The Newsletter of the Friends of Mt. Agamenticus

Winter 2024

Nature Rx 120

There is no longer a question of whether exposure to Nature improves human health and well-being, but a question of how much exposure to Nature is needed to do so.

Study after study has proven that cumulative time spent in nature results in a longer, healthier, and happier life. It can boost our immune function, lower blood pressure, and reduce depression, anxiety and stress; it boosts mood, and enhances performance on cognitive tests. Enjoying quality time in public parks and green spaces strengthens communication and connectedness within families and community, and can even reduce crime and yes, in fact, gun violence.(1)

When we inhale forest aerosols released from trees, the "phytoncides", also known as natural killer cells, increase levels of white-blood cells that "respond rapidly to virus-infected cells and tumor formation",(2) and significantly decrease concentrations of the stress hormones adrenaline and noradrenaline.

Forest aerosols are comprised of naturally occurring organic compounds called "terpenes". Terpenes exert antimicrobial activities against both antibiotic-susceptible and antibiotic-resistant bacteria, mainly via their abilities to promote cell rupture and inhibition of protein and DNA synthesis. Terpene-containing plant oil has long been used to treat various diseases.



Inhaling the scents can have antiinflammatory and analgesic effects.(3)

The EPA found in 1990 that Americans were spending less than 8 percent of their lives outdoors. It suggests that hasn't changed for the better in 30 years, despite increasing scientific evidence showing that Nature is good medicine.(4) Nearly every known infection (over 99.99%) initiated from contact in an indoor environment.(5)

The rise in urbanization has proven to increase the rates of mental illness. There's a 20% higher risk for city-dwellers to have anxiety disorders, and a 40% higher risk of mood disorders compared to people in rural areas. "Toxic stress" has been called public health enemy number one, and time in nature can be an effective counterbalance."(6)

With millions of trees being lost to urbanization, drought, wildfires and extreme weather, the Inflation Reduction Act (2022) included a billion dollars for cities and towns, where more than 84 percent of Americans live, to plant trees and increase access to Nature, while having a positive impact upon environmental justice and climate.

So how much time in Nature is enough to measurably boost health and well-being? According to Doctor Mat White of the University of Exeter Medical School in Britain, two hours a week, which can be spread over an entire week, is a realistic goal for most people to get the benefits. Research in 2019 by the University "found that people who spend at least 120 minutes in nature a week are significantly more likely to report good health and higher psychological wellbeing than those who don't visit nature at all during an average week."(7)

So why aren't more people flocking to parks and woods? Wait, there's an app to help with that!

Three very smart outdoor adventurers fully realizing the health

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benefits of Nature, and that humans have become accustomed to smart technology quantifying their steps or heart rate, created NatureQuant in 2019. They painstakingly assembled a master database then combined it with an algorithm, creating "innovative tools (that) quantify the natural elements for a static

Denise Johnson

location yielding a NatureScoreTM a zero to 100 rating of a given natural setting's beneficence, accurate to within ten meters".(8) NatureDoseTM is a personalized nature prescription tracker that monitors your aggregate time inside, outside, and exposed to nature.

Just as good health is supported with diet, exercise, and adequate sleep, increasing exposure to

natural elements can have profound impacts on both adults and children, in advantaged and disadvantaged areas. The Mount

Agamenticus Conservation Area has a NatureScore™ of 98.5 – classified as a "Nature Utopia", with abundant health-beneficial natural elements and nature exposure opportunities.

"All nature is doing her best each moment to make us well—she exists for no other end. Do not resist her."

