Volume 1, Issue 2 Spring 2008

Wild Rhode Island



A Quarterly Newsletter from the Division of Fish and Wildlife, RI Department of Environmental Management

Go Fish! Opening Day April 12, 2008 by Kimberly Sullivan



Spring is here and that means opening day for trout fishing season is upon us. Over the past year, three state run freshwater hatcheries have been busy raising three different species of trout for opening day. The hatcheries that raise the fish are the Carolina Trout Hatchery, Perryville Hatchery and the recently improved Lafay-

ette Trout Hatchery in North Kingstown. Each hatchery raises brown, rainbow and brook trout to stock for Rhode Island freshwater anglers. Combined, Rhode Island hatcheries raise over 1.3 million fish each year.

To prepare for opening day, hatchery personnel have been stocking trout in 110 Rhode Island ponds, lakes and streams.

By April 12, over 70,000 trout will be stocked. While the average weight of each fish is over one pound, don't be surprised to find a three pound breeder attached to your line. Many fish are stocked for opening day, and stocking continues throughout the spring and again in fall and winter.

For more information on regulations and stocking locations please refer to the 2008 Rhode Island Freshwater Fisheries Abstract, which is distributed where fishing licenses are sold. Copies of the abstract can also be obtained by contacting the DEM Office of Licensing at (401) 222-4700. Fishing licenses and trout stamps can be purchased where bait and tackle is sold, at the DEM Office of Licensing, and online at www.dem.ri.gov. You must purchase a trout stamp to keep trout. The daily creel limit for trout varies so please refer to the abstract for more informa-

Opening day begins at 6:00 am on Saturday, April 12, 2008. So, get your gear and your license and go fishing!

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Beavers Are Back by Charles Brown

After an absence of more than 200 years beavers have made a dramatic comeback in Rhode Island. Harvested without regulation for their highly prized fur throughout the 18th and 19th centuries, beavers were extirpated throughout much of their range in North America. With protection and the advent of modern wildlife management, beavers are once again common throughout much of their historic range.

Although the exact date the beaver disappeared from early Rhode Island remains a Photo: Steven Wayne Rotsch/ Painet Inc mystery, we do know when they returned. Trappers and fisherman began reporting chewed trees, peeled twigs and possible sightings in western Rhode Island in the mid-1970s. In 1976, biologists from the Division of Fish and Wildlife discovered an active lodge along the Trestle Trail in Coventry, in a tributary of the Moosup River.

By 1982, surveys conducted by the Division indicated that there were between six and 10 active colonies in the state, all within



the Moosup River watershed. Today beavers are found in the Pawcatuck, Blackstone, Pawtuxet, Quinebaug (Moosup), Hunt, and Woonasquatucket watersheds.

Beavers are semi-aquatic mammals and are the largest rodents in North America. They often construct a dam or series of dams using branches, mud and other material as a means of regulating and maintaining consistent water levels.

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THE DIVISION OF FISH AND WILDLIFE MISSION STATEMENT:

Our mission is to ensure that the Freshwater, Marine and Wildlife resources of the State of Rhode Island will be conserved and managed for equitable and sustainable use.

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W. Michael Sullivan, Ph.D. Director, Rhode Island Department of Environmental Management

Larry Mouradjian, Associate Director, Bureau of Natural Resources

Michael Lapisky,Chief,
Division of Fish and Wildlife

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Publisher: Kimberly Sullivan, Senior Fisheries Biologist, ARE Coordinator

Editor: Veronica Masson, Principal Fisheries Biologist

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Wild Rhode Island is also available on the web at: www.dem.ri.gov

To report an environmental emergency or violation please call the RIDEM Division of Law Enforcement (401) 222-3070

Wild Places — Tillinghast Pond Management Area by Brian Tefft

The Tillinghast Pond Management Area, located in West Greenwich, is one of the newest state land acquisitions. It was established in 2007 by the DEM and its partners, The Nature Conservancy and the Town of West Greenwich. The management area consists of nearly 1,800 acres of forest, fields and wetlands located in the western part of the town near the Connecticut state line.

River.

