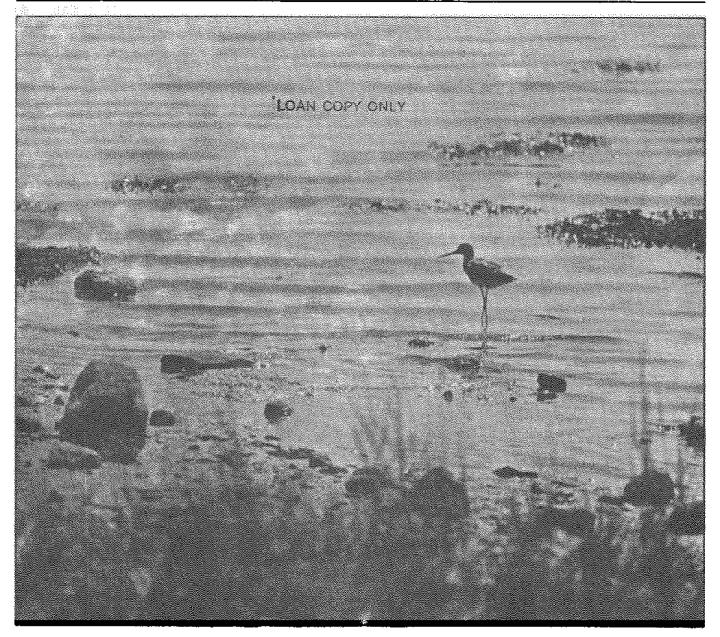
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Environmental Education Field Guide to Rhode Island



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William Croasdale

University of Rhode Island Marine Bulletin 22 1981



Third Edition 1981

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Introduction

This guide was prepared with the teacher in mind; its purpose is to suggest experiences that will expand the scope and depth of classroom teaching. Field work can help develop student awareness of the environment and complement in-class education.

Teachers are encouraged to visit the sites listed in this guide before taking their students there. Specific activities can then be planned, and the teacher will be familiar with the flora and fauna and the topography of each site, and can inform the class.

In most instances, collecting specimens is discouraged or prohibited. Where it is permitted it should be done with care, and only what is needed should be taken.

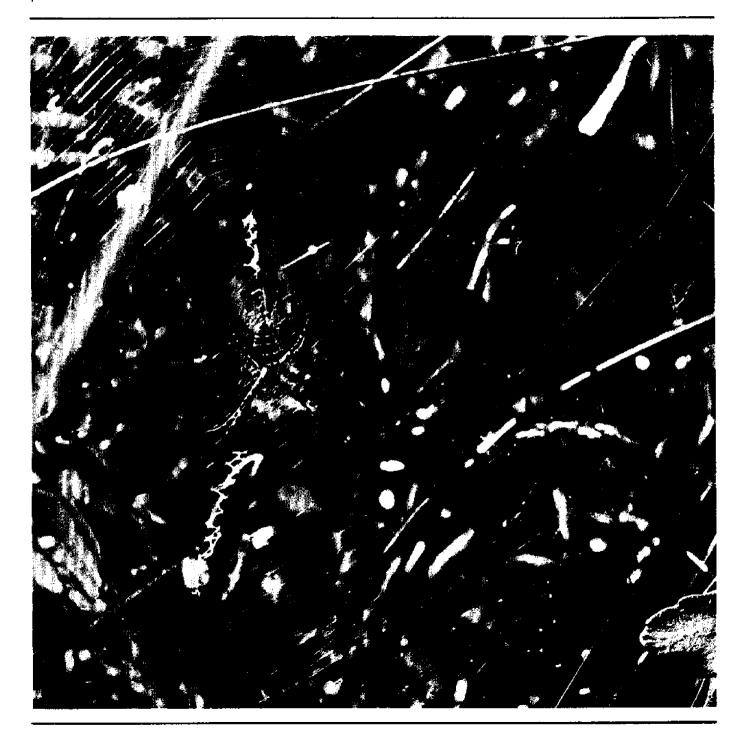
The sites are listed in alphabetical order by town, with a description of activities, recommendation for age groups, and requirements for prior arrangements.

Questions and suggestions are welcome, and should be directed to Dr. William Croasdale, Department of Education, Chafee Hall, University of Rhode Island, Kingston, R.I. 02881.

Acknowledgments

This book was compiled and revised by Nancy Mendes under the direction of Dr. William Croasdale. This is the third edition; the first was compiled by Gordon Feiner and the second by Edward Hill.

The bird lists were compiled by Nancy Wissmuller.



Additional Resources

Audubon Society 40 Bowen St., Providence

The Rhode Island Audubon Society maintains a good environmental and natural history library for use by primary and secondary teachers, older secondary students, and college students. There is a program with a full-time teacher available for presentations. This is done on a contract basis. There is also a consultant service for outdoor education and the development of outdoor facilities.

The society has teacher workshops in environmental education and current environmental problems in Rhode Island.

The society bookstore has a standard ten percent discount for teachers.

All inquiries should be directed to the Audubon Society at 521-1670.

Department of Environmental Management

Much information can be obtained by contacting the Public Relations Officer, Department of Environmental Management. Phone: 277-2776. The department is located at 83 Park Street, Providence.

Teaching Aids

The Rhode Island Film Library is at Rhode Island College. Phone Rhode Island Film Library for a catalog.

The University of Rhode Island makes available to schools the use of their film library. For more information and a

catalog, call the University of Rhode Island Audiovisual Center at 792-2148.

Guest Lecturers

Raytheon Corporation (submarine division) has 45 people available as speakers, planners, reviewers, and counselors on the topics of quantitative procedures, river basins, math modeling, and national status of instrumentation and automation of waste treatment plants. Contact the Manager of Commercial Operations at 847-8000.

Tours

Ciba-Geigy Corporation gives tours of their plant, a textile factory at 180 Mill Street, Cranston. Contact the plant manager at 941-3000 for more information.

Perryville Hatchery is located on Old Post Road in South Kingstown. Phone: 783-5351.

Lafayette Hatchery is located on Old Post Road, North Kingstown. Phone: 294-4662.

Marine Advisory Service University of Rhode Island Narragansett, R.I. 02882

Prentice K. Stout, Marine Education Specialist, has available to all interested elementary and secondary teachers a wide range of curriculum-oriented materials. Contact him at 792-6211.

Refuge Manager

Ninigret National Wildlife Headquarters Charlestown, R.I. 02813 Phone: 364-3106

Please call for maps and information about U.S. Fish and Wildlife property in Rhode Island. Also available are activity/information packets for educational use on selected refuges.

Highway Maps

An official Rhode Island highway map is available from the Department of Economic Development, Providence.

Helpful Equipment

Equipment useful for field work:

- 1. camera
- 2. collecting jars and bags
- 3. hip waders
- 4. dip nets
- 5. binoculars, telescope, spotting scopes
- 6. insect nets
- 7. rock hammer
- 8. hand lens
- 9. first aid kit



How the Field Guide Is Organized

The sites have been divided into seven districts (see below). At the beginning of each district is a list of sites located by a number on the maps. The maps can help in planning trips by showing which sites are in the area.

At the end of the field guide are three appendices: field biology, geology, and history. The sites in each appendix are listed by district number.

With each appendix is a list of books which you may find helpful.

District 1

Newport, Jamestown, Middletown, Portsmouth, Block Island, Tiverton, and Little Compton

District 2

South Kingstown, Narragansett, Westerly, Charlestown, Hopkinton, and Richmond

District 3

Coventry, West Greenwich, Exeter, Burrillville, Glocester, Scituate, and Foster

District 4

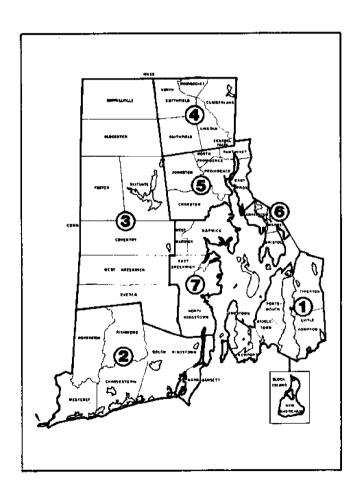
North Smithfield, Woonsocket, Cumberland, Smithfield, Lincoln, and Central Falls

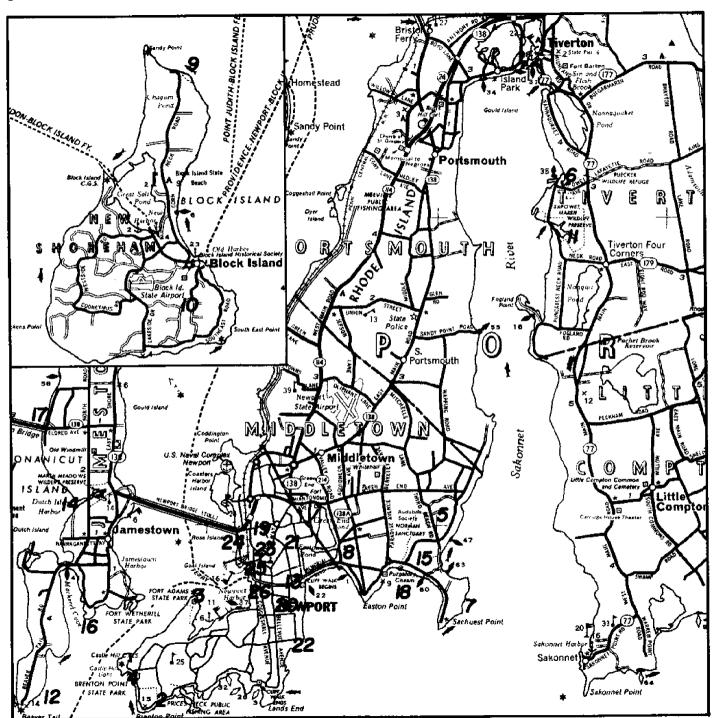
District 5

Johnston, Cranston, North Providence, Pawtucket, East Providence, and Providence

District 6 Bristol, Warren, and Barrington

District 7
West Warwick, East Greenwich, North
Kingstown, and Warwick





District 1

- l Fox Hill Pond
- 2 Ocean Drive Marsh
- 3 Fort Adams State Park
- 4 Brenton Point State Park
- 5 Norman Bird Sanctuary
- Emilie Ruecker Wildlife Refuge
- 7 Sachuest Refuge
- 8 Aquidneck Island Potpourri Tour
- 9 North End of Block Island
- 10 Simon R. Sands Reservation
- 11 Seapowet Marsh
- 12 Beavertail State Park
- 13 Cliff Walk
- 14 Marsh Meadows Wildlife Preserve
- 15 Hanging Rock
- 16 Fort Wetherill State Park
- 17 Rock Formations Under Jamestown Bridge
- 18 Purgatory Chasm
- 19 Wanton-Lyman-Hazard House
- 20 Trinity Church
- 21 Touro Synagogue
- 22 Redwood Library
- 23 Old Colony House
- 24 Hunter House
- 25 Edward King House
- 26 Brick Market

1 Fox Hill Pond Jamestown

Activity. This 45-acre site has a salt marsh, upland pasture, dense brush growth and fronts on the East Passage of Narragansett Bay and Sheffield

Grades. K-12.

