Volume 2, Issue 2 Spring 2009

Wild Rhode Island



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

Restoring Migratory Fish to Rhode Island Rivers and Streams by Phil Edwards

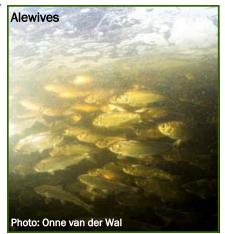
In Rhode Island, one of the early signs of spring is the arrival of anadromous fish to our coastal streams, rivers, and ponds. Two species of anadromous fish that spawn in our freshwaters are American Shad and River Herring (River Herring is a collective term for Alewife and Blueback Herring). These fish hatch in freshwater and mature in marine waters. Once the eggs hatch, the larval fish remain in freshwater until

summer and fall when, as juveniles, they migrate to sea. They spend three to four years at sea before returning to their native freshwater systems to spawn, completing the life cycle. The adults return to sea after spawning and may return the

During the industrial revolution many dams were built to

following year.

harness energy but these dams also prevented anadromous fish from reaching valuable spawning and nursery habitat. In



many cases fish runs diminished or disappeared entirely. River Herring and Shad are not capable of jumping, so even the slightest obstruction may be impassable. Since the 1960s, the Division of Fish and Wildlife has worked toward restoring anadromous fish to Rhode Island. These efforts include partnering with various organizations on restoration projects, conducting anadromous fish stocking, monitoring ana-



dromous fish populations throughout the state, providing seasonal adjustments and maintenance to existing fishways, anadromous fish stock assessments and setting harvest regulations.

Continued on page 5

OPENING DAY!

Don't forget, Opening Day of trout fishing is April 11, 2009! Turn to page 6 for great fishing advice in *The Pocket Fisherman* and to learn about our Free Fishing Day. Good luck!

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An Annual Rite of Spring: The 2009 Quahog Transplant Program by Dennis Erkan

Each spring since 1977, DEM has been conducting quahog transplants in cooperation with the Narragansett Bay Commission, the RI commercial shellfishing industry, and the RI Department of Health. This program was first initiated to restore and enhance depleted shellfish stocks in Greenwich Bay but has since enhanced stock in other parts of Narragansett Bay.

The benefits of the transplants, more appropriately called relays, are multifaceted. Adult quahogs are harvested, under DEM supervision, by commercial shellfishermen from

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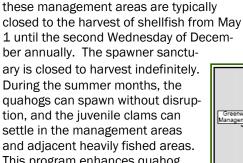
Wild Rhode Island is also available on the web at: www.dem.ri.gov

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

The 2009 Quahog Transplant by Dennis Erkan Cont. from page 1

a number of coves that are typically offlimits due to poor water quality. The quahogs are placed in 50-pound-bags to facilitate counting and handling. They are then

sold to DEM for an average of \$6 per bag and stockpiled on larger commercial fishing vessels that move the clams into pre-established shellfish management areas with better water quality. Finally, the quahogs are distributed throughout four separate areas which include the High Banks, Bissel Cove, Bristol Harbor shellfish management areas and the Potowomut Spawner Sanctuary. Even though the quahogs become safe for human consumption relatively quickly.



This program enhances quahog stocks in the vicinity of Quonset Point, Prudence Island, Hope Island, and waters south of Bristol Harbor.

An additional benefit is that commercial shellfishermen are allowed to harvest from these three shellfish management areas during the winter months. The three areas are typically open to harvest from 8:00 a.m. until noon, Monday, Wednesday, and Friday, with a 3 bushel daily possession limit. The relatively sheltered characteristics of the management areas combined with holiday demand for quahogs result in a high number of shellfishermen taking advantage of

the opportunity. The spawner sanctuary remains off-limits to harvest to insure that quahog broodstock is available to replenish heavily fished areas.

