MassWildlife Monthly October 2020

News from the Massachusetts Division of Fisheries and Wildlife

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Ruffing it in Massachusetts

> *"Everybody knows that the autumn landscape in the northwoods is the land, plus a red maple, plus a ruffed grouse. In terms of conventional physics, the grouse represents only a millionth of either mass or the energy of an acre. Yet, subtract the grouse and the whole thing is dead".*
> *-Aldo Leopold, A Sand County Almanac*

Aldo Leopold the father of wildlife management, recognized the importance of the ruffed grouse as an indicator of a healthy ecosystem. Grouse thrive in areas with a patchwork of young forest habitat of varying ages, overgrown fields, and mature woods. In Massachusetts, the ideal habitat mix can be hard to come by, but MassWildlife's Habitat Program

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is working to change that on state lands.

Cover for grouse has been described by hunters as “thick and brushy places that are hard to swing a gun and challenge the toughest dog,” but it’s much more. Grouse need a variety of young forests between 1 and 40 years old in patches ranging from 10 to 40 acres with mature forest and grassy openings nearby. Dense young forests of sapling trees ranging in size from the width of a pencil to as wide as your forearm provide the safety grouse need from predators like hawks. Downed logs or stone walls provide critical drumming sites for male grouse to announce their courtship ritual in spring.

In addition to cover, good grouse habitat provides nutritious food—especially during the winter months. A large part of a grouse’s diet comes from the buds and catkins of aspen, birch, alder, and cherry saplings. Grouse also rely on food from soft mast-producing trees and shrubs like apple, blueberry, grape, high bush cranberry, and hawthorn along with hard mast like acorns, hazelnuts, and beech nuts. Overgrown, brushy fields provide an abundance of protein-rich insects in the summer for developing grouse chicks.

The combination of habitat types needed for quality grouse habitat has become more and more scarce in Massachusetts over the decades due to development and other land use changes. With the goal of reversing these declines, **MassWildlife’s Habitat Program** (/working-for-wildlife-masswildlifes-habitat-programs) actively manages and promotes patchy young forest habitat on some of its Wildlife Management Areas (WMAs) that grouse—and many other declining wildlife species—depend on. Through limited and strategic timber harvests, MassWildlife emulates the conditions of natural disturbance events usually caused by wind, ice, and fire. These operations remove tall trees from an area but leave oaks and cherries that are important to wildlife. Some logs are left on the ground for grouse drumming logs. Because this habitat is only beneficial to grouse for a short time (20-40 years), periodic timber harvesting is conducted on WMAs to create new patches of young forest. MassWildlife also uses prescribed fire as a tool to promote the growth of aspen and to create and maintain the shrubland habitat that provides cover and valuable food for grouse. These practices have been extremely successful in maintaining healthy grouse populations where habitat management has occurred.

To find good grouse hunting, try these Wildlife Management Areas:

Phone

(508) 389-6300 (tel:+15083896300)
8 a.m.- 4:30 p.m., M-F

Online

email

Mass.Wildlife@mass.gov
(mailto:Mass.Wildlife@mass.gov)

websites

MassWildlife Homepage
(/orgs/division-of-fisheries-and-wildlife)

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Trout stocking underway

Fall trout stocking began the last week of September! Nearly 60,000

rainbow trout and 4,000 brown trout are on their way to waters near you this fall. **Click here for the trout stocking report.** (/service-details/trout-stocking-report)

Watch for wildlife on the road

Because fall is the breeding season for both moose and white-tailed deer, MassWildlife reminds motorists to be mindful of increased deer and moose activity, especially during early morning and evening hours. Moose, found in central and western parts of Massachusetts, breed in September and October. White-tailed deer breed from late October to early December.

Moose on the road are especially hazardous. The dark color and height of moose make them difficult to see in low light; moose eyes rarely shine like deer eyes because their eyes are above headlight level. In addition, long legs and heavy top bodies make moose very dangerous to motorists when struck. Observe road signs for moose and deer crossings and slow down. Do not swerve to avoid hitting a deer because it may lead to more risk and damage than hitting the deer. Moose are less likely to move from the road than deer, so stay alert and brake when you see a moose in or near the road.