Fee. None.

Cove.

Prior Arrangements. Permission from the Rhode Island Audubon Society is required, call 521-1670.

2 Ocean Drive Marsh Newport

Activity. There are salt and freshwater marshes here, also good sites for bird observation and easy access to ocean pools.

Grades. K-12.

Fee. None.

Prior Arrangements. Contact the
Audubon Society of Rhode Island to
make arrangements. Phone: 521-1670.

3 Fort Adams State Park Newport

Activity. This historical fort,
strategically located at the mouth of
Narragansett Bay, has overlooked
Newport Harbor and the East Passage
for more than 125 years. Guided tours
of the fort are conducted daily during
the summer season.

Grades. K-12.

Fee. None.

Prior Arrangements. Contact the R.I.

Department of Environmental

Management's Division of Parks and
Recreation, 277-2632.

4 Brenton Point State Park Newport

Activity. This park has an assortment of beautiful gardens and walking trails on the rocky shore of Brenton Point. Grades. K-12.

Fee. None.

Prior Arrangements. Contact the R.I.

Department of Environmental
Management's Division of Parks and
Recreation, 277-2632, or the Division
of Fish and Wildlife, 789-3094.

Of Special Interest. During the summer, D.E.M. ranger-naturalists conduct walks and programs on a variety of subjects. There is no charge. Call the D.E.M. Office of Information and Education for a schedule, 277-6800.

5 Norman Bird Sanctuary Third Beach Road, Middletown

Activity. The sanctuary consists of trailside museums, small animal displays and an extensive trail system covering 450 acres of open fields, marshes, ponds, streams, salt marsh, dense woodland, beaches with dunes and woodcock breeding grounds.

Grades. K-12.

Fee. One dollar per student from school groups.

Prior Arrangements. The sanctuary is usually booked far in advance, so make plans early. Call the Director at 846-2577.

of Special Interest. Instructors are available who will prepare a program for your class, depending upon its needs and interests. The sanctuary also provides in-class presentations. These programs are available on a pre-school through university level. There are teaching modules available on an individual basis for class members, including audiovisual equipment, film strips, etc.

6 Emilie Ruecker Wildlife Refuge Seapowet Avenue, Tiverton

Activity. The refuge consists of 36 acres of old fields and forest surrounding an undisturbed salt marsh. Students will notice various stages of succession of arrowwood and blueberry. Egrets, herons, and shorebirds of all kinds are common here. There are two trails through the marsh. Parking accommodations are available.

Grades. K-12.

Fee. None.

Prior Arrangements. No prior arrangements are necessary, although you must register at the entrance to the trails. The refuge is owned by the Audubon Society of Rhode Island.

7 Sachuest Refuge Middletown

Activity. This area includes both salt and freshwater marshes, beaches with dunes, excellent bird observation area, and an excellent area to study the encroachment of man on his environment.

Grades, K-12.

Fee. None.

Prior Arrangements. Site is owned by U.S. Fish and Wildlife Service under the administration of Ninigret National Wildlife Refuge, Charlestown, R.I. No permission is needed to visit the area. Foot travel only; no vehicles allowed on refuge (except on paved or gravel roads). For maps and information contact the Refuge Manager at 364-3106, or write Ninigret NWR, Box 307, Charlestown, R.I. 02813.

8 Aquidneck Island Potpourri Tour Middletown

Activity. The following route is suggested: Go over the Newport Bridge to the center of Newport. Look for signs leading to the historic mansions and follow a southeast route across Bellevue Avenue to Memorial Boulevard. Follow Memorial Boulevard past Eaton's Beach to St. George's Chapel. your first stop. Next stop: Purgatory Chasm. This is a unique rock formation on the west side of Second Beach. Next: Second Beach itself. The beach is excellent for the study of dune

formations, soil erosion and marshland. Fourth stop: Norman Bird Sanctuary. This trip is approximately six miles long. If time allows, a ride along the ocean in the southwest part of Aquidneck Island is delightful. Grades: K-8, depending on the detail

with which each site will be studied.

Fee. None.

Prior Arrangements. None.

9 North End of Block Island Block Island National Wildlife Refuge, Block Island

Activity. This area provides excellent sites for the study of geologic beach structures and for the making of beach profiles. During the fall migration period, it is a good observation point for many bird species which are not usually seen on the mainland.

Grades. K-12.

Fee. None.

Prior Arrangements. Site is owned by U.S. Fish and Wildlife Service under the administration of Minigret National Wildlife Refuge, Charlestown, R.I. No permission is needed to visit the area. Foot travel only: no vehicles allowed on refuge (except on paved or gravel roads). For information contact the Refuge Manager at 364-3106, or write Ninigret NWR, Box 307, Charlestown, R.I. 02813.

10 Simon R. Sands Reservation Block Island

Activity. Located in the southern section of Block Island, the 30-acre tract is an excellent focal point for expeditions around this beautiful island; it is a primitive site with potable water available from the island's airport 100 yards away. The camp is heavily covered with beach plum and other heavy undergrowth. There is a small chain of ponds in the center of the property.

Grades. K-12. Fee. Variable.

Prior Arrangements. Contact the Boy
Scouts of America, 175 Broad Street,
Providence, R.I., at 351-8700 for
prior arrangements and fee

11 <u>Seapowet Marsh</u> Puncatest Neck Road, Tiverton

Activity. This large salt marsh is one of the most picturesque in Rhode Island, surrounded by woodland and agricultural fields. This area is excellent for the observation of shorebirds, including egrets and herons. The inlet to the marsh hosts populations of scallops and quahogs. Grades. K-12.

Fee. None.

Prior Arrangements. Arrangements should be made with the Department of Environmental Management's Division of Fish and Wildlife at 789-3094.

12 Beavertail State Park Conanicut Island

Activity. The rock outcrop of slate at
Beavertail provides excellent examples
of faults and overturned faults. The
rocky intertidal zone is abundant in
marine animals and plants. Try to plan
a visit at low tide for easier access
to the rocks.

Grades. 6-12.

Fee. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Parks and
Recreation at 277-2632.

13 Cliff Walk

Begins at Memorial Boulevard, Newport

Activity. The Cliff Walk allows the observer to study three types of rock: granite, coal-age sedimentary rock, and metamorphic rock. The effects of erosion can also be easily viewed, and there is a spectacular view of the sea.

Grades. 7-12.

Fee. None.

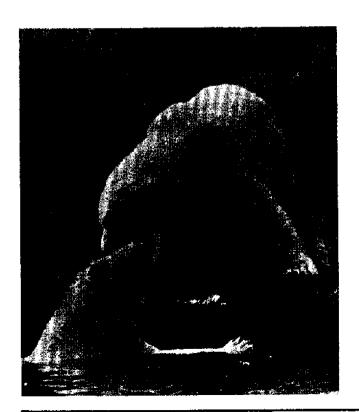
Prior Arrangements. None.

Note: Deciding how much of the Cliff
Walk to cover should depend on the age
of the students and the time
available. The entire walk is about
five miles long.

14 Marsh Meadows Wildlife Preserve North Road, Conanicut Island

Activity. Within the 21 acres of this salt marsh there is an abundant display of marine invertebrates such as clams, crabs, and starfish. In the drier regions of the preserve, meadowtype plants and animals can be seen. Grades. K-12.

Fee. None. The preserve is owned by the town of Jamestown, the Audubon Society of Rhode Island, and private interests. Permission from the Audubon Society is necessary. Call 521-1670.



15 Hanging Rock Norman Bird Sanctuary, Middletown

Activity. The rock outcrop which shows much faulting is made up of conglomerate. The unusual compression of the large-sized pebbles gives evidence of great metamorphic activity. This rock is one of nature's great balancing feats.

Grades. 5-12.

Fee. None.

Prior Arrangements. The Director of the Norman Bird Sanctuary should be contacted at 846-2577.

16 Fort Wetherill State Park Conanicut Island

Activity. The granite walls which help make up the fortifications are the only outcrop of granite on Conanicut Island. The granite is of the same age as the Westerly granite. The use of this naturally protective area for a fort should be noted.

Grades. 6-12.

Fee. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Parks and
Recreation, 277-2632.

17 Rock Formations Under Jamestown Bridge Consnicut Island

Activity. Extending hundreds of feet in both directions from directly under

the Jamestown Bridge is a fine example of garnet-stavrolite schist. The garnets are the small red crystals embedded in the gray schist. The stavrolite crystals are long and narrow and usually cross to form an X. Grades. 9-12.

Fee. None.

Prior Arrangements. None.

Note: Contact Jamestown Police about where to park your bus.

18 Purgatory Chasm Memorial Boulevard, Middletown

Activity. A fine example of what weathering and erosion can do to solid rock. Access is easy from here to other geologic points of interest, such as the hanging rock and beach areas.

Grades. K-12.

Fee. None.

Prior Arrangements. No arrangements are required. For information contact the Department of Environmental Management's Division of Parks and Recreation at 277-2632.

19 <u>Wanton-Lyman-Hazard House</u> Broadway (near Washington Square), Newport

Activity. This house in Jacobean style was built in 1675 and is recognized as the oldest house in Newport. Structure and style make this house an excellent spot to visit.

