

Springtime...

*And the
living is
not easy*



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How do
wildlife
survive at
winter's
end?

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In New Hampshire, we regard spring as an arrival — a deliverance, really. It's a reward we've well earned, thank you, with our aching backs, cold-stung fingers and death-defying commutes. We may be forgiven if we gloat about "making it through another New England winter."

For many wildlife species, though, spring doesn't mark the end of winter travails as much as it signals the beginning of a gauntlet of new challenges. Some animals are at their most vulnerable now. Females are either pregnant or raising their young; males are competing for breeding grounds and mates. Food can be scarce. Capricious spring storms wash eggs from their nests or freeze them where they lie. Wind, sleet and snow chill young animals, and death may follow soon after birth.

Fortunately, animals come equipped to cope with most of what spring hurls at them. Their amazing strategies, both behavioral and physiological, may delight, disturb or even disgust us humans — but they're all done with the singular purpose of surviving spring.

Protective Parenting Strategies

Spring can be a particularly tough time for black bears, especially for sows with cubs in tow. Unless the previous fall offered a bumper crop of acorns and beech nuts, bears find foraging bleak when emerging from their dens in early April. Snow still covers the ground and few plants are growing in earnest. Bears must rely on fat reserves from fall that got them through the winter.

"It appears that adult bears continue to lose weight through June and into July," says wildlife biologist Mark Ellingwood of N.H. Fish and Game.

That's why bears often head to the wetlands, where spring's first table is set with grasses, forbs (broad-leafed herbs) and tubers. "Skunk cabbage is extremely popular, but jack-in-the-pulpit is preferred," Ellingwood says. "They pull the plant and eat the tubers. The vegetative growth is a flag to them that there's a tuber underneath."

Bears often don't start rebounding until later in the spring, when berries begin to ripen and other foods are plentiful. Until then, they must make do — which for female bears typically means nursing one, two or three cubs while teaching them how to survive.

Bear researcher Ben Kilham of Lyme, co-author of *Among the Bears*, has spent countless hours watching sows giving cubs their first survival lessons. "The mother bear teaches the young what to eat by transferring smell by her breath. It's



JOHN P. GREEN PHOTO

an olfactory invitation," Kilham says.

The sow eats a bit, then lets her cubs sniff her mouth. They then recognize that smell when they come across it. Kilham, who discovered that bears have an organ in their mouths that allows them to discern differences between plants, says that cubs can teach themselves what to eat by mouthing vegetation. They'll eat what's edible and leave behind the rest.

Bears in spring also eat the scat from deer and moose, Kilham says. "They only eat the freshest scat," he says, because it contains organisms they need to digest beech and ash buds, red maple flowers and other foods difficult for non-ungulate stomachs to break down.

Sometimes, even the most dedicated bear mother needs a break from her cubs. Kilham says sows will pick what he calls a babysitting tree — a large pine or hemlock. Once her cubs have scooted up the tree, she leaves them there to go find food on her own nearby. Up in their babysitting tree, cubs practice their climbing skills and are safer from predators like bobcats and coyotes than they would be on the ground.

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A white-tailed deer fawn "hides in plain sight," while his mother forages for food.

By
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River otter swimming lesson: Mom nudges a reluctant kit into the water.

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In the case of white-tailed deer, the ground is exactly where newborn fawns seek protection, “hiding in plain sight.” Fawns’ coats are mottled; they blend in with grass and other plants, so mother deer hide them there when they leave to

forage for food. If a doe has twins, she finds separate hiding places for each; this way, she reduces the chance that one successful predation will bring death to both of her fawns. She returns only a few times a day to nurse the fawns, who lie still while they wait for her, with their chins flat on the ground to remain camouflaged.

The Call to Crawl

One of nature’s most spectacular springtime events happens right under our noses and offers great wildlife viewing opportunities.

As the ground begins to thaw, amphibians emerge from winter havens underground or on pond and stream bottoms and venture topside. These creatures then answer inner calls to crawl or hop to annual breeding grounds.

During this migration, triggered by temperature and spring’s first rains, thousands of salamanders and frogs seem to throw caution to the wind, marching resolutely over roads and through the woods toward herpetological bliss. If you’ve ever been out driving on one of these nights and noticed an unbelievable number of frogs hopping in front of your headlights, you’ve witnessed this migration.