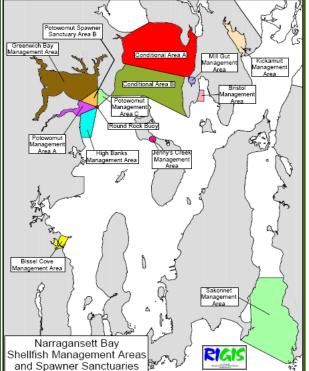
The Division of Fish and Wildlife conducts an annual survey of shellfish stocks in Narragansett Bay. This information is combined with landings data provided by shellfish dealers and in cooperation with shellfishermen to ensure the sustainability of quahog stocks for years to come.

In the spring of 2008, approximately 600,000 pounds of quahogs were transplanted by this program over five separate days. There will be a similar effort 2009 beginning the last week of April. For

more information regarding the 2009 quahog transplant program please email Dennis Erkan at dennis.erkan@dem.ri.gov.







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Species Spotlight: Eastern Wild Turkey by Brian Tefft



The wild turkey is instantly recognizable. Most people associate it with the first Thanksgiving and the Pilgrims who braved the new world and settled in New England. The wild turkey native to Rhode Island is the Eastern Wild Turkey (Meleagris gallopavo silvestris) and is one of five different subspecies. This bird was first named in 1817 by Viellot using the Latin word silvestris meaning "forest". It has the widest range of all

turkeys, extending across the eastern half of the country. Turkeys disappeared from R.I. by the early 1700s; however, they were reintroduced by the Division of Fish and Wildlife in 1980 using 29 wild turkeys trapped and donated by the Vermont Department of Fish and Wildlife. Other releases of wild turkeys in RI occurred in the early 1990s so that today wild turkeys are found throughout the state wherever forests and open lands exist. In some cases, due to their adaptable disposition, turkeys can even encroach into urban areas where they are sometimes unwelcome.

DESCRIPTION: Turkeys are spectacular birds. Adult males, called gobblers or Toms, can weigh over 20 pounds and stand nearly four feet tall. Females are known as hens and

are smaller than males, weighing 8 to 12 pounds. Coloration in males consists of dark black and brown iridescent body feathers, striking white barred wings and mottled chestnut tail feathers used in display. During breeding



periods, males also have bright red, blue and white on their heads, further adding to the bird's striking image. Females by comparison are drab and brown, an ideal color for camouflage when nesting, and they have a bluish-gray head. Males are also characterized by sharp leg spurs used for defense against predators and a beard. The beards are tufts of long stiff feathers sticking out from the chest and range from three inches in young males to over 11 inches in adults. A low percentage of hens may have beards and a very few have poorly developed spurs.

NATURAL HISTORY: Courtship in turkeys begins in late winter when flocks of birds establish a pecking order of dominance. Breeding behavior is triggered primarily by increasing day length and weather, and is usually signaled when

large winter flocks split up into small groups. In April, males begin gobbling to attract a hen for breeding, combined with strutting displays during which the hen crouches to signal her readiness to breed. Once bred, hens select nest sites with moderately dense cover where they will scratch out a shallow depression and line it sparsely with leaves and twigs. Hens will lay a clutch of 10 eggs over the course of



two weeks during mid-April to mid-May, leaving unincubated eggs covered with leaves. Incubation is for 26 to 28 days and upon hatching, imprinting between the hen and her new poults must occur

within 24 hours if the young birds are to leave the nest and survive. When first nests are destroyed by predators, hens will re-nest with second nests hatching in July. Poults grow rapidly and are capable of flight at three weeks. They then begin roosting in trees with the hen, which increases their chances for survival. A diet rich in insects helps the young poults grow and develop quickly, but they gradually change over to a diet of both plant and animal matter.

