Inland Fishes of RI available for purchase at DEM!

The Inland Fishes of Rhode Island, by Alan Libby and Illustrations by Robert Jon Golder, are now available at the DEM Office of Boating and Licensing. This 278 page publication published by the Division of Fish and Wildlife describes more than 70 fishes found in fresh and brackish waters in Rhode Island. Filled with beautiful color and black and white scientific illustrations, each fish is addressed with a detailed description and color location map. Included are the variety of freshwater habitats found in Rhode Island along with the methodology used to carry out the field work that has led to this publication.

Alan D. Libby is a principal freshwater biologist and has worked for the DEM’s Division of Fish and Wildlife for over 26 years. This definitive work is the culmination of 15 years of surveying the inland fishes of the state. Alan surveyed over 377 pond and stream locations throughout Rhode Island, many of which were sampled multiple times over the years.

The Inland Fishes of Rhode Island is available in an 8” x 10” paperback. The cost is $26.75 including tax, and may be purchased using a credit card, cash, check or money order from the Providence Licensing Office at 235 Promenade Street. Additionally the book may be mail-ordered. Please see the DEM website for more information at: www.dem.ri.gov

New England Cottontail Rabbits – a Rare Species Returns to Narragansett Bay Islands  by Brian C. Tefft

The New England Cottontail (NEC) is a small rabbit native to southern New England. It has been the focus of conservation efforts by the Division of Fish and Wildlife and other agencies in New England to save the species from possible extinction and restore populations and habitats. Since March of 2009, when I wrote an article for this newsletter entitled “New England Cottontail – Rhode Island’s Native Rabbit” the Division has been actively engaged in several projects to inventory and locate populations and restore the rabbit and its habitat to Rhode Island. Continued on page 2

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.
DEM has been working with several partners in these efforts, including Roger Williams Park Zoo (RWPZ), University of Rhode Island (URI), Natural Resources Conservation Service (NRCS) and US Fish and Wildlife Service (USFWS). There is urgency in a common goal for the partners to enhance habitat and restore the species to its range to prevent its Federal listing as an “Endangered Species.”

The centerpiece of the rabbit conservation work in Rhode Island features breeding wild rabbits at RWPZ. Obtaining rabbits to use in the captive breeding project proved difficult at first. Unfortunately, we were not successful in obtaining any founders or breeders from Rhode Island; however, the NEC rabbit is present in enough numbers in southeastern Connecticut to justify removing a few rabbits from the wild to breed in captivity. The captive breeding project at the zoo began in summer of 2011 and by spring of 2012, an adequate number of rabbits had been born to attempt a pilot release into the wild to see if they could survive and reproduce on their own. Although rabbits are known to be prolific, competition with Eastern cottontails, predation and habitat loss are all believed to be the major factors causing the decline.

In selecting a release site, we looked for a Narragansett Bay Island that met rabbit’s habitat requirements: thick, thorny impenetrable cover, and fewer predators than mainland habitats. We also sought an area without populations of the non-native Eastern Cottontail, a competitor and suspected contributor to the demise of the New England rabbits. After a thorough review, Patience Island, off of Warwick Neck, was selected as the primary island release site because it had all of the features necessary for success. On March 28, 2012, six NEC rabbits (4M and 2F) were released to the island. Additional releases of rabbits occurred during July and September 2012, bringing the total island population to 15 rabbits on January 1, 2013. Each rabbit was fitted with a small radio transmitter that allows biologists to remotely track and monitor the rabbits and to recover any remains in the event of mortality.

The rabbits have been monitored weekly since their release on the island to determine their movements and survival. During the first year of the project, we lost five of the initial 15 rabbits released to predation, two to mammalian predators and three to avian predators. One more rabbit died of unknown causes after becoming wedged in a stone wall, probably as a result of being chased by a predator. The resulting annual survival rate of

Legend of Survey Dates
• 1974-75, • 1993-97, • 2003-04
60% for this small population of founder rabbits exceeds our expectations for the project and it is very encouraging to observe the early success of the project. The ultimate goal is to develop Patience Island into a self-sustaining nursery colony for NEC rabbits providing a reliable source of rabbits, to reintroduce into new habitats that are being created on the mainland throughout the former historical range (Figure 2).

