

# **Bats of Rhode Island**

In the past, bats have been unfairly portrayed as villains due to false myths and legends. However, they rarely cause threats to humans and are beneficial in many ways. These amazing flying mammals are the primary predator of night-flying insects, and play a crucial role in the control of agricultural pests and mosquitoes. Unfortunately, many bat species are facing threats including disease, habitat loss and collisions with wind turbines. Some populations of once-common species have experienced dramatic population declines in recent years.

### LIFE HISTORY

**Range and Habitat:** Most bats only spend the summer months in Rhode Island and migrate or hibernate elsewhere during the colder months. Bats that hibernate (e.g. cave bats) typically select a natural cave or abandoned mine with stable, above freezing temperatures and high humidity as a hibernaculum (hibernation location). Rhode Island does not have any mines or natural caves, which is why most cave bats leave Rhode Island in early fall to hibernate in areas where these features exist. We know from banding data that some little brown bats (*Myotis lucifugus*) that spend the summer in Rhode Island hibernate in Vermont. The big brown bat (Eptesicus fuscus) is the most common species in our area and will frequently hibernate in buildings. It is the species you are most likely to encounter in Rhode Island during the winter months.

Some bats migrate south from their summer range to spend the winter in the southeastern United States, where they may remain active or hibernate for short periods of time during cold weather. This would include the eastern red bat (Lasiurus borealis), the hoary bat (*Lasiurus cinereus*), and the silver-haired bat (Lasionycteris noctivagans), which as a group are collectively referred to as "tree bats." All three species roost in the tree canopy and are generally solitary. In any given winter, any of these three tree bats might be found in the state, sometimes overwintering inside buildings. Red bats will hibernate on the ground, under the leaf litter. We assume that the tree bats found here in the winter are bats that have migrated from areas north of Rhode Island, and may have been forced to stop here due to cold weather.

**Reproduction:** In Rhode Island, big brown bats and little brown bats arrive in the late spring to form "maternal" colonies, giving birth and raising their young together, often in the same location year after year. These two species are the most frequent users of man-made structures. Maternal colonies are typically located in warm attics, which provide the ideal conditions for raising young.

Females typically have only one baby, called a pup, per year. Pups are born blind and hairless during the first or second week of June in Rhode Island. The adult females will leave their roost every night at dusk to feed, retuning frequently to nurse and check on their young. After four to six weeks, the pups will begin attempting to fly. By late July, they will start to go out nightly to feed with their mothers. By late summer, the mothers and young bats gradually begin to leave the roost site entirely and move to other areas prior to migrating to their hibernacula.

#### **DID YOU KNOW...**

- ▶ Bats can live up to 30 years.
- Bats are not blind, they can see just as well as humans.
- Many bat species use echolocation to detect and capture prey in the dark and each species uses a unique frequency.
- Rhode Island's bats are all insectivores; a single bat can consume up to 4,000 insects a night!
- Bats save the U.S. \$1 billon in pest control each year.
- There are 47 species of bats in the United States.
- 8 species of bats are known or believed to occur in Rhode Island.
- > There are 1,300 species of bats worldwide.
- Bats account for 20% of all mammal species.

Male bats do not participate in the care of the pups. They will roost alone or gather together into small "bachelor" colonies of a few individuals, often near a nursery colony. Mating takes place in the fall, during "swarms" when male and female bats congregate before entering their hibernacula.

Some bat species roost in trees and rarely, if ever, enter buildings unless by accident. In our area, the eastern red bat (*Lasiurus borealis*), the silver-haired bat (*Lasionycteris noctivagans*), and the hoary bat (*Lasiurus cinereus*) roost and have their pups high in the tree canopy, hanging from small branches. Females of these species roost alone. Other species such as the tri-colored bat (*Perimyotis subflavus*) and northern long-eared bat (*Myotis septentrionalis*) roost alone or in small groups in tree cavities or under loose bark, but occasionally use man-made structures.

## **BAT SPECIES OF RHODE ISLAND**

All of the following species are known or expected to occur in Rhode Island at some point during the year. Big brown, northern long-eared and tri-colored bats are known to hibernate in Rhode Island during the wintertime. Others are only summer residents, migrants, or occasionally hibernate here:

- Big brown bat (*Eptesicus fuscus*)
- Silver-haired bat (*Lasionycteris noctivagans*)
- Eastern red bat (*Lasiurus borealis*)
- ➢ Hoary bat (Lasiurus cinereus)
- Eastern small-footed bat (*Myotis leibii*)
- Little brown bat (*Myotis lucifugus*)
- Northern long-eared bat (Myotis septentrionalis)
- Tri-colored bat (*Perimyotis subflavus*)

### DISEASE

Bat populations have been devastated by the introduction of <u>White-nose syndrome (WNS)</u>, a fungal disease caused by the fungus *Pseudogymnoascus destructans* (*Pd*). Bats may also carry histoplasmosis and rabies.