A portion of the management area includes fields and meadows that represent an agricultural history on the property. The management plan calls for maintaining these habitats and farming activities for both species diversity benefits and to maintain a portion of the site's cultural history. A focal point of the management area is

Tillinghast Pond, a 40-acre man-made impoundment that supports several different species of fish including largemouth bass, yellow perch and chain pickerel. A main

Pond and eventually into the Upper Wood



The vision of the partners for the property is to forever protect the integrity of the high quality habitats within the upper Wood River watershed while ensuring the public has access for recreation. The prop-

erty will be managed using sound forest and wildlife management practices to promote species diversity and maintain ecosystem integrity. Forest and wildlife management will include some timber harvesting designed to increase the diversity of young forest age classes for the conservation of species diversity. Additionally, reserve forest areas will be created where the forces of nature will dictate and where no timber harvesting is planned.

Photos: B. Tefft

A majority of the management area (1,375 acres), is classified as upland habitat consisting of mixed hardwood forest dominated by oak trees, evergreen stands primarily containing white pine and mixed stands with both evergreens and hardwoods. The remaining acreage consists of wetlands, ponds and streams including Coney Brook, which flows out of Tillinghast

trailhead and parking lot are being planned next to the pond to provide a central location for which to begin exploration of the pond and surrounding forest.

The establishment of the management area compliments other open space conservation parcels in the vicinity that cover 29 square

miles of western Rhode Island. This consists of nearly 19,000 acres including other state-owned management areas such as Arcadia, Nicholas Farm and Wickaboxet, creating one of the largest blocks of conservation lands benefiting wildlife. Tillinghast and all of the other management areas are all open to public recreation, including hunting and fishing, ensuring the public's right to enjoy these recreational activities. There is no camping allowed and use of motorized vehicles is prohibited within the area.

To get there take route I-95 to exit 5 north onto Victory Highway, at approximately three miles turn left onto Plain Meeting House Road to West Greenwich Center then turn right onto Plain Road. The area is marked with unique yellow and black boundary signs.

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Aquatic Invasive Species Alert by Veronica Masson

What is an invasive species? According to the National Invasive Species Council: "An invasive species is a non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal or plant health" (2006).

Invasions of non-native species have occurred since humans began moving about the earth. Sometimes organisms are introduced intentionally, such as purple loosestrife, which

was brought from Asia and Eastern Europe as an ornamental plant or the common carp,

which was introduced to Rhode Island for fish-

ing in 1880. Other species have arrived here by accident as hitchhikers in packaging or in ballast water from ships. Some aquatic species are thought to have been illegally released by aquarium enthusiasts.

In 2007, at least one aquatic invasive species was found in Rhode Island for the first time. Water chestnut (Trapa natans) was identified by a URI student in Belleville Pond last fall. Other species were found to have spread last year, including the Asian clam (Corbicula fluminea), which was found in Worden Pond for the first time. The Asian clam is found in a few other locations in the state including the Pawtuxet River watershed. Residents at Wakefield Pond reported an infestation of fanwort (Cabomba caroliniana) which spread throughout most of the pond. Fanwort, a highly invasive species native to South America, is now a common sight in many of our ponds.

Another species of concern is *Didymosphenia geminata*, (a.k.a. Didymo or Didygem). Didygem is a species of freshwater algae, actually a stalked diatom, that has been found to rapidly colonize

pristine freshwater streams. What is thought to be a particularly invasive strain of this species is spreading in New Zealand, Western states and in recent years has been found in several Northeast states including New York and Vermont.

These are not easy problems to solve because once an invasive organism gets a foothold in a suitable habitat it is nearly impossible to remove completely. The best method of addressing invasive species is to prevent their introduction altogether. This involves raising public awareness about the

harmful effects of invasive species.

As a first step, a new sign was created by DEM and will be posted at all state boat ramps. The signs identify several aquatic invasive species of concern in our freshwater ponds, lakes and streams. They encourage everyone to inspect and clean their boats and gear before and after using the items in state waters. Additionally, the release of bait, shellfish, plants or aquarium fish including koi, goldfish and

other exotic ornamental fish in state waters is prohibited.

Additionally, efforts are being planned for removal of water chest-nut in Belleville Pond during this upcoming growing season. The Rhode Island Natural History Survey is organizing the proposed eradication. For more information or to volun-

teer, please contact the Rhode Island Natural History Survey at (401) 874-5800 or www.rinhs.org.