The state and its partners have also been actively working on habitat projects situated on state, federal and private lands on the mainland that meet the requirements for the NEC rabbit. This habitat consists of dense thickets maintained in old field shrubby areas and young cutover forests with thick growth resulting from the regeneration following clear cutting. These habitats are in short supply but are essential if we are to have ultimate success in saving the rabbit. Aside from rabbits, these thicket habitats are also critical conservation areas for the success and survival of many other species of wildlife, including songbirds that nest and raise young in thickets, insect pollinators that use flowering shrubs and herbaceous plants, and turtles that avoid predation in shrub thickets along with the rabbits.

To guide the restoration and enhancement of habitats for the rabbit, the RI Management Team, composed of the project partners, established NEC Focus Areas. The Focus Areas Maps (Figure 3) were defined by a combination of important factors related to the ecology and distribution of the rabbit, but also primarily on its historical range and distribution and areas where sufficient acreages of suitable or “potentially” suitable habitats exists. These “potentially” suitable habitats are located on state and federal lands. However, more acreage owned by private landowners is the targets of Federal programs, administered by NRCS, to actually pay private landowners to manage some of their property for the rabbit. Several new habitat projects have been implemented and, although they take a few years to develop, these new habitats will be critical to the future survival of the rabbits.

The last piece of the conservation puzzle involves continued monitoring of the natural distribution of the rabbit. DEM has monitored distribution of the species since the 1950s. Populations have declined to the point where none were identified for a brief three-year period between 2006 and 2009. Using modern genetic monitoring methods, the Conservation Genetics Lab at the University of Rhode Island is assisting DEM in evaluating rabbit DNA (diagnostic of the species) that we collect in fresh fecal pellets. Surveys are conducted during the winter months when fresh droppings are left on the snow and these samples, once evaluated in the lab, indicate whether the NEC rabbit is present in a particular area. This technique has proven invaluable and the good news is we have identified three new sites in RI with NEC, two of which were found during the winter of 2012-13. This is encouraging news since it means that the rabbit is not extirpated from the state.

Through careful planning and good science, DEM and its partners are working hard to save the native NEC rabbit from extirpation. With a little bit of luck, we hope that the New England Cottontail will once again roam free and thrive in the Rhode Island woodlands. But, just to be on the safe side, I’ll keep rubbing my lucky rabbit’s foot anyway!!-( })*
In Rhode Island, chain pickerel (*Esox niger*) and redfin pickerel (*Esox americanus americanus*) are native species in the Pike Family (Esocidae), which consists of only a single genus: *Esox*. The northern pike (*Esox lucius*), a nonnative species, was introduced in the 1960s. All in this family are predators that hide in the vegetation waiting to ambush their prey.

Before the introductions of black bass (i.e., smallmouth bass, largemouth bass) and northern pike, the chain pickerel was Rhode Island’s largest freshwater predator. The redfin pickerel is the chain pickerel’s smaller cousin. Not everyone was enthusiastic with the Commissioners of Inland Fisheries decision to stock bass. The following statement appears in the Eighth Annual Report of the Commissioners of Inland Fisheries in 1878: “As before reported, black bass are a complete success, and all, or nearly all, of the waters in the State suitable for them are now stocked with them. Certain parties profess to regret this fact and to wish for the good old times when nothing but the all-devouring and worthless pickerel was the only fish to be taken. We can only say “such men are dangerous” and partake, we fear, of the nature of the fish whose praise they sing.”

Characteristic of these elongated torpedo-shaped fish are “duck-billed” snouts on a large head and dorsal and anal fins that are located near the caudal fins. Chain-like markings on a greenish body distinguish the chain pickerel from the redfin pickerel, whereas the redfin pickerel is characterized by wavy diagonal stripes on an olive-green or brownish body and lower fins that are reddish or orange in color. As young pickerel look very similar, another distinguishing feature of these fish is the length of the snout in relation to the length of the operculum. The snout of the chain pickerel, measured from the tip of the snout to the front edge of the eye, is longer than the distance from the rear edge of the eye to the edge of the operculum whereas the snout of the redfin pickerel is shorter than the distance measured from the rear edge of the eye to the edge of the operculum.

