## Volume 8, Issue 1

Winter 2015

# Wild Rhode Island



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

## Fisheries Biologist Recognized by American Fisheries Society by Phil Edwards

On August 18<sup>th</sup> Alan Libby, a principal fisheries biologist in DEM's Division of Fish and Wildlife, was presented the American Fisheries Society (AFS) Northeast Division President's Award in Quebec City. Deemed one of the highest honors in the fisheries world, the President's Award was presented to Alan for his recent publication, 'Inland Fishes of Rhode Island', his commitment to the promotion of fisheries management, upholding the ideals of professionalism, and his dedication to AFS and the Rhode Island Division of Fish and Wildlife.



his Masters at the University of Connecticut where he became vested in fisheries science. Hired by RIDEM's Division of Fish and Wildlife in 1987, he dedicated over 20 years of his career to surveying and cataloging the ponds and streams across Rhode Island. In 2013 all of that research culminated in the publication of 'Inland Fishes of Rhode Island,' which is replete with full color maps and scientifically accurate drawings created by Robert Jon Golder.

The Division of Fish and Wildlife would like to personally thank Alan for

A native Rhode Islander, Alan Libby graduated from Rogers High School in 1958 and received his bachelor's degree from the University of Rhode Island. He went on to pursue

his dedication to managing and protecting Rhode Island's natural resources throughout the course of his career and congratulate him for receiving the AFS President's Award.

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#### Beginning in January 2010, as waterfowl hunters throughout Rhode Island hung up their equipment and reflected on another season passed, the Division of Fish and Wildlife set out to trap and band as many American black ducks (Anas rubripes) as possible. This post-season banding project is a part of a regional effort designed to determine the reason for the decline and slow recovery of American black duck (hereafter, black duck) populations, despite favorable habitat conditions and increasing populations of similar



waterfowl species. Since the first year of post-season trapping, when the Division banded 47 black ducks (see "Winter Duck Banding Fun" in the Summer, 2010 Wild RI), the trapping methods, locations and protocols have evolved; however, the goal of banding as many black ducks as possible to support the regional effort has remained unchanged.

During the winter of 2011, Division staff banded mallards (Anas platyrhynchos) in addition to black ducks. The primary method of capture consisted of float-Continued on page 2 ing traps, which allowed for the banding of 85 black ducks and

#### 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.



Janet Coit, Director Rhode Island Department of Environmental Management

Larry Mouradjian, Associate Director, Bureau of Natural Resources

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## Winter Black Duck ... by Josh Beuth continued from page 1

427 mallards. By banding both species, researchers are able to determine whether patterns in band returns are similar or different between mallards and black ducks, thus helping to narrow down the drivers of black duck populations.

The winter of 2012 brought above average warmth, which allowed black ducks to disperse into areas that would typically be iced over. This made it difficult to locate sizable groups to target.

After speaking with other biologists in the Atlantic Flyway, it was determined that rocket netting may be a more effective method for capturing black ducks during the post-season banding project. Throughout the summer and fall of 2012, the Division acquired the equipment necessary to build a functional rocket netting system. The 2013 trapping season brought colder temperatures and staff knew that given the right conditions, rocket netting would be a far superior method for capturing black ducks, compared to the floating traps used during the first three years of the project. By using the rocket launching net technology, the 2013 post-season black duck numbers were greater than the 2012 season. Ultimately, 78 black ducks and 33 mallards were banded in 2013.

The winter of 2013-14 was off to a cold, icy start, ideal for catching ducks. In early January, staff conducted the annual aerial mid-winter waterfowl survey and nearly one -third of Narragansett Bay was frozen. Similarly, the salt ponds along the south coast were almost entirely frozen. Where there was open water, the black ducks were plentiful.