The Rhode Island Aquatic Invasive Species Management Plan has been developed by the Rhode Island Coastal Resources Management Council, with input from numerous state agencies and non-profit organizations to address the myriad issues regarding invasive species in freshwater and marine environments (CRMC 2007). DEM will be a co-chair on the Aquatic Invasive Species Committee. The DEM Office of Water Resources and the Division of Fish and Wildlife are partnering to develop materials and policies that will help prevent new introductions and the spread of

existing invasive species.

New legislation has been proposed in the Rhode Island General Assembly that would address the possession, introduction and release of invasive aquatic plant species. The House bill is number H7522 and the Senate bill is number S2369. You can check their status on www.ri.gov.







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Coastal Trawl Survey 1979-2007 by Tim Lynch

Between 1968 and 1977, the Division of Fish and Wildlife's Marine Fisheries Section conducted a monthly, four station fisheries monitoring trawl program. This program provided baseline data on a variety of species within Narragansett Bay. However, as state, regional and coast wide fisheries management concerns increased, so did the need for Rhode Island to increase the scope and intensity of sampling. So, in 1979, the Division launched a seasonal trawl program conducted in the spring and fall in Narragansett Bay, Rhode Island Sound and Block Island Sound. Presently, 84 trawls are conducted annually, 42 during each seasonal cruise.

As the seasonal survey progressed through the 1980s, it became apparent that many of the species surveyed were very critical to Rhode Island. In-house and constituent based desire to broaden the biological knowledge of these species increased, particularly those that exhibit a year round presence in Narragansett Bay. So, in 1990, a monthly Narragansett Bay component was added to the existing survey in Block Island Sound. This particular survey results in an additional 156 (13 monthly) annual tows.

To date (1979-2007), this hallmark program has completed over 4,500 tows and

nal trawl program nsett Bay, Rhode sently, 84 trawls asonal cruise.

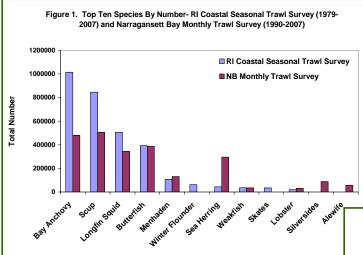
at Photo: T. Lynch

Figure 1 shows the 10 highest ranking species by number of individuals. Figure 2 illustrates the 10 species that dominated both surveys by weight.

Photo: T. Lynch

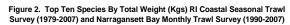
As a result of this program, the information gathered has played an important role in the management of numerous species of local, regional and coast wide significance. Also, this database is, and has been, actively sought out and utilized by researchers up and down the eastern seaboard, including Canada. The graphs provided here merely expose the tip of the iceberg of all the data that has been amassed since 1979. This ongoing and hopefully perpetual survey is vital to all who enjoy and are concerned about the future of Rhode Island's marine wildlife species.

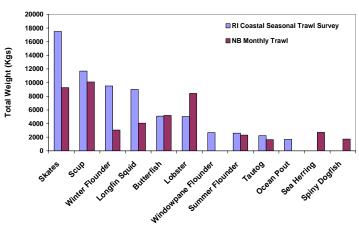
For more information regarding the Trawl Survey please call (401) 423-1928.



amassed primary and anecdotal data on over 118 species. The primary data taken includes species identification, lengths, weights and numbers. In addition, anecdotal information applies to the presence or absence of various jellyfish, macro algae, sponges, numerous crab species as well as seals, dolphins and sea turtles.

The graphs shown here depict the top 10 species recorded (out of 118 to date) in both the Seasonal Trawl Survey (1979-2007) and the Narragansett Bay Monthly Trawl Survey (1990-2007).





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Photo: Uwe Kils

Species Spotlight: American Eel by Michelle Burnett



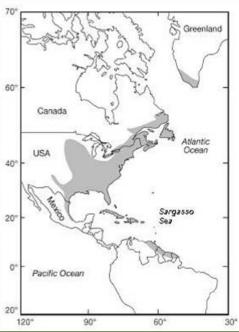
The American eel (*Anguilla rostrata*), also known as the common eel, freshwater eel, and Atlantic eel is found in fresh, brackish and coastal waters. American eels have considerable ecological, economic and cultural value. They serve as prey for large game fish and predatory birds. They are a critical part of the estuarine and riverine food webs as foragers. American eels are most commonly used for bait by recreational anglers and are a culturally significant food for Native American, Asian and European communities.