The chain pickerel is found along east coast drain-
Pickerels in RI  

by Alan Libby

ages of North America from Nova Scotia and New Brunswick south to Florida and Gulf of Mexico drainages to Louisiana and north to Missouri. In Rhode Island it occurs in all 10 watersheds and in a greater majority of ponds than streams. Based on surveys conducted between 1997 and 2007, the chain pickerel is the fifth most widely distributed fish in the State. (Largemouth bass are the second most widely distributed fish in RI.)

The chain pickerel is found primarily in the heavily vegetated areas of lakes and ponds and the quiet waters of streams and rivers where it hides in ambush for any likely morsel to pass by, such as a fish or crayfish. Pickerel may be caught on a variety of artificial baits or lures. The record in RI was caught in Beach Pond in 2005. It weighed 6 pounds 14 ounces and was 27 ¾ inches long. The largest chain pickerel caught in a survey was nearly 23 inches long.

The redfin pickerel, also very abundant, occurs along Atlantic Slope drainages from New Hampshire to Florida. It was the eighth most widely distributed fish in Rhode Island. The redfin pickerel was collected in a greater proportion of streams than ponds, where it hides in vegetated areas waiting to ambush prey. The largest redfin pickerel ever caught during a fish survey was 16.5 inches long.

The chain and redfin pickerels spawn in the early spring, generally, before water temperatures reach 50º F. Spawning takes place in grassy areas along the shore or in recently submerged vegetation. Depending on water temperature, eggs hatch in 11 to 14 days. Sexual maturity may be reached in one to three years. Pickerel may live for seven to eight years.
Junior Pheasant Hunting Opportunities  by Karen Unsworth

The Division of Fish & Wildlife recently held it’s annual Junior Pheasant Hunt Orientation and Training and Junior Pheasant Hunting Weekend, for junior hunters (age 12 to 14) who have completed a Hunter Education class. The training session was not mandatory but helps students prepare for a successful hunt.

Junior Pheasant Hunt Orientation and Training was held on Saturday, September 7, 2013 from 9 AM to 2 PM at the Great Swamp Shooting Range in West Kingston.

Topics included:
Proper gear and clothing
Rules and regulations for pheasant hunting
Pheasant habitat and behavior with live pheasants on hand for demonstration and discussion
Gun safety in the field
Clay target shooting - Safety gear and 12 & 20 gauge ammo provided
Introduction to hunting dogs

Junior Pheasant Hunt Weekend—October 12 and 13
The 2013 youth pheasant season kicks off on the weekend of October 12 and 13, 2013 at sunrise. Three youth hunt locations (3) will be offered for hunting, including Durfee Hill Management Area in West Glocester, Great Swamp Management Area in South Kingstown and Eight Rod Farm in Tiverton. Pheasants will be stocked in these areas the day prior to the hunt at both locations.

All Youth hunters must possess a current and valid RI Hunting License and a 2013 Gamebird (Pheasant) Permit in order to hunt. Youth hunters must be accompanied by at least one qualified licensed adult, age 21 or older, who holds a valid RI Hunting License. Adults accompanying the youth hunter are prohibited from carrying a firearm and hunting pheasant. All hunters and their guides must wear a minimum of 200 square inches of solid fluorescent orange above the waist, a hat that covers 200 square inches or a hat and vest combination covering 500 square inches. The Daily bag limit is (2) two pheasants - roosters or hens and checking is not required.

Happy and Safe Hunting!

Thank you to our partners for this event, RI Pheasants Forever and the Federated RI Sportsmen’s Clubs, whose members provided lunch and assistance.
eLOGBOOK is an online tool offered by the DEM’s Division of Fish and Wildlife (DFW) in conjunction with the Atlantic Coastal Cooperative Statistics Program (ACCSP) that allows an angler to track trip level data as well as view summary reports. Any angler who would like to use this program and provide data for recreational fisheries management can register. A link to the website can be found on the RIDFW website (http://www.dem.ri.gov/topics/mftopics.htm) under the Saltwater Recreational Fishing License heading. From the log-in screen, new users will need to select the “Click to Register” link. A username and password will be created after registration.

