ISSUE 23| SPRING 2024

WILD RHODE ISLAND EXPLORER

MEET THE RIBBONSNAKE!

DEM RHODE ISLAND

DID YOU KNOW?

We do a lot of work to protect, conserve, and learn about Rhode Island's wild creatures and the places they call home. None of this work would be possible without the help of people who hunt and fish in our state. Hunters and anglers buy a license each year. This license means that they promise to follow all the rules of hunting and fishing in Rhode Island. These rules exist to protect our important natural resources and make sure that people can enjoy hunting and fishing in our state forever. Also, the money from these licenses goes towards important conservation work in Rhode Island.

There's another really cool way that hunters, anglers, and also target shooters (people who may not hunt, but practice their aim with firearms or archery at a range) help with conservation all across the United States. The businesses that make firearms, ammunition, archery equipment, and fishing equipment pay a tax on these items. This raises millions of dollars, which is split up and given to each state by the United States Fish and Wildlife Service.

What do we do with all this money? We use it to help our state's fish and wildlife! This money helps to buy more land for our management areas, which means more habitats will be protected in our state forever. We also use the money to do important research to learn more about our fish and wildlife, and what we can do better to help them.

Much of our work wouldn't be possible without the help of our hunters, anglers, and target shooters. By participating in these types of outdoor activities in a responsible and safe way, you can help support fish and wildlife conservation in Rhode Island too!

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HABITAT CHAT

Atlantic White Cedar Swamps

If you explore enough of Rhode Island's wild places, you might be lucky enough to find one of the most beautiful habitats we have in our state: the **Atlantic white cedar swamp**! Standing in a cedar swamp might make you feel like you've been transported into a fairy tale forest. Atlantic white cedars tower overhead, with their straight, majestic trunks covered in gray bark. You might also spot Eastern hemlocks growing nearby. Sunlight streams down through the evergreen branches, and squishy green moss muffles your footsteps. In early summer, you might spot wild rhododendrons in bloom. Their bright pink flowers pop out in the shadowy green forest. Later in the summer, the delightful smell of sweet pepperbush floats on the breeze. Blueberries wait for birds to come by for a snack.

Oops! Looks like your feet got wet! Atlantic white cedar trees grow on little **hummocks** (tiny hills) that have small valleys or channels around them that fill with water. The trees like to grow with their feet wet, just the right amount of water to soak or moisten their roots! Too much or too little water can cause the trees to die, and the swamp will change. If beavers build their dams near a cedar swamp, they might change the water flow too much and cause the habitat to turn into a different kind of **wetland**. This is natural. Humans might accidentally do the same thing by building roads or changing the flow of water on the landscape. This is something we need to be careful of!

Atlantic white cedar swamps used to be more common in Rhode Island, but nowadays, they are shrinking. Throughout our state's history, many of our wetlands were filled or drained by people without knowing how important these habitats are. The RI Division of Fish and Wildlife and other conservation groups in Rhode Island are working to protect the cedar swamps we have left. It's important we protect this special habitat for many creatures that live there, like the black-throated green warbler and the Hessel's hairstreak butterfly!

Want to visit an Atlantic white cedar swamp? Our friends at the Audubon Society of Rhode Island and The Nature Conservancy have done a great job protecting the swamp at Long Pond Woods and Ell Pond Preserve in Hopkinton! There's a beautiful trail that connect both nature refuges. They also connect to RIDEM's Rockville Management Area. We're proud to work together to care for these special wild places!

The Hessel's hairstreak is a gorgeous little green butterfly that lives in Atlantic white cedar swamps. The caterpillars only eat Atlantic white cedar leaves. This is what's known as their host plant. If these trees disappear, so will this beautiful butterfly!