HABITATS AND HUNTING: Wild turkeys are found throughout RI, primarily in forested landscapes intermixed with small openings and farmlands. Habitats favored by wild turkeys often include large tracts of hardwood forest where the oak trees produce large quantities of acorns, a staple in the diet of the turkey. Rhode Island hunters enjoy a spring gobbleronly season each May when they have an opportunity to harvest a male turkey. Turkey hunters enjoy the challenge of calling Toms by imitating a hen turkey, luring the Tom close enough for a shot. Because of the keen eyesight of turkey, hunters must wear head-to-toe camouflage and avoid wearing any bright colors, especially red, white or blue. Hunters are permitted to take one bird in the spring with

shotgun or bow. Permits to hunt the wild turkey are available at license vendors and in addition to the regular hunting license. Each hunter may harvest one gobbler in the spring and one of either sex in the fall. The fall season is in October, when hunters can hunt only with archery equipment, adding an additional level of difficulty. In RI we are lucky to be able to enjoy seeing, experiencing and hunting this great game bird.



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Heavy Equipment and Hard Work by John MacCoy, Sr.

Brush cutting Block Island.

The Division of Fish and Wildlife development crew maintains Rhode Island's management areas, freshwater and marine boating access sites and the state's trout hatcheries. "The Crew", as we are called, currently includes myself, Dennis Ryan, Ray Jobin, David Palumbo, Jr.,

and James Pendlebury. We have skills in mechanics, carpentery, heavy equipment operation and maintenance. The jobs we do change with the seasons. We have some tasks that are performed every year and other special projects that occur one time only.

In the spring we prepare fields in our management areas, planting

crops for wildlife food and cover crops. Many different types of crops are planted including corn, buckwheat, millet and sorghum. Due to budgetary constraints we may move to planting perennial cover crops in the future. We also prepare our fishing areas for opening day by grading parking lots and access roads to these areas.

As we move into the summer months. "The Crew" works on reclaiming wildlife habitat in old barren gravel banks in man-

agement areas. Gravel banks in several areas have been restored, including the Cy Place unit of Nicholas Farm in Greene, Eight Rod Farm in Tiverton, Wincheck Gun Range in the Arcadia Management Area and two locations in the Carolina Management Area - Wright Farm and part of the Old American Fish Culture property now know as the Caro-

lina Hatchery. The gravel bank at Wright Farm took a few years to reclaim. We graded the steep banks with heavy equipment, spread processed sludge and planted switch grass. Now it is an excellent place to hunt. In late summer we also assist with bow hunting proficiency testing.

In the fall months we cut brush on the islands. These improvements maintain old field habitat for wildlife and are done in cooperation with The Nature Conservancy. The brush cutting is conducted on lands owned by DEM to maintain habitat for the endangered American Burying Beetle and other grassland wildlife such as the American

Woodcock. We also do similar brush cuts on Prudence Island for fire control and to maintain grasslands. Also this time of year, we do clear cuts on a larger scale using a variety of land clearing equipment. Our primary tool is a Bob Cat T-250 Skid-Steer Loader with a variety of attachments. The attachments we

> have include a hydraulic tree lopper, which can cut down a 60-foot pine tree; grapplers, which remove brush and trees once they are cut down; six-foot wide brush hogs for cutting brush; and a hydro axe for cutting brush two to six inches in diameter, which also chips as it cuts. We also use backhoes, John Deere 5525 farm tractors for farming and chain saws with 16, 18 and 20 inch bars. With this

> > equipment we are able to clear large areas of trees and brush for wildlife habitats.

We also maintain our facilities, including the State fish hatcheries, with our heavy equipment. At the Perryville Hatchery we rebuilt the entire trout rearing pond, and the

road and culverts were rebuilt at the Lafayette Hatchery. "The Crew" is also responsible for the State's freshwater and saltwater boat ramps. Recently, the Goddard Park boat ramp was overhauled. From time to time, we re-grade parking lots and replace concrete slabs. In late fall we prepare the check stations

for small game and deer seasons. The check stations are used to collect hunter effort data. This involves checking with hunters to see when they go out, if they bring dogs, what game they are after and what type of game are taken. During this time we also stock pheasants and the infor-

mation collected at the check stations gives the Division feedback for the pheasant project.