Grades. 7-12.

Fee. Adults \$1.50, children under 12 \$.75; group rates available. Prior Arrangements. Open from June to Labor Day, 10:30-5, and by appointment. Call 846-0813, Newport Historical Society.

20 <u>Trinity Church</u> Spring and Church Streets, Newport

Activity. This church, built in 1726, houses the first church bell rung in New England. Other aspects of the early architecture make this site an interesting and unique place to visit. Grades. 7-12.

Fee. None. Donations accepted.

Prior Arrangements. Open daily in the summer and by appointment. For information, call 846-0660.

21 Touro Synagogue Touro Street, Newport

Activity. This synagogue, the oldest in the nation, was built in 1763. It is a National Historic Landmark.

Grades. 7-12.

Fee. None.

Prior Arrangements. Open June to Labor
Day, Monday through Friday, 10-5, and
Sunday, 10-6. Rest of the year Sunday,
2-4, and by appointment. Call
847-4794.

22 Redwood Library Bellevue Avenue, Newport

Activity. Built in 1748, this is the oldest library building in continuous use in America. It is also recognized as a National Historic Landmark. Grades. 7-12.

Fee. None.

Prior Arrangements. Open weekdays 10-6.
During August, hours are 10-5.

23 Old Colony House Washington Square, Newport

Activity. This National Historic

Landmark is the nation's second oldest capitol. It was in this building that Rhode Island's acceptance of the Declaration of Independence was declared.

Grades. 5-11.

Fee. None.

Prior Arrangements. Open September through June daily, 9:30-4, and Saturday, 9:30-noon. Also open other times during the year. Call 847-6992.

24 Hunter House 54 Washington Street, Newport

Activity. This old homestead, built in 1748, contains a fine collection of antique furniture, silver, and portraits. Located near the historic Newport waterfront.

<u>Grades</u>. 5-11.

Fee. Adults \$2.00, children (6-15) \$1.00.

Prior Arrangements. Open during the winter by appointment only. Open during April on Saturdays and Sundays, 10-5, May through November daily, 10-5. For more information, call 847-7516 or 847-1000.

25 Edward King House King Street, Aquidneck Park, Newport

Activity. This unusual home is of Italianate villa style. It was constructed in 1845 and is beautifully preserved.

Grades. 6-11.

Fee. None.

Prior Arrangements. The house is open Monday through Friday, 9-4:30. For more information, call 846-7426. Please call prior to visit.

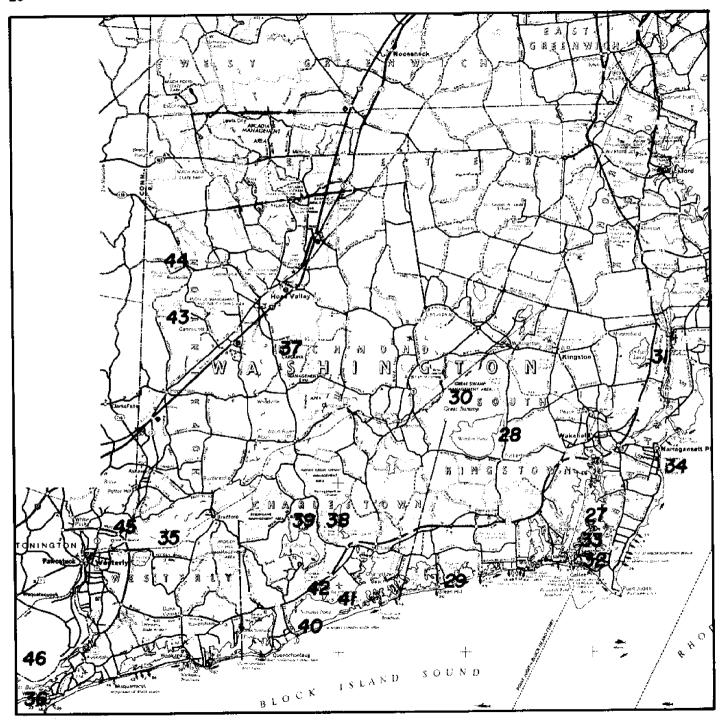
26 <u>Brick Market</u> Corner Long Wharf and Thames Street, Newport

Activity. Now a National Historic Landmark, this structure was built in 1762 as a market and granary. It is now located in the heart of Newport's waterfront market district.

Grades. 6-10.

Fee. None.

Prior Arrangements. Open Monday through Saturday, 10-5.



District 2

- 27 Camp Fuller
- 28 Aquapaug
- 29 Trustom Pond National Wildlife Refuge and Moonstone Waterfowl Refuge
- 30 Great Swamp Management Area
- 31 Indian Run Woods
- 32 Fishermen's Memorial State Park
- 33 Galilee Bird Sanctuary
- 34 Narragansett Basin Granite
- 35 McGowan Swamp, Bradford Freshwater Wetland
- 36 Napatree Point
- 37 Carolina Management Area
- 38 Tanner Collins
- 39 Burlingame State Park
- 40 Minigret Pond and East Beach
- 41 Ninigret National Wildlife Refuge
- 42 Kimball Wildlife Refuge
- 43 Ell Pond and Long Pond
- 44 Yawgoog Scout Camp
- 45 Westerly Granite Quarry
- 46 Mystic Marine Life Aquarium

27 Camp Fuller Camp Fuller Road, Wakefield

Activity. This 36-acre camp is located on Point Judith Pond, a saltwater pond. The camp is owned and operated by the Greater Providence YMCA. In the fall, winter, and spring months the camp will be open for marine science classes, grades K-12, with special emphasis on ecosystem analysis of the pond. Day and extended visits will be available. The camp will have a modest facility, equipment, and research boats. This is a joint effort between the YMCA and URI's Marine Advisory Service education department.

Fee. School groups will be charged a user fee. Call for information.

Prior Arrangements. Reservations must be made by calling the camp at 783-5359.

28 Aquapaug Ministerial Road, South Kingstown

Activity. Skirting the southeast corner of Worden Pond, this beautiful area is a popular spot for the study of freshwater environments. The camp is also the terminus of a belt of rhododendron and mountain laurel that stretches down through the Ministerial Road area.

Grades. K-12.

Fee. Variable.

Prior Arrangements. Fee information and visiting arrangements can be made with the Boy Scouts of America, 175 Broad Street. Providence, R.I., at 351-8700.

29 Trustom Pond National Wildlife
Refuge and Moonstone Waterfowl Refuge
Schoolhouse Road, South Kingstown
Moonstone Beach Road, South Kingstown

Activity. This 450-acre site (both refuges) includes Moonstone Beach, both salt and freshwater marshes, red maple swamps and grasslands. This is an ideal place for viewing extensive numbers of waterfowl all year round as well as other wildlife. Birds sighted in the area include swans, many species of ducks, gulls, and herons. This area is also suitable for geologic studies.

Grades. K-12.

Fee. None.

Prior Arrangements. The refuges are controlled cooperatively by the U.S. Fish and Wildlife Service and the Audubon Society of Rhode Island. Both groups should be contacted for permission. Maps and speakers are available upon request. There is an activity/information packet for use on the Trustom Pond National Wildlife Refuge. Audubon phone: 521-1670. U.S. Fish and Wildlife phone: 364-3106.

30 Great Swamp Management Area Route 2, South Kingstown

Activity. This white-cedar swamp touches Worden Pond, South Kingstown, and allows an interesting exploration of marsh land. There is a bog in the area, and plant and animal specimens can be gathered. In late September

the area is an excellent bird sanctuary and in early May ospreys begin nesting in the area.

Grades. K-12.

Fee. None.

Prior Arrangements. Call the Department of Environmental Management's Division of Fish and Wildlife for information and for permission to collect specimens. Phone: 789-3094.

31 Indian Run Woods
Tower Hill Road (Wakefield), South
Kingstown

Activity. This 50-acre site has overgrown farm land, dense woods, freshwater streams and swamp conditions on a flood plain.

Grades. K-12. Fee. None.

Prior Arrangements. Obtain permission to use the site by calling the Audubon Society. Phone: 521-1670.

32 Fishermen's Memorial State Park Point Judith Road, Narragansett

Activity: Formerly Fort Greene, a World War II fortification, it was converted into a camp ground which is adjacent to the beaches and the fishing port of Galilee.

Grades. K-12. Fee. None.

Prior Arrangements. Contact the

Department of Environmental

Management's Division of Parks and

Recreation, 277-2632.

Of Special Interest. During the summer,
D.E.M. ranger-naturalists conduct
walks and programs on a variety of
subjects. There is no charge. Call the
D.E.M. Office of Information and
Education for a schedule, 277-6800.

33 Galilee Bird Sanctuary Galilee Road, Galilee

Activity. This sanctuary offers a fine observation point for all the waterfowl associated with the coast of Rhode Island. The natural setting provides an excellent chance for studying bird behavior as well as identifying and counting species.

Grades. 5-12.

Fee. None.

Prior Arrangements. Contact the Division of Fish and Wildlife (D.E.M.), 789-3094.

34 Narragansett Basin Granite Hazard Avenue, Narragansett

Activity. This large outcrop which borders the water is a fine example of medium-grain pink granite. The rock is much younger than the granite in Westerly. Very little mining of this stone took place. One may find common marine intertidal creatures here. Grades. 7-12.

Fee. None.
Prior Arrangements. None.

35 McGowan Swamp, Bradford Freshwater Wetland

Bradford

Activity. This area provides excellent examples of swamp plants and animals for collection and study. Comparison studies can be made of vegetation and wildlife between this freshwater swamp and others around the state. This site would also lend itself to swamp ecology studies.

Grades. 9-12.

Fee. None.

Prior Arrangements. For information, contact the Department of Environmental Management's Division of Fish and Wildlife, 789-3094.

36 Napatree Point Westerly

Activity. This scenic beach site offers a fine spot for observation of waterfowl and beach life. Napatree is also an island migration point for different bird species. Geologic beach processes such as winter erosion and dune structure can also be studied here, and it is also an excellent site for making beach profiles.

Grades. 6-12.

Fee. None.

