

ISSUE 18 | WINTER 2023

WILD RHODE ISLAND EXPLORER



**MEET THE
EASTERN SMALL-
FOOTED BAT!**



DEM
RHODE ISLAND





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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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Want to learn even more
about RI's fish and wildlife?

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@RI.fishandwildlife

Rhode Island Department of
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The Wild Rhode Island Explorer | Winter 2023

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HABITAT CHAT

Wintertime is still wildlife time!

In the winter, it can seem very quiet outdoors. Most of our birds have made the long journey to Central and South America, taking their cheerful songs with them. Frogs and toads are hidden away underwater or tucked under the leaves. The colorful flowers have gone to sleep, and so have the buzzing bees. Busy little chipmunks are now sleeping in their burrows with the food they collected during the fall. Food can be scarce for bigger creatures like deer, foxes, and bobcats.

However, wintertime is still wildlife time! There are lots of things we can do to help our wild friends get through the cold months. One of the best things we can do is to create shelter. Piling up fallen tree branches, twigs, or logs into a brush pile can help many animals. Rabbits, woodchucks, foxes, weasels, and other mammals like to hide in larger brush piles. Small birds might tuck themselves in a big brush pile to stay warm or be protected during a storm. Don't have lots of space to make a big brush pile? Small piles of twigs, leaves, and old plant stalks can help smaller critters like bumblebees find shelter for the winter.



Speaking of leaves and plant stalks, leave them be! Many different moths, butterflies, and other insects hide under fallen leaves as caterpillars or eggs. In the spring, they hatch and begin their life cycle. They also make a great snack for hungry birds! Leaving the stalks from your flowers and other plants in your garden all winter long might look messy to some people, but tiny bees and other insects see a beautiful bug hotel! The old flower stalks are hollow, offering cozy spaces for insects to hide in the winter and lay their eggs in the spring. Also, all those dried flowers have seeds in them. If you leave them up, you will be delighted to see how many birds visit your garden all winter.

Which wild animals do you see visiting your neighborhood in the winter?



MADDIE'S OUTDOOR ADVENTURES

Early Morning Goose Hunt

There aren't too many things I love more than waking up with the world. Maybe my grandma's fresh baked chocolate chip cookies come close, but that's a story for another time.

BEEP! BEEP! The alarm clock reads 3:00 a.m. as I rub the sleep from my eyes. I pull on my camouflage overalls and load up my shotgun into the truck, excited to get out in the goose field and see the sunrise. It's cold and rainy when I get to the hunting spot. My hunting buddies brought all the decoys we will need, and we begin to set up our spread. Rain is good goose hunting weather. They don't like to fly in it much, so they will most likely land in the cornfield we sit in!

Shortly after dawn, we hear the honking of a group flying above us. My friend starts calling to them as they approach our blinds. We have to get down really low so they can't see us... "Take 'em!" I yell as we all sit up and get a shot at some birds. We let the hunting dog out of his blind to go and retrieve the birds we harvested. What an awesome morning!

Going out to get breakfast is always a must after a good hunt. After that, we will go home and clean up our birds to have fresh meat to eat for dinner! Having the ability to harvest my own food is super important to me, and I will always be grateful for having the opportunity to hunt.

...Still won't beat my grandma's cookies, but pretty close!



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!



A fisher stops to sniff a twig. To get fishers to stop by the camera, Laken sprays different scents near the cameras. The interesting smells attract the animals without feeding them. Feeding wild animals on purpose is not healthy for them.



"Hey, what's this thing? Hellooooo?" A bobcat comes in for an extreme close up!



A coyote howls in the winter night! Coyotes howl, bark, and yip to send messages to members of their pack and let other coyotes know whose territory is whose.



"Oh, I am SO DONE with winter!" This gray squirrel might be a little of tired looking for his buried acorns underneath the snow...

"SMELLS FISHY" NEWS TREES FOR TROUT

Trees for Trout is an annual program where people can donate their used Christmas trees to the RIDEM Division Fish and Wildlife and our awesome partners, the RI chapter of Trout Unlimited. It's an easy and cool way to recycle Christmas trees into habitat!

WHAT ARE THE TREES USED FOR?

They are used to improve habitat for wild trout and other aquatic organisms!

