



## New and Improved Upgrades Proposed for Mount A

There is no doubt that Mount Agamenticus has been discovered! Over an estimated 50,000 people visit the area each year to enjoy its natural beauty, scenic vistas, and unique network of over 40 miles of trail.

It has become apparent thru visitor feedback, direct observation and vehicle traffic studies that use continues to increase and the area needs attention to address this growth. The most urgent needs include expanded and safe off-street parking and upgraded restroom facilities.

Parking is well over capacity during periods of high use throughout the year and has become a public safety concern. Visitors are often forced to walk in the road, school busses have no designated drop off or parking area and congestion at the summit can cause long delays.

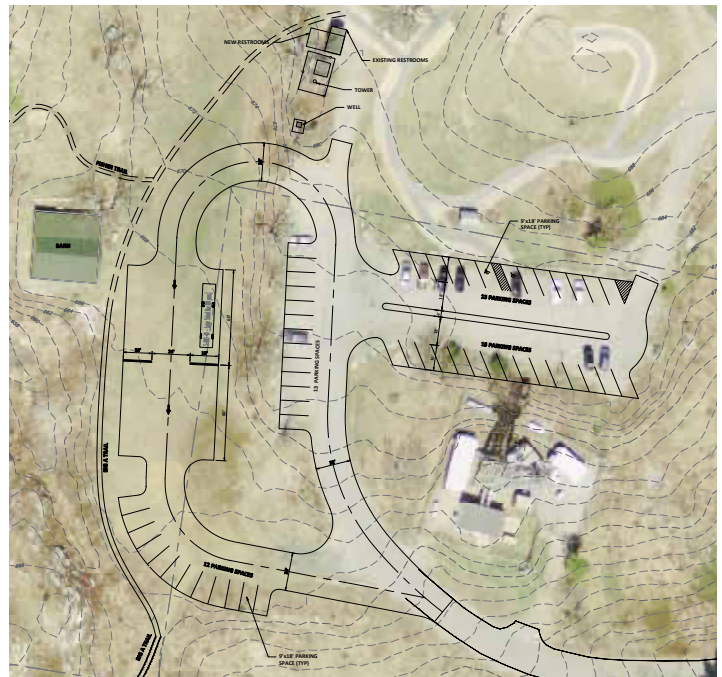
The current portable restroom facilities are costly, have reached their capacity and visitors repeatedly express how inadequate and unpleasant they are. School children and other event participants face long lines for the single portable toilet at the base and for only two at the summit.

Upgrades are long overdue. Two capital improvement projects have been proposed to alleviate these concerns and meet current and expected demand.

First, the Mt. Agamenticus Parking Expansion and Improvement Project, this includes the construction and expansion of both the summit and base parking lots located at Mount Agamenticus. The summit proposal will not add additional parking capacity but expands the area to reduce congestion and will have designated bus and accessible parking areas. The base proposal will eliminate the existing 10-12 spaced gravel lot and parking on Mountain Road and add a new 88 space parking area off the access road and accommodate bus drop off/pick up.

Conceptual designs were developed to address concerns regarding public safety and water quality. As such, the project proposals include paving the parking areas due to existing ledge, pitched slope and elevated risk of erosion. This is the recommendation of Wright-Pierce an engineering firm, hired

**Mt. Agamenticus Summit Proposal**



**Mt. Agamenticus Base Proposal**





## 2019 Visitor Use Survey Results

The Mount Agamenticus Visitor Use Survey is a yearly tool that allows us to collect and analyze data on who is visiting Mount A, popular recreational activities, and offers us a chance to receive direct visitor feedback. This year we continued to track where our visitors are from, how they heard about us, how often they visit, what activities they do on the mountain, how they feel about trail condition, and if they feel there is adequate signage out on the trails. We also asked visitors what their main draw to the region was, and whether or not they also visited any other local area businesses or landmarks. From three surveys per day for seven days at three locations, we spoke with 1,432 visitors in 472 total surveys.