Prior Arrangements. None.

Note: The Watch Hill fire district has asked that all visiting groups stay on the marked trails and not disturb the dumes.

37 Carolina Management Area Pine Hill Road, Richmond

Activity. These 1,500 acres contain many forms of vegetation. Of special interest is a fine example of cedar swamp and bog with the associated wildlife. Also in this area are many freshwater lakes and brooks, all ideal for specimen collecting and study. Grades. 6-12.

Fee. None.

Prior Arrangements. Contact the

Department of Environmental

Management's Division of Fish and

Wildlife at 789-3094. For a map, call

the Fish and Wildlife Field Headquarters at the Great Swamp Management

Area at 789-0281.

38 Tanner Collins
Kings Factory Road, Charlestown

Activity. With the 250 acres of woodland is School House Pond, a freshwater body. Indian Cedar Swamp is adjacent to this land.

Grades. K-12.

Fee. Varies with nature of program.

Prior Arrangements. Contact the South
County YMCA office for information
about Tanner Collins and fees at
783-3900.

39 Burlingame State Park Charlestown

Activity. This 3,100-acre state park borders Watchaug Pond and is primarily rocky woodland. In the park are hiking trails, picnic areas, campsites, fishing and bathing areas.

Grades. K-12.

Fees. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Parks and
Recreation, 277-2632.

Of Special Interest. During the summer,
D.E.M. ranger-naturalists conduct
walks and programs on a variety of
subjects. There is no charge. Call the
D.E.M. Office of Information and
Education for a schedule, 277-6800.

40 Ninigret Pond and East Beach Ninigret Conservation Area, Charlestown

Activity. This fragile geologic

formation is the best in the state.

State control has helped stabilize the dune height, thus creating a natural spot for observing waterfowl and beach animals. The pond area, though very large, is relatively shallow. The bottom is sandy and hosts populations of oysters, soft-shelled clams, blue crabs, bay scallops, eels, and other marine species.

Grades. K-12.

Fee. None.

Prior Arrangements. Contact the Department of Environmental

Management's Division of Fish and Wildlife at 789-3094. For a map, call the Field Headquarters at the Great Swamp Management Area, at 789-0281. Of Special Interest. During the summer, D.E.M. ranger-naturalists conduct walks and programs on a variety of subjects. There is no charge. Call the D.E.M. Office of Information and Education for a schedule, 277-6800.

41 <u>Minigret National Wildlife Refuge</u> Charlestown

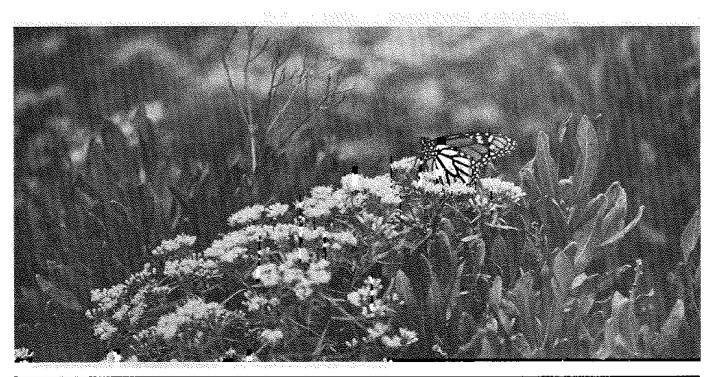
Activity. This refuge consists of 316 acres of old Charlestown Naval

Auxiliary Landing Field. Twenty-seven acres on the barrier beach across from NALF will be open in the future for environmental education activities. Grades. K-12.

Fee. None.

Prior Arrangements. Site is owned by

U.S. Fish and Wildlife Service under
the administration of Ninigret
National Wildlife Refuge, Charlestown,
R.I. No permission is needed to visit
the area. On-foot travel only; no
vehicles on refuge (except on paved or
graded roads). For information,
contact Refuge Manager at 364-3106, or
write Ninigret NWR, Box 307,
Charlestown, R.I. 02813.



42 <u>Kimball Wildlife Refuge</u>
Prosser Trail and Watchaug Pond,
Charlestown

Activity. This 30-acre wooded refuge borders Watchaug Pond and is adjacent to a camping area in Burlingame State Park. There are well-maintained trails crisscrossing the area.

Grades. K-12.

Fee. None.

Prior Arrangements. Contact the Audubon Society for further information, 521-1670.

Of Special Interest. A group leader can take a class on a tour of the area. Call the Audubon Society for arrangements.

43 Ell Pond and Long Pond Rockville, Hopkinton

Activity. Dystrophic conditions and zonation can be observed at this site, and a transect can be established. The water is characteristically brown in color and has a concentration of nutrients, organic matter and humid materials. Oxygen content and pH are low. Flora and fauna of bog conditions can be collected. Along the trail, "Appalachian" types of vegetation (i.e., rhododendron, laurel and hemlock) are located. Succession on bare rock is observable in several places.

Grades. 10-12. Fee. None.

Prior Arrangements. Contact the

Audubon Society, 521-1670, or the
Department of Environmental Management's Division of Parks and
Recreation, 277-2632.

of Special Interest. Parking is very poor and there is a walk of two to three miles to the site. If collecting is anticipated, all materials should be brought. These might include dip nets, plastic bags, pH kit, oxygen kit, buckets, first-aid kit, compass, and clipboard.

44 Yawgoog Scout Camp Camp Yawgoog Road, Hopkinton

Activity. The camp is located on 1,272 acres of forests and trails. There is a large lake located within the camp, and another lake that is man-made. There are also many nature trails. One will find a great variety in the terrain, including cliffs and caves for exploring.

Grades. K-12.

Fee. Variable, depending on type of activity.

Prior Arrangements. Fee information and arrangements should be made by calling the Camp Director at the Providence Boy Scout Headquarters, 351-8700.

Of Special Interest. Collecting of specimens is permitted, but materials for this purpose should be brought. Maps are available at the camp office for the various hiking trails and for tree identification.

45 Westerly Granite Quarry Westerly

Activity. This now inactive quarry provides an excellent view of how this important building stone was removed from the ground. There are numerous mineral deposits in the area, all excellent for collecting and identifying. For more advanced geology students, this is a fine site for strike and dip measurements.

Grades. 7-12.

Fee. None.

Prior Arrangements. Contact Donald

Bonner at the Bonner Monument Company
for information about this site and
the many other quarry sites in
Westerly. Phone: 377-2493.

46 Mystic Marine Life Aquarium Coogan Boulevard, Mystic, Connecticut (Exit 90 on I-95)

Activity. Inside aquarium: 30 living fish exhibits with more than 2,000 North American specimens; hourly demonstrations of dolphins, whales, and sea lions; and two educational classrooms. Outside aquarium: Seal Island, an outdoor exhibit featuring five species of seals and sea lions in a natural setting.

Grades. All grade levels, pre-school through college.

Fee. Student rates (available with advanced registration only):
pre-school through college \$.99, with ten or more in a group. One super-

vising adult required for every ten students. Adults enter free. Additional adults over the ten-to-one ratio is \$3.00/adult. Inquire about rates for special education groups. Prior Arrangements. Call the aquarium for reservations and information at (203)536-4208, or write to Mystic Marine Life Aquarium, Coogan Boulevard, Mystic, Conn. 06355. Of Special Interest. Special programs on a variety of topics are available and included free of charge for all students with advanced reservations. Send for school program brochure for

detailed information.



District 3

- 47 Teft Hill Trail
- 48 Arcadia State Park
- 49 W. Alton Jones Campus
- 50 Breakheart Brook Trail
- 51 George B. Parker Woodland
- 52 Queen's Fort
- 53 General Nathanael Greene Homestead
- 54 Nature Trail at Ginny-B Campground
- 55 Penny Hill Trail
- 56 Scituate Reservoir
- 57 Ponagansett High and Middle School Grounds
- 58 George Washington Management Area
- 59 Fayette Bartlett Woodland
- 60 Pulaski Memorial State Park
- 61 Buck Hill Scout Reservation
- 62 Bowdish Islands
- 63 Purgatory Chasm

47 Teft Hill Trail Dawley State Park, Richmond

Activity. The park provides the best forest-type vegetation in the state, along with numerous other types of plant life. This area is excellent for specimen collecting, identifying, and forest ecology studies.

Grades. 6-12.

Fee. None.

Prior Arrangements. Contact the Department of Environmental Management's Division of Parks and Recreation, 277-2632.

48 Arcadia State Park Route 3, West Greenwich

Activity. The park has numerous trails for hiking and nature walks. A freshwater lake provides a fine area for study of pond life and the collecting of aquatic plants.

Grades. 7-12.

Fee. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Parks and
Recreation, 277-2632, the Division of
Fish and Wildlife, 789-3094, or the
Arcadia State Park, 539-7643.

49 W. Alton Jones Campus West Greenwich

Activity. The center provides an outdoor classroom of ponds, forest and a

working farm for school groups in New England. Programs range from one-half day in length to five days. Accommodations include winterized cabins and a dining hall. Other educational services include teacher workshops, nature museums, teacher resource library, summer ecology camp and an environmental education newsletter. Grades. All grades.

Fee. Varies with the type of program.

Prior Arrangements. Call the

Environmental Education Center at
397-3304, Monday through Friday,
8:30-4:30.

50 Breakheart Brook Trail
Arcadia Management Area, West Greenwich

Activity. This beautiful trail in the northern sector of the Arcadia Management Area provides the chance to study the development of brook-type vegetation and life forms. This area is well suited to the collection of specimens.

<u>Grades</u>. 7-12.

Fee. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Fish and
Wildlife, 789-3094, or the Arcadia
Management Area, 539-7643.

51 George B. Parker Woodland Maple Valley Road, Coventry

Activity. This area consists of 515
acres of a mature chestnut oak forest,
woodland and streams. There are seven
miles of trails and a variety of
historical sites.

Grades. K-12.

Fee. Varies, depending on program.

Prior Arrangements. Contact the manager
at 397-4474 for information and
arrangements.

Of Special Interest. There is a full-time education director here. A wide variety of school and adult programs are available throughout the year. Contact the manager for information.