During deer season, which begins in fall and goes into winter, we collect biological data from each deer taken. This includes measuring weight, determining age, sex and condition, and requesting deer heads for chronic wasting disease testing. Also in winter we plow snow in areas for hunting and ice fishing. The winter months also give us a chance to get caught up on our repairs. I hope I have given you a brief idea of what the heavy equipment crew does. Please enjoy the pictures of some of our projects.



James makes a perfect cut.

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Restoring Migratory Fish to Rhode Island Rivers and Streams by Phil Edwards

The primary goal of this program is to create selfsustaining runs of anadromous fish to selected river systems in Rhode Island and to manage them for maximum public benefit. A secondary goal is river connectivity, by providing fish passage for resident fish such as trout, catfish, and bass. a series of concrete pools where fish swim from one pool to

Currently, throughout Rhode Island many fish passage restoration projects are planned or underway. The Department of Environmental Management supports and partners with many government agencies, non-government organizations, local watershed groups and private owners on a variety of these tasks. Projects include construction of new fishways, dam removals, collapsed culvert repairs and installing

studies or applications for feasibility, design, planning, and permitting. Project management teams consist of engineers and biologists who design and select the best fish passage alternative for a particular site. The selection process depends on watershed size, site conditions. access, obstruction height, target species and cost of alternatives.

In most cases the first option for fish passage is

dam removal, which includes removing the barrier and creating a free flowing river system. Unfortunately, in many cases, dam removal is not feasible and installing a new fishway may be the preferred alternative. When selecting a style of fishway there are several types to choose from: Denil, Alaskan steeppass, pool and weir, fish lifts, and bypass channels.

Denil fishways are concrete structures that have a series of wooden baffle boards which decrease the water velocity allowing fish to swim through the fishway. Typically, Denil a break before swimming through another series of baffle boards. Denil fishways are usually three or four feet wide with 1:6 or 1:8 slopes and the height and number of baffle boards depends on the height of the obstruction. Denil fishways, the most common in Rhode Island, are currently located on the Annaquatucket, Nonquit, Pawcatuck, Potowomut, and Saugatucket Rivers. New Denil fishways are located on the Kickemuit and Woonasquatucket Rivers.

An Alaskan steeppass is a modified Denil fishway, consisting of short aluminum sections, pieced together to create a

fishway. They are lightweight, capable of passing large numbers of fish and can be used in remote locations. Since 1979, an Alaskan Steeppass fishway has been operating at the Gilbert Stuart run in North Kingstown. Pool and weir fishways are another in a step-like manner until they bypass the obstruction.

Similar to dams, collapsed culverts can impede fish passage. Installing fish-friendly culverts during routine road repairs can assist fish migration. A recently replaced culvert aiding in river herring migration is located on Mussachuck Creek. Restoration projects are also planned to assist juvenile fish exiting to the sea in the summer and fall. Modifications to dams and juvenile diverters. Prior to construction, most projects require fishways include plunge pools, low slot chutes and juvenile di-

verters, all of which allow juvenile fish safe passage during low flow periods. New juvenile fish passage projects are located on the Potowomut and Woonasquatucket Rivers.

The Division stocks anadromous fish to supplement existing runs, reestablish extirpated systems and reintroduce fish to a restored area. Fish are acquired from out-of-state and existing Rhode Island runs. Ripe adult herring and shad are loaded onto tank trucks and trans-

n steeppass at Gilbert Stuart. A new pool and weir on the Saugatucket River. Photo: A. Libby Alewife, 10" Photo: P. Edwards New Denil fishway on the Woonasquatucket River. Image: USFWS American Shad, 163 Image: USFWS

> planted to restored areas. Adults spawn in the new systems, juveniles will imprint and three to four years later the juveniles return as adults to spawn in the new system. In the anticipation of a future fish passage project the Division may transplant adults, before completion, to jump-start the restored system.

Monitoring is conducted in the spring for returning adults by installing electronic fish counters and direct count methods. In the summer and fall, sampling for exiting juveniles is accomplished by seine, trapnet and electrofishing surveys. Data and fishways have turning or resting pools which allow fish to take results from monitoring projects are used to prepare stock assessments, set harvest regulations and evaluate the success of the fish runs and restoration projects. Routine fishway operation and maintenance consists of removing debris, seasonal adjustments and periodically installing new baffle boards.

