# THE FRIENDS OF LAKE WARNER AND THE MILL RIVER

## 2019 SPRING/SUMMER NEWSLETTER

## **Broom Corn was First Raised in Hadley**

The Hampshire Daily Gazette, MAY 8, 1929



**Broom Machine** 

corn was first raised, and brooms first manufactured for commercial purposes in Hadley.

Caleb D. Dickinson, a village blacksmith, was the founder of the broom tool business of the United States, acquiring in his early teens the peculiar ability or knack of forging, hardening, and tempering steel, with the result that the broom manufacturers of the period turned to him for the tools necessary to carry on their business. In 1840 the demand was such that he purchased a privilege on Mill river, in North Hadley, and erected a factory which he operated alone until 1870, when his son-in-law, John C. Howe, a man of exceptional ability, and a descendant of Elias Howe, of Spencer, inventor of the sewing machine, was admitted to the firm, which from that time until today has been known as C.D. Dickinson & Son. Mr. Howe steadily adhered to the principles of tempering steel as practiced by Mr. Dickinson. The business is now owned by his son Arthur C. Howe, and the broom tools produced at North Hadley find their way into nearly every state

The first brooms for commercial purpose were made in Hadley. An article from Industry, a magazine of the Associated Industries of Massachusetts follows: The record contained in a diary in North Hadley proves conclusively that Benjamin Franklin, generally admitted to be the inventor of the first lightning rod, also introduced the broom into America. The diary states that a woman acquaintance of the author of Poor Richard's Almanac sent him from India a whisk-broom, with some broomcorn seeds on the stalks, and that Franklin planted the seed, dealt out the stalks that grew from the planting, and made round brooms by winding thread around several stalks. He was given formal, although belated credit for this contribution at the annual meeting of the National Broom Manufacturers' association, held in Chicago in December, 1928. It is an established fact that broom

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Please attend a FoLW meeting! Held the first Tuesday of each month at the North Hadley Congregational Church at 7:00 p.m. You'll be glad you did!



PLEASE MAKE DONATIONS TO:

The Friends of Lake Warner P.O. Box 11 Hadley, MA 01035 Or go to our website: http://friendsoflakewarner.org/donate/ in the Union, and are exported to Cuba, the South American Republics, New Zealand, and South Africa.

As early as 1797 Levi Dickinson obtained some broom seed which he planted and the next year he increased the crop to half an acre - undoubtedly the first entire half-acre cultivated for brooms in America. In 1799 he planted an acre, and strangers passing by and observing the tall corn putting forth its panicles stopped to inquire what manner of crop he was raising. In 1797 he made between 20 and 30 brooms, and in the following year about 200. These he peddled from his cart in Williamsburg, Ashfield and Conway, and found many women customers.

In 1799 he journeyed as far as Pittsfield with his products, and the next year to New London, Ct. Had he not been a man of energy and perseverance he would have given up, as some of his neighbors regarded him as visionary and his project fanciful. Sneers and sarcastic remarks were more general than the broom-corn crop, but he kept on his way and as early as 1801 declared that the broom business would someday be the biggest industry in Hampshire county, a prophecy which came true after his death, in 1843, at the age of eighty-eight years. William Shipman, Solomon Cook and Levi Gale began to raise broom corn, and make brooms about 1801, and Cato, a Negro, planted broom corn seed in the Hadley meadows in 1800. About 1805, Dickinson carried his brooms as far as Boston and Albany, and at the beginning he made his own handles and spun his twine from flax. The business of growing the corn spread to Hatfield, Whately and Northampton, and in 1810, the census return for Hampshire county showed that 70,000 corn brooms were marketed there that year.

In 1850, seven years after Dickinson's death, the industrial census showed that 761,700 brooms, valued at \$118,478 and 76,000 brushes, valued at \$5970, were made in 41 places, in Hadley, and it was estimated it required 496 tons of broom brush to fashion them, which cost \$72,745, or about 7 1-3 cents per pound, while the handles, wire, paint and varnish cost \$15,274, or about two cents per broom. Five years later the assessors of Hadley returned 906 acres as devoted to the raising of broom corn, the average crop being 700 pounds per acre which, at 10 cents per pound, yielded a return of \$63,420. The 60 bushels of seed sown on each acre, at 40 cents per bushel, cost \$21,744. They also returned figures showing that 641,120 brooms valued at \$118,550 and 35,000 brushes, valued at \$2625, were manufactured and sold in Hadley, that year. The broom corn business sought cheaper land and departed from the Connecticut river many years ago to the Mohawk valley, in New York state, the great center of broom manufacture now being Amsterdam, N.Y. Broom corn is also raised in Ohio, Indiana and Illinois, but the bulk of the crop comes from Kansas, Oklahoma, Texas and New Mexico, with Oklahoma leading in tonnage. From the day of the birth of the industry in Hadley, in 1797, the manufacture of brooms has expanded until today it is carried on to some extent in every state in the Union, and also in Canada.