*For a full and detailed report, including charts and graphs, visit [agamenticus.org](http://agamenticus.org) and click on “2019 Program Update.”*

### RESULTS

Many of the trends regarding visitor frequency and hometown that we’ve seen in the past few years seem to be continuing based on this year’s results. As in previous years, the majority of visitors surveyed (40.2%) were visiting Mount A for the first time, though almost as many were infrequent visitors (36.2%), coming less than three times a year. Frequent visitors, those coming at least once per month, made up nearly 24% of visitors surveyed, which is about the same as last year. As in previous years, the majority of our visitors (57.7%) come from out of town. There is also still a significantly higher percentage of local visitors who live in Maine (30.3%) than local New Hampshire visitors (12%). Of 472 total surveys, 180 visitors said they lived locally. Local visitors are considered those who live within 30 miles of Mount A.

The majority of visitors (33.3% from 424 total answers) heard about Mount A from a friend or family member; 26.9% (up from 22.8% last year) either heard about Mount A from a local resident or are local residents themselves. We

also asked visitors if they were visiting for a day or if they were in the area overnight or on an extended stay. Of the 425 groups who answered this question, 58% were visiting just for the day and 42% stayed overnight. When asked what their main draw to the area was, 213 groups (about 53%) out of the 398 that answered said Mount A. Out of those groups, 175 were day-trippers and of those, 127 were also local residents, coming from less than 30 miles away.

*The vast majority of those coming to Mount A visit to hike (90.4%, up from 62.3% last year) and/or picnic and sightsee (76.3%).*

### CONCLUSION

Mount Agamenticus is frequented not only by many vacationers, but by large amount of frequent local visitors that love coming as often as they can in all seasons. While many visitors make a full day out of their trip to the mountain, many also take the opportunity to experience other local attractions. For many seasonal visitors, Mount A is included on their list of “must see” places in the area. Most people had positive things to say about the mountain and how we manage it, though there are some aspects that we continue to improve. We will continue to work to make the mountain as user-friendly, safe and accessible as possible, while protecting the natural resources and supporting sustainable recreation.



## Upgrades Proposed for Mount A - continued from page 1

by the York Water District, who's primary objective is to meet Best Management Practices for water quality. Paving would be most effective for keeping the area stable and will include storm management strategies such as bioretention vegetated swales and riparian buffers. These will slow the runoff and allow for filtration protecting nearby vernal pools, wetlands and drinking water reservoirs in the watershed. It will also allow easier maintenance from winter plowing and more efficient parking by enabling space striping.

Second, the Mt. Agamenticus Public Restroom Upgrades, which includes the construction of public restroom facilities located at both the summit and base. These will replace the costly and inadequate portable facilities that currently exist and are a top priority. This project involves the installation of composting toilets due to the limited water supply and flow impacting water capacity for a flush system at the summit and comes with added environmental benefits. Composting toilets

were investigated, are being used in local, state and federal outdoor recreation areas to include sensitive environments such as beaches and national parks and determined feasible and appropriate for Mount A. The proposal for these facilities includes two composters with four waterless toilets at both the summit and base locations.

The total amount of the capital request for both of these projects is \$1.2 million and will go before the Town of York voters in May. The need for this project has been well documented, studied and analyzed for many years.

More information about this project, planning documents, maps and more can be viewed on the Mount A website at: [agamenticus.org](http://agamenticus.org).

We hope YOU will join us in supporting these important projects to protect the unique natural resources found at Mount Agamenticus and to improve safety and visitor experiences for the betterment of all.



The parking areas at the summit at full capacity on a busy weekday.



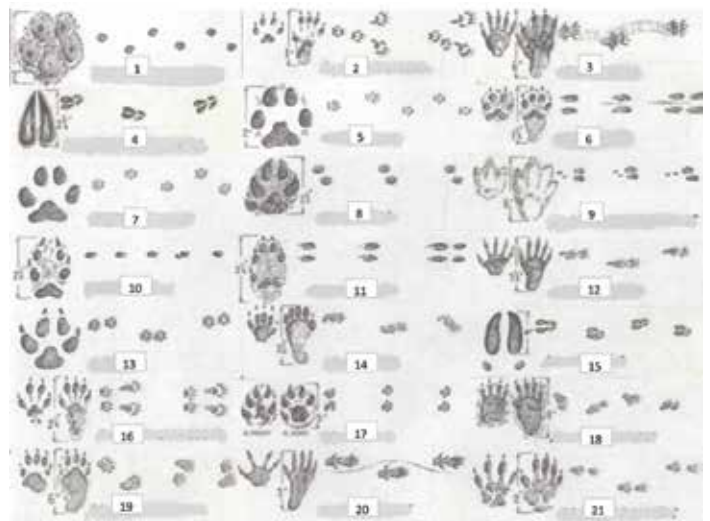
## Are all snowflakes really different?

