Winter 2016 Schedule

All hikers are invited to join our weekly Sunday hikes, no membership or fees are required. In the fall and winter, all hikes start at 2:00PM unless otherwise indicated. Hikes are subject to change due to weather. Always check the website* for details.

Jan 3	Stony Brook, S Dansville
Jan 10	Canadice Lake, Canadice
Jan 17	Mendon Ponds, Mendon
Jan 24	Cummings Nature Center, Naples
Jan 31	Harriet Hollister, Canadice
Feb 7	Rush River Road Park, Rush
Feb 14	Bristol Harbor, S Bristol
Feb 21	Hemlock Lake, Livonia
Feb 28	Schribner Valley, Springwater
Mar 6	West Hill Preserve, Naples, NY
Mar 13	Springwater Center—Annual Meeting
Mar 20	Erie Canal, Macedon

*Details and updates available at http://www.springwatertrails.org

Devil's Bathtub in Mendon Ponds Park

Springwater Trails, Inc.

Springwater Valley from The Springwater Center

Come explore Springwater with us

Photo Credits

Above —Field at Springwater Center—Pati Clark, 2015
Left—Mendon Ponds—Charlotte Buck, 2015

Reverse—Fall colors of a Sugar Maple—
http://www.maple-trees.com/pages/sugar-maple.php
Sugar maple bark, fruit, leaf and twig—
http://www.massmaple.org/treeid.php

References

[1] Michael Cavette, *Bowling Pin*, http://www.madehow.com/Volume-4/Bowling-Pin.html

[2] Guy Nesom, *Sugar Maple*, United States Department of Agriculture, Natural Resources Conservation Service Plant Guide, http://plants.usda.gov/plantguide/pdf/pg_acsa3.pdf

[3] Peter Reich, *Explainer: How much carbon can the world's forests absorb*, http://phys.org/news/2013-06-carbon-world-forests-absorb.html

[4] Dovetail Partners, Inc., *Carbon in Wood Products – The Basics*, http://www.dovetailinc.org/land_use_pdfs/carbon_in_wood_products.pdf

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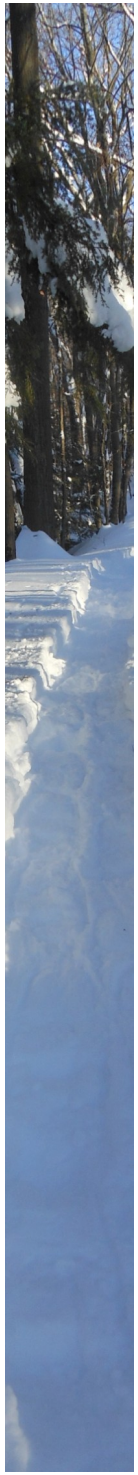

Winter 2016

Springwater Trails, Inc.

Our mission:

To create, identify, protect and promote hiking trails in the Springwater area.

To increase awareness and enjoyment of Springwater's unique geographical features, natural resources and open spaces by residents and visitors to the area.

http://www.springwatertrails.org

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Springwater Trails Membership–2016

As a member of the Springwater Trails Association, you are contributing to a recreational future in Springwater. Memberships purchased after September 1 are valid through the following year. You will receive these benefits:

1. Weekly email notices of the upcoming hikes sponsored by Springwater Trails.

2. Email notices of upcoming trail building opportunities on the Springwater Trail.

3. The right to vote at general membership meetings and on-line elections.

Name: _____

Address: _____

_____

_____

Phone: _____

Email: _____

☐ Individual Membership _____ $20

☐ Family Membership‡ _____ $30

‡ *A family membership is entitled to two emails and two votes. Please enter the second name and email.*

2nd Name _____

2nd Email _____

☐ Contributing Member* _____ $100

* *Contributing Members are listed on our website. Please write the name to appear if different from the name above.*

_____

Other donation _____

TOTAL _____

Please make checks payable to *Springwater Trails, Inc.*

Send to:

Springwater Trails, Inc.
PO Box 162
Springwater, NY 14560

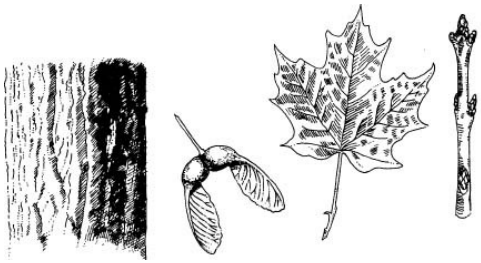
Detach here and send with your check to Springwater Trails, PO Box 162, Springwater, NY 14560

Sugar Maple Trees

Check out the many different trees in the forests where you hike. Identifying trees is easiest if the tree has leaves and they are close to the ground where you can see them. This makes winter hikes through forests a difficult time for most of us. But even if you aren't sure which trees are Sugar Maple, maybe some for information about the tree will be appreciated.

The easiest way to identify a Sugar Maple is by the tap and blue hose attached to the tree! The Sugar Maple (and similar Black Maple) is the only tree today used for commercial syrup production, and as such is well known in the Springwater area. The Sugar Maple is also valued for its hard and strong wood and is used for furniture, flooring and veneer. Bowling Pins are currently made of new hard maple grown north of the 45th parallel[1] (basically the northern border of New York State).

The Sugar Maple, *Acer saccharum*, grows to 120 feet high and has the well known Maple leaf with five (5) lobes with toothed edges. Seeds are produced by trees at least 30 years old with maximum seed production occurring in trees over 60 years old[2].



We generally see sugar maples in forests that also include beech, basswood, red and white oak and yellow poplar. But according to the USDA Plant Guide, forests of eastern white pine, hemlock, yellow birch or red pine are replaced by sugar maple and American basswood if left undisturbed. Forest fire has been the major source of disturbance over the history of forests, and the increase in sugar maple over the past 50 years is largely attributed to fire suppression[2].

Forests and Climate Change

The world forests are currently a net carbon sink[3]. This means that forests remove more carbon from the atmosphere than they return via their respiration, decomposition, and fire. As a result, the forests of the world have slowed climate change in the past century.

Trees, and other plants that support photosynthesis, absorb carbon dioxide (CO_2) which is combined with water and converted into sugars through photosynthesis. These sugars become the building blocks of the cells of the tree, creating wood. The oxygen (O_2) in the CO_2 is the "waste" product from this process.

When a single tree dies and rots, or burns, the wood combines with oxygen, reversing the chemical reactions and returning all of the CO_2 to the atmosphere. However, as a tree rots, new trees are nourished and grow. So, it is the entire forest, as a system, which can absorb and store carbon.

Can we estimate the amount of carbon stored in a forest? From satellite images we can estimate the area covered by forest. From ground inventories we can estimate the weight of the tree (including their roots!) and the weight of the forest biomass on the ground—sticks and leaves become part of the soil. We then estimate percentage of this weight that is carbon. Dry wood is approximately 50% carbon. However, trees are not dry, so that the percentage in the forest may be closer to 25% or less. Do you notice all of the estimates and approximations?

In a comprehensive assessment[4] of the worlds forests and harvested wood products, it was estimated that between 1990 and 2007 the world forests absorbed about one-seventh of the carbon emissions from burning fossil fuel and from cement production. The bad news in these numbers is that the tropical deforestation that occurred at this time, released 75% of the carbon that sequestered in the intact and re-growing forests in the rest of the world.

As Peter Reich concludes, "If forest 'scrubbing of CO2' declines while release of CO2 remains stable, the 'braking' effect of the world's forests on the pace of climate change will grow weaker, perhaps disappearing entirely. That would be truly bad news"[3].