For spring peepers, wood frogs and spotted, Jefferson, blue-spotted and marbled salamanders, the destination is a vernal pool – those temporary pools of water that usually dry out by mid-summer but in spring offer a mating place free from predatory fish.

The best way to see the action requires some planning. First, locate a vernal pool in your area. Then, watch for the first one or two rainy nights of spring that are above 40 degrees F. When those nights arrive, bring along a flashlight and venture out to the pool. Stand quietly while shining the light into the pool and, if your timing is right, you’ll see these amazing creatures up close.



ERIC ALDRICH PHOTO

Female wild turkeys are alert parents as well. Turkey poults are born in early June with thin feathers; they’re easily chilled, so female turkeys face the task of keeping them dry and warm. This can be difficult during cold spring storms, especially since poults can’t fly up into trees to roost until they’re about two weeks old. For these first vulnerable weeks, the female stays on the ground at night, her feathers fluffed out and her poults gathered around, usually under a tree. By day, she takes them out hunting for insects, catching bugs and tearing them to pieces for her protein-needy poults. If one poult wanders away and gets lost, it need only utter a panicked cry; the mother will stop and answer until the wanderer has followed the sound of her voice and rejoined the family.

When it comes to parenting, humans should relate well to the river otter, who must make her kits do what’s good for them even though they don’t want to. We struggle to get our kids to eat their vegetables; river otters must often cajole, coax or force their kits to swim. Since fish are otters’ main food source, survival is impossible for otters that can’t swim. Yet many kits don’t take to the water naturally. What’s a river otter mother

to do but push them in? Their teaching method is truly sink or swim. An otter mom carries two or three kits on her back in the water, then dives while the kits do their best to stay afloat. She returns to pick them up, then dives again, repeating the scenario until the kits are swimming on their own, like it or not.

Clever Nesters

Beginning life inside a small, breakable and incredibly edible egg has its disadvantages. But birds employ at least as many strategies as there are dangers.

The ruby-throated hummingbird camouflages its inch-long nest by attaching it to a tree branch and covering the outside of it with gray-green lichens. The nest looks like just another knot on the branch. The bird's craftsmanship is good enough to foil even veteran birder Iain MacLeod, executive director of Silk Farm Audubon Center. "They're almost impossible to find. I've never found a ruby-throated hummingbird nest," MacLeod says.

Female Canada geese pluck down feathers from their own breasts and line their nests with them, creating warm, soft havens for their eggs. Titmice and flycatchers are opportunistic nest builders who have even been known to tuck bits of shed snakeskin and cellophane into their nests, thereby helping to insulate and waterproof them.

Some ground-nesters, like the northern waterthrush, protect their eggs by staying on them and keeping quiet even when danger lurks close, according to Joan Dunning, author of *Secrets of the Nest*. Rather than flush and call attention to herself and her eggs, the little waterthrush, a kind of warbler, sits tight in her nest of moss, almost to the point of being stepped on.

MacLeod has seen this sit-tight defense in other ground-nesters. Ovenbirds, he says, use it in combination with the faked-injury defense, which they employ after coming close to being crushed beneath a boot or predator's paw. "They'll go into an injury display so you'll look at them rather than look down at your feet and see there's a nest there," MacLeod says.

Right Place, Right Time

For American woodcocks, mid-March to late May is showtime. Male birds perform elaborate flight displays, often under the moonlight and always at predictable times of night or in the early morning hours, to attract females. They utter a series of nasal "peents" and other calls, then zoom upward, spiraling up to 250-300 feet in the air

while sending out a twittering call. At the high point in their flight, they blast a loud twitter, then zoom back down. They let nothing get in the way of this spring ritual, even researchers like Fish and Game's Ellingwood. "I've released a bird (captured for study) and had it land eight feet from me and begin to call. That's how tenacious they are," says Ellingwood.

Males compete for the best displaying sites, or "singing grounds," because "the best sites receive the best visitation" by females, Ellingwood says. Sometimes this works against the ground-roosting birds when the males hurry back from wintering areas to claim the best singing grounds. "Sometimes they race back earlier than they should and can find deep snow. They freeze on the ground at night," Ellingwood says.