> The Division of Fish and Wildlife currently manages 21 fish runs, and nine have existing fishways. In addition, we are currently working with many partners on new fish passage projects on the Blackstone, Kickemuit, Pawcatuck, Pawtuxet, Saugatucket, Ten Mile and Woonasquatucket Rivers. Chances are. an existing or new fish passage project may be in your area.

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Find the Clue and Bring Your Family Fishing for Free by Kimberly Sullivan

DEM's Second Annual Great Outdoors Pursuit is right around the corner. The State Hatcheries are joining forces with the Aquatic Resource Education program to bring you a free day of fishing to celebrate the kick-off. That's right, to-

tally free! No license, no gear, and no tackle required. The only catch is that you must find where the program is being held on May 31, 2009.

The kick-off of the 2009 Rhode Island Great Outdoors Pursuit will celebrate the 100 year Anniversary of Rhode Island Parks and will include many activities, outdoor opportunities, games and prizes. Last year, the inter-division program brought over 1000 people to Rhode Island's beautiful parks and management areas. Families register as a team and then follow clues to vari-

ous places around Rhode Island where events and selfguided tours are held. For each event, teams are given a stamp. Families that attend seven or more events are eligible to win a Grand Prize. Last year the prize was a kayak and kayaking lessons. Other prizes throughout the competition included camping equipment, free camp sites at Burlingame Campground, family games, toys and other promotional items.

The Division of Fish and Wildlife's Aquatic Resource Education (ARE) program will be cooperating with other DEM Divi-

sions to bring fun outdoor family activities to the RI Great Outdoors Pursuit such as freshwater fishing, surf fishing, and a traveling tide pool. At the first location, the Aquatic Resource Education program will provide loaner fishing rods, staff and volunteers to teach young and old how to bait and cast the rods, and of course, plenty of bait. While no fishing license will be required, ARE fishing programs practice catch and release fishing and adhere to state regulations.

So, introduce your family to the joys

of fishing and discover Rhode Island's beautiful parks and play the RI Great Outdoors Pursuit. Registration is open now. Once you register clues are sent to help you decipher the location of the first event. If you are interested in registering your family as a team or just learning more about the RI Great Outdoors Pursuit visit www.riparks.com.



The Pocket Fisherman by Allen Williams

Freshwater Fishing Advice From a Local Expert

Opening day frequently finds me on the move, first trying to locate where the trout are holding, and second, attempting to avoid the crowds. Traveling light, with a minimum amount of tackle is the way to go. Basically, I use a

small box that will fit in a coat pocket and a five-foot, five-inch long light tackle spinning outfit. In my box, I carry the three tried and true trout lures: in-line spinners, spoons and jigs. Also, if I can fit them in my box, I will carry a small minnow-shaped crank bait or two. All of these lures imitate either baitfish, crustaceans or other swimming fare for fish.

In-line Spinners – These lures attract by vibration, flash and color (blade and body). They have a tendency to twist line, so

a quality small black snap swivel should be used. A fish-shaped body or a slight keel shape will help to reduce line twist. Use a steady retrieve to maximize blade spin, flash and vibration.

Spoons – Spoon lures resemble small forage fish. They are metal, shaped like a spoon or a fish and attract fish by flash and color. They flutter or wobble from side to side on

In Line Spinners

Crank Bait

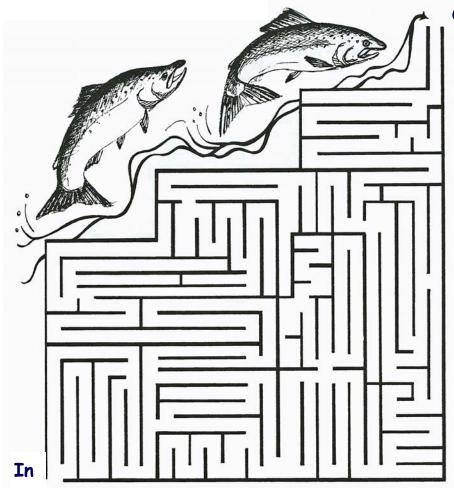
a steady retrieve. Usually, I retrieve and then pause to allow the spoon to drop and flutter, imitating an injured bait fish. This triggers a natural attack response from most game fish. Many fish are caught on the drop! Spoons tend to weigh a little more, thus increasing your casting distance.