A week long warm-up halfway through

January allowed the birds to disperse beyond what was observed during the midwinter survey two weeks prior. However, as January came to a close, the mercury plummeted again and snow continued to fall. Biologists placed bait at sites that were previously scouted ahead of the trapping season. Due to their natural foods being covered by ice, black ducks responded to the bait immediately, frequently arriving well before sunrise to ensure they ate some of the bait before it was gone. The positive response from the ducks and high hopes for success made the project enjoyable despite 2 a.m. start times and bitter cold temperatures. Between baiting and observing sites, safety precautions associated with the rocket net were practiced to ensure safe and successful operation of the equipment.

In late January, merely a week after starting to bait sites, the team was ready to attempt their first capture. With several dozen black ducks observed at the site the previous morning and a fresh coating of snow to make camouflaging the rocket net a breeze, the team deployed the rocket net on a salt marsh in Westerly. Well before daylight the first ducks arrived, and nearly an hour before sunrise the rocket net was successfully shot, capturing 37 birds! Throughout the month of February and first 10 days of March, the team fired another 16 rocket net shots on marshes throughout southern Rhode Island and the western shore of Narragansett Bay, banding 312 black ducks and 95 mallards.

Without a doubt, the cold and icy conditions that persisted through-



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## Winter Black Duck ... by Josh Beuth



out February and into March played a major role in concentrating black ducks and making them more responsive to the bait used to lure them in front of the rocket net. The Division was extremely happy with the results of the 2014 post-season black duck banding

project and looks forward to participating in this and other Atlantic Flyway waterfowl projects in the years ahead.

## continued from page 2

#### **Fluorescent Orange Requirements**

All users of state management areas (e.g. hikers, cyclists, horseback riders) are required to wear 500 square inches of daylight fluorescent orange during shotgun deer season (December 6, 2014—December 21, 2014, and December 26, 2014—January 2, 2015). Additionally, all users of State

Management Areas are required to wear 200 square inches of solid daylight fluorescent orange (generally, a baseball hat) from the second Saturday in September to the last day of February and the third Saturday in April to the last day in May.

## How do the Animals Manage to Survive the Winter? by Sarah Riley



Photo by USFWS Photo by USFWS

The wildlife of North America have learned how to survive through our harsh winters in many different ways. For instance, migratory birds travel south to warmer places while others hunker down and sleep until the warmer temperatures return in the spring. Here, we'll look at some of these survival strategies.

**Mammals:** Mammals have many different ways of spending their winter. Some migrate just like birds; whales, elk and some species of bats will travel to warmer regions for food. Other mammals hibernate in shelters, like groundhogs, eastern chipmunks, little brown bats and many others. By staying in an insulated burrow and letting their body temperature, metabolic rate and heartbeat slow, they are able to reduce the amount of energy their bodies need to stay alive, and they are able to "sleep" through the winter.

Many mammals stay active all winter long. Sometimes we will see rabbits, hares, coyotes, foxes or weasels throughout the winter season. In the fall, they will grow a new coat of fur which is thicker and more insulated, and this helps protect them from the cold while they search for food (SMS, 2013). **Birds:** Many species of birds have survived North America's coldest months by flying south for the winter. They often travel in flocks and make frequent stops to eat and rest; this gives them energy to keep warm and to fly hundreds, some-

times thousands of miles. Some birds that spend their summers in New England will go all the way down to the southernmost end of South America!

Other bird species only migrate if there is not enough food, so we can still see them eating at our bird feeders even through February. These are



known as facultative migrants and include cardinals, blue jays and crows (USGS, 2013).

One species of bird is actually known to hibernate like a mammal! The Common Poorwill (*Phalaenoptilus nuttallii*) will hide in a tree crevice, letting its heartbeat and body temperature drop dramatically for weeks or months until warmer temperatures return (CLO, 2014).

**Reptiles & Amphibians:** Being cold-blooded, air temperatures dropping means body temperatures dropping for our reptiles and amphibians. In order to stay warm, they must either burrow down in the ground below the frost line, or find a warm, insulated place to tuck in for the winter. Sometimes this even means in the walls of our houses or sheds. There are many different kinds of reptiles and amphibians so we will break them down into their smaller groups for a closer look:

*Turtles, Aquatic Salamanders and Frogs:* Most of these species will spend their winters burrowed into the mud at the bottom of the pond or lake, and sometimes still searching for food. Instead of breathing with their lungs as they do in the spring and summer, these animals will absorb oxygen through their skin from the water around them.