Butterfly photo: Cotinis

Mike Stultz

MADDIE'S OUTDOOR ADVENTURES

BIRDING FROM THE TURKEY BLIND

Spring is my favorite season! This is when you can see the most out in nature. It may sound crazy to wake up at 4:00 AM and venture into the woods to sit and wait in the dark before the sun comes up. But if you didn't, you would miss out on one of the most amazing things this world has to offer: waking up with the BIRDS! My absolute favorite thing to do is go turkey hunting. Turkeys are my favorite bird, but I love ALL birds. Getting out there before sunrise is when you get to watch nature wake up! I am lucky enough to hear the hoot hoots of the barred owls and the cackle of the crows. The mourning doves sing the most beautiful morning tune. Best of all I get to hear the GOBBLE of some big tom turkeys getting out of bed and flying down from the trees. Even though the darkness of the walk in can be spooky, nothing will ever beat witnessing the woods come alive. Grab your headlamp, some snacks, and your binoculars and try it for yourself! See what birds you can find!

Photos: Slate + Glass

About the Author

Hi everyone! My name is Maddie. I am the administrative assistant at the Outdoor Education office. I have the best job ever because I encourage people to go explore the great outdoors! I love to practice archery, learn about wild game animals (turkeys are my favorite), go fishing, and cook up seafood with my family! I did not grow up in a hunting family, so I relied on RIDEM Hunter Education programs to learn and to connect me with awesome mentors who helped me get to where I am today. I am still learning and growing, and now I am here to help you do the same!

CRITTER CAM

About our trail camera study:

A trail camera is a small, waterproof camera that can be strapped to a tree. It takes photos when it senses something moving in front of the lens. In this issue, we'd like to highlight some photos from our research partner Laken Ganoe.

Laken is a URI student studying Rhode Island's fisher population for her PhD project. She uses a trail camera to figure out where fishers are in the state. She also puts tracking collars on them to see what habitats they are using and how much they travel around. If you'd like to learn more about Laken's project and fishers, check out our Winter 2022 issue at www.dem.ri.gov/wildlifeoutreach.

Laken's cameras capture some pretty awesome photos of fishers and other critters too!

Oh, hello there! A fisher emerges from the leaves and spots the trail camera.

It's a blue jay party! Listen for blue jays calling in the forest. Their call sounds like jeer-jeer-jeer!

A male deer (buck) rests in the shade. He is growing in his new set of antlers for the summer. They are covered in soft, furry skin called velvet. They look round at the end because they are still growing and they actually feel spongy. In the fall, the antlers will harden into bone, and the velvet will fall off.

A red fox hops on a log to listen to the sounds around him. This picture was taken in March, so he still has his thick winter coat.

"SMELLS FISHY" NEWS
RAD RIVER HERRING

Spring for a lot of people is a time of change, getting active after a long winter. For the blue back herring and the alewife, there's few animals who have bigger spring plans. Across the eastern seaboard of North America, from Florida to Newfoundland, these fish make a stunning journey every spring. Alewives and the blue back herring often get grouped together into the common phrase "**river herring**" to describe both species at the same time. River herring are **anadromous**, which means that at the same time every year they travel from the salty Atlantic Ocean to the shallow freshwater ponds near the coast, where they were born. River herring used to be so numerous in Rhode Island people used to say "the river turned silver" from the number of fish running from the ocean. Sadly, their numbers today are much smaller than what they once were. Thankfully the RI Department of Environmental Management and US Fish and Wildlife Service have been working hard to make sure these fish can make safe passage, spawn, and return to the sea.

River herring live most of their lives in the Atlantic Ocean. They eat **phytoplankton** in massive schools in the open ocean. They live for about 3-5 years at sea before they are old enough to spawn. Every spring the adult fish gather in the coastal estuaries and bays to travel up streams that connect from the ocean to freshwater ponds. This is where they lay their eggs. They only do this when the water gets between 45-60 degrees, typically at the end of March, but they have been recorded running as early as February. Once they reach the pond, the females will lay eggs on underwater structures like rocks and logs where they will stick. Female river herring can lay anywhere from 60,000 to 100,000 eggs! After **spawning**, river herring will return downstream to the Atlantic Ocean. Through this entire journey they play a pivotal role as food sources for much larger predators such as large mouth and striped bass, mink, bald eagles, red-tailed hawks, tuna, brook trout, racoons, osprey, and even some whales. They play a very important role in the ecosystem!

