

# WILDLINES

New Hampshire Fish and Game's quarterly newsletter of the Nongame and Endangered Wildlife Program



## WINTER 2024

## MOOSE PLATE PURCHASES

### Help Conserve Diverse Species



Little brown bats

© USFWS/KEITH SHANNON PHOTO

Surveying for bats, helping cliff swallows to nest, and monitoring endangered mussels are some of the efforts supported by New Hampshire Conservation License Plate purchases. Since 2010, over 700 projects have been funded by "Moose Plate" revenues in New Hampshire, and a portion of these sales support the Nongame and Endangered Wildlife Program's work each year.

This funding has allowed Nongame Program biologists, as an example, to engage with people interested in bat conservation. This need has grown since bat populations across the U.S. have dramatically decreased as a result of white nose syndrome (WNS). Two workshops were held this year that

provided those interested with in-the-field training to learn how to count bats and report their observations to researchers. Discussions about how to help bats in other ways, such as wildlife-safe methods for excluding bats from attics, also took place.

The *NH Bat Counts* newsletter helped recruit volunteers to collect information about summer bat colonies in June and July. From the data that was submitted, biologists can map maternity colonies, which are places where female bats congregate to rear their young, and start to gauge how the animals are recovering from WNS. Most recently, reports by volunteers showed the potential of new little brown bat colonies, which is an exciting discovery. Little brown bats have a small body, about 4 inches in length, but may have a wingspan of up to 12 inches, enabling aerial maneuvers that help them capture insects.

Often misunderstood, bats serve a critical role in our ecosystem, including efficient insect control, which greatly benefits agricultural crops. Biologists and volunteer collaborators will continue to monitor bat populations in the coming years. Each Moose Plate purchase is an investment in New Hampshire's quality of life, helping to protect the state's unique natural, cultural, and historic resources.

Learn more at [mooseplate.com](http://mooseplate.com).

## CONSERVATION PRIORITIES

### A Look Ahead

Though only just over 9,000 square miles in size, New Hampshire has many diverse habitats, including some 18 miles of coastline, over 800 lakes and ponds, and nearly 19,000 miles of rivers and streams. Even in such a small state, there are many wild places and animals in need of protection. With limited resources, choosing and funding conservation priorities is the most efficient and proactive way to implement protective actions for wildlife and habitats.

To determine the highest-priority conservation objectives, the Nongame and Endangered Wildlife Program has once again begun a 2-year cycle of analysis, which will require collaboration among experts from New Hampshire Fish and Game, their many partners, and the interested public to direct the future of wildlife conservation. All of the data collected during this process will be compiled into the revised edition of the New Hampshire Wildlife Action Plan (WAP).

The massive project begins with re-evaluating all the animals listed as species of greatest conservation need (SGCN). This includes all threatened and endangered wildlife, such as Canada lynx and northern

*PRIORITIES continued on page 2*

Donate online at [wildnh.com/nongame](http://wildnh.com/nongame)



© 2024  
New Hampshire Fish  
and Game Department

Scott R. Mason  
Executive Director

#### WILDLINES

Michael Marchand, *Nongame and Endangered  
Wildlife Program Supervisor*

Loren Valliere, *Writer-Editor*

Victor Young, *Graphic Designer*

Jay Martin, *Copy Editor*

Jessica Hamel, *Data Manager*



603-271-2461  
[WildNH.com](http://WildNH.com)



[/nhfishandgame](http://nhfishandgame)



WILDLINES is funded in part through  
the sale of Conservation License Plates.

[mooseplate.com](http://mooseplate.com)

## BLUE-WINGED WARBLER

*(Vermivora cyanoptera)*



For the last few months, this tiny songbird, weighing less than 1 ounce, has traveled primarily at night through the southern U.S. and across the Gulf of Mexico, to arrive in Mexico and Central America to overwinter. During the summer, the blue-winged warbler's high-pitched buzzing song may be heard near thick brushy areas in the southern portion of New Hampshire. Males are bright yellow with blueish wings, while females may be yellow to olive-green in color.

**Habitat:** Shrublands and pine barrens.

**Threats:**

- Development that permanently removes shrubland habitat.
- Forest maturation. The shrubby edge habitat generally reverts to closed-canopy forest.
- Non-native plants, particularly shrubs, reduce plant diversity, which affects the available insects for warblers to eat.

**Conservation Actions:**

- Learn to identify the blue-winged warbler, which is easily confused with the golden-winged warbler, another species of greatest conservation need.
- Researchers should look at how the management of shrublands for other animals affects shrubland-dependent birds.
- Support the conservation and active management of shrublands and thickets.
- Remove invasive plants to encourage native plant diversity.

# TERN NESTING

## on the Isles of Shoals

North America's population of common terns embarked on an incredible annual migration this fall, journeying to South and Central America to overwinter. However, during the summer many terns were in New Hampshire, nesting on the rocky ledges of the Isles of Shoals. This nesting spot was abandoned by terns in 1955, but thanks to extensive efforts by the Nongame Program and other biologists, the terns have returned

in impressive numbers on Seavey and White Islands.