ARE ARTIFICIAL TREES OKAY TO DONATE?

Only real pine, spruce, or fir trees are accepted, and the ornaments and decorations must be removed before donating. The trees also cannot have been sprayed with fire-retardant chemicals.

WHEN ARE THE TREES PLACED IN THE RIVERBANKS?

The trees are placed along the riverbanks as needed during the summer months.

HOW DOES THIS HELP THE TROUT?

The trees help protect riverbanks, control erosion, and trap dirt and rocks that settle at the bottom of the river. Erosion is when rainwater trickles across the ground into ponds, rivers, and other watery habitats. As the water moves across the ground, it washes soil into the pond or river. It can also wash chemicals, like fertilizer and road salt, into these habitats as well. Erosion can mess up the shape of riverbanks and pollute the water. Trout need clean water to thrive, so thoughtfully adding the trees to their habitat is very helpful!



About the Author

My name is Dana, and I am the Technical Assistant at the Division of Fish and Wildlife Outdoor Education Office. I love fishing, mainly fly fishing, and fly tying. A big part of my job is helping people learn to fish. My favorite part is when someone catches a fish, especially if it's their first!

OUR WILD NEIGHBORS

EASTERN SMALL-FOOTED BAT

HABITAT: Eastern small-footed bats are very secretive! During the summer, they like to rest in rock crevices, caves, old mines, or holes in trees. During the winter, they aren't as picky about the cold, and will hibernate in parts of caves that other bat species find too chilly. They have been found under rocks on the cave floor or in crevices in the walls or ceilings. They also seem to enter hibernation later than other bats and leave the caves earlier in the spring.

BREEDING: Not much is known about this bat's breeding habits. Scientists do know that mother small-footed bats have one baby (called a pup) per year in the spring or summer.

FOOD: Like all the bats in Rhode Island, the small-footed bat spends each night searching for insects to munch on in the forest.

DID YOU KNOW?

In 2022, Rhode Island biologists found a small-footed bat hibernating in our state. This was the first time anyone had recorded this species in RI over the winter. Turn the page to learn more about our winter bat surveys!



OUT IN THE FIELD

SLEEPY BATS



Hi everyone! Mary here! Most of the bats we have in RI migrate north or south for the winter, but a bunch still hang around in some top-secret hibernacula. This is what biologists call a place where bats hibernate or spend the winter snoozing. This winter, let's join our bat biologist and volunteer coordinator, Jennifer Brooks, on a hibernacula visit to check on the bats and learn more about them!

Mary: Hi Jennifer! Um, it's a little dark and cold down here. Can you explain to everyone where we are?

Jennifer: Hi Mary! We are inside of an old, abandoned building that happens to have a network of underground tunnels which have become the winter home (hibernaculum) of a few of RI's bat species. Rhode Island doesn't have any large caves or mines like other states, so some of our bats have gotten a little creative and found areas here that mimic the environment they would find in a cave or mine! As you mentioned, it is a little cold and dark in here, and those are a couple of things that bats look for when searching for a good place to "snooze" or hibernate for the winter.

Mary: Wow, I didn't realize bats could find their way down here! Can anyone come visit the bats here?

Jennifer: Bats typically return to the same place every year to hibernate. During the fall, before they hibernate, they begin swarming around their hibernaculum and this is when the male and female bats mate. Young bats flying by the area, who have not found their favorite place to hibernate yet, or bats that are not able to return to their old hibernaculum, will notice other bats flying around the hibernacula and will think that this is a good place to hibernate for the winter. Of course, there is always that first bat who is the adventurer who initially finds the hibernaculum, and it's really trial-and-error of checking out places in the fall and finding a space that seems like it will hold a steady temperature (usually above freezing), has the right humidity levels, and is dark. Perfect sleeping conditions!

Because it's so important that bats get their proper rest during the winter, we discourage people from visiting places they hibernate during this time. Bats need to stay in a sleep-state so they can stay hydrated and don't use up their fat reserves that help them survive until spring when bugs are flying around. People entering hibernacula can lead to the bats waking up, which takes a lot of their stored energy.

Mary: That's very important for people to know! Which bat species are you looking for?