They say that no two snowflakes are alike, but with trillions falling every year, is that even possible? First, it helps to know more about how snowflakes are made. When the air is colder than 0° Celsius (or 32° Fahrenheit), snow crystals begin to form from water vapor high in the atmosphere. As more water vapor condenses and freezes on these crystals, they form the beautiful shapes and branches we call snowflake!

Surely, though, some snowflakes have to be exactly the same, right? Not at all! Although snowflakes are all the same on an atomic level (they are all made of the same hydrogen and oxygen atoms), it is almost impossible for two snowflakes to form complicated designs in exactly the same way. While snowflakes can be sorted into about forty categories, scientists estimate that there are up to 10158 snowflake possibilities. (That's 1070 times more designs than there are atoms in the universe!)

Reference: Libbrecht, K. (n.d.). *Snowflakes - No Two Alike?* Retrieved July 22, 2015.

## Can You Identify These Maine Animal Tracks?



Images and information provided by Maine Department of Inland Fisheries & Wildlife

- ANSWERS:
- |                   |                  |                   |                |
|-------------------|------------------|-------------------|----------------|
| 1. Canada Lynx    | 7. House Cat     | 13. Dog           | 19. Black Bear |
| 2. Chipmunk       | 8. Fisher        | 14. Skunk         | 20. Muskrat    |
| 3. Beaver         | 9. Snowshoe Hare | 15. Moose         | 21. Woodchuck  |
| 4. Whitetail Deer | 10. Red Fox      | 16. Gray Squirrel |                |
| 5. Bobcat         | 11. Marten       | 17. Otter         |                |
| 6. Weasel         | 12. Raccoon      | 18. Porcupine     |                |

# Renewable Energy, Wildlife and Habitat - “A Responsibility to Act Well”

Climate change driven by carbon pollution is the biggest and most urgent threat to Maine’s wildlife and habitat. Extinction of species is escalating. Doing nothing is not an option.

Maine’s energy standard requires 80% renewable energy by 2030 with a goal of 100% by 2050.<sup>1</sup> Can we get there from here, and if so, at what cost? The conundrum is immediate action without further devastation to what we are seeking to protect. One solution is to wean ourselves from fossil fuels and shift to renewable energy like wind and solar. Still, those options are not without damaging consequences to wildlife and habitat.

Maine has a huge offshore wind potential which could satisfy our energy needs 65 times over what we use now. The Gulf of Maine offshore wind resource is a higher quality than most parts of the United States.<sup>2</sup> Moreover, the U.S. is the world’s leading producer of wind energy and with that, bird mortality in the millions from collisions with wind turbines continues to escalate.

Additionally, biologists say that migratory and tree-roosting bat populations risk extinction if rapid growth of wind turbines is not controlled. The U.S. Fish and Wildlife Service reports that far more bats than birds are killed, particularly in the Midwest and Eastern United States.

Solar energy seems to have lesser negative impacts on wildlife. It can be installed in already built-up and disturbed environments, and usually doesn’t require more habitat loss and fragmentation by new transmission facilities. Solar power can be located right where it is consumed.

However, solar farms can be “mega-traps” for birds, say federal investigators.<sup>3</sup> The USFWS has reported that most birds are dying from various levels of exposure to “solar flux” which causes singeing of feathers. “The growth of concentrated



Stetson, Maine turbines

solar, which by one recent estimate could grow to a \$9 billion worldwide industry in 2020, up from \$1 billion in 2013, could be crimped by lawsuits and opposition from conservationists.”<sup>4</sup>

Maine Audubon recently published their extensive report: “Renewable Energy and Wildlife in Maine – Avoiding, Minimizing, and Mitigating Impacts to Wildlife and Habitat from Solar, Wind and Transmission Facilities”, (11/7/2019).<sup>\*</sup> The authors of the report state that, “With the urgency to act comes a responsibility to act well”. Thoughtful, long-range and strategic planning with “detailed policy

considerations and recommendations on ways to site, construct, and operate projects with wildlife in mind” is crucial. “New renewable energy development must strive to first avoid and then minimize impacts to wildlife.”