## Species Spotlight: Bluefish by Nicole Lengyel

Each year, as summer approaches and the water temperatures rise, both recreational and commercial fishermen see an influx of migratory species entering Rhode Island waters, traveling north from their overwintering grounds in the South Atlantic. One such species is the Bluefish (*Pomatomus saltatrix*). Bluefish are a fast growing species, living up to 12 years old and reaching sizes exceeding 39 inches. They can reach over 31 pounds and have been found to opportunistically feed on

ings and discards (NOAA, 2014). These estimates may be less reliable, however, due to the limited number of interviews being conducted. Limited data, along with recent changes in MRIP sampling methodology, adds uncertainties to the current MRIP data.

In an effort to resolve these issues, Addendum I to Amendment 1 of the Bluefish Fishery Management Plan was approved in 2012 and developed a program for biological sam-

many other species of fish (ASMFC, 2014). The Northeast Monitoring and Assessment Program (NEAMAP) found, through stomach content analyses, that bluefish diet by weight was 96.9% fish (Bonzek, *et al.* 2012). Bluefish school by size and can be seen in large schools



pling along the Atlantic coast. States whose commercial harvest comprises greater than 5% of the total coast-wide harvest are required to collect biological samples (ASMFC, 2012). The next benchmark stock assessment currently scheduled

feeding on small bait at the water's surface, making them an easy target for recreational fishermen. The current RI record for bluefish is 26 pounds and 39 inches (RIDEM, 2014).

This species is a highly sought-after mark for many recreational fishermen, with the majority of catches occurring in the summer months by private and from-shore anglers, sometimes referred to as "modes" of fishing (NMFS, 2014). However, due to the lack of demand for bluefish as a food source, there is little economic incentive in actively harvesting this species, and in commercial fishing they are mostly harvested as by-catch, with landings peaking from July through September.

The Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fishery Management Council (MAFMC) manage bluefish cooperatively through Amendment 1 to the Bluefish Fishery Management Plan. The most recent stock assessment update, completed in 2014, concluded that the bluefish stock has not been overfished and that overfishing is not occurring (NEFSC, 2014). Currently, the bluefish stock is appraised using an age-structured assessment program. Two known sources of uncertainty in the bluefish stock assessment pertain to the "age-length-keys" developed through biological sampling programs. The majority of the age-at-length data used in the assessment comes from a single state that comprises a small percentage of the total coast-wide bluefish harvest. Additionally, that age-at-length data contains several gaps in certain size classes due to a lack of samples (ASMFC, 2012). Additional ambiguities in bluefish data come from the recreational landings data collected through the Marine Recreational Information Program (MRIP). The MRIP program conducts dockside interviews of recreational fishermen, along with telephone interviews, to collect data on recreational land-

for 2015 will incorporate the biological data collected since the approval of Addendum I with the goal of resolving the uncertainties previously associated with the age-at-length data.

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## Women's Day at the Range – August 2, 2014 by Karen Unsworth



Anyone who may have believed that a full day of rain would diminish the enjoyment of our "Women's Day at the Range" for its participants was in for a big surprise. The ladies couldn't have cared less! They arrived almost 200 strong with umbrellas and raincoats and lots of excitement. Volunteers and staff did what they could to offer some relief from the weather by using portable shelters and by taking

advantage of the covered shooting stations at the Division of Fish & Wildlife's Great Swamp Shooting Range in West Kingston. Our clothing was surely dampened but our enthusiasm was not ... these women were ready to shoot!

Instructors offered all participants one-on-one instruction in a variety of shooting disciplines. Firearms instruction using a .22 caliber rifle and a .22 caliber revolver was held on the 50 yard rifle/pistol range, while clay target shooting using 12 and 20 gauge shotguns was taking place on the adjacent shotgun field. In addition to firearms, the women shot with bow and arrow on our archery range and threw tomahawks, using a large section of log on a tripod as a target.