HABITAT AND RANGE: The American eel may be found from the southern tip of Greenland to northeastern South America. Eels are a catadromous species, which means they reproduce in salt water and spend the majority of their lives in brackish or freshwater. Females tend to move upstream into freshwater, while males are likely to remain in brackish areas such as estuaries and coastal ponds. Adult eels will spend five to 20 years in their respective habitat before mi-

grating back to spawn in the Sargasso Sea, which is located off the Southeast coast of North America.

FEEDING:

American eels are very adaptable creatures with the ability to exploit many habitat and food types. They are considered opportunistic feeders that forage on such organisms as insects, crustaceans and fish.

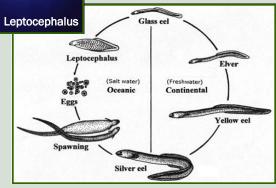


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REPRODUCTION AND BREEDING: The American eel is a highly migratory species with a complex life cycle. Spawning and larval development occurs in the open ocean in the Sargasso Sea. Eggs spawned in the open ocean develop into larval eels called leptocephali that drift toward the continental shelf for up to two years. During their journey to the coast, the leptocephali metamorphose into glass eels. Glass

eels are unpigmented eels that begin to develop pigment as they migrate into freshwater and become elvers. Following the elver stage is the yellow eel stage which may last for up to 20 years. Once mature, American eels migrate down-

> stream to marine waters. They then return to the Sargasso Sea to spawn once and presumably die.



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CONSERVATION: American eels have been a long-valued and heavily used resource across the Atlantic Coast. As a result, the American eel is declining due to habitat and harvest pressures. In 2004, the American eel was proposed for listing under the U.S. Endangered Species Act. Although the agencies involved ultimately ruled against listing, there is wide agreement among scientists and managers that restoration of American eel is a top priority for watershed health throughout the Northeastern United States.

DEM DIVISION OF FISH AND WILDLIFE CONSERVATION EFFORTS:

The Office of Marine Fisheries conducts an annual Young-of-the-Year Glass Eel Survey at two locations in Rhode Island; Gilbert Stuart Fish Ladder on the Pettaquamscutt River and Hamilton Fish Ladder on the Annaquatucket River. Sampling begins in early spring and lasts until the migration subsides in early July. Modified Irish elver ramps are used at both sites for collection of glass eels and elvers. Over 40,000 eels have been collected since 2000. This annual survey allows the Division to gain insight into the level of recruitment to the American eel population in Rhode Island waters.

As part of an effort to promote passage for American eels in Rhode Island, the Division of Fish and Wildlife has begun incorporating American eel passage into all new fish ladder installations. Design plans for the first eel passage project is currently underway. This will be a milestone for eel restoration in Rhode Island. The proposed plans call for eel passage to be installed on all three dams along Ten Mile River in Rhode Island: Omega Pond Dam, Hunt's Mill Dam and Turner Reservoir. Unimpeded passage along the Ten Mile River will provide an increase in available habitat for migrating eels. The Division of Fish and Wildlife hopes to incorporate more eel passage throughout the state in the near future.

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Beavers Are Back by Charles Brown

Continued from page 1

The damming provides access to food and protection from predators. Beavers are often referred to as a keystone species because of their ability to alter the landscape, and create wetland habitat beneficial to a variety of wildlife species.

Beavers are herbivores, consuming a wide variety of non-

woody aquatic plants as well as the shoots, stems, leaves, and cambium of trees and shrubs. They typically live in family groups called colonies which usually contain between four and eight individuals and consist of an adult pair and offspring from two previous years. A colony will vigorously defend its established territory from other unrelated beavers. When two years old, young beavers are forced to leave the family group and venture out to

Photo: David Westphalen/ Painet

find a mate and establish their own territories.