52 Queen's Fort Exeter/North Kingstown line, west on Stony Lane

Activity. This rough area of stones and boulders is actually a glacial boulder train. In Rhode Island's history there are unauthenticated references to this area's being used by the Indians as a hideout.

Fee. None. Prior Arrangements. None.

53 General Nathanael Greene Homestead Taft Street, Coventry

Activity. Besides the historic home, there is an old cemetery in back of

the house. Beyond this are the falls which supplied the energy to run most of the factories of the time.

Grades. 3-7. Fee. \$.50.

Prior Arrangements. Contact the caretaker prior to a visit. Phone: 821-8630. The homestead is closed December and January. Also open by appointment.

54 Nature Trail at Ginny-B Campground Johnson Road, Foster

Activity. A wide variety of local plant species can be observed in natural woods (oak forest) along this trail. There is also a wide variety of ferns, laurels, lichens (open and wooded ledges), ground covers, shrubs and trees located here.

Grades. K-12.

Fee. None.

Prior Arrangements. Contact the owner of the trail at 397-7982.

55 <u>Penny Hill Trail</u>
Near Beach Pond camps, West Greenwich

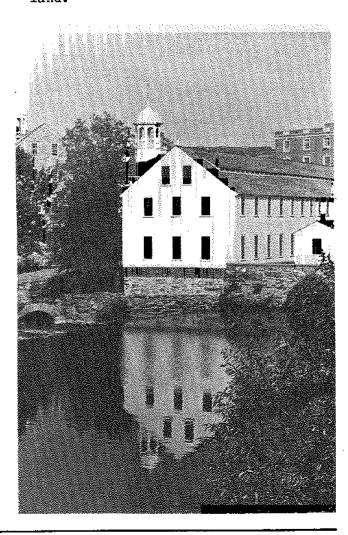
Activity. The trail goes over the top
of Penny Hill (nice view) and through
an excellent white pine forest with
unique vegetation. Start from Austin
Farm Road near Lewis City. The trail
runs within 20 feet of an excellent
example of black spruce bog vegetation
and ecology. (A side trail to the
southeast goes to the bog.) It is

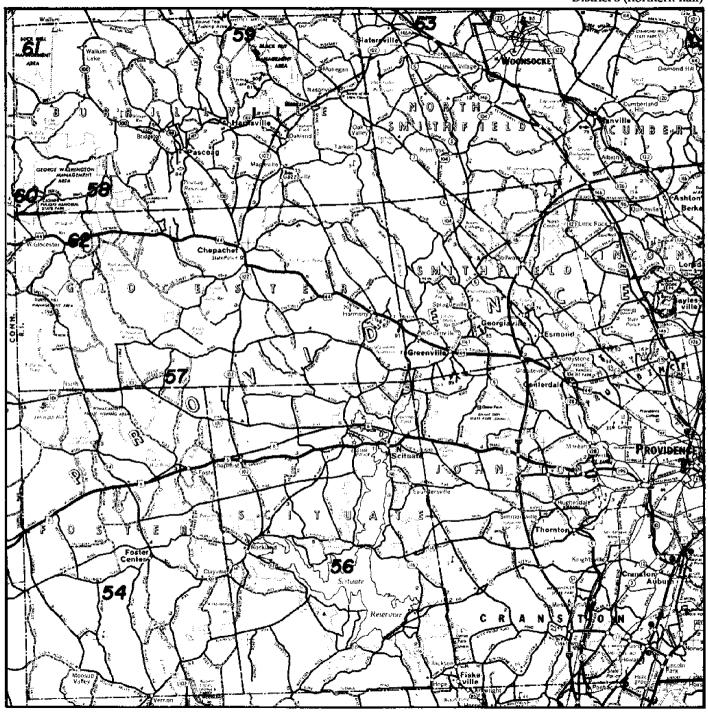
unusual to find northern species this far south and at such low elevations. The area is also a good example of a glacial kettle hole.

Grades. 7-12.

Fee. None.

Prior Arrangements. None. This is public land.





56 <u>Scituate Reservoir</u> Scituate

Activity. In the areas around the reservoir are well-developed forests, especially suited for forest ecology studies.

Grades. 10-12.

Fee. None.

Prior Arrangements. This land is owned by the Providence Water Supply Board, and prior arrangements are necessary to visit the reservoir. Contact the Superintendent of Filtration at the Water Purification Works at 828-1660 to visit the water treatment facility, or the Watershed Manager at 821-8050 to visit the reservoir lands.

57 Ponagansett High and Middle School Grounds

Anan Wade Road, Scituate

Activity. A variety of stages of succession can be observed at this location, including a pond, small stream, small swampy area, open field, grown-up field and a forest.

Grades. 4-12.

Fee. None.

Prior Arrangements. Make prior arrangements by calling the school principal at 647-3377.

58 George Washington Management Area Burrillville

Activity. The park provides many scenic trails for hiking and exploring. The isolated areas provide fine vantage points for wildlife observation and study. Also included in this area are large freshwater lakes.

Grades. K-12.

Fee. None.

Prior Arrangements. Make arrangements with the Department of Environmental Management's Division of Parks and Recreation, 277-2632, or the Division of Fish and Wildlife, 789-3094.

59 Fayette Bartlett Woodland Burrillville

Activity. The woodland has 70 acres of primary oak birch, white pine, and ground cover of mountain laurel. Two streams cross the property.

Grades. K-8.

Fee. None.

Prior Arrangements. Call the Audubon Society at 521-1670.

60 <u>Pulaski Memorial State Park</u> Burrillville

Activity. Located off Route 44 in the northwestern corner of the state. This 100-acre woodland park consists of evergreens, such as red pine, white pine and eastern hemlock, and hardwoods, such as oaks and maples.

Grades. K-12. Fee. None.

Prior Arrangements. Contact the Department of Environmental Management's Division of Parks and Recreation, 277-2632.

Of Special Interest. During the summer,

D.E.M. ranger-naturalists conduct
walks and programs on a variety of
subjects. There is no charge. Call the
D.E.M. Office of Information and
Education for a schedule, 277-6800.

61 Buck Hill Scout Reservation Buck Hill Road, Burrillville

Activity. The reservation has 1,700 acres of forested land which contains a large lake. Some unique natural areas include relic bogs, stands of black spruce and other flora not normally indigenous to Rhode Island. There are large outcroppings of glacial deposits and extensive trails for summer and winter use.

Grades. 6-12.

Fee. Variable.

Prior Arrangements. Contact the Boy Scouts of America, 175 Broad Street, Providence, at 351-8700, for information.

62 Bowdish Islands Route 44, Glocester

Activity. This site displays a unique floating bog which contains rare species of vegetation. The islands

themselves are private property, so they should only be viewed from the George Washington Management Area. The use of binoculars, telescopes, or spotting scopes is highly recommended. Grades. 6-12.

Fee. None.

Prior Arrangements. The George
Washington Management Area staff
should be contacted prior to visiting.
Phone: 568-6700. A map should be
obtained so the viewing point can be
decided upon; for a map, phone
647-3367.

63 Purgatory Chasm
Off Route 146, Uxbridge, Massachusetts

Activity. There are rock formations to be studied, along with interesting rock layers. The canyons can be walked, and collection of samples is permitted.

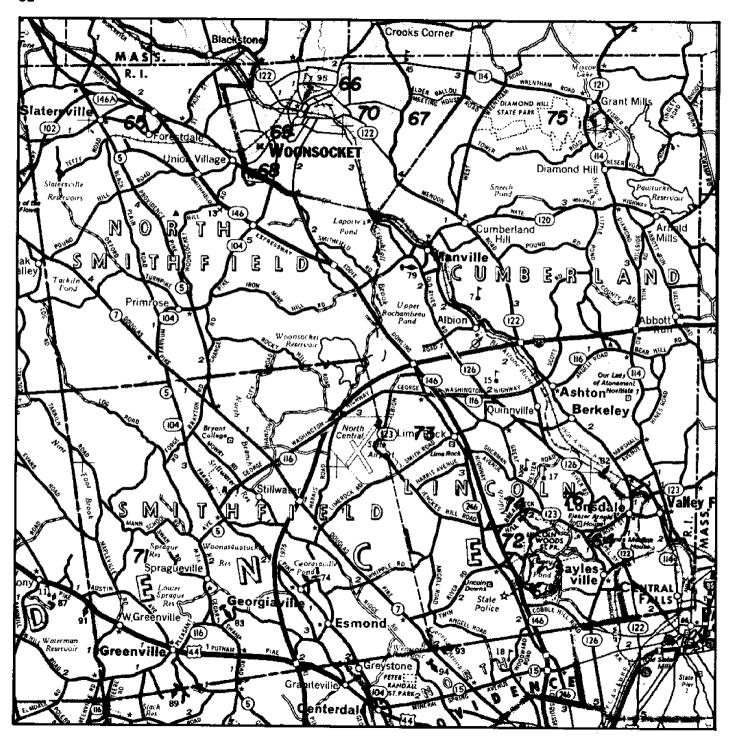
Grades. 5-12.

Fee. None.

Prior Arrangements. None.

Of Special Interest. Rock chisels, collection bags, and photographic equipment should be brought to the site.





District 4

64 Friends Meeting House

65 Halliwell Memorial School

66 Citizens Memorial School

67 East Woonsocket School

68 Globe Park Elementary School

69 Bernon Heights School

70 Cass Park

71 Upper Sprague Reservation

72 Lincoln Woods State Park

73 Conklin Lime Quarry

74 Limerock Quarry

75 Diamond Hill State Park

76 Eleazer Arnold House

64 Friends Meeting House Great and River Roads

Activity. This meeting house, built in 1703, served as the place of worship for the strong population of the Society of Friends which inhabited the Providence area at that time. Quakers came to Rhode Island in 1657 from Massachusetts and became a firmly established and respected sect.

Grades. 5-12.

Fee. None.

Prior Arrangements. Reservations should be made well in advance of a visit. Phone: 723-2515.

65 <u>Halliwell Memorial School</u> Great Road, North Smithfield

Activity. This 37-acre site contains an open field, a stream, high and low brush, soft and hardwood forest, a pond and a marsh area.

Grades. K-6.

Fee. None.