River herring were once one of the most abundant fishes in the northeast. Throughout New England's history, herring were an important annual source of food and farm fertilizer for Indigenous people and European settlers. Herring started to disappear in the early 1900s. Issues like overfishing, habitat loss, predators, and dams blocking the rivers meant less fish started showing up every year. In 2006, all fishing of river herring was closed in Rhode Island. Luckily, these fish have made a comeback! The populations returning to state rivers every spring continue to increase annually. Each year, volunteers record the number of returning fishes. Biologists work on restoring habitat and collect data to understand the future of the species. We are lucky to have such unique species in our home waters!

About the Author

My name is Harper, and I love fish! I was born in Rhode Island, but I have lived all over from Pennsylvania to Maine. Fishing has taken me many places, from the spruce highlands of Nova Scotia to the stunning peaks of the rolling Wasatch Mountains in Utah. My passion has led me to study marine science at the University of Maine, and upcoming fisheries and aquaculture at the University of Rhode Island. I love being able to connect with a world that I otherwise would not be able to see, and traveling has brought me many amazing experiences and memories.

OUR WILD NEIGHBORS

RIBBONSNAKE

HABITAT

Ribbonsnakes like to live near or in wetlands. You might spot them near pond edges, in bogs, or on the edges of vernal pools.

FOOD

Ribbonsnakes mostly eat frogs and toads, tadpoles. They also may eat some small fish and insects.

BREEDING

Ribbonsnakes are very cool because they are **viviparous**. This means that the mother snake carries her eggs inside her body. The baby snakes develop, hatch inside mom, and then are "born" live!

DID YOU KNOW?

Ribbonsnakes look very similar to gartersnakes. Both snakes have dark brown or black bodies with yellow stripes. How do you tell them apart? The ribbonsnake is a little thinner than the gartersnake and also has a little white mark at the front of their eye. Gartersnakes' stripes sometimes look a little checkered. You can also follow habitat clues! Ribbonsnakes like wetlands. Gartersnakes like drier habitats like forests and gardens.

RIBBONSNAKE

GARTERSNAKE

OUT IN THE FIELD:

Hi everyone, Mary here! Did you know that there are different types of forest in Rhode Island? Each forest type needs special care to conserve the unique trees, soils, and wildlife that can be found there. Today, I'm taking a walk in the woods with our habitat biologist John Veale to learn more about taking care of our state's forests!

Mary: Hi John! Can you tell our readers a little bit about your job? What does a habitat biologist do?

John: My job is to create, fix, care for, and protect wildlife habitat on state land in Rhode Island. What is habitat you ask? Great question! That's the term we use to describe land that different species of wildlife call home. Each wild animal has their own particular needs.

Mary: So, we have lots of forest in Rhode Island. But not all forests are the same. What are some of the different forest types in our state?

John: We're lucky to have a variety of forest types here in the state. Forests can be put into 3 major groups: deciduous, coniferous or mixed. **Deciduous** forests are made up of trees that have leaves that turn colors in autumn and fall off for the winter. Think of oak or maple trees. **Coniferous** forests are made of trees that don't do this. Think of pines, cedars, and firs. And of course, **mixed forests** are a mixture of deciduous and coniferous! We have a LOT of other different forests within these major groups.

We have deciduous forests that are made up of oak, hickory and beech that tend to be dry with lots of space in the **understory**. This is the layer of plants that grow on the ground under the trees. Blueberry or huckleberry often grow in the understory of oak forests. You might also see oak forests with thick briars in the understory. Red maple swamps can be sort of damp or actually have water around the trees.

Coniferous forests are just as interesting! Most of us know the many acres of white pine forests we have in the state, but have you ever been to a pitch pine barren, white cedar swamp or rhododendron and mountain laurel forest?