The firm of Charles Cook & Sons started in 1850, now owned by Homer F. Cook is the sole survivor in Hadley of the large group of small manufacturing units in operation there in 1850. About 20 employees are today manufacturing corn and whisk brooms in the Cook factory.



### What Are Algae Blooms?

- Algae blooms form in fresh water when cyanobacteria (blue-green algae) grow quickly and form scums or mats in the water. Some blooms can produce toxins harmful to people and animals. These are called harmful algae blooms.
- Blooms in New England are most common in summer and early fall.

## How Do I Know If There Is an Algae Bloom in the Water?

Algae blooms can change the water's appearance from slightly discolored to resembling pea soup or thick paint. Blooms frequently appear blue or green but could be another color, such as brown or red. Algae blooms can also give the water a bad odor or taste.

## What Causes Algae Blooms?

- Certain environmental conditions such as warm weather, sunlight, and excess nutrients in the water, help blue-green algae grow faster.
- Excess levels of nutrients can come from human-related sources.
- Phosphorus and nitrogen are two important nutrients used by blue-green algae in their growth. They are found in fertilizers and animal waste.
- Examples of sources that can input large amounts of nutrients to water bodies are leaking septic or sewer systems, storm water runoff, lawn fertilizers, pet and wildlife waste, and agricultural activities.

# What Are the Possible Health Concerns of Harmful Algae Blooms?

Health concerns from harmful algae blooms and their toxins vary depending on the type of exposure and the amounts and types of toxin present.

- Contact with these algae can cause skin and eye irritation.
- Ingesting small amounts can cause gastrointestinal symptoms. Ingesting large amounts of toxins may cause liver or neurological damage.
- Inhaling water spray with algae in it can cause asthma-like symptoms.
- Small children and pets are more susceptible to the effects of toxins than adults. Livestock and pet deaths from ingesting algal toxins have occurred.

If you see water that appears to have an algae bloom, do not come into contact with or ingest the water. Treating water by boiling does not get rid of any toxins present. Prevent contact and ingestion by kids and pets.

Dogs can get very ill and even die from licking algae off their fur. Rinse dogs off immediately if they come into contact with an algae bloom.

### **MDPH Guidelines**

- Monitoring harmful algae is important because they can multiply quickly. Because health risks rise with cell counts, the goal is to take action before levels that pose health risks are reached.
- MDPH developed a protocol for evaluating potential health concerns related to the presence of algae.
- In some circumstances, MDPH will recommend people and pets stay out of the water and that an advisory be issued.

## When Does MDPH Recommend an Advisory?

- A visible scum or mat layer is present.
- The blue-green algal cell count exceeds 70,000 cells/milliliter of water.
- The microcystin toxin level meets or exceeds 14 parts per billion (ppb).

## What Can I Do?

- Properly maintain septic systems.
- Use phosphate-free dishwasher detergent.
- Apply fertilizer correctly
- Pick up pets' waste
- Do not feed geese or ducks
- Plant or maintain native vegetation around the water's edge

Most storm drains empty directly into water bodies without treatment. These drains are intended to collect only rainwater. Wash your car in areas away from storm drains or at a commercial car wash. Use caution when applying fertilizer to avoid getting it on pavement, which may allow for transport to storm drains.

The Friends of Lake Warner monitor environmental conditions on the lake and river throughout the summer and fall. We do not monitor specifically for cyanobacteria. Conditions in Lake Warner do support algal blooms. We spend a lot of time on the lake and do visually monitor for signs of cyanobacteria and harmful algae blooms. Recreational users of the lake are responsible for being aware of the conditions in the lake, educating themselves and being responsible for their own safety. Have a safe and fun summer on the lake!