After signing in, click on the “Create new logbook entry” button. On this screen you can enter the trip date and fishing mode (e.g., from shore, private boat, etc.), catch information on both kept and released fish, effort information such as area fished, gear, time, and number of anglers, and any other notes about the trip such as weather, locations, bait or lure type, etc. Anglers are also able to view and download their trip reports and view graphical summaries of the average lengths of species, number of fish caught per month, and number of fish caught per species. Other programs and methods can be used to view and summarize the data once the trip reports are downloaded from the website.

The data submitted by anglers remain completely confidential, and are only used for statistical analyses of recreational fisheries. eLOGBOOK is an application of the Standard Atlantic Fisheries Information System (SAFIS) and is required by RI regulations to be used for reporting any tautog dedicated party/charter trips. The data collected provide a census for the tautog party/charter fishery. In addition to helping describe the tautog fishery, this program is a highly valuable tool for recreational fisheries management. The data from voluntary users provide an opportunity to characterize Rhode Island’s recreational fisheries. Specifically, the data collected by this program provide support for assessing minimum size limits and bag limits for scup and fluke and the ability to characterize discards. As of 2013, over 200 Rhode Island anglers are already registered for the program, and the RIDFW encourages eLOGBOOK participation to help enhance the understanding of Rhode Island’s recreational landings.

Be sure to check the RIDFW website periodically for updates, an upcoming video tutorial on using the program, and detailed instructions for entering recreational trip information. If you have any questions regarding the program or would like more information, please contact Anna Webb at 401-423-1926 or Anna.Webb@dem.ri.gov.
Fluorescent Orange Requirements for Hunting Season

It is important to know that fluorescent orange safety clothing is required during the hunting season statewide for all hunters. To meet this requirement, safety clothing must be solid daylight fluorescent orange. Fluorescent camouflage does not meet this requirement. The hunter orange must be worn above the waist and be visible in all directions. Examples that meet the orange requirements are a hat that covers 200 square inches or combination of hat and vest covering 500 square inches. The following orange requirements apply:

Two hundred (200) square inches by small game hunters during the small game season.

Two hundred (200) square inches by fall turkey hunters while traveling.

Two hundred (200) square inches by muzzleloaders during muzzleloading deer season.

Two hundred (200) square inches by archers when traveling to/from stands during muzzleloading deer season.

Five hundred (500) square inches by all hunters and other users (including archers) during shotgun deer seasons.

Those hunters using Pop-up blinds during the firearms deer season must display 200 square inches of fluorescent orange visible on the outside of the blind from all directions. Hunters must also wear orange in accordance with the rules for the specific seasons while in the blind.

Exempt from fluorescent orange requirements are:

- Waterfowl hunters hunting from a boat or blind, over water or field, when done in conjunction with decoys.
- Archery deer hunters (except during muzzleloader and shotgun deer season).
- Hunters crow hunting over decoys.
- Spring turkey hunters and
- First segment dove hunters.
- Not required in areas limited to Archery only by regulation.

All other users of State Management areas and underdeveloped State Parks, including but not limited to hikers, bikers, and horseback riders, are required to wear two hundred (200) square inches of solid daylight fluorescent orange from the second Saturday in September to the last day of February, and the third Saturday in April to the last day in May, annually.
Fall Hunting Season Dates to remember

- **August 16 to October 6**  Crows Friday, Saturday and Sunday only.
- **September 1 – 30**  Resident Canada Goose season
- **September 14 to October 13**  Mourning Doves
- **September 15 to January 31**  Archery Deer Season
- **October 1 – November 28**  Fall Turkey Season: Archery
- **October 5 through January 19**  Sea ducks (Eider, Long-tailed Duck and Scoter)
- **October 8 to 11**  Prudence Island Paraplegic hunter deer season
- **October 12th and 13th**  Junior Pheasant Season
- **October 12 to November 30**  Crows, inclusive
- **October 19 at 7:00 am**  Opening of Small Game Season
- **October 19 to November 9**  Mourning Doves
- **October 19 to December 2**  Woodcock
- **October 19 to January 31**  Prudence Island Deer Season
- **October 19 to February 28**  Ring-necked Pheasant
- **October 19 through last day of February**  Red Fox, Gray Fox, Gray Squirrels, Cottontail Rabbits, and Snowshoe Hare open season
- **November 1 to December 1**  Muzzleloader Deer Season
- **December 7 to December 22**  Shotgun Deer season
- **December 26 to January 2**  Shotgun Deer season
- **December 18 to January 4**  Mourning Doves