Timing is also everything for a very different species — the spotted turtle, which hibernates in the rhizomes, roots and muck of pond bottoms. Spotted turtles are usually the first New Hampshire turtles to emerge from hibernation in spring.

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Above, the woodcock relies on camouflage to protect itself in the woods. A Canada goose's eggs are snug in their downy nest (below).





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A spotted turtle's instinct leads her out of hibernation and onto shore for a short breather.

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Naturalist and author David M. Carroll of Warner has watched for emerging turtles along pond and stream shores for decades, and has seen one particular female spotted turtle emerge for the past 18 springs (perhaps this year will make it 19!).

These remarkable creatures pick hibernating areas that are close to where the ice will first break open in spring — usually toward the end of March in Carroll's neck of the woods. After a winter spent in a cold torpor, the turtles sense the time has come. Up, up they swim, find that first opening and crawl out into the shore plants to hide, bask and breathe for the first time in months. How do

Spring, Wildlife and Us

People, of course, have a huge impact on wildlife in the spring. Here are a few ways we can all benefit wildlife near our homes:

- **Take down bird feeders** by the end of March so bears don't tear them down and become potential nuisance bears. Bears can smell those delicious sunflower seeds from great distances.
- **Leave wildlife wild.** Deer and other animals often leave their young for extended periods to go find food. Baby robins routinely leave the nest before they know how to fly. They hop around on the ground or in bushes while they're learning. Unless you know for certain an animal is hurt or its mother has been killed, it's best to let it be and not endanger it by calling attention to it. Anyone who's unsure about a situation should call a local wildlife agency or rehabilitator first before approaching an animal.
- **Plant some fruit-bearing trees** or bushes in your backyard to support birds and other wildlife. A birdbath will also attract birds and other wildlife to your yard.
- **Keep control of pets.** Housecats kill millions of songbirds each spring. Wonderful family dogs pack up with other neighborhood dogs to run down, exhaust and kill deer weakened by winter's hardships.
- **Keep a safe distance from wildlife**, especially female moose with their calves. Moose cows may charge and stomp anyone who comes too close.
- **Empty water-collecting barrels**, garbage cans, etc., to cut down on mosquito breeding sites.

they know in the fall to hibernate in a spot so near where the ice will first melt in spring? "The amazing thing is that they know that, and they know it from hatchling time on," says Carroll.

The turtles' first foray into the air is extremely important, Carroll says, even if they bask for only a matter of minutes or a few hours before dropping back down into the water to wait for warmer temperatures. Those gulps of air clean out toxic chemicals that form in oxygen-deprived tissues. "They're getting their first oxygen in months, and they're getting rid of tremendous acidosis that builds up in their systems," he says, "far beyond what any other vertebrate animal can survive."

Whatever Works

Each spring, smelt spawn in streams, rivers and lakes of New Hampshire, ensuring that lake trout and salmon have an important food supply and creating a valued fishery in their own right. Traditionally, New Hampshire has seen heavy smelt runs in brooks, but it's the big lakes that now host the bigger runs. The smelt have seemingly adapted to spring conditions that have caused fluctuations in water levels of brooks. A series of dry winters, for example, can lower stream water levels and leave smelt eggs high, dry — and dead.

Don Miller, a Fish and Game fisheries biologist, says the change in the big smelt runs from brooks to lakes like Winnepesaukee, Winnisquam and Newfound has happened in just his lifetime, as he has memories of huge brook runs of smelt that just don't happen anymore.

"The more successful ones that spawn in lakes are driving the smelt populations now," he says. "If you're successful at doing something, you keep at it. I guess that's what the smelt have learned to do."

Season of Miracles

Spring is truly a season of miracles in the natural world. We needn't go far to witness these miracles here in New Hampshire. In the woods near our homes we can hear the drumming of the pileated woodpeckers that carry their eggs in their beaks to a new nest if their old one is destroyed. At our backyard nectar feeder, we can watch a ruby-throated hummingbird — that has flown across the Gulf of Mexico nonstop and then worked its way north to get here — take a dainty sip of sugar water.

And for every observable splendor, there are countless unseen dramas. In each drive past a swamp or pond, each walk past pine, maple and oak, we move among death, birth and the tenacious struggle that is spring. 