Today, right now, we can all take one resolute action to reduce our personal carbon footprint and help conserve our wildlife. For starters: change your light bulbs to LEDs, don’t let your car engine idle, skip a day of driving each week, turn off your internet router at night, shut down your computer, unplug your cell phone when charged and disconnect the charger, filter/drink tap water, use a clothesline, eat local food, plant trees, turn half your lawn into a veggie garden, look into photovoltaic solar power for your home.

<sup>1</sup> State of Maine - <https://www.maine.gov/governor/mills/news/governor-mills-signs-executive-order-directing-state-government-lead-example-embracing-energy>

<sup>2</sup> University of Maine – <https://composites.umaine.edu/offshorewind/>

<sup>3</sup> Scientific American - <https://www.scientificamerican.com/article/solar-farms-threaten-birds/>

<sup>4</sup> Science Direct - <https://www.sciencedirect.com/science/article/pii/S0960982208007513>

<sup>\*</sup>Maine Audubon Society - [https://www.maineaudubon.org/wp-content/uploads/2019/11/MaineAudubonRenewables\\_Wildlife2019Report.pdf](https://www.maineaudubon.org/wp-content/uploads/2019/11/MaineAudubonRenewables_Wildlife2019Report.pdf)



Bob’s Clam Hut Community Solar Farm (Hollis, ME)

Bob’s also installed solar panels on the roof of its restaurant in 2015. These 322 solar panels will offset roughly 127,954 pounds of CO2 emissions annually.

<https://www.seacoastonline.com/news/20161019/bobs-clam-hut-goes-solar>

(Photo) <https://www.revisionenergy.com/solar-farms/bobs-clam-hut-community-solar-farm-hollis-me/>

# Winterberries



Early morning walk along the Audubon,  
Carefully crushing frozen ice puddles  
Beyond the frosted slippery path,  
Canada Geese rest on a frozen pond,  
Cedar waxwings perch on ice-laden branches  
Feeding on fermented winter berries  
Drinking in winter,  
House Finches join in musical trills announce  
The Snowy Egrets and Herons have gone.

Bittersweet, winterberries,  
The last of the ripe red rose hips  
Turned blood-red purple  
Like frozen puckered lips  
Hang forgotten in the frigid air.

Loud honking Canada Geese awake,  
Fly low overhead, in a fighter jet formation  
combatting the cold crisp air,

Parchment white seagrass glistens in the sun,  
Phragmites sway in the wind  
Keeping time with the incoming tide.

The iced saltmarsh  
Rimmed with dots of red,  
Show colors of winter - red and white  
In the ice-cold salt air,  
Coastal fowl thrive and survive  
In pools of freshwater ponds and salty seas  
Through harsh Maine nor'easters  
Snow, wind, and ice,  
Sea birds and winterberries  
find balance in a natural habitat.

- Melinda Campbell

## Species Spotlight Dark-eyed Junco, *Junco hyemalis*



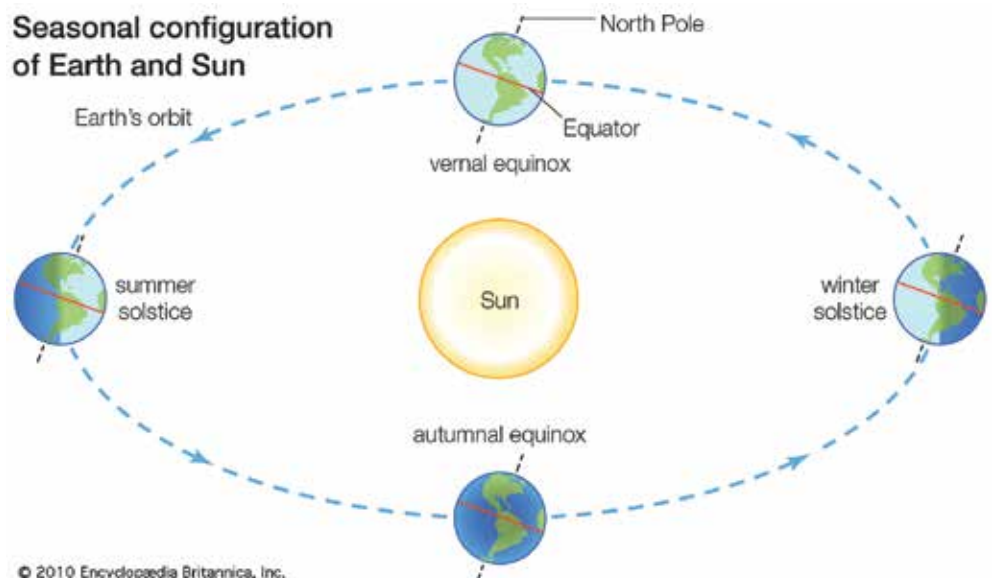
This small, gray and white songbird, colloquially known as “the snowbird”, makes a sudden appearance at feeding stations and in our backyards in late October, and will remain throughout the winter months. It nests and breeds throughout Canada and into the Arctic during the summer, but this time of year even northern New England looks relatively temperate to this little member of the sparrow family. Typically, a ground feeder, the junco can be seen in large numbers foraging on the ground below feeders, and shelters under shrubs and low branches. They will remain in our area as long as the snow flies, and their departure in early spring to return to their northern breeding range is a reliable herald of spring. They are often supplanted by the returning Eastern Phoebe, with whom they are easily confused. These petite birds will benefit from scattered seed, but permanent feeding stations should be regularly cleaned to prevent the spread of diseases, like the notorious “finch eye”. A soak in a dilute bleach solution and thorough rinse each time the feeder is emptied will keep infections at bay.