Aquatic Resource Education Events and Classes

**September 19, 2013. Surf Fishing: The Basics** 5:30pm-8:00pm at Scarborough Beach. Learn the basics of surf fishing and casting at this workshop. Then practice those skills at one of Rhode Island's premier beaches. Children 10 and older welcome. Registration Required! Equipment provided. Fee: $10.00/person, families of 3 or more $5.00 per person. For more info contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0037.

**October 5, 2013. Introduction to Saltwater Fly Fishing.** 9:00am-3:00pm. Kettle Pond Visitor's Center - Charlestown, RI. Ever wanted to tackle the art of fly fishing? Now is your chance to learn about the equipment you need, how to tie a saltwater fly and cast the rods. Then apply all your new skills to fish in some of the best locations in South County. Just bring waders and a lunch; all other equipment and materials are provided by Fish and Wildlife's Aquatic Resource Education program! Children 10 and older welcome. Registration Required! Fee: $35.00/person. Contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0037.

**October 19, 2013. The Fly Fishing Express.** 9:00am-3:00pm. Old Colony Train - Middletown, RI. Whether you are new to the sport or a fly fishing pro, this is your chance to take a trip around Aquidneck Island and fish some of the more remote areas of the island. Some fly fishing experience required. Just grab your waders and lunch, all other equipment and materials are provided by the RIDEM Fish and Wildlife's Aquatic Resource Education program! Children 10 and older welcome. Registration Required! Fee: $35.00. For more information contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0037.

**November 1-3, 2013 - New England Environmental Education Association (NEEEA) and Sustainable Schools Summit to be held at Salve Regina University. Please visit http://neeea.org for more conference information and registration.**

**November 7 - December 19, 2013. Fall Fly Tying 2013.** North Kingstown Community Center. Join us for 6 consecutive Thursday evenings (except Thanksgiving) 7pm-9pm tying both freshwater and saltwater flies. Beginning and intermediate fly tyers are welcome as well as children ages 10 and older. Registration recommended; however, walk-in tyers are welcome. Fee: $5 per person per evening or $25.00 for all 6 classes when you pre-register. For more information contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0037.
Can you name an animal who lived during the time of the dinosaurs, has over 10 'eyes', has blue blood, and is very important to humans? If you guessed the horseshoe crab, you have guessed right!

Horseshoe crabs appear on Rhode Island beaches starting in early May, during the new moon. That is when the horseshoe crabs begin their spawning season. If you walk along the beach you may even see a female horseshoe crab with a male attached using its modified club-like pincer claws to hold onto the female's shell. The female buries green eggs along the intertidal zone (the area between low and high tide). Not only are the eggs important to repopulate the horseshoe crab, but they are also an important food source for shore birds.

There are only four species of horseshoe crabs left in the world. Scientists consider a horseshoe crab a living fossil because its ancestors existed before the dinosaurs! A living fossil is an organism that has changed little over the course of time, which means that the horseshoe crabs of today, though significantly smaller, look nearly identical to those that lived in the dinosaur era.

The horseshoe crab is not an elegant creature. In fact, its helmet-like, brown appearance makes it look frightening and ugly. Let's take a closer look and observe what an interesting creature the horseshoe crab is. Look closely at the picture and diagram. The horseshoe crab is an arthropod, an invertebrate (does not have a backbone like humans) with a hard outer shell and jointed legs. Its hard outer shell offers protection and is made of chitin. If you haven't guessed yet, the horseshoe crab is not closely related to the true crab; they are distant cousins. Their closest relatives are not found in the water but on land in the form of spiders, ticks, and scorpions.