Mary: What makes each of these forest habitats so special? Do different animals like some of them more than others?

John: There are wildlife species that call every one of our forests home. Oak/hickory forests are a favorite of white-tailed deer, squirrels and turkeys that love to eat acorns. Red maple swamps or cedar swamps are home to mink, wood ducks and a cool little bird called the American woodcock (aka the timberdoodle). Red squirrels, crossbills and any animal trying to find refuge from weather love pine forest. Snakes like black racers or hognose snakes, and songbirds like towhees love pitch pine barrens.

These are just a few examples. There are so many species of animals that love each forest type, and some like them all!

Mary: What are some things that you do as a habitat biologist to care for these unique forest habitats?

John: In some cases, we have to be more hands-on and create some sort of **disturbance** on the landscape to make sure a specific forest type can

FANTASTIC FORESTS

be maintained. Pitch pine barrens are a perfect example. Pitch pines grow more slowly and are adapted to thrive in sandier soils and areas where the understory is occasionally burned by fire. White pines grow much more quickly and can grow in a bunch of different soil types. If we do nothing, our areas of pitch pine barren will be pushed out by white pines. To prevent this, we go in and cut down some of the white pines. Then we use a controlled fire to burn the area. This gets our pitch pines growing, and the pine barren is maintained.

Our oak/hickory forests are also adapted to disturbance and a presence of periodic fire. They tend to be slower growing and like an open, airy canopy. Maples on the other hand, grow very quickly, can grow pretty much anywhere. In these cases, we'll work to carefully take out the maples and use controlled fires to keep our oak forests going.

Mary: And a lot of times, caring for forests means you don't do anything, right? You just sort of sit back and let nature take care of itself.

John: Absolutely! Nature is pretty darn good at taking care of itself, and in many cases it's best for us to do nothing more than protect the habitat as much as we can. Cedar swamps are a great example. They develop over time because of very special water and soil characteristics. The only thing we do to help these forests is make sure beavers don't move in and try to flood the area too much, which might drown the trees. If a habitat is working well, we try and just let it do its job!

Mary: What's your favorite thing about your job?

John: I feel like I have the best job. I'm lucky to work with every habitat type we have in RI, from forest to salt marsh to beach. And I get to help every wildlife species we have – be it birds, beetles or box turtles. I get to work with all of the biologists in our Division and also with other conservation groups too!

Mary: And lastly, what is your favorite wild Rhode Island critter?

John: That's such a hard question! And honestly I don't think I have an answer for it because I love them all. I get just as excited to see a black racer as I do a piping plover or black duck.

ABOUT JOHN

John grew up tromping through the woods, exploring vernal pools and stalking the trout streams of Western Massachusetts in search of fish and wildlife. His passions led him to study Wildlife Biology at the University of Rhode Island. It was at that time he also discovered the joys of hunting. His work has taken him from the New England forests and coast, to the high desert of the Western US, the Canadian prairies, midwestern farmland, and mid-Atlantic. He just finished his Master's Degree in Environmental Science and Management from the University of Rhode Island.

WILD QUEST

Deciduous or Coniferous?

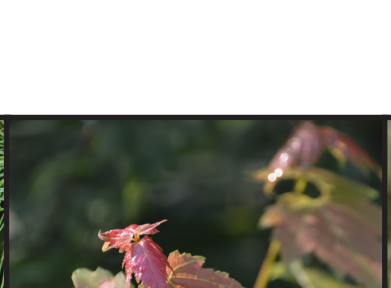
Deciduous trees have leaves that turn bright colors in the autumn, and then fall off.

Coniferous trees have green needles that stay green all year long.

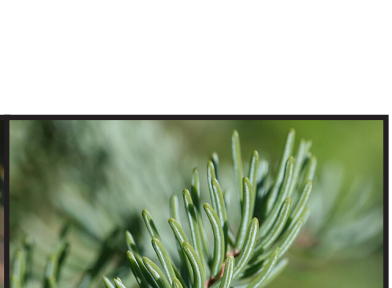
Take a look at the trees below. Which ones are deciduous and which ones are coniferous?