This year, the number of state-threatened common tern nests present on the islands reached over 3,000, while the more rare roseate terns established just over 150 nests, reported Liz Craig, Director of Seabird Science at the Shoals Marine Laboratory. Roseate terns are federally endangered, with worldwide population declines reported over the last century. In partnership with the Nongame Program and the Department of Natural and Cultural Resources, Craig annually leads monitoring efforts of nesting terns on the islands, including documenting the number of eggs laid and how many hatch, and how many of the chicks survive until they are able to fly. The team also monitors nesting arctic terns, which are at the southern edge of their range in New Hampshire. A few usually show up each year, but 2023 was



Roseate tern



Canada lynx

*PRIORITIES continued from page 1*


long-eared bats, as well as animals that aren't listed but are determined to be at risk, such as the American kestrel and the sea lamprey. Most of these animals have experienced declining populations, loss of habitat, or very specific habitat requirements, and they often face many threats to their continued existence.

The Nongame and Endangered Wildlife Program connects different groups that have been collecting data on rare wildlife to rank threats to both animals and habitats. In previous WAP analyses, pollution such as untreated contaminated runoff into waterbodies was determined to be the most prevalent threat that could affect the greatest number of species. It will be essential to determine how threats to wildlife and their habitats have changed over the past 10 years, which was when the

# AND RESEARCH

the first year since the beginning of the tern restoration project that arctic terns failed to establish a nest here.

In June and July, remote cameras captured video at both common tern and roseate tern nesting sites. They documented the consumption by terns of a variety of small fish, but also squid and some smaller creatures such as krill, wasps, dragonflies, beetles, and moths. The diet of terns and other seabirds has been of research interest for some time because changes in their diet signals changes in their environment.

Warming waters, shifts in fish populations, and the loss of appropriately sized fish to feed young chicks are all threats to terns. Craig and the other stewards of the islands will continue to monitor terns, deter predators, and conduct a wide array of research in 2024. 

*A common tern feeds a chick.*



© ALTELOGLU / ISTOCKPHOTO.COM



*Common tern*

© TAMER YILMAZ / SHUTTERSTOCK.COM



*Common tern eggs*

© DANIEL DANCHEVETS / SHUTTERSTOCK.COM

state's WAP was last updated.

Following initial re-evaluation, conservation strategies to address threats to species and habitats will be developed by the group. Important topics such as the best ways to protect habitat for bees and butterflies and innovative actions to keep pollutants out of rivers and oceans will be reviewed. A widely used component of the WAP are the maps available for each town that show where different habitats are located, highlighting the highest-quality areas, which are targets for conservation. These maps will also receive updates and be made publicly available.


The first New Hampshire WAP was completed in 2005 and revised in 2015, as required by the U.S. Fish and Wildlife Service in order for the state to receive specific funding to implement conservation



*Monarch butterfly*

© SKYLER WING / UNSPLASH.COM

actions for SGCN, called State Wildlife Grants. The 2025 WAP revision will be the blueprint for New Hampshire's conservation priorities over the next 10 years. The process of creating this robust document also unifies a network of partners prepared to implement

the key conservation strategies that will protect wildlife diversity, one of the many assets that make New Hampshire such an extraordinary place. Those interested in helping should watch for volunteer opportunities coming later in 2024. 



New Hampshire  
Fish and Game Department  
11 Hazen Drive  
Concord, NH 03301

RETURN SERVICE REQUESTED

PRSR STD  
U.S. POSTAGE  
PAID  
CONCORD, NH  
PERMIT #1478

### JANUARY

• Upland sandpipers are wintering in southern South America this month, eating insects, invertebrates, and some seeds, before making their spring journey back to the U.S. and Canada.



### FEBRUARY

• Northern flying squirrels utilize cavities in mature trees during the winter months, preferring northern hardwood and spruce-fir forests.

### MARCH

• Breeding season begins for water shrews, which inhabit cold-water bogs, streams, and lakes. They are expert swimmers, using their prowess in the water to feed on mayflies, caddisflies, and stonefly larvae.

# MEMORIAL DONATIONS

## to the Nongame and Endangered Wildlife Program

Donating a gift to conservation is a purposeful and lasting way to honor loved ones while preserving the mission of protecting New Hampshire's wild spaces. The NH Fish and Game Department recognizes with gratitude the following individuals, their families, and friends for helping to leave behind a conservation legacy for future generations:

- *Emily Monica Sotelo* of MA, loved hiking and being in nature. Her family remembers her as someone who intended to change the world for the better. She was just short of summiting all 48 of New Hampshire's peaks over 4,000 feet at just under 20 years old.
- *John D. Harrigan* of Colebrook, NH, was a devoted journalist and conservationist who spent lots of time in the wilds of New Hampshire's North Country. He wrote about both people and animals, becoming a Pulitzer Prize finalist, a publisher of local news, and the well-known voice behind the *New Hampshire Sunday News* column "Woods, Water and Wildlife."
- *Audrey Virgin and Stephen A. Virgin* of Concord, NH, are remembered fondly by their family. Mr. Virgin was a civil engineer for both the NH Highway Department and the NH Fish and Game Department, and he enjoyed skiing many mountains, hunting, fishing, music, and traveling.
- *Catherine Schombs* of New Hampshire, is remembered as someone who loved waterfalls and all wildlife. With her husband, David, she fed the native hummingbirds and enjoyed watching the turkey, deer, and moose on their property. New Hampshire was both her home and her happy place.



Common terns and roseate terns nest on the ground in colonies. They prefer some vegetation for cover, but it must not be too dense or too tall. Common terns will nest in the open, but roseate terns prefer protection, so managing the island for both species is a delicate balance. Recently, the Nongame and Endangered Wildlife Program implemented a prescribed burn on the island to control some of the overgrown vegetation. Biologists investigated using this method along with applying hypersaline spray to maintain the ideal habitat characteristics for nesting terns into the future.