Prior Arrangements. Contact the principal of Halliwell School, 762-2793.

66 Citizens Memorial School Winthrop Street, Woonsocket

Activity. Within this 55-acre site is a bog, flood plain and polluted river. The area floods in the spring and some small aquatic life can be observed. This area has changed over the years. The marsh has now been polluted by cesspools and a solid waste disposal problem is evident. Excellent area for educational groups, showing how man can affect the environment.

Grades. K-6.

Fee. None.

Prior Arrangements. Obtain permission to use the site from the principal of the school at 762-5998.

67 East Woonsocket School Mendon Road, Woonsocket

Activity. East Woonsocket School is

located on land that was once a small
family farm. There is an old field
which was once plowed, an intermittent
bog, a pond overgrown with algae, high
shrubs, a small pine forest and a
spring-fed stream.

Grades. K-6.

Fee. None.

Prior Arrangements. Obtain permission to

use the site from the principal of the school at 766-4781.

68 Globe Park Elementary School Avenue A, Woonsocket

Activity. There is a one-mile nature trail laid out around the school with several species of trees, including wild black cherry, red and white oak, hickory, red sumac, gray birch and black oak. There is also a landform showing erosion.

Grades. K-6.

Fee. None.

Prior Arrangements. Obtain permission to use the site by calling the principal of the school at 769-6447.

69 Bernon Heights School Logee Street, Woonsocket

Activity. This site has extensive rock ledge, hardwood forests and burn areas. In the spring, a bog area is visible with pitcher plants, skunk cabbage and other interesting flora. Grades. K-12.

Fee. None.

Prior Arrangements. Call the principal of the school at 769-8298.

70 Cass Park Cass Avenue, Woonsocket

Activity. This 55-acre site has a slowly reconstructing forest, a running

brook, and Silvesters Pond, which is very deep and, as yet, only scantily researched. It is an ideal place for exploration and research.

Grades. 7-12.

Fee. None.

Prior Arrangements. None.

Of Special Interest. Materials should be brought to the area if collecting is planned.

71 Upper Sprague Reservation North Smithfield

Activity. This 140-acre site of rocky and hilly terrain is excellent for hiking and for nature walks. Freshwater brooks and ponds provide fine opportunities for collecting water animals and observing waterfowl. During the summer a day camp is in operation.

Grades. 6-12.

Fee. The fee depends upon services
rendered by the camp.
Prior Arrangements. Contact the
Providence Central YMCA in advance of
a trip at 456-0141.

72 <u>Lincoln Woods State Park</u> Route 146, <u>Lincoln</u>

Activity. This area has very
well-developed forest with easy
access. Studies of both woodland
vegetation and wildlife can be
conducted here. Also in this area is
an abandoned marble quarry, similar to

the Limerock quarries. Scattered throughout the woods are large boulders deposited by glaciers.

Grades. 7-12.

Fee. None.

Prior Arrangements. Contact the
Department of Environmental
Management's Division of Parks and
Recreation, 277-2632.

Of Special Interest. During the summer,
D.E.M. ranger-naturalists conduct
walks and programs on a variety of
subjects. There is no charge. Call the
D.E.M. Office of Information and
Education for a schedule, 277-6800.

73 Conklin Lime Quarry
Route 146 (Limerock), Lincoln

Activity. Students can observe a
limestone quarry in operation and
collect rock and mineral samples.
Grades. 7-9, and those with particular
interest in geology.

Fee. None.

Prior Arrangements. Make prior arrangements by telephoning the Conklin Limestone Company. Phone: 723-0889.

74 Limerock Quarry Route 146, Lincoln

Activity. In this area both operative and inoperative quarries can be found. The actual mineral being mined today is marble, but the state mineral, bowenite, might be seen in the marble. The quarries are perhaps

some of the oldest of their type in the country. This area is also a rare plant site.

Grades. 7-12.

Fee. None.

Prior Arrangements. The Conklin Limestone Company should be contacted before visiting, at 723-0889.

75 Diamond Hill State Park Route 114, Cumberland

Activity. This area of great geologic interest offers a vein of quartz almost a mile long. The vein has many joints and fissures in it due to metamorphic activity in the area after it was formed. Many other minerals can be found in the area; it is a favorite spot of mineral collectors.

Grades. 9-12.

Fee. None.

Prior Arrangements. The Department of Environmental Management's Division of Parks and Recreation at 277-2632.

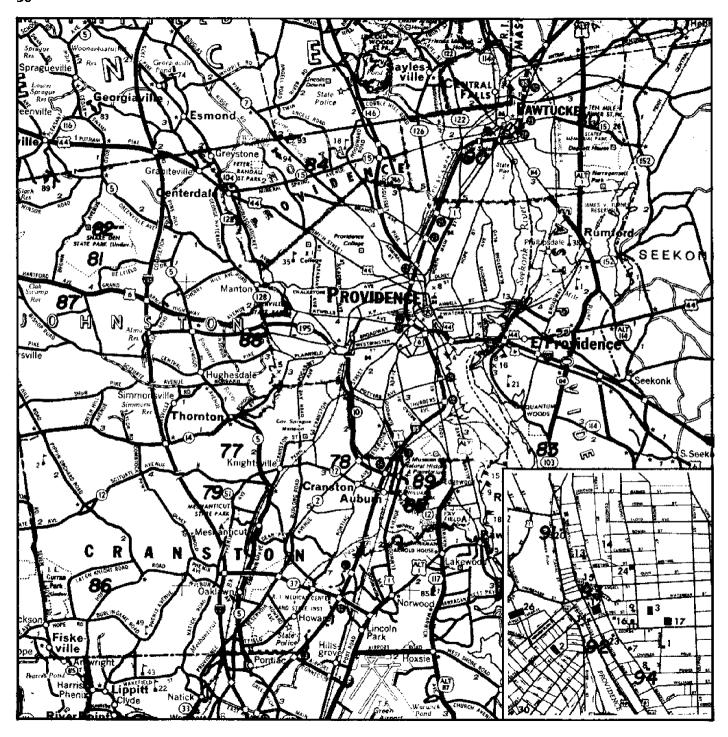
76 Eleazer Arnold House Routes 123/126 Saylesville, Lincoln

Activity. Built in 1687, this structure once served as a tavern and a courthouse. It is now a National Historic Landmark.

Grades. 5-11.

Fee. \$.50.

Prior Arrangements. This house is open by appointment only. For more information, call 726-1691.



District 5

- 77 Furnace Hill Brook
- 78 Spectacle Pond
- 79 Champlin Scout Reservation
- 80 Slater Memorial Park Zoo
- 81 Snake Den State Park
- 82 The Dame Farm
- 83 Squantum Woods State Park
- 84 Twin Rivers
- 85 Roger Williams Park
- 86 Margaret Robertson Knight Refuge
- 87 Camp Massasoit
- 88 Soapstone Quarry
- 89 Glacial Esker
- 90 Slater Mill Historic Site
- 91 Roger Williams Spring
- 92 Stephen Hopkins House
- 93 First Baptist Church in America
- 94 John Brown House

77 Furnace Hill Brook
Plainfield Road and Phoenix Avenue,
Johnston

Activity. This is the best example of a Rhode Island stream that is being slowly polluted. There are five excellent locations for examining the ecology of the stream and the way in which man is causing pollution. There are also examples of a stream-fed meadow, wading pools, glacial deposits and silting.

Grades. 3-12.

Fee. None.

Prior Arrangements. It is advisable to send someone to the site before the visit in order to decide on stopping areas.

Of Special Interest. The use of a vehicle for traveling is mandatory.

78 Spectacle Pond Cottage Street, Cranston

Activity. This pond provides a good study of water pollution.

Grades. K-12.

Fee. None.

Prior Arrangements. It is recommended that someone visit the pond prior to the scheduled trip in order to best realize how this site might be most effectively studied. 79 Champlin Scout Reservation 223 Scituate Avenue, Cranston

Activity. This is a 130-acre site containing over 50 varieties of identified trees, approximately 22 species of birds during the winter, five spring-fed ponds, and a brook with a bed that shows erosion. There are also hard and softwood forests, glacial deposits, and a swamp. The reservation has several varieties of trees not indigenous to this area, including a giant sequoia, a ponderosa pine, a 3,000-year-old Chinese tree, Japanese cypress, fir, hemlock, umbrella trees, a dawn redwood from China and an Alaskan cypress.

Grades. K-12.

Fee. Variable.

Prior Arrangements. Visit by appointment only. For appointments and fee information call the ranger at 944-9550. The camp is open Monday through Friday.

Of Special Interest. A specific studentteacher ratio must be maintained. For grades one through nine, one teacher must accompany every five students. For grades nine through twelve, one teacher must accompany every ten students. Fact sheets and a tree identification chart are available at the site. 80 Slater Memorial Park Zoo Pawtucket

Activity. There is a zoo and a museum located within the park, which has beautiful flower gardens. Younger children will enjoy the animals (i.e., seals, lions, llamas, Scottish Highland cattle, European red deer, peacocks, hens, a leopard, an elephant, a Brahma bull, and an assortment of monkeys). The oldest operating carrousel in the country is located here. Older children can perhaps visit Daggett House, built in 1685, which is a museum of the Colonial period.

Grades. K-8.

Fee. At the museum, each child is charged \$.25. There is no fee for the zoo.

Prior Arrangements. The Daggett House is open daily and on Sundays in June and July. It is also open by appointment; call 434-8195 or 722-2631.

Of Special Interest. Picnic facilities are available.

81 Snake Den State Park Johnston

Activity. This large area of rough terrain and steep ledges contains one of the earlier granite quarries in the state.

Grades. 7-12. Fee. None.

Prior Arrangements. Contact the Department of Environmental Management's Division of Parks and Recreation at 277-2632.

82 The Dame Farm Brown Avenue, Johnston

Activity. This is a working historical farm that dates back to the 1780s. There are woods, a trail set up by the Audubon Society, a pond, and an orchard.

Grades. K-12.

Fee. \$.50 per person.

Prior Arrangements. Make arrangements to tour the farm by calling 934-1548 during the summer and 949-3082 during the spring and fall.