Atlantic White Cedar

White Pine



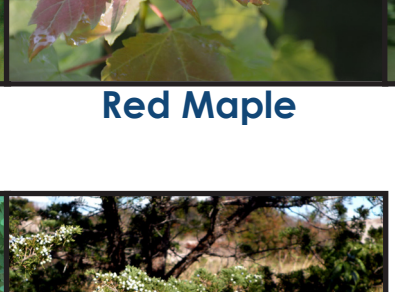
Red Maple



Black Spruce

Tulip Tree

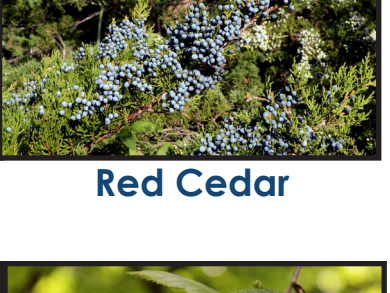
White Oak



Red Cedar

Eastern Hemlock

Beech



Yellow Birch

Photos: Arnel Salo, Bruce Marlin, Chris Light, James St. John, John B., Doug McGrady, Arthur Chapman, R.A. Nonenmacher, Sterling Herron, Gilles Ayotte

Answers: Coniferous trees = Atlantic white cedar, white pine, black spruce, red cedar, Eastern hemlock
Deciduous trees = Red maple, white oak, yellow birch, beech, tulip tree

CRITTER CARDS

Rhode Island is home to many different wild animals. Some are very common and easy to spot. Others are rare and hard to find. Some are doing great and have healthy populations, while other species are threatened or endangered. At the Division of Fish and Wildlife, we've created a list of Species of Greatest Conservation Need (marked as SGCN on the cards). We focus a lot of our work on helping these species. We do this by studying their populations, protecting special habitats, and spreading the word about these cool critters.

Cut out and collect these Critter Cards to learn about Rhode Island's wildlife species!

Cut

Fold in half

RIBBONSNAKE (SGCN)

6

Greg Schechter

I am usually found near wetlands, streams and ponds in Rhode Island. You can easily identify me by my three yellow stripes along my back, but you might not want to pick me up. I can release a stinky musk to protect myself if I feel threatened!

WHICH ACTIONS WILL HELP ME?
By learning more about me and other snakes you can help to educate everyone you know about how helpful snakes really are to humans!

NORTHERN WATERTHRUSH (SGCN)

14

Andy Reago & Chrissy McClarren

I like to wade along the edges of ponds and woody swamps in search of my favorite food, insects! I have brown feathers on my head and back. My chest and belly have yellowish white feathers with a brown spot pattern. When I build a nest, I sometimes like to build them low in the stumps of fallen swamp trees.

WHICH ACTIONS WILL HELP ME?
By protecting my habitat from building new homes and businesses you can help to keep the forested swamp that I call home safe.

BLACK SEA BASS (SGCN)

6

Robert John Golder

You can find me in coastal areas and bays of Rhode Island mostly in the spring. I am dark grey to black but my dorsal fin (the fin along my back) can have lighter colored spots and bands. Even though it takes a long time for me to grow, I can weigh up to 9 pounds!

WHICH ACTIONS WILL HELP ME?
You can help me by eating sustainably sourced seafood. This means that the seafood harvested from the ocean is limited so all future generations can enjoy it as well.

HESSEL'S HAIRSTREAK (SGCN)

9

Flickr: Cotinis

I am a very small butterfly about the size of a quarter with bright green, brown, and white on my wings. I live in white cedar swamps where I lay my eggs on white cedar trees! I can usually be spotted in early summer.

WHICH ACTIONS WILL HELP ME?
The use of pesticides to control mosquitoes on land can harm me. By limiting the use of large-scale mosquito spraying near my cedar swamp habitat you can help to keep me safe.

Dean Birch

RIDEM

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