Deer and moose/vehicle collisions should be reported to the Environmental Police at 1-800-632-8075. In the event of a deer/vehicle collision, the driver or passengers of the vehicle involved (MA residents only) may salvage the deer by bringing it to a MassWildlife Office to be officially tagged.

Fall hunting announcements

Go to **Mass.gov/FallHunt2020** (/info-details/massachusetts-2020-fall-hunting-season-information) to get the latest information about all fall hunting seasons including:

- impacts of COVID-19
- new regulations
- harvest reporting, and
- safety information.

Species Spotlight: Little brown bat

October's Species Spotlight is the little brown bat. Contrary to myths, bats

are gentle and intelligent, but human activities and white-nose syndrome have diminished populations in Massachusetts. Learn how to help protect this underappreciated mammal.

The year 2020 marks the 30th anniversary of the Massachusetts Endangered Species Act (MESA)! To celebrate, MassWildlife will be highlighting one rare species each month as a Species Spotlight. Through the implementation of MESA, MassWildlife's Natural Heritage and Endangered Species Program conserves and protects the most vulnerable animals and plants of Massachusetts and the habitats upon which they depend. Stay up to date on how MassWildlife is celebrating this important milestone by visiting **mass.gov/30MESA** (/2020-marks-30-years-of-the-massachusetts-endangered-species-act)

Description

Common name: Little brown bat
Scientific name: *Myotis lucifugus*
Size: Averages 2.5 to 4 inches in total length from nose to tail, with a tail length of 1.2 to 1.6 inches. The wingspan of little brown bats ranges from 8 to 11 inches. Females are typically slightly larger than males.
Range: Little brown bats are found across the United States, north into southern Alaska and Canada, and south into the higher elevation forests of Mexico. Across the northern part of their range, they were historically the most abundant bat species. They were also common across much of the south, though absent from parts of southern California, the Great Plains, Florida, and coastal North Carolina and Virginia.
MA conservation status: Endangered
Federal conservation status: Not listed

Fun facts

- Little brown bats are insectivores and a single bat can consume up to 1,000 insects in an hour. A pregnant female can eat up to her entire body weight in insects each night. Before hibernation, little brown bats eat more to prepare for the cold weather and increase their body weight by over 30%.

- During the winter, little brown bats hibernate, enduring temperature fluctuations of up to 120°F without negative consequences. During this time, their heartbeat drops to as low as 8 beats per minute compared to a rate of up to 1,300 beats per minute while in flight in the summer.

- Little brown bats use self-generated, high-frequency sounds and a type of natural sonar called echolocation to locate prey and avoid collisions. Individuals can emit up to 20 calls per second while flying and up to 200 calls per second when closing in on prey.

- In the summer, females rear the pups and live separately from the males. Once winter approaches, the males and females reunite and hibernate together.

- In order to save energy, little brown bats sleep about 20 hours a day on average.

- Little brown bats are nocturnal, meaning they are active at night and emerge from their roosts at dusk to forage until dawn, taking small breaks to rest and digest their meals.

- Little brown bats have several different types of roost sites: day roosts, which are typically caves, mines, trees, under rocks, or buildings; night roosts, which are similar to day roosts, but separate to protect the bats from predators; nursery roosts, which are larger and warmer than day roosts found in large tree hollows and buildings; and winter roosts, or hibernacula, which are abandoned mines and limestone caves.

- Little brown bats can fly up to 22 miles per hour, but typically average about 12 miles per hour.

- Little brown bats have a long lifespan compared to other small mammals. The average lifespan is 6-7 years, with one individual captured in the wild at 31 years old.

Threats and conservation

Worldwide, bats face a variety of threats, largely the result of human activity.

- White-nose syndrome: The number one cause for the decrease in the local bat population is White-nose Syndrome (WNS), which is the result of an aggressive fungus that irritates and damages the skin, leads to dehydration, compromises immune systems, increases metabolism, and rouses bats from hibernation in the middle of the winter causing them to use up their precious fat reserves too quickly leading to starvation. For more information on White-nose syndrome, please see **Bat Mortality in Massachusetts** (/service-details/bat-mortality-in-massachusetts).

- Habitat loss and degradation: Bats seek shelter under the peeling bark of dead trees. Little brown bats are threatened with the loss of their

natural habitat as a result of deforestation.