- H.D. Thoreau/Journal Aug. 1853

- (1) www.nationalgeographic.com/environment/article/tree-planting-americancities-health-environment-benefits#
- (2) https://www.fs.usda.gov/inside-fs/out-and-about/walk-woods-wellness-health-benefits-forests
- (3)www.ncbi.nlm.nih.gov/pmc/articles/PMC5402865/
- (4) www.outsideonline.com/health/wellness/naturequant-app-outdoor-data/
- (5) www.naturequant.com/NatureQuant-whitepaper.pdf
- (7) https://news-archive.exeter.ac.uk/2019/june/title_720059_en.html
- (8) www.naturequant.com/naturescore/



BOOK REVIEW:

I Am Coyote

Maine Author: Carnivore Conservation Biologist, Geri Vistein

Paula's Favorite Nature Books criteria:

1. The book must be an eye-opening and positively life-changing story for any teen or adult. *Check!* The usual caveat: Consider warning little ones or sensitive souls that sad parts of story do happen. There will be "That's the circle of life, Simba" moments. Most animal stories have some sad parts, as we have known since our childhood from movies such as Bambi or Lion King. This book, however, is empowering for the animals because the more we learn about these animals the better off they might be living around animals like us.

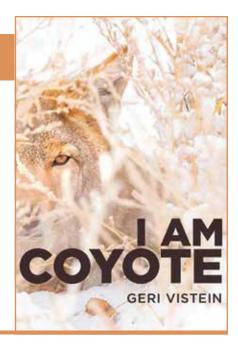
2. Local (NE) Author: Check!

Geri Vistein also has an excellent educational website: www.CoyoteLivesinMaine.com. It contains abundant information regarding peaceful coexistence with Coyotes.

3. Found at Local Book Store: Check!

Laudholm Farm Nature Reserve Gift Shop. The author has also been a guest speaker at Laudholm Farm educational center.

4. Beautiful cover or pictures inside (neither are compulsory but immediate attraction works). Check!



2023 Conservation Program Update

Staff and Volunteers of the Mount Agamenticus Conservation Program have much to be proud of at the close of 2023. The field season began early this year, in the aftermath of a January ice storm that downed hundreds of trees and branches throughout Mount A's trail network. Volunteers and staff joined forces to dedicate over 190 frigid hours cutting and clearing to re-open trails. This year was celebrated as a year of long-awaited progress at Mount A. What began as dust and debris from construction gave way

to improved parking, storm water controls, and state of the art composting restroom facilities. Conservation staff worked diligently alongside contractors to detect and remove new invasive plants, install finishing details, and provide public outreach.

With these much-needed infrastructure improvements now in place, outreach efforts this season remained focused on helping visitors new and old understand the unique resources located here at Mount A, and the importance of responsible low-impact recreation as they explore.

Stewardship and outreach highlights from the season:

- Volunteers: 128+ total volunteers and 754 volunteer hours.
- Habitat Protection: 20 acres of sensitive habitat surveyed for invasive plants and 88 hours spent on invasive plant removal.
- Trail Maintenance: 20 new trail signs made, 1.2 miles of unsanctioned trail closures.



Full reports, photos, and graphics are available for reading at: https://agamenticus.org/2023-program-update/.



The Beauty of Brush Piles

Want a great way to help wildlife on your property, save a bit of labor and get creative? A brush pile, or habitat pile, could be the answer!

After windy or stormy weather, there is often an abundance of downed branches of all sizes and these, along with shrub trimmings and other dry, loose landscape debris, can be stacked or mounded anywhere you prefer to create an instant shelter for birds, small mammals, insects and other wild inhabitants of your property.

Deer and other larger animals may also linger near the brush piles which can provide a windbreak if large enough. Brush piles are not the same as

compost piles, so avoid any items that can cause lingering dampness, rot or mold.

Items that are best to use are dead branches, cones, deciduous cuttings and other woody debris that remains fairly loose in structure.

There is no correct way to create a pile—they can be linear, round or randomly shaped; just use your imagination and adjust as needed depending on the area where you place the mound or the neatness/wildness of how you'd like to stack the materials.

Please be prepared to leave your brush/habitat pile once it is placed, and never burn it or bulldoze it! As critters move into or around it, some will make it their permanent home, food storage site or sheltered highway to other areas in your landscape.

