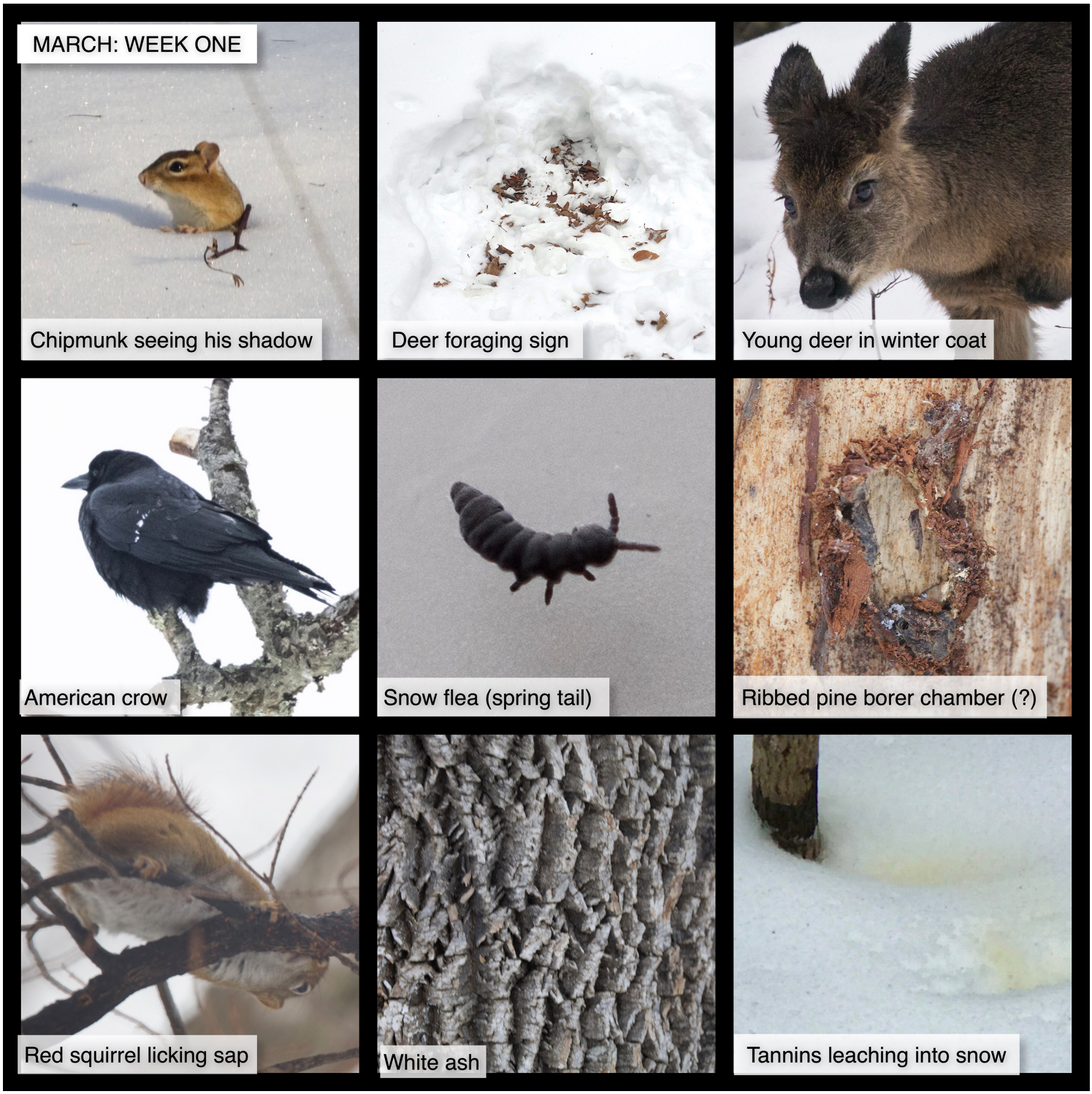
This Week in the Woods March: Week One



This Week in the Woods, we found this **chipmunk** peeking out of its winter burrow. There were no dignitaries in top hats to greet him, but the chippie did seem to inspect his shadow before disappearing below the snow again. Was this an early sign of spring, or a confirmation of four more weeks of winter? Perhaps neither. Although chipmunks spend most of their winter in burrows, unlike groundhogs (a.k.a. woodchucks), they aren't true hibernators. Every so often, they rouse from torpor, get a snack from their larder and use the latrine – yes, they have a special

room for that – before going back to bed. You can read more about their winter preparations in this (previously shared) *Outside Story* essay.