Of Special Interest. Trail guides and maps are available at the site. A Resource Guide for Teachers is available upon request from R.I. Historic Farm, 29 Brown Avenue, Johnston, R.I.

83 Squantum Woods State Park Route 103, East Providence

Activity. This scenic area provides fine examples of glacial outwash with large boulders of sandstone, conglomerate, and a few of granite. The granite boulders must have been carried by the glacier 20 miles before being dropped here. There are also outcrop ledges of sandstone and conglomerate.

Grades. 8-12. Fee. None. Prior Arrangements. Contact the

Department of Environmental Management's Division of Parks and
Recreation at 277-2632.

84 Twin Rivers
Douglas Pike (Route 7), North Providence

Activity. Twin Rivers has two good-sized ponds and some wooded area. This is a good location for studying pollution. Grades. 3-12.

Fee. None.

Prior Arrangements. None.

Of Special Interest. Collecting of samples is permitted here.

85 Roger Williams Park

Activity. Roger Williams Park is a city park with lakes, trees and open areas for walking and exploring. The park features a bird house, an elephant house, a contact area for small animals, a natural history museum, and a planetarium.

Grades. K-12.

Fee. Varies with size of group.

Prior Arrangements. The planetarium requires advance notice of a trip.

Call the museum for arrangements and fee information at 941-5640.

Of Special Interest. At the natural history museum, tours are available by appointment. At the planetarium, a guide and lecturer will accompany the class if desired. For tours of the

museum and planetarium, call 941-5640. The park has an environmental education program called the Zoo Project, and also an educational display about Narragansett Bay in the Bay Room. For more information, call 467-9013.

86 Margaret Robertson Knight Refuge Hope Road, Cranston

Activity. This is a well-developed 52-acre woodland with some swamp and streams and a short trail system.

Grades. 7-12.

Fee. None.

Prior Arrangements. The Audubon Society of Rhode Island can be contacted at 521-1670.

87 <u>Camp Massasoit</u> Route 6, Reservoir Avenue, Johnston

Activity. The camp has 34 acres of woodland with a freshwater shallow pond.

Fee. Variable, depending on camp use.

Prior Arrangements. The Cranston YMCA office should be contacted for arrangements at 943-0444.

88 Soapstone Quarry Hartford Avenue, Johnston

Activity. This unusual outcrop of soapstone was successfully mined by the Narragansett Indians, who used the

stone for bowls. Depressions can still be seen where the soapstone was cut out.

Grades. K-12.

Prior Arrangements. None.

89 Glacial Esker Roger Williams Park, Providence

Activity. A glacial esker is a ridge of sand and gravel which appears to resemble a railroad embankment. This esker is one of very few still surviving in the state. The esker projects north for about 1,000 feet from the southwest part of the lake, forming a peninsula.

Grades. 8-12.

Fee. None.

Prior Arrangements. The park authorities should be contacted before a visit.

Phone: 421-3300.

90 Slater Mill Historic Site Roosevelt Avenue, Pawtucket

Activity. Students are shown handspinning and weaving, and there is
textile machinery in motion. A gift
shop has items costing as little as
\$1.00. Guided tours through the museum
are offered on schooldays at 10 a.m.
Grades. K-12.

Fee. Adults \$2.00, children (6-14) \$.75.

Prior Arrangements. Reservations are
required. These can be made by calling
the museum at 725-8638 or by writing

to P.O. Box 727, Pawtucket, R.I.

Of Special Interest. Booklets providing
a detailed description of the
founding and growth of the mill are
available for \$.25 per copy. If a
group plans to lunch before returning
to school, Slater Park is highly
recommended. It is about ten minutes
by car from the mill.

91 Roger Williams Spring 254 North Main Street, Providence

Activity. As the marker records, the area around the spring was the site of the original Providence settlement. The area was settled in 1636.

Grades. K-12.

Fee. None.

Prior Arrangements. None.

92 <u>Stephen Hopkins House</u> Benefit and Hopkins Streets, Providence

Activity. This National Historic
Landmark was the home of Stephen
Hopkins, who was the governor of Rhode
Island prior to the Revolutionary War
and a signer of the Declaration of
Independence. The structure was built
in 1707.

Grades. K-12.

Fee. None.

Prior Arrangements. The house is open from April through December on Wednesdays and Saturdays, 1-4. For more information, call 421-0694. 93 <u>First Baptist Church in America</u> North Main and Thomas Streets, Providence

Activity. This early church is the meeting house of the oldest Baptist congregation in the country. The congregation was founded by Roger Williams in 1638, and the present building was constructed in 1755. The church is a National Historic Landmark.

Grades. 7-12.

Fee. None.

Prior Arrangements. The church is open daily May through October, 10-4, and November through April, 11-3, and by appointment. Call 751-2266.

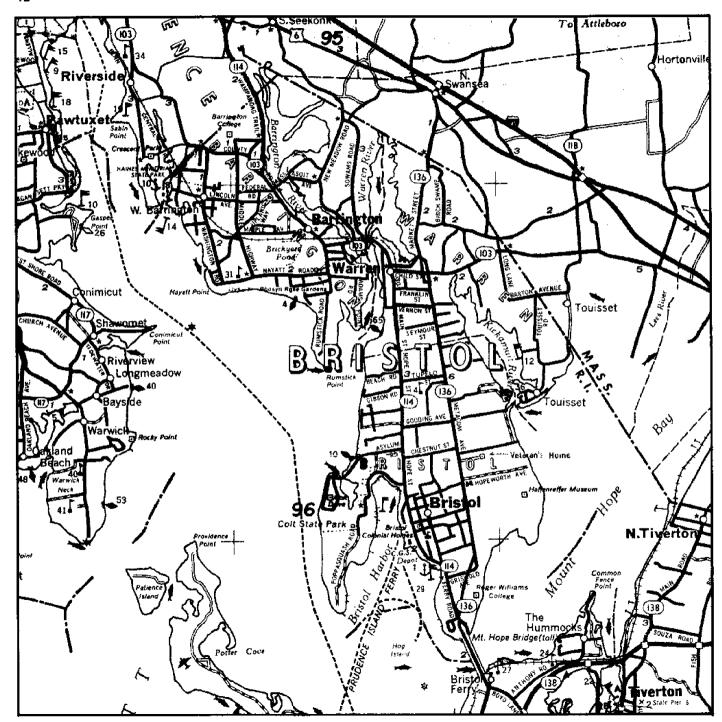
94 John Brown House 52 Power Street, Providence

Activity. This mansion, built in 1786, is late Georgian in style. The architecture and style make it worth a visit.

Grades. 7-12.

Fee. Adults \$1.50, students \$.50, children under 5 free.

Prior Arrangements. The house is open from Tuesday through Friday, 11-4, and weekends, 1-4. Call the R.I. Historical Society for more information, 331-8575.



District 6

95 Caratunk Wildlife Refuge 96 Colt State Park

95 Caratunk Wildlife Refuge 301 Brown Avenue, Seekonk, Massachusetts

Activity. This 159-acre woodland has trails, old fields, and ponds, as well as demonstration food patch plantings for wildlife. There is a marsh on the site, along with a red maple swamp and extensive areas of oak-hickory, beech, white pine and hemlock. Full-time staff plans numerous programs in environmental education, held year round for all ages, including summer day camp, school field trips, interpretive nature walks, and nature-related hobbies and crafts. Sanitary facilities and meeting rooms available.

Grades. K-12.

Fee. Varies with type of educational program. Parking available, with a fee for those who are not members of the Audubon Society.

Prior Arrangements. Call the refuge for information at (617)761-8230.

96 Colt State Park Bristol

Activity. This large state park, which borders the upper region of the Bay, provides excellent areas for collecting, identifying, and other activities related to marine science. Along the shore one can find boulders of grey conglomerate and sandstone which were deposited by the glaciers 10,000 years ago. The effect of the weathering on these boulders is evident.

Grades. K-12.

Fee. None.

Prior Arrangements. Call the Department of Environmental Management's Division of Parks and Recreation. Phone: 277-2632.

Of Special Interest. During the summer,
D.E.M. ranger-naturalists conduct
walks and programs on a variety of
subjects. There is no charge. Call the
D.E.M. Office of Information and
Education for schedule, 277-6800.



District 7

- 97 Casey Farm
- 98 Marine Fisheries Laboratory
- 99 Saltwater Marsh and Pine Tree Preserve
- 100 Davis Memorial Wildlife Refuge
- 101 Buckeye Brook Marsh
- 102 Kent County YMCA
- 103 Gilbert Stuart Birthplace



97 Casey Farm

Boston Neck Road (Route 1A), North Kingstown

Activity. Casey Farm is a working historical farm run by the Rhode Island Society for the Preservation of Antiquities. It is open in warmer weather.

Grades. K-12.

Fee. None.

Prior Arrangements. It is recommended that a teacher visit Casey Farm prior to a scheduled visit.

98 Marine Fisheries Laboratory Fowler Street (Wickford), North Kingstown

Activity. Tours of the marine laboratory
last approximately two hours. There is
always an ongoing experiment, and a
ride on the trawler is given for a
demonstration of either dredging or
trawling, depending on the season.
There is also a slide show on marine
life which is geared to the age of the
group.

Grades. 7-12.

Fee. None.

Prior Arrangements. Visits are limited to 20 persons per group. Considerable notice is necessary prior to expected visit. Appointments may be made with Richard Sisson, senior marine biologist at the Department of Environmental Management, by calling the laboratory at 294-4524.

99 Saltwater Marsh and Pine Tree Preserve

Draper Avenue, Warwick

Activity. Students can make a complete study of a salt marsh and its inhabitants here. Also of interest are pine tree growth and reproduction, erosion control and microscopic still life.

Grades. 5-12.

Fee. None.

Prior Arrangements. None.

Of Special Interest. Nets, collecting jars, etc., should be brought to the site if their use is planned.

100 Davis Memorial Wildlife Refuge Davisville Road, North Kingstown

Activity. The area has 96 acres of land bordering on the Hunt River, containing a floodplain with red maples, an abandoned sandpit with pockets of plant life, and an old Indian habitat from which diggings have uncovered artifacts from 1500 B.C. The refuge provides public access to the Hunt River (boats without motors only). Excellent wetland area. Good fishing, birding, canoeing, etc. This area is well suited for both aquatic and geologic studies.