Jennifer: We write down any bat species we see in the hibernaculum. The most common species we find are big brown bats, and fortunately their populations are doing pretty well. The other species we sometimes find are little brown bats, tricolored bats, and northern long-eared bats. During February 2022, we also found one small-footed bat hibernating at one site! This was such an exciting find because we have never found one hibernating in Rhode Island before. It looked like a tiny, sleeping werewolf with its fuzzy fur and dog-like face!

Mary: Why is it so important for biologists to know what bats are doing in the winter? Is there anything harming bats that biologists are worried about?

Jennifer: It's very important for biologists to monitor our hibernating bats because it helps us know how different populations are doing. In 2007, biologists started noticing many bats not surviving the winter, sometimes finding thousands of dead bats on the floor of one hibernaculum. This discovery led them to figure out that a fungus was killing the bats. This disease is called White-Nose Syndrome. The fungus attacks the skin on bats' faces and wings, covering those areas in a painful, white fuzz that wakes the bats up during hibernation and causes them to keep cleaning themselves to remove the fungus. Since it keeps the bats awake and constantly grooming themselves during these cold temperatures, they use all their stored fat reserves and become dehydrated. Desperate to find something to eat to replace their lost energy, some bats will try and leave the hibernaculum and brave the winter cold, to find flying insects to feed upon, but ultimately cannot find food and do not make it. Biologists across the country had to act fast to protect the remaining bats. Fast forward to this year, several of RI's bat species have now become very rare to find and are now endangered or may be listed as endangered soon. These three species are the little brown bat, which used to be RI's most common bat



species, the tricolored bat, and the northern long-eared bat.

Mary: Poor bats, that sounds awful! Has White-Nose Syndrome been found in Rhode Island?

Jennifer: Unfortunately, the fungus that causes White-Nose Syndrome has been found in all of our known hibernacula in Rhode Island. The fungus spreads very easily to other locations by spores that attach to people's clothes, shoes, and equipment. Because of this, it is important that biologists and other visitors to hibernaculum sites decontaminate their clothing, shoes, and personal items after visiting, so they don't accidentally bring the fungus to another hibernaculum.

Mary: Bats are so important! Is there hope that they will be able to survive White-Nose Syndrome?

Jennifer: Right now, as we speak, scientists are researching every possibility to find the best way to control this fungus. They are looking at ways to treat the hibernacula directly and have even tried to build hibernacula that can provide a more sterile environment for bats over winter.

While many bats don't survive White-Nose Syndrome, some infected bats do make it through the winter and emerge in spring with scars and holes in their wings from their battle with the infection. If the emerging bat can find food quickly enough in the spring, and starts to feel better, the holes in their wings will heal in a few weeks. The fungus will also die off on the bat with the warmer,

unfavorable weather outside of the hibernaculum, but the fungal spores in the hibernacula will reinfect the bats when they return next winter.

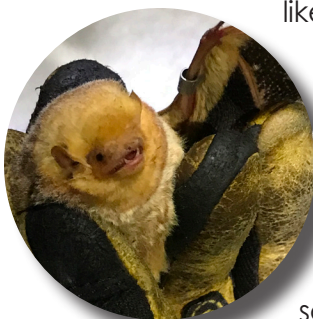
The best thing we all can do for bats is teach others how important bats are to the environment and to humans! Bats in Rhode Island can eat their weight in bugs every night and many of their favorites are things like moths and beetles, some of which are pests that eat farmers' crops and damage the trees in our forests. Bats will also eat insects like mosquitoes, which bite humans and spread disease like West Nile Virus and Eastern Equine Encephalitis (EEE).

Mary: What is your favorite part about your job as a bat biologist?

Jennifer: I love the summer nights I get to spend in the field surveying bats. Some nights that means recording bats' echolocation calls on a special recording device as they fly by, counting bats at their summer roosts, and sometimes even putting small little bands on them so we can identify an individual bat if we see them again. The bands help us know where the bats go between summer and winter and how long some of them live.

Mary: And lastly, what is your favorite wild critter in Rhode Island? I'm guessing it might be one of our bats...

Jennifer: Oooh, that's a tough one! I think the eastern red bat is probably my favorite, but there are so many close seconds... like owls, mole salamanders, and whales...I could go on!