The landscape to which the beaver returned in the 1970s is far different than it was 200 years ago. Roads, bridges, dams, agriculture,

homes and other development covered the landscape. Almost immediately upon their return conflicts began to arise. Blocking of spillways and culverts and associated flooding became a serious problem for many property owners and public works departments. In 1995, when it was apparent that beaver populations were secure, the Division established the first regulated trapping season for beaver, allowing licensed trappers to harvest beavers. Regulated trapping is an important tool for managing the beaver population and providing property owners an option to control nuisance bea-

vers on their lands. Data obtained from animals harvested by trappers provides valuable, cost effective information on sex, age, condition, distribution, and trapper effort. The Division manages beaver with the following goals: maintain viable populations statewide. minimize conflicts with humans, and educate the public about ways to coexist with and be tolerant of beaver activity.

To gain a better understanding of the current status of beaver populations in the state, the Division conducts regular, comprehensive surveys of the state's major watersheds. Knowing the status and trends of the beaver population is an important consideration when setting bag limits and season lengths to insure that over-harvest does not occur. Each year one or two major watersheds are surveyed during the fall and winter when beaver have established lodges, dams and food caches for the winter.

In the fall and winter of 2007-2008, the Division surveyed the Rhode Island portion of the Blackstone watershed which was a follow-up to a 2002-2003 survey. The Blackstone River watershed drains into Narragansett Bay and, in its entirety, covers 640 square miles of which 258 square miles are located in northern Rhode Island. Tributaries of the

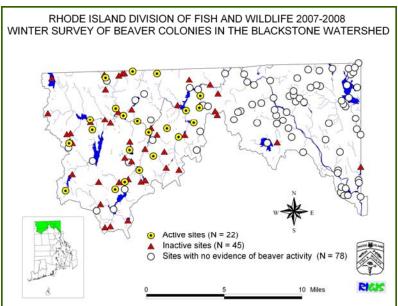
Blackstone include the Branch, Chepachet, Clear, and Nipmuc Rivers, and Abbott Run and Crookfall Brooks. All potential sites are surveyed by kayak or on foot. Sites are considered active if several factors are met including: finding a lodge, a fresh food cache, seeing a beaver, etc. Sites are considered

inactive if there is evidence of past activity such as old cuttings, an abandoned lodge, or a remnant dam exists but no recent activity is observed.

During the survey 145 sites were visited and 22 were found to have beavers, only a slight increase from the 19 active sites located in 2002-2003. A total of 45 other sites had evidence of past beaver occupation. To date, nearly all of the beaver activity within the watershed is restricted to the Branch, Chepachet, Clear, and Nipmuc watersheds within the towns of Glocester and Burrillville. There are many appar-

ently appropriate sites in the eastern part of the Blackstone watershed that have yet to be colonized. Trapping pressure remains relatively light due to few active trappers, low pelt prices, and the fact that beaver pelts are one of the more difficult species to properly prepare.

Future surveys will help us keep track of our beaver populations throughout the state and help us to protect and manage this important natural resource for the future.



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Spring Fair at Gilbert Stuart by Kimberly Sullivan

What do the Gilbert Stuart Birthplace and Museum and the DEM Division of Fish and Wildlife have in common? River herring and American eel! On April 27, Fish and Wildlife staff will be present at the Museum's Spring Fair to edu-

cate the public about migrating fish while the Museum opens its doors to the public for the season.

The house is an historic landmark located in North Kingstown and is the birthplace of Gilbert Stuart, a renowned early American portrait painter. The museum is also the site of the nation's first snuff mill and a grist mill used to grind corn for Johnnycakes. The first mill on the property was built in 1662. In order to run the mill a dam was erected across the Mattatuxet River to harness water energy to help grind snuff and grain.

When the dam at Gilbert Stuart was built, the herring migration stopped because the construction of the dam effectively eliminated access to upstream spawning areas.

River herring are anadromous fish that live in the ocean and migrate upstream to spawn in freshwater. River herring do not die after spawning like some anadromous fish, but return to the same river year after year. The migration can begin as early as March and extend through May.

River herring were valued for food in the 1700s and are used for bait and fish meal today. Because of a decline in numbers of returning fish, the river herring fishery is currently closed.