- Pesticide use: Pesticides weaken bats, contaminate drinking water, reduce food availability, and directly poison bats.

- Climate change: Climate change influences hibernation timing, migration patterns, biogeography, access to food, reproduction and development, and echolocation abilities.

- Wind turbines: With the rapid expansion of wind power, migrating bats collide with the spinning blades of turbines causing high mortality. Bats also suffer from extreme changes in air pressure close to turbines which causes a lung injury called barotrauma.

- Fear: Bats are one of the most misunderstood animals, and this can cause people to intentionally harm bats and their habitats.

- All five of the most important bat hibernacula in Massachusetts are now closed to public access to protect the few surviving bats from disturbance. MassWildlife has been conducting winter population counts of hibernating bats for over 40 years. Biologists carefully enter the mines and caves in late winter to identify species, count individual bats, and check body conditions for signs of WNS. In 2016-2018, MassWildlife hired contractors to conduct statewide surveys of bats using acoustics, mist netting, radio telemetry, emergence counts, and roost monitoring to determine the extent and distribution of Little brown bats in Massachusetts and to locate additional maternity colonies that could be monitored and protected.

How you can help

- Be a citizen scientist and spread the word about reporting colonies of 10 or more bats to MassWildlife using **this form** (https://form.jotform.com/80996149146973).

- You can help dispel myths and fears about bats and help others learn why bats are beneficial.

- Create a bat-friendly landscape in your backyard by installing a bat house (see **MassWildlife's Guide to Bat Houses** (/guides/bat-houses) for more information), adding water features, such as a pond, planting night-blooming flowers, and leaving old and dying trees (if it's safe to do so) to be used as potential alternative roost sites.

- If you need to exclude or evict bats from your home, ensure the process

is safe and humane by following MassWildlife's recommendations found in the **Massachusetts Homeowner's Guide to Bats** (/doc/massachusetts-homeowners-guide-to-bats/download).

- Reduce pesticide use to ensure bats have a reliable and safe food source.

- Avoid disturbing hibernating bats by staying out of caves and mines where bats are hibernating in the winter.

- MassWildlife's Natural Heritage and Endangered Species Program (NHESP) is responsible for the conservation and protection of over 400 rare animals and plants, including little brown bats. NHESP's work is primarily funded through grants and donations from supportive citizens. Donate to NHESP today at **mass.gov/support-nhesp** (/service-details/support-endangered-species-conservation).

Get ready for archery season

When it comes to fall hunting, turkeys aren't usually the first game species that hunters think of. After a 2020 regulation change, archery hunters in Massachusetts can now take advantage of overlapping archery deer and archery turkey seasons. This expansion allows regular archery deer hunters a chance to harvest a turkey (1 of either sex) that may wander past their tree stand. Who wouldn't want to take a turkey just before Thanksgiving without sacrificing time in their deer stand?

Pursuing turkeys from a tree stand is quite different from traditional hunting methods, but very practical for an enterprising archery deer hunter. Keep the following tips in mind while hunting from a stand in the fall.

Be still in the stand, don't get busted! Turkeys have some of the best vision of any animal in the woods. They see the full color spectrum, have a nearly 300-degree field of vision, and are always alert for threats. During the fall they are almost always in a flock, which means that dozens of sharp eyes will be watching for danger. Use extreme caution with your movements when turkeys are near—even reaching for your bow can alert turkeys of your presence and cause them to move off. If you are still enough (and lucky enough) for a flock to come within your effective archery range, it is then extremely difficult to draw your bow without being detected. Pick a time to draw when the flock is not alarmed and when your movements will be obstructed by vegetation or other landscape features. Hold your draw until a lethal shot opportunity presents itself. You can increase your chances for

success by practicing at home and modifying your draw weight. Draw and hold your bow for increasingly longer intervals while maintaining accuracy.

Never shoot a walking turkey! Turkeys have extremely small vital areas, so shot placement and accuracy are everything. Unfortunately, turkeys rarely stay still for more than a few seconds when they are feeding and traveling. Make your shot when the bird pauses for a moment. Again, practice holding your draw at home before the season—the longer you can hold your bow back the better.