For more information and images: https://www.gardenista.com/posts/habitat-piles-perfect-earth-project-edwina-von-gal/





Species Spotlight Eastern Coyote, Canis latrans var



The eastern coyote is the misunderstood cousin of our pooch sitting next to us on the couch. Like many opportunistic, scavenging, and predatory species, the fears and myths surrounding them are often undeserved and a result of our own actions as humans. At an average size of 30 to 45 pounds and mostly hunting solo or in pairs, it is unlikely they are able to hunt large healthy prey such as deer. Their diet consists mostly of rodents, but similarly to their canine cousins, they are also omnivorous. Unlike wolves, coyote howling isn't typically a celebration of a hunt, as their food items are often too small to share. It is more likely that the chorus of howls is reconnecting family members.

Like our domestic dogs, they are intelligent learners and learn to seek easy food sources such as kibble left outdoors. They do however respond to hazing and deterrents such as yelling, waving your arms, motion sensor lights, and unpleasant scents. Attacks on humans are unlikely and according to the Humane Society of the US, you are far more likely to be killed by an errant golf ball than you are to be bitten by a coyote. While attacks on pets can happen, they often occur with coyotes that have become accustomed to humans. You can protect your pets (not just from coyotes) while they are outside with fences or accompanying them outside on a leash.

Coyote hunting season in Maine is every day of the year, without a daily bag limit. Without human hunting pressure, coyote populations are limited because only the alpha male and female breed. However, when the alphas are hunted and the pack social structure falls apart, lone coyotes will quickly move in to replace them, they will breed at a younger age, and have larger litters. This leads to the cycle of the pack needing additional food sources. Despite over a century of hunting pressure from humans, these canines have adapted and thrived.

I AM COYOTE BOOK REVIEW - Continued from page 2

5. Quick Read-180 pages! Check-o-rama!

One of the wonderful aspects of living in Maine is being able to see, hear and otherwise observe local wildlife without having to go far for the experience, such as falling asleep to the howls and yips of a pack of coyotes in the night. The sound is both chilling and exciting at once! We can only guess what these animals are communicating to each other in a language much older than time. Author, Geri Vistein has some thoughtful, plausible ideas on what they might be saying.

The story helps you get to know and understand coyotes like no other resource available anywhere, unless you went out and tracked and studied them like the author did but don't try this at home. Geri Vistein takes you into the wild and follows an individual and eventually a pack of coyotes though

their world and you get to know and grow with them individually and as a family. While the descriptions of their natural history are scientifically valid, the story necessitates engagement of our imaginations, as in most animal stories (maybe even the most fun part), to be able to relate to and understand the coyote's and other animal behaviors.

Coyotes have it rough. They have a bad rap. Yet, they are very smart, resourceful and social animals that have an important role in our ecosystem. They deserve so much more respect and admiration than they get. After traveling with these coyotes through the seasons and the hazards of the human world, you will never think of them the same way again. You might become fascinated with them and find a place in your heart for them. They may remind us of our dogs but please remember, they are wild animals that we need to give a wide berth and love them from a distance. Enjoy!

The Friends of Mount Agamenticus

The Friends of Mount Agamenticus is a volunteer advocacy and stewardship group for the Mount Agamenticus Conservation Program. We assist program staff in carrying out educational, interpretive, community outreach, and public use objectives without compromising the integrity of the region's sensitive ecological habitat.

We are currently seeking Friends that can assist with any of the following tasks:

- · Orienting and coordinating with new volunteers
- Researching fundraising opportunities
- · Writing grants and newsletter articles
- · Developing and managing website and social media

Please email **friends@agamenticus.org** if interested. To learn about additional Mt. A conservation opportunities, please visit our website **agamenticus.org**.

Scan the QR Code to "Like" the Mount Agamenticus Conservation Region on Facebook!



Newsletter written and designed by volunteers at the Friends of Mt. A.