## Winter Solstice

Around December 21, the Northern Hemisphere tilts the farthest away from the Sun. This is called the northern winter solstice, and it is when we have the least amount of daylight of any time of the year. During this time, the Sun appears lowest in the sky, with the least angle to Earth, and we receive less sunlight and warmth. This is also when the days are shorter and the nights are longer.

Between March 21 and September 21, the Northern Hemisphere is tilted toward the Sun and has spring and summer. During that same time, the Southern Hemisphere is tilted away from the Sun and has fall and winter. The equator is warm all year round.

Seasonal configuration of Earth and Sun



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# Where Do Pollinators Go in the Winter?

Learn where and how bees and other insects wait out the winter, and how you can support them beyond the growing season.

*This article was reproduced with permission from the Xerces Society web site, xerces.org.*

By Sara Morris (10 December 2018)

As the leaves and temperatures drop, it might be tempting to forget about your pollinator garden until spring. But don't call it quits just yet! While it may seem like the bees have vanished for the year, they haven't actually gone anywhere.

Although some butterfly species, most notably the monarch, are well-known for migrating vast distances when the seasons change, most pollinators prefer to stay at home and ride out the cold. So, as unlikely as it seems, you are currently surrounded by bees and butterflies—even though you can't see them.

Most native bee species will spend the winter in the nests that their mothers provisioned (a notable exception is the cuckoo bee). In fact, just like bears, many pollinators hibernate through the winter—and they may need a little help to survive until spring.

There are over 4,000 species of native bees in North America, making it virtually impossible to cover all their nesting habits in one blog post. Luckily, many species exhibit similar nesting behavior, so you can protect multiple species with the same actions. With that in mind, here are some important steps you can take to continue protecting the pollinators in your yard this winter:



A bumble bee queen burrowing under fallen leaves. Many bees and other invertebrate species rely on leaf litter for shelter during the winter. (Photo: Steven Severinghaus / Flickr Creative Commons 2.0)

## 1. Leave the Leaves

Yes, we probably sound like a broken record by now, but leaves and other “litter” are essential shelter for hibernating bumble bee queens and the larvae of numerous butterfly and moth species. Many of these species will happily tuck into a leaf or mulch pile, so you likely already have some nearby! For more information on why this is so important, see our previous blog posts about the Leave the Leaves campaign (<https://xerces.org/blog/leave-the-leaves>) and *Fall Garden Tips to Benefit Bumble Bees All Year* (<https://xerces.org/blog/creating-fall-bee-habitat>). As an added bonus, leaf and mulch piles will also attract beneficial insects like lady beetles, so they'll already be perfectly situated to attack aphids in your garden when spring arrives!

## 2. Minimize Ground Disturbances

Approximately 70 percent of all bee species nest in the ground—frequently in yards and garden beds. If you're planning on planting a cool season cover, a winter crop, or just moving perennials around, try to keep any disturbances shallow (less than 6”) to avoid destroying native bee nests. If that's not possible, you can also scout for nest aggregations and place markers so that you can avoid the nests while working in your garden.