<u>Rabies</u> is a disease caused by a virus that affects the nervous system of mammals and can be fatal without prompt medical treatment. It is passed through the saliva of an infected animal. You cannot tell if a bat or other mammal has rabies just by looking at it. Rabies can only be confirmed by laboratory testing. In a given year, the Rhode Island Department of Health may test between 100 and 200 bats for rabies. The average infection rate in a given year, and over a ten-year period is about 4 percent. If one bat tests positive for rabies it does not mean all the bats in the colony also have rabies.

## I FOUND A BAT IN MY HOUSE, WHAT SHOULD I DO?

- Any bat that is found within a home, especially a bedroom, where there are pets, or a person who is unable to communicate, should be tested for rabies.
- If you are bitten by a bat, immediately wash the wound thoroughly with soap and hot water.
- Immediately contact the Department of Health Rabies Hotline (401-222-2577) for instructions. The Rhode Island Department of Health Rabies Hotline is staffed 24 hours a day, seven days a week for reports of possible exposure or for consultation.
- If you know or suspect a domestic animal has had contact with a bat or other wild mammal, contact the local animal control officer and a veterinarian immediately.
- Do not release the bat without first consulting with the DOH, particularly if it was found in a bedroom, or in a house with an unattended child, a person who is mentally impaired or intoxicated, or a pet.
- Vaccine treatment will only be recommended if the bat tests positive for rabies, if the bat was unavailable for testing, or an accurate test result could not be obtained due to decomposition or damage.
- Post-exposure rabies vaccinations may be recommended when the bat is not available for testing.

### WHITE-NOSE SYNDROME

- ▶ Kills 70-90% of bats in affected hibernacula
- Is named for the white "fuzz" that often appears on the face of infected bats
- WNS is believed to be responsible for the death of more than 5.5 million bats in North America since its discovery.
- Little brown bat populations have decreased significantly, maybe as much as 98% across parts of their range.
- Northern long-eared bats have been listed as a Federally Threatened Species due to declines from WNS.
- The fungus that causes WNS (Pd) was found present at all known hibernaculum in Rhode Island.



## TIPS ON BAT-PROOFING YOUR HOME

Bats are beneficial in the control of insect pests and generally do not pose a threat to humans. However, they can pose a health risk if they are handled or enter the living space of a home. There are a number of effective and humane ways to exclude bats from attics or other buildings. The RIDEM licenses Nuisance Wildlife Control Specialists who can be hired to provide professional exclusionary services.

- Look for dark or white staining on shingles or trim boards and droppings, which are black and about the size of a rice grain. They often accumulate under entry/exit points.
- Bats can enter structures through holes that are only 1/4 in by 1/2 in. Check for entry points such as open or damaged louver vents or windows, cracks between the house and chimney, behind fascia or trim boards, and under loose shingles.
- Bats do not chew through wood or screens, but may use openings that were created by rodents.
- Waiting outside at dusk may be the best way to determine how bats are gaining access. Most bats will exit the roost within a half-hour after the first bat leaves, usually just after sunset.
- Sealing up entryways or using one-way devices are effective when used appropriately. This should be done during the winter after the bats have migrated to avoid trapping bats and either forcing them to find an exit through the house or die inside the attic.
- Using poison is illegal. It is not a humane or permanent solution and poses a risk to human occupants, even years after application.
- Naphthalene (moth balls) can also be unsafe for homeowners and is not recommended.
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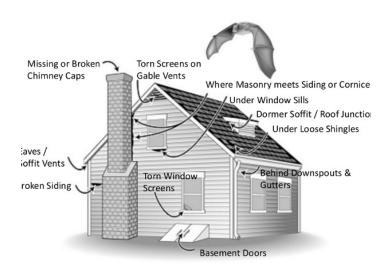


- Do not panic, bats are not aggressive and are probably more frightened than you.
- Contact a licensed Nuisance Wildlife Control Specialist; they are licensed by RIDEM to assist with bat removals and are familiar with rabies submission guidelines.
- If a licensed professional is not available:
  - $\succ$  Try to confine the bat to a single room.
  - Protect your hands with leather work gloves and wait until the bat lands on a surface that you can reach.
  - Place a clear, see-through container over the bat.
  - Slide a lid under the container to trap the bat inside.
  - Securely tape the lid to the container and punch small holes in the lid so the bat can breathe.
  - Label the container with your name, address, and phone number.
  - Call the RIDOH Rabies Hotline at 401-222-2577 and follow their instructions for rabies testing.

## NEED HELP?

<u>Click here</u> to find a Licensed Nuisance Wildlife Control Specialist near you.

For additional resources visit: <u>www.wildlifehelp.org</u>



Bat Conservation International