About Jennifer

Jennifer Brooks is the Volunteer Program Coordinator for the Division of Fish & Wildlife. Jennifer has recently taken on the responsibilities of our bat program as well! She helped our former bat biologist, Charlie Brown, with his work before he retired in 2022. Jennifer knows a so much about bats and has lots of experience working with them! As a child, Jennifer loved exploring outside observing wildlife, admiring tiny wildflowers, and monitoring local tadpoles as they developed into frogs and toads. She still enjoys doing all those things, as well as kayaking, fishing, and creating art.



WILD QUEST

MAKE A BAT CRAFT

Before you toss your toilet paper tube in the recycling bin, try out this craft! You can make your bat realistic-looking or silly-looking, it's up to you. You're the artist!

1. Fold the top of the cardboard tube inwards to make pointy bat ears.
2. Cut out wings. You can use any kind of paper or get creative with other items from your recycling bin!
3. Punch two holes in the bottom of the tube and poke two short pipe cleaners through. You can bend the pipe cleaners into tiny feet so your bat can hang upside down.
4. Draw a cute face on your bat.
5. Hang your bat up!



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



EASTERN SMALL-FOOTED BAT (SGCN)

7



USFWS

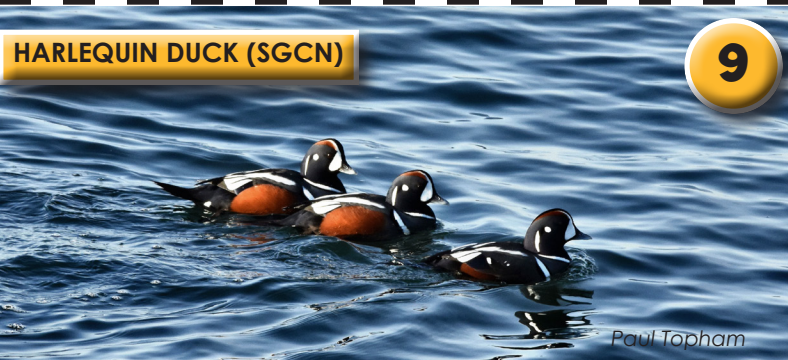
I am one of RI's lesser-known bat species. I'm not very common here and am very secretive. I'm very important though, because like all bats in our state, I help control insect populations. You can thank me for taking care of pesky mosquitoes, moths, and beetles!

WHICH ACTIONS WILL HELP ME?

It's very important to protect my habitat, especially the places where I like to hibernate. Caves, mines, and old buildings with underground spaces are all important to me. Please don't enter or disturb these places!

HARLEQUIN DUCK (SGCN)

9



Paul Topham

I am a beautiful little duck that visits RI's coastal waters in the winter. You can spot me bobbing up and down on the waves and diving for food like aquatic insects, periwinkles, mussels, and crabs. I have some awesome adaptations to help me survive in the cold and swim underwater.

WHICH ACTIONS WILL HELP ME?

Keeping our oceans clean is very important for me! Please keep plastic trash out of the ocean and respect our coastal habitats. Taking actions to prevent climate change will also help, because my food sources could change or disappear if the temperature of the ocean water gets too warm.

WILD TURKEY

10



Paul Topham

I am a beautiful bird that is very common to see in RI. You can spot me strutting and showing off in the spring! I've become very comfortable around people and will wander around neighborhoods and cities in search of food.

WHICH ACTIONS WILL HELP ME?

You can help me by not feeding me! Sometimes people think it's cute to see turkeys coming close to eat French fries and bread. It's not! I can get very bold when people feed me, which means I might peck at you or wander across busy streets. Please keep me healthy and safe by not feeding me, and by telling your friends and neighbors not to either!

NORTHERN BLACK RACER (SGCN)

4



Chris Raithel

I am one of the largest snakes in RI and can grow up to 6 feet long! Even though I am big, I am not dangerous. There are no venomous snakes in RI. I eat lots of things, from bugs and amphibians to birds and rodents.

WHICH ACTIONS WILL HELP ME?

Protecting open grassy habitat is very helpful for me. Also, please tell people that I'm not scary, and that I am an important member of the ecosystem! If you encounter me, please leave me alone and encourage others not to harm me.



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