# For more information or to report a bloom or health effect:

Bureau of Environmental Health Massachusetts Department of Public Health Phone:617-624-5757 Fax:617-624-5183/TTY:617-624-5286 www.mass.gov/dph/environmental\_health

# The Belted Kingfisher (Megaceryle alcyon)

# Information provided by the Cornell Lab of Ornithology

With its top-heavy physique, energetic flight, and piercing rattle, the Belted Kingfisher seems to have an air of self-importance as it patrols up and down rivers and shorelines. It nests in burrows along earthen banks and feeds almost entirely on aquatic prey, diving to catch fish and crayfish with its heavy, straight bill. These ragged-crested birds are a powdery blue-gray; males have one blue band across the white breast, while females have a blue and a chestnut band.





Female Belted Kingfisher

Male Belted Kingfisher

Belted Kingfishers are common along streams and shorelines across North America. You'll probably hear a loud, rattling call before you see the kingfisher. Its large head and hefty bill give it a distinctive profile as it patrols its territory, using the open space above the water as a flyway. They also perch on riverside branches and telephone wires. Belted Kingfishers also make long commuting flights over fields and forests, far from water, so be prepared for the occasional surprise flyover wherever you are birding.

Belted Kingfishers need access to bodies of water for feeding, and vertical earthen banks for nesting. They hunt in unclouded water that allows them to see prey below the surface, with perches nearby but minimal vegetation obstructing the water. Some of their most common habitats are streams, rivers, ponds, lakes, estuaries, and calm marine waters. During the breeding season Belted Kingfishers breed throughout most of North America at elevations up to 9,000 feet. They winter in similar habitats, as well as in mangroves, swamps, and brackish lagoons in the Central American parts of their wintering range.

Belted Kingfishers live mostly on a diet of fish including sticklebacks, mummichogs, trout, and stonerollers. They also eat crayfish and may eat other crustaceans, mollusks, insects, amphibians, reptiles, young birds, small mammals, and even berries. A kingfisher looks for prey from a perch that overhangs water, such as a bare branch, telephone wire, or pier piling. When it spots a fish or crayfish near the surface, it takes flight, dives with closed eyes, and grabs the prey in its bill with a pincer motion. Returning with its prize, it pounds the prey against the perch before swallowing it head first. It may also hover above the water instead of searching from a perch. As nestlings, Belted Kingfishers digest the bones and scales they consume, but by the time they leave the nest they begin disgorging pellets of fish skeletons and invertebrate shells. Belted Kingfishers excavate burrows in earthen banks, usually avoiding ones with vegetation (especially trees, whose roots get in the way of digging). They generally choose a bank near water, but may use a ditch, road cut, landfill, sand pit, or gravel pit far from water. A pair may select a nest site during courtship, usually high in the bank where floodwaters are unlikely to reach. The male probes the bank with his bill, flying back and forth to the female, who calls continuously from a nearby perch.

## **Nest Description**

The male and the female take turns digging the burrow, with males spending about twice as much time digging as females. They usually take 3–7 days to finish it, but may sometimes take up to 3 weeks. The completed burrow extends 3–6 feet into the bank, sloping upward so that rainwater won't collect inside, and ends in an unlined chamber 8–12 inches in diameter and 6–7 inches high. Throughout the breeding season a layer of undigested fish bones, fish scales, and arthropod exoskeletons may accumulate and provide some insulation.

- The breeding distribution of the Belted Kingfisher is limited in some areas by the availability of suitable nesting sites. Human activity, such as road building and digging gravel pits, has created banks where kingfishers can nest and allowed the expansion of the breeding range.
- The Belted Kingfisher is one of the few bird species in which the female is more brightly colored than the male. Among the nearly 100 species of kingfishers, the sexes often look alike. In some species the male is more colorful, and in others the female is.
- During breeding season the Belted Kingfisher pair defends a territory against other kingfishers. A territory along a stream includes just the streambed and the vegetation along it, and averages 0.6 mile long. The nest burrow is usually in a dirt bank near water. The tunnel slopes upward from the entrance, perhaps to keep water from entering the nest. Tunnel length ranges from 1 to 8 feet.
- As nestlings, Belted Kingfishers have acidic stomachs that help them digest bones, fish scales, and arthropod shells. But by the time they leave the nest, their stomach chemistry apparently changes, and they begin regurgitating pellets which accumulate on the ground around fishing and roosting perches. Scientists can dissect these pellets to learn about the kingfisher's diet without harming or even observing any wild birds.
- Belted Kingfishers wander widely, sometimes showing up in the Galapagos Islands, Hawaii, the British Isles, the Azores, Iceland, Greenland, and the Netherlands.
- Pleistocene fossils of Belted Kingfishers (to 600,000 years old) have been unearthed in Florida, Virginia, Tennessee, and Texas. The oldest known fossil in the kingfisher genus is 2 million years old, found in Alachua County, Florida.