## 3. Collect Cavity Nests before Pruning Perennials or Disposing of Garden Materials

It's unavoidable: some perennials really do need to be pruned in late fall or early winter. If that's the case, check the stems of any woody plants you'll be cutting off for cavity-nesting bees. Members of the family Megachilidae, like leafcutter and mason bees, make it easy to identify their nests because they “cap” or close them with leaves, mud, resin, or even plant fiber. Other cavity-nesting species may be a little harder to spot, such as small carpenter bees, which use the pith from inside the stem to construct nest cells and frequently don't cap the entrances of their nests. It's also a good idea to examine any bamboo stakes or wooden dowels in your garden—many enterprising native bees will eagerly nest in bamboo. Once you've identified any nests, cut the stems at least 6–12” from the nest entrance and place them somewhere cool and dry (garages are ideal). Once it warms up in the spring, you can place the nests back out in your garden or habitat in a bundle, nesting box, or insect hotel. Such shelters will also attract beneficial insects, like aphid-hunting wasps and lady beetles.

## 4. Check under Logs and Rocks before Moving Them

Countless invertebrate species prefer to nest and/or hibernate around rocks and woody debris. Make sure to check under logs and in wood piles before starting any fires in your wood stove! Invertebrates can also be found hibernating in downed trees, rock piles, and snags (dead trees or tree



A variety of cavity-nesting bees can call a hollow stem home for the winter. Here, a leafcutter bee has neatly cut leaves and laid them across the entrance to their nest. (Photo: Xerces Society /Sara Morris)



Woolly bear caterpillar, which turns into the beautiful Isabella tiger moth, searches for a spot to overwinter in a downed tree. It is important to leave woody debris for the winter so as not to disturb these beloved creatures. (Photo: Douglas Mills / Flickr Creative Commons 2.0)

inside galls or snail shells—or even construct nests from pebbles glued together with resin! If you're lucky enough to live in an area frequented by these artistic pollinators, remember to look for these unique creations.

#### 6. Lastly, Spread the Word and Share Your Finds

Talk to your family, friends, and neighbors about what you're doing to protect pollinators this winter. If you're worried about how your yard may look to others, hanging a pollinator habitat sign will let others know that your yard isn't "messy;" it's a safe place for pollinators to forage and nest.

stumps). Many native pollinators, including leafcutter bees and the pure green sweat bee, will nest in abandoned wood-boring beetle burrows. Additionally, other invertebrates—like the woolly bear caterpillar, which becomes the Isabella tiger moth, and various predatory beetles (lady beetles, tiger beetles, etc.)—will overwinter inside or under old logs. In short, many pollinators and other beneficial insects may be hiding out in that dead tree you can't stand any longer. If that's the case, the eye-sore can be moved out of sight for the winter, and once spring has arrived, and your tenants have moved out, you can remove or repurpose the nesting material(s) in question.

#### 5. Keep an Eye out for "Creative" Nests

While the vast majority of native pollinators nest in either the ground or cavities, there are some oddities out there that will take up residence

## Winter Habits of Southern Maine's Hardy Bees & Wasps

*Southern Maine has a number of native species of bees as well as wasps and hornets. Although honey bees are not native, having been imported to North America about 400 years ago from Europe, they can be commonly seen in gardens throughout the area.*

*The following information is used by permission from <https://www.honeybeesuite.com/>*



Honey bee in autumn.

#### **Bumble bees hibernate, honey bees do not.**

Many insects hibernate, especially in the larval or pupal stages; a few hibernate in the adult stage. Queen bumble bees, for example, hibernate all by themselves in the ground for approximately five months. Even though honey bees and bumble bees are closely related (both in the family Apidae) and even though they are both considered social bees, their life cycles are very different.

A colony of honey bees will live throughout the entire winter, actively keeping the nest warm and safe. Although a winter colony is much smaller than a summer colony, it will nevertheless contain thousands of individuals. They eat and work all winter long—activity which requires a large cache of stored food. The winter activities—especially heating the hive—require vast amounts of food energy and are the reason that honey bees store so much nectar; bees are eating the stored honey and turning it into heat. A warm pre-spring day with temperatures in the 60s will bring them out by the thousands but, if the temperatures go back down, they will re-form the winter cluster. In short, honey bees are just like us—they try to keep warm and well fed during the long and cold winter days, then go out and frolic in the sun the very first chance they get.