Practice with the gear you hunt with! Practice with the arrow/broadhead combination that you'll hunt with before heading into the field. Sometimes broadheads will fly differently than field points so it's critical to know where your arrows will hit when hunting. A broadhead used for deer will also be lethal on turkeys; the difference is that the vital area on a turkey is much smaller. Consider practicing from an elevated position (for both deer and turkey) to simulate the angles that you will encounter when hunting from a treestand.

Hunting season dates

View wildlife management zone (WMZ) map (/files/2017-08/wmz-map.pdf)

Archery deer season

- Zones 1 - 9: Oct. 19 - Nov. 28
- Zones 10 - 14: Oct. 5 - Nov. 28

Fall turkey season

Zone	Oct 5-17	Oct 19-31	Nov 2-28
WMZ 1-9	No fall turkey hunting	Shotgun, muzzleloading shotgun, archery	Archery equipment only
WMZ 10-13	Archery equipment only	Shotgun, muzzleloading shotgun, archery	Archery equipment only

Licensing requirements

In addition to a MA hunting license:

- An Archery Season Stamp is required to hunt deer during the archery deer season.
- A Turkey Permit is required to hunt to hunt wild turkey.

Special magazine issue

Throughout 2020, MassWildlife has been celebrating the 30th anniversary of the Massachusetts Endangered Species Act (MESA). As part of this celebration, we are very excited to announce the latest edition of *Massachusetts Wildlife* magazine is a special issue devoted entirely to endangered species conservation. Articles and images showcase a variety of rare plants and animals and the conservation work that MassWildlife staff and partners are conducting to protect these species and habitats.

Interested readers may:

- Sign up for a 1-year subscription (4 issues for $6) or a 2-year subscription (8 issues for $10). You can sign up for a subscription online or by mail. **Get instructions here.** (/how-to/massachusetts-wildlife-magazine)

- Order the special issue (1 issue for $3). If ordering a single issue, send order requests to: Magazine Subscription, Division of Fisheries and Wildlife, 251 Causeway Street, Suite 400, Boston, MA 02114. Please include: the name and mailing address of the subscriber, the special issue you are requesting, and a check payable to "*Massachusetts Wildlife* Magazine." (You will be billed if a check does not accompany your request.)

If you aren't familiar with *Massachusetts Wildlife,* it is a great magazine for people with a wide variety of interests in nature, outdoor recreation, and conservation. Get all the inside information on wildlife and fisheries management, endangered species restoration programs, critical habitat protection, outdoor recreation, and the exceptional people who are working to conserve our outdoor resources in Massachusetts.

Brook trout and bog restoration

The Childs River project aims to return two abandoned cranberry bogs to natural wetland habitat and improve river flow and habitat. Work will include building a new road crossing, replacing a failed fish ladder, and removing an

earthen dam. The resulting improved stream channel will allow brook trout along with American eel and other fish to travel upstream to areas that are currently inaccessible. This construction will reduce ponding and sources of warm water that currently impair existing coldwater habitat for trout.

The wild brook trout that once lived in the Childs River were extirpated when their habitat was degraded by cranberry bogs, mill dam construction, and other factors. According to MassWildlife's Southeast District Aquatic Biologist, Stave Hurley, "Between 2008 and 2010, wild brook trout from the Quashnet River were transplanted to the Childs River which resulted in a successful reproducing wild trout population in the lower Childs River." This restoration effort will remove the remaining barriers and allow fish to once again swim upstream.

This restoration project is happening on lands owned and leased by the Falmouth Rod and Gun Club in Falmouth and Mashpee. "This project supports the club's mission of improvement, conservation, and preservation of the land and water systems of Cape Cod," says Club President Ron Densmore. "Restoring the bogs and river will ensure the public can enjoy the natural historical beauty of these resources in perpetuity."

The restoration project was started by the Club in 2016 and has the financial and technical support of many partners including the Association to Preserve Cape Cod, Massachusetts Division of Ecological Restoration, Mashpee National Wildlife Refuge, Waquoit Bay National Estuarine Research Reserve, and MassWildlife.

Watch a short video about the Childs River restoration project (https://www.youtube.com/watch?v=EBbtEa76MA0&t=29s).

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