All equipment and ammunition was provided by the Division of Fish & Wildlife and our volunteers. These included Hunter Education instructors, NRA instructors, RI Turkey Chicks, RI Pheasants Forever and members of the Federated RI Sportsmen's Clubs, who also generously provided lunch to





all staff and participants. Our volunteers deserve a lot of the credit for making this event so popular and we would like to acknowledge their effort and offer our sincere thanks.

Considering the popularity of this event, the Division of Fish & Wildlife will continue to host it on a yearly basis. Interested women are encouraged to participate in the future. Additionally, the Great Swamp Shooting Range is a public range that is operated by the Division of Fish & Wildlife. A free permit is required prior to using the range, which is open from April 1<sup>st</sup> through September 30<sup>th</sup>. For details on the range or future programs please refer to our web site <u>www.dem.ri.gov</u> or call the Division's Hunter Education Office at (401) 539-0019.

# Making Hunter Safety More Accessible to Rhode Island's Natural Resource Users!

RI's Hunter Education program is now hosting more archery and firearm courses. With increased staff, more courses will be available on both nights and weekends throughout the winter season. The classes will be held at the Division of Fish and Wildlife's Education Office in Exeter and will be routinely posted on <u>www.dem.ri.gov</u> as well as on our Facebook page. Archery proficiency testing will now be available at the Education Office in Exeter by appointment only. Also, keep on the lookout for several new interactive workshops - including a land navigation course - being added to the program in the upcoming months!

If you have any hunting-related interests you would like to know more about, ideas for hunter education workshops, or other hunting-related outreach programs please contact Scott Travers via email at scott.travers@dem.ri.gov.

## How do the Animals Manage... by Sarah Riley

Toads, Terrestrial Salamanders and Snakes: These species will often burrow down into the ground or find an insulated place to curl up and sleep for the coldest months; this could be just a few inches below a log or leaf litter, or down several feet to avoid the ground frost. Some snakes will bundle up in large numbers together and let their bodies insulate each other.

A species of frog found in Rhode Island, the wood frog (*Lithobates sylvaticus*) is found all over Canada and the Northeastern United States. In the winter, they will hibernate in the leaf litter like other amphibians, but they have natural antifreeze



which fills their body. When the ice forms and freezes them solid, the ice does not damage their cells and they can stay frozen for months until they thaw out in the spring no worse for the wear (Jack, 2010).

**Fish:** Fish in freshwater ponds will often simply lower their activity level and find an area out of the water current so that they do not have to spend energy to stay in the same place. In the winter, the warmer water is found at the bottom of the



pond or lake, so the fish will often hide out down there, not moving or eating much. Some species of fish, such as trout, prefer the cold water and remain fully active in the upper layers of the water throughout the winter.

Other species of fish, like

those found in estuaries and in the open ocean, have been known to migrate to warmer waters like birds and mammals. They may travel in search of food from colder to warmer waters.

**Insects:** Like many of the other organisms, insects have three major ways of avoiding the cold in the winter. Some insects migrate, such as butterflies and moths. The most wellknown example is the monarch butterfly, which we see during the summer and fall here in the Ocean State. Monarchs travel down to Mexico and



Central America in huge numbers to spend the winter.

Sometimes, insects can even change their chemical and physical attributes so that they are not injured by freezing, much like the wood frog (Ennis, 2010). Other insects avoid the cold by burrowing deep into the ground to avoid the frost. continued from page 3

Beetles, worms, ants and termites will dig out deep tunnels and burrows within which to keep warm.

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#### **ICE FISHING SAFETY**

- 1. **Be Sure There is Adequate Ice.** Ice thickness varies throughout a pond. Avoid thinner ice that is found by the shoreline, under docks, and around protrusions like rock.
- 2. **Stay Dry.** Dress properly and always bring a spare set of clothes.
- 3. **Pack Safety Equipment.** This should include a pair of ice picks which drape over your shoulders, a throw-able seat cushion, and a first aid kit. Also, wear creepers or spiked shoes that will prevent falling on the ice.
- 4. Attach Long Cord to Sled. Makes the sled easier to pull and serves as a means to help pull someone from the water without risking your own well-being.
- 5. **Keep Auger Covered.** The blades are sharp and can easily cut you, your children, or your dog.
- 6. Spray Vegetable Oil on Auger and Snowshoes. Prevents snow from sticking to your equipment which, in turn, eliminates the possibility of you cutting yourself while cleaning.