In 1966 Rhode Island became involved in anadro-

mous fish restoration and began working to create fish ladders to allow fish to bypass dams that were barriers to upstream habitat. Thus began the current effort to restore anadromous fish runs in Rhode Island. Gilbert Stuart fish ladder is an Alaska steeppass which effectively passes fish upstream of the dam so that they can spawn in Gilbert Stuart Pond. Also located at Gilbert Stuart is an American eel ramp and this is one of the sites where the

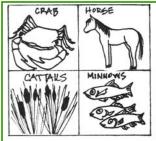
glass eel survey is conducted by the Division of Fish and Wildlife (see page 5).

On April 27th the Gilbert Stuart Museum will host the "Spring Fair" from 1 to 4pm, the mill will be grinding corn, tours of the museum and arts and crafts will be

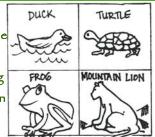
available, and exhibits on river herring and American eel will be on display. You will even be able to witness the migration of river herring through an underwater camera! Please call (401) 294-3001 for more information.

Photo: K. Sullivan Photo: K. Sullivan Photo: S. Holdredge

Kids Corner! Presented by the Aquatic Resource Education Program



Who's out of place? Circle the one thing that does not belong with the others in each habitat.



Hey kids, say FISH!

The ARE program is preparing a kids fishing calendar for 2009 and we are looking for pictures of YOU! Twelve (12) rod and reel combos will be given to the chosen calendar participants. So, smile and say 'Fish'. Please submit all digital photographs along with mailing address to Kimberly.Sullivan @dem.ri.gov.

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Birdhouse plans

We have birdhouse plans that are free for anyone interested in building birdhouses for the spring. The plans describe how to build a selection of different birdhouses, including houses for Eastern bluebird, American robin, house wren and approximately 29 others. Also included are plans for platforms and nest boxes for several mammals and amphibians. Please call (401) 789-0281 or email Christine.Dudley @dem.ri.gov with your address for your free set of birdhouse plans.



Calendar of Events April—June 2008

April 4-6 NE Saltwater Fishing Show, RI Convention Center www.nesaltwatershow.com

April 7 RI Marine Fisheries Council. For more info on monthly meetings, 423-1927 or www.dem.ri.gov

April 12 Opening day for trout fishing

April 14 Hunter Education Courses begin at Smithfield Sportsmen's Club and Tiverton Rod & Gun Club. Go to: www.dem.ri.gov then Division of Fish & Wildlife or call 789-3094

April 16 Hunter Education Course begins RI Fish & Game Protective Association. See April 14

April 18—20 RI Coverts Forest Landowners Workshop, W. Alton Jones, *Brian Tefft 789-0281*

April 20 Crow season ends

April 26 & 27 Special Wild Turkey season (Paraplegic hunters and Junior turkey hunters)

April 27 Spring Fair at Gilbert Stuart Museum, 294-3001

April 27 Johnston Children's Fishing Derby, Johnston War Memorial Park, *Vincent Jackvony 272-3460*

April 30 Quahog Transplants Warwick Cove, 423-1932

April 30 — May 26 Spring Wild

Turkey season

April 22 Earth Day

April 25 Arbor Day

May 3 Richmond Parks & Recreation Children's Fishing Derby Bruce Tavares 258-1368 May 6 & 14 Quahog Transplants Apponaug Cove, 423-1932

May 8 & 20 Quahog Transplants Greenwich Cove, 423-1932

May 17 Introduction to Fly Fishing Workshop. For more info call 789-0281

May 24 Narragansett Children's Fishing Derby Sprague Park Pond, Tom Tessitore 782-0668

Remember!

All users of State Management Areas (except hunters) are required to wear 200 square inches of solid daylight fluorescent orange (generally, a daylight fluorescent orange baseball hat) from the last Thursday in April to the last day in May.

This program receives Federal funds from the U.S. Fish and Wildlife Service. Regulations of the U.S. Department of the Interior strictly prohibit unlawful discrimination in departmental Federally Assisted Programs on the basis of race, color, national origin or ancestry, gender, sexual orientation, age, or disability. Any person who believes he or she has been discriminated against in this program, activity, or facility operated by this recipient of Federal assistance should write to:

The Office for Equal Opportunity, U. S. Department of the Interior, Office of the Secretary, Washington, D. C. 20240



Wild Rhode Island

A Quarterly Newsletter from the Division of Fish and Wildlife

Oliver Stedman Government Center 4808 Tower Hill Road Wakefield,RI 02879 (401) 789-3094 TTD 711

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