The horseshoe crab has ten 'eyes'. They are not like our eyes that see color, but they can observe shapes, light and shadows. They have two compound eyes located on their shell and numerous photo receptors, known as 'eyespots,' found both on top of and under the shell, which are used to locate food and mates. At the end of the body is the telson or tail. Many people think this is to sting or hurt you but the most important function of the tail is to help the crab turn over when it is stuck on its back. The horseshoe crab would die if it could not turn over. If you flip the crab over, you will notice that the mouth is located between its legs. The crab uses chelicerae to feed on anything it can find on the bottom of the ocean floor, especially marine worms and small clams. If you look at the top pincers, you can tell the difference between the male and female crabs. The female top pincers look the same as on all of their legs; the male top pincers are club-shaped. Between the helmet containing the legs (cephalothorax) and the telson is the abdomen of the horseshoe crab, which contains book gills that help the horseshoe crab to breathe. As the crab gets larger, it molts and sheds its shell like a snake sheds its skin.

Unlike their terrestrial cousins, the horseshoe crab won't bite or sting you; in fact it helps us. They have special blood that contains copper which makes the blood appear blue when it hits the air. The horseshoe crab's blood can find bacteria and form clots to prevent bacteria from spreading throughout the crab. This blood has been important to human medicine because of its ability to detect germs. Using the blood of horseshoe crabs helps scientists test whether a drug is safe for humans. Additionally, humans have found that the chitin material is better to use than silk in stitching up wounds!

So, the next time you stroll down the beach and see this gentle and endearing creature, take a closer look but be careful not to damage the telson!
Crossword Clues:

ACROSS
3. Organisms with no backbone, a hard outer shell and jointed legs.
5. The tail of a horseshoe crab.
7. Horseshoe crabs breathe using ___________ gills.
8. The color of horseshoe crab eggs.
11. The horseshoe crab does not have true eyes but photoreceptors or ___________.
13. The hard shell is made out of this material.
14. As the crabs get bigger, they _________ their outer covering.
15. Element in the horseshoe crab’s blood that causes the blood to appear blue.
16. Since horseshoe crabs lived during the time of the dinosaurs, they are considered living ___________.
17. Area between low and high tide.

DOWN
1. Horseshoe crabs have blue ___________; valuable to scientists.
2. Horseshoe crabs mate during the new and full ___________.
4. Horseshoe crabs land relatives.
6. A shortened name for a scientific laboratory.
9. Number of horseshoe crab ‘eyes’.
10. Specialized pincers that help feed the horseshoe crab.
12. One can tell the difference between male and female horseshoe crabs by looking at the first set of ___________; the males are shaped like a club.
DEM’s Division of Fish and Wildlife is pleased to announce the release of the first annual Rhode Island Recreational Saltwater Fishing Guide. This informational guide was developed by the Division to promote and enhance the experience of recreational saltwater fishing in Rhode Island. The new guide provides information on a variety of recreational fishing topics, including the current 2013 marine recreational regulations. It also provides readers with information on commonly caught species, boating and access sites throughout the State, as well as interesting articles describing field surveys performed by the Division. The new guide features information on the many local businesses that provide fishing-related services, such as party and charter vessels and bait and tackle shops.

This new publication would not be possible without the support of Rhode Island’s recreational saltwater fishing community. The development and production of this guide is funded through angler and boater contributions to the RI Recreational Saltwater Fishing License Program as well as the federal Sport Fish Restoration Program. With recreational anglers’ continued support, the Division plans on producing an updated guide every year, with distribution occurring around Memorial Day.

Physical copies of the new recreational fishing guide can be found in various locations throughout the State. Locations include, but are not limited to, bait and tackle shops, marinas, town halls, visitor centers, state parks, and DEM’s headquarters in Providence. Electronic versions of the guide are available on the website www.eRegulations.com, where readers will be able to either view or download the publication. If you have any questions about the Rhode Island Recreational Saltwater Fishing Guide or Rhode Island’s Marine Recreational Fisheries, please contact Kevin Smith at: RISaltwater-Guide@dem.ri.gov or (401) 423-1941.