> Jigs - The jig is the simplest artificial bait there is. It has a small lead head near the eye of the hook that can be dressed up with a body to attract your target fish. Bodies of soft plastics, such as curly grub tails, minnow bodies or small rubber skirts can be used. Also, natural materials to utilize include feathers and buck tail. Natural materials tend to undulate giving a more realistic appearance on a stop and go or a bottom bounce retrieve. Bottom bouncing works with minimal lure loss because jigs are designed so

the body bounces off the bottom with the point upwards. Jigs can be bought pre-rigged, tied, or you can create your own body style.

With all of these lures you should vary the retrieve speed and fish different depths of the water column, from top to bottom and in between. Change lures and technique frequently until you find the magic combination. Good luck, catch fish! Volume 2, Issue 2 Page 7

Kids Corner! Presented by the Aquatic Resource Education Program



The above maze is printed with permission from Discovering Salmon: A Nature Activity Book by Nancy Field and Sally Machalis. For more information on nature workbooks, visit www.dog-eared.com

Out

Fishways

Waterfalls, rapids, log jams, landslides, beaver dams, man-made dams and culverts can block the migration of fish upstream. To help fish move around these obstacles, fishways of different types have been built in many locations. Fish ladders, for example, are a series of steps, like staircases, with water flowing over them. Help these fish find their way up the fish ladder on the left.

Word Search							
Anadromous	Migrate						
Dams	River						
Eel	Salmon						
Fishway	Shad						
Fish	Spawn						
Herring	Stream						
Ladder	Water						



Play the Rhode Island Great Outdoors Pursuit!

Decipher clues, visit beautiful State parks and forests, join in fun activities, and win great prizes!



Don't miss out—sign up TODAY! Visit www.riparks.com or call (401) 222-2632



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Calendar April—June 2009

April 3—5 New England Saltwater Fishing Show. For more information call 401-826-2121 or visit www.nesaltwatershow.com.

April 11 Opening Day of Trout Season
Please see page 6 for fishing advice
from local expert, Allen Williams in
The Pocket Fisherman.

April 13—18 Free Hunter Education Course. Smithfield Sportsmen's Club, contact Jack Holton 231-4150.

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. April 20, 22, 27, 29 & May 2 Free Hunter Education Course. Tiverton Rod and Gun Club. Contact Bill Carreira at 624-9280.

April 30—May 26 Spring Wild Turkey Season. Bag limit: one bearded Turkey. Permit required. For more info see the 2008-2009 Hunting and Trapping Abstract.

May 16 Introduction to Fly Fishing.

Addieville East Farm. For more info call 789-0281 or visit www.dem.ri.gov.

May 31 Free Family Fishing Day.
Please see article on page 6 for more information.

May 31 Kick off for the Rhode Island Great Outdoors Pursuit. Decipher clues, visit beautiful State parks and for-



ests, join in fun activities and win great prizes. Visit www.riparks.com or call 401-222-2632.

June 6 and 7 Free Fishing Days. No freshwater fishing license or trout conservation stamp required, but creel limits still apply.

June 20 Annual Take-a-Kid-Fishing Day. Greenwich Bay Marina, Warwick, RI. Sponsored by RISAA. For more info see www.RISAA.org

This program receives Federal financial assistance in Sport Fish and/or Wildlife Restoration. Under Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972. The U.S. Department of the Interior prohibits discrimination of the basis of race, color, national origin, age, sex or disability. If you believe that you have been discriminated against in any program, activity, or facility as described above or if you desire further information please write to:

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