Bumble bees do not maintain colonies throughout the winter. Instead, the last brood of the summer colony will contain a number of queens. Each of these queens will mate. After mating, a new queen will go off and find a place to spend the winter just as her mother did. This is usually just a small hole in the ground or another protected spot just big enough for her. As temperatures get colder, she produces a chemical in her body (glycerol) that keeps her from freezing, and she remains buried all winter. The rest of the colony including all the workers, the males, and the original queen will perish with the approach of winter. While the bumble bee queen hibernates, she is neither eating nor working. Her depressed rate of metabolism allows her to live for long periods while burning very little fuel.

Each of the hibernating queens, by herself, will awake in spring and begin the daunting task of building a brand new colony from scratch. This life cycle is found in bumble bees throughout the temperate regions of the world. Some tropical bumble bees may have small colonies that survive for several years since there is no need to hibernate.

#### **Yellowjackets and Bald-faced Hornets**

These colonies of social wasps do not overwinter in our northern climates. Instead, queens mate in the fall and then go off by themselves to overwinter in a protected place. Come spring, the queens get busy starting new colonies in much the same way as bumble bee queens. So social wasp colonies, like bumble bee colonies, start off small in the spring and build throughout the summer and fall. The colonies continue to thrive until the first hard freeze.



## Winter StoryWalk® at Mt. A!

The StoryWalk at Mount A includes 24 stations along the Ring Trail. The featured story is generally seasonal in nature and is swapped-out quarterly. Visit us this winter to follow along with “Over and Under the Snow” by Kate Messner with beautiful illustrations from Christopher Silas Neal. This book will be on the trail until spring!

**Location:** Our story starts at the lowest parking lot on the ring trail, continues on the west side of Ring, and up the Witch Hazel trail to finish on the summit.

**Difficulty/Distance:** The trail is somewhat steep in places but comfortable at easy stroll pace with stops at the reading stations. Terrain varies from gentle slope on dirt trail to rocky sections with short climbs or descents. Distance is 1.3 miles. Allow 1 ½ hours for younger children. For good hikers just stopping to read, time can be reduced to about half an hour.



### Program: Seeking Sweethearts

**Saturday, February 8th, 5:30 - 7:30PM**

Celebrate the Great Maine Outdoor Week with a fun owl courtship and nesting program followed by a snowshoe (or hike) owl prow! This is the perfect pre-Valentine's Day event connecting friends and families with Mount A's natural world while promoting outdoor physical activity and good health during a time of year when we may all need extra motivation coming out of our own hibernation! Come meet Center for Wildlife's live owl education ambassadors inside the Learning Lodge and then see if we can hear their calls in the night. Open to all ages. Moderate hike/snowshoe.

Your donation of \$8/person makes programs like this possible! Registration required; please e-mail Kristen at [fellow@thecenterforwildlife.org](mailto:fellow@thecenterforwildlife.org).

### Earth Day Community Work Day

**Saturday, April 25th 9:00AM-12:30PM**

The volunteer work for the day will involve picking up trash/debris along trailheads, parking areas and roadways that have accumulated from the winter season. Please bring your daypack, hiking/work boots, water bottle, bug spray and work gloves (we have spares if you don't have any). Tools and equipment needed will be provided. Light snacks and refreshments will be provided after event.

Additional Work Day details available at [agamenticus.org](http://agamenticus.org). Contact [dradatz@yorkmaine.org](mailto:dradatz@yorkmaine.org) with questions or to sign up!



### Nature's Nesters

**Saturday, March 14th 10:00am-12:00pm**

Different species find mates, build nests, lay eggs, and raise their young in incredibly different ways. Learn about our local nesters with live animal ambassadors from the Center for Wildlife and what you can do to help them. Then if you'd like, build your very own bird box to take home! Program is open to all ages; parental guidance required for optional bird box building. There is an added fee of \$25 for bird box building activity.

Your donation of \$8/person makes programs like this possible! Registration required; please e-mail Kristen at [fellow@thecenterforwildlife.org](mailto:fellow@thecenterforwildlife.org).

*Save the Date!*

### Springtime Surprises

**Saturday, April 11th**



Newsletter written and designed by the Friends of Mt. Agamenticus. Scan here to Like Mount Agamenticus Conservation Region on Facebook!