## Kid's Corper! Presented by the Aquatic Resource Education Program

As you get bundled into your snowsuit and boots, do you ever wonder what happens to all of the animals during winter? While the Canada goose migrates and flies south to warmer weather, other animals burrow into the mud, some hibernate and some, like humans, remain active all year.

Below are things that animals do to survive the winter. As you go through the list, find the animals in the word search on the right.

Migrate — flying, walking or swimming to warmer weather:

Whales Striped bass Fish Canada goose

Cardinal

Crow

Elk Bats Butterfly

Only migrate when food supply is low:



Blue Jay

Hibernate: Ground Hogs Eastern Chipmunk

Brown bats Common poorwill (bird)

Burrow in ground or find an insulated, warm place to sleep:

> Tood Salamander Termite



Special chemical in blood that prevents cell damage if animal freezes:

> Insect (some) Wood Frog

Stay active but grows a thicker coat to keep warm:

Fox

Weasel

Coyote Rabbit Hare



Ants

Stays active and likes the cold water:



Trout Bundles up in front of the fireplace, sipping hot chocolate:

Humans





## **Calendar of Events**



February 28, 2015 -Close of Trout Fishing Season: No fishing on trout stocked waters permitted between March 1 - April 11, 2015, 6:00am. Please refer to www.dem.ri.gov for regulations.

### March 15, 2015, 8AM-4PM

**Trapping Workshop:** 8 hour workshop designed to educate Rhode Islanders about trapping. This hands-on course will cover the history, management and methods of trapping. For more information and to register, contact scott.travers@dem.ri.gov.

#### April 19, 2015 , 8AM-4PM

**Treestand Workshop:** Learn how to safely install and maintain a treestand for your hunting needs. For more information and to register, contact scott.travers@dem.ri.gov.

#### April 25 & 26, 2015 , 8AM-4PM

Land Navigation: Do you hesitate to find your perfect hunting or fishing spot for fear of getting lost? This 16 hour, free, hands-on course will cover compass and map reading as well as provide useful techniques to navigate unpopulated areas. For more information and to register, contact scott.travers@dem.ri.gov. RIDEM DIVISION OF FISH AND WILDLIFE PRESENTS: INLAND FISHES OF RHODE ISLAND By Alan Libby with Illustrations by Robert Jon Golder



ON SALE NOW! This publication describes more than 70 fishes found in over 377 pond and stream locations throughout Rhode Island. With gorgeous color and black and white scientific illustrations, each fish is addressed with a detailed description and color location map. Alan D. Libby is a Principal Freshwater Biologist and has worked for the Division of Fish and

Wildlife for over 26 years. He has dedicated over 15 years surveying the many lakes and streams throughout Rhode Island.

Paperback: 287 pages, 8" x 10' Price \$26.75 includes tax

#### Three Ways to Purchase:

DEM Division of Boating and Licensing: 235 Promenade Street, Providence. Cash, check or credit (with \$1.50 convenience fee). Great Swamp Field Headquarters: 277 Great Neck Road, West Kingston. Office Hours 8:30am-4pm. Check or money order only On-line, mail-in order form: Print, complete and send along with check or money order only - http://www.dem.ri.gov/programs/ bnatres/fishwild/pdf/fishorder.pdf.



Recently, the RIDEM Division of Fish and Wildlife's Education Office has created a Facebook page. The page is designed to inform all of our constituents on upcoming events happening within both the Hunter Education and the Aquatic Resource Education programs. Keep informed and 'like' us on Facebook under the RIDEM Division of Fish and Wildlife Outdoor Education page!

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



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