Meanwhile, for deer, this is a challenging time, when food is scarce, movement is difficult, and the fat reserves they built up last summer and autumn are nearly depleted. Associate director Dan Lambert took this photo of a **deer digging site** in Hartland, where one or more animals had cleared deep snow, presumably to get to food (maybe acorns). The adjacent photo was taken by a game camera as a young deer made its way down a snowshoe-flattened hiking path. As this image shows, one of deer's key winter survival tactics is to get fuzzy. A **deer's winter coat** is comprised of two layers: a soft undercoat that traps warm air next to the body (functioning in a similar way as down on a bird) and a top layer of hollow guard hairs that also trap heat and protect the undercoat from snow and rain. Here's an *Outside Story* essay by Chuck Wooster describing deer's challenges in winter (and the importance of not disturbing winter deeryards), and here's a video produced by Ben Silberfarb for our Resilient Forest multimedia series, exploring how Maine state biologists monitor deer and work to maintain critical winter habitat.

Twice this past week, we've encountered a large flock of **American crows** hopping around on the ground and perching up in the trees. Although these birds are far from universally beloved, there's a lot to admire about them, including their remarkable intelligence. As Joe Rankin notes in this *Outside Story* essay, some crows "not only use tools, but create them out of straw, wood, or wire to access food. They also play….[and] have a complex social structure and their nuanced communications reflect that." Crows are sometimes confused with ravens, their bigger cousins in the corvid family. Here's a helpful primer from Audubon that describes easily distinguishable traits between crows and ravens, including crows' greater sociability.

Have you ever wondered what a snow flea looks like, up close? Well now you know. As Declan McCabe notes in this *Outside Story* essay, snow fleas – or springtails – are the "tiggers of the invertebrate world." These tiny arthropods – not insects but members of their own class, *Collembola* – are conspicuous this time of year, often appearing in the thousands in tracks, or on sunny patches of snow. They're often described as hopping pepper. Snow fleas have a unique means of movement. As McCabe explains, at the end of the abdomen is a specialized structure called a forcula that is held in place by a catch, or tenaculum. "When faced with a predator (or poking twig) the hydraulically pressurized forcula is released, propelling the springtail up to 300 body lengths away. Operating at our scale, they'd comfortably clear anything on the Manhattan skyline." Check out this second *Outside Story* essay by Kent McFarland for the surprising way that pine trees "eat" springtails.

We discovered several of these oval structures on a pine log that a woodpecker had recently stripped of its bark. Closer inspection showed that the ovals were made from bits of wood and

were probably remnants of the **pupal chamber of a ribbed pine borer**, a type of long-horned beetle. You can see a more fully intact photo of a nest (courtesy of Ben Kilham) at this entry to our "What in the Woods is That?" bi-weekly quiz. Also check out this post by Mary Holland from her Naturally Curious bog, explaining that the pupae remain in the nest all winter and the adult insects emerge in spring.

Another sign of the changing season is this **red squirrel licking sap** from the branch of a sugar maple. Here's a Tracking Tips column by Susan Morse from our Spring 2013 magazine, describing squirrel "sap taps." As Morse explains, squirrels harvest sap by taking advantage of the temperature fluctuations this time of year. They bite the branch to create a wound, then leave the wound to ooze out sap, which eventually freezes and dries, concentrating nutrients. The squirrels then return and lick the hardened sap like a twig lollipop. "While sugar maple is the tree of choice," writes Morse, "I've discovered red and gray squirrel taps on 23 species of trees and shrubs."

Chances are you're already aware of emerald ash borer (EAB), an invasive insect that is sweeping through the Northeast. Our native ash tree species, including **white ash**, do not appear to have any natural defenses to the insect, and trees typically die within 3 to 5 years after infection. Which is to say, sadly, that our forests are likely to soon lack one of their most common and beautiful trees. Here's an information page co-sponsored by the U.S. Forest Service, the New Hampshire Division of Forest and Lands, and other organizations, with identification information, and a note that moving ash wood risks spreading EAB. And here's an article from our archive, looking at some of the traditional ways people have used ash wood, and possible wood substitutes.

Finally, this time of year, you may notice the light yellow stains in the snow next to tree trunks. What you're seeing are **tannins** that have leached out of the wood. Tannins are phenolic compounds that protect plants from infestations by fungi and bacteria, as well as browsing by herbivores. You can read more about them on this U.S. Forest Service page. And here's another photo of tannin-colored snow from our "What in the Woods is That?" biweekly quiz series. (Thanks to Chuck Sherman for suggesting this topic!)

Our thanks to The Bailey Charitable Foundation and the Frank and Brinna Sands Foundation for helping to support this series.

Northern Woodlands
PO Box 270, Lyme, New Hampshire 03768
mail@northernwoodlands.org / 603-795-0660
www. northernwoodlands.org