Grades. K-12.

Fee. None.

Prior Arrangements. Make arrangements with the Audubon Society, 521-1670.

101 <u>Buckeye Brook Marsh</u>
West Shore Road and Draper Avenue,
Warwick

Activity. Plants and animals can be observed in the brook and marsh. The brook passes through open field and meadow land and merges with salt water at one end, forming a saltwater estuary. The effects of pollution can be seen where the brook passes under Warwick Avenue.

Grades. 7-12.

Fee. None.

Prior Arrangements. None.

Of Special Interest. Dip nets, water-testing kits and containers should be brought to the site for collecting purposes.

102 Kent County YMCA
West on Route 117, Warwick

Activity. The many hiking and nature trails which stretch over the 117 acres of woodland provide excellent sites for plant and tree identification and study. A forest thinning program is taking place here. Forest vegetation studies could compare this area with the other forests around Rhode Island.

Grades. K-12.

Fee. Varies with program.

Prior Arrangements. Contact in advance
the executive director of the Kent

County YMCA. Phone: 828-0130.

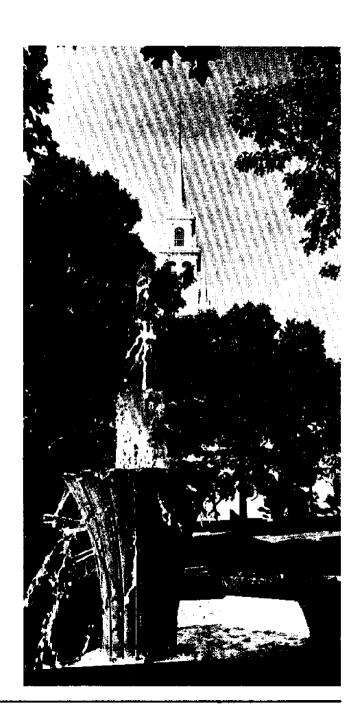
103 Gilbert Stuart Birthplace Gilbert Stuart Road, North Kingstown

Activity. This is the home of one of America's great artists. There is an old working grist mill and a "bucky" ladder.

Grades. K-8.

Fee. \$1.00 per person; \$.50 per person in a group.

Prior Arrangements. Notice must be given before arrival. Phone: 294-3001. No more than 25 people may go through the house at one time. The birthplace is open Saturdays through Thursdays from 11 a.m. to 3:30 p.m.



Sites for Field Biology

SITE	DISTRICT	Nature Trail at Ginny-B	3
		Campground	
Fox Hill Pond	1	Fayette Bartlett Woodland	3
Ocean Drive Marsh	1	Ponagansett High and Middle	3
Norman Bird Sanctuary	1	School Ground	
Emilie Ruecker Wildlife	1	Penny Hill Trail	3
Refuge		Scituate Reservoir	3
Brenton Point State Park	1	George Washington Management	3
Sachuest Refuge	1	Area	
Aquidneck Island Potpourri T		Bowdish Islands	3
North End of Block Island	1	Pulaski Memorial State Park	3
Seapowet Marsh	. 1	Limerock Quarry	4
Beavertail State Park	1	Halliwell Memorial School	4
Cliff Walk	1	Citizens Memorial School	4
Marsh Meadows Wildlife	1	East Woonsocket School	4
Preserve		Beron Heights School	4
Trustom Pond National Wild-	2	Cass Park	4
life Refuge and Moonstone		Upper Sprague Reservation	4
Waterfowl Refuge		Lincoln Woods State Park	4
Ninigret National Wildlife	2	Furnace Hill Brook	5
Refuge		Spectacle Pond	5
Aquapaug	2	Champlin Scout Reservation	5
Burlingame State Park	2	Slater Memorial Park Zoo	5 5
Great Swamp Management Area	2	Snake Den State Park	5
Indian Run Woods	2	Squantum Woods State Park	5
Galilee Bird Sanctuary	2	Twin Rivers	5
Narragansett Basin Granite	2	Roger Williams Park	5
Kimball Wildlife Refuge	2	The Dame Farm	5
Napatree Point	2	Margaret Robertson Knight	5
McGowan Swamp, Bradford	2	Refuge	
Freshwater Wetland		Caratunk Wildlife Refuge	6
Carolina Management Area	2	Colt State Park	6
Ninigret Pond and East Beach		Casey Farm	7
Ell Pond and Long Pond	2	Marine Fisheries Laboratory	7
Yawgoog Scout Camp	2	Salt Water Marsh and Pine	7
Teft Hill Trail	3	Tree Preserve	-
Arcadia State Park	3	Davis Memorial Wildlife	7
W. Alton Jones Campus	3	Refuge	-
Breakheart Brook Trail	3	Buckeye Brook Marsh	7
George B. Parker Woodland	3	Kent County YMCA	7

Books you may find helpful at any of these sites:

Field Guides to: birds, insects, pond life, mammals, amphibians and reptiles, trees, wild flowers, seashells, shrubs, and ferns.

Science on the Shores and Banks, Elizabeth K. Cooper, a Voyager Book, Harcourt, Brace and World, Inc., 1960.

The Mammals of Rhode Island, John M. Cronan and Albert Brooks, Rhode Island Department of Environmental Management, Wildlife Pamphlet No. 6.

Master Tree Finder, May Theilgaard Watts, Nature Study Guild, 1963.

Flower Finder, May Theilgaard Watts, Nature Study Guild, 1955.

American Wildlife and Plants: A Guide to Wildlife Food Habits, A.C. Martin, H.S. Zim, and A.L. Nelson, Dover Publications.

The Sea-Beach at Ebb-Tide, Augusta Foote Arnold, Dover Publications, 1968.



Sites of Geologic Interest

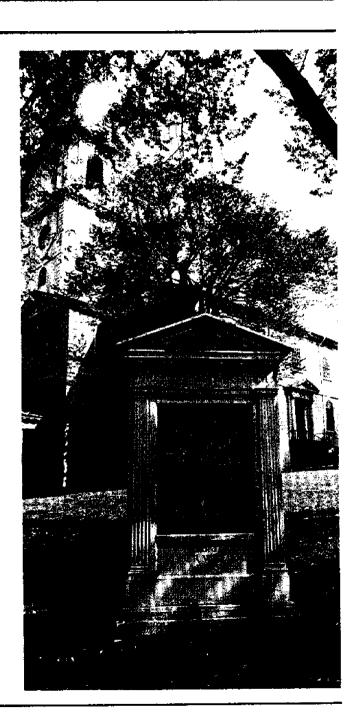
SITE	DISTRICT	Books you may find helpful at any of these sites:
Brenton Point State Park Aquidneck Island Potpourri To Hanging Rock Fort Wetherill	1 ur 1 1 1	Field Guides to: rocks and minerals and fossils. Rhode Island Geology for the
Beavertail State Park North End of Block Island Rock Formations Under Jamestown Bridge	1 1 1	Non-Geologist, Alonzo Quinn, Rhode Island Department of Environmental Management, 1973, \$.50 per copy.
Purgatory Chasm Cliff Walk Trustom Pond National Wild- life Refuge and Moonstone	1 1 2	Minerals of Rhode Island, Clarence E. Miller, O. Don Hermes, ed., Department of Geology, University of Rhode Island, 1972.
Waterfowl Refuge Narragansett Basin Granite Napatree Point Westerly Granite Quarry	2 2 2	
Ninigret Pond and East Beach Yawgoog Scout Camp Queen's Fort	2 2 3	
Purgatory Chasm Conklin Lime Quarry Bernon Heights School Diamond Hill State Park	3 4 4 4	
Limerock Quarry Furnace Hill Brook Snake Den State Park	4 5 5	
Soapstone Quarry Glacial Esker, Roger Williams Park	5	

Sites of Historical Interest

SITE DISTRICT

T. S. S. S	1
Aquidneck Island Potpourri Tour	_
*Wanton-Lyman-Hazard House	1
*Trinity Church	1
*Touro Synagogue	1
*Redwood Library	l
*Old Colony, House	1
*Hunter House	1
*Edward King House	1
*Brick Market	1
Queen's Fort	3
*General Nathanael Greene Homestead	3
Arcadia State Park	3
*Eleazer Arnold House	4
Slater Memorial Park Zoo	5
*Slater Mill Historic Site	5
	5
Soapstone Quarry	
*Roger Williams Spring	5 5
*Stephen Hopkins House	
*First Baptist Church in America	5 5 7 7
*John Brown House	5
*The Dame Farm	5
Casey Farm	7
Davis Memorial Wildlife Refuge	7
*Gilbert Stuart Birthplace	7

*National Historic Landmark



Birds Common to the Rhode Island Area

Winter Birds

Cardinal Junco
Sparrow Chicadee
Nuthatch Woodpecker
Dove Grosbeak
Bluejay Mockingbird

Birds of the Swamp

Herons Geese Swans Ducks

Hawks (Osprey) Sparrows Sandpipers Redwinged Blackbird

Gracle

Rusty Blackbird

Swallows

Kingfisher

Birds of the Woods

Warbler

Gnat Catcher

Sparrow Virios Wren Bluejay Oriole

Flycatcher Towee

Thrush

Scarlet Tanager

٠,

Woodpecker Nuthatch Brown Creeper

Chicadee Kinglet Grouse

Cardinal

Birds of the Field

Hawks Vultures Wren Goldfinch

Crows Grouse Pheasant

Sparrows Bobalink

Dove

Meadowlark

Hummingbird Flycatcher Tufted Titmouse Cardinal

Bluebird Cathird Swallows Mockingbird

Brown Thrasher

Two good field guides for the amateur bird watcher:

Birds of North America: A Guide to Field Identification, Robbais, Brown and Zem, Golden Press.

A Field Guide to the Birds. Roger Tory Peterson, Houghton Mifflin Company.

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Graham Brawley; p. 45, Prentice K. Stout.

<u>Sites</u>: p. 13, Roger Williams Park Zoo; p. 27, Slater Mill, Pawtucket; p. 47, Trinity Church, Newport; p. 51, First Baptist Church, Providence.