# Water & Soil Conservation Links

In case you were unable to attend the Water & Soil Conservation in the Lake Warner Watershed workshop on April 23rd in Hadley, here are links to the presentations. Thanks to David Moskin for recording the event and making them available.

Jason Johnson, Executive Director, Friends of Lake Warner Stewarding Lake Warner https://youtu.be/VAciKwHWqsA

Masoud Hashemi, PhD, Stockbridge School of Agriculture, UMass Amherst Cover Cropping for Sustainability https://youtu.be/YavzrDOBFmU

Jono Neiger, Founding Principal, Regenerative Design Group Permaculture Practices: An Overview https://youtu.be/GI\_IpT8-kJ8

Jonathan Carr, Founder, Carr's Ciderhouse What We Are Doing: A Local Grower's Experience https://youtu.be/e9sRr6QLQRE

Dan Pratt, Manager, Astarte Farm No-Till Farming https://youtu.be/yZFHXAiMiFk

# A Light exists in Spring

by Emily Dickenson

A Light exists in Spring Not present on the Year At any other period When March is scarcely here

A Color stands abroad On Solitary Fields That Science cannot overtake But Human Nature feels

It waits upon the Lawn It shows the furthest Tree Upon the furthest Slope you know It almost speaks to you

Then as Horizons step Or Noons report away Without the Formula of sound It passes and we stay

A quality of loss Affecting our Content As Trade had suddenly encroached Upon a Sacrament

# **Sightings on the Pond**

I enjoy the wonders of the Pond from my home and talk to friends who spend more time paddling and fishing than I do. Here is a list of what I have seen and what others have seen:

One white swan, a bald eagle, blue heron, green heron, ring-necked, ducks, common mergansers, geese, beavers, muskrats, a goose nest, fish – large-mouth bass, chain pickerel

Please send your sightings to the Friends at: friendsoflakewarner@gmail.com



## Invasive Species Recipes IF YOU CAN'T BEAT THEM, EAT THEM!

Here are a few recipes for some of our least favorite invasive plants. If we find one for water chestnuts, we will let you know!

#### **STRAWBERRY-KNOTWEED PIE**

INGREDIENTS:

3 to 4 cups strawberries, washed, stemmed, and halved 3 cups Japanese knotweed, peeled and chopped into 1/2inch crescents

1 to 1-1r2 cups sugar (depending on the sweetness of your strawberries), plus extra for sprinkling over crust

3 tablespoons cornstarch

Pastry for a double-crust pie

3 tablespoons butter

1 egg yolk, beaten with 1 tablespoon water

#### INSTRUCTIONS:

Preheat oven to 375 degrees F. In a medium bowl, toss together strawberries, knotweed, sugar, and cornstarch. Prepare pastry for the bottom of the pie; arrange in pie plate. Pour filling into shell and dot with butter. Slice remaining pastry into ¾-inch strips and lay over pie in a lattice pattern. Brush crust with egg wash and sprinkle with sugar. Bake 45 to 55 minutes, until filling is soft and bubbling and crust is nicely browned (if necessary, cover pie edges with aluminum foil for the final 20 minutes to prevent over-browning). Serve warm with ice cream.

#### GARLIC MUSTARD PESTO

#### **INGREDIENTS:**

3 cups packed fresh garlic mustard leaves

- 1 cup parsley (optional)
- 3-4 large garlic cloves
- 1/3 cup pine nuts or walnuts, lightly toasted (optional)
- 1/3 cup olive oil
- 1/3 cup Parmesan
- Salt and pepper to taste

#### **INSTRUCTIONS:**

Blend in a food processer or blender, add extra olive oil until desired consistency is reached.

# Thank you to our donors!

The Friends would like to acknowledge our loyal donors.

Harvey Allen Laura and Ron Blajda Martha and John Boisvert **Timothy Brennan** Barbara and Michael Burkhart Greg and Laurie Cannella Rona Conrad **Dorothy Fredera** Gail Garrabrants Jim and Gerry Harvey Bonita and Robert Krotkov Francine Ness Susan Petelik Gordon Pullan Michael Sarsynski Frances Van Treese Patricia and Thomas Zuzgo

Thank you again to all. Donations are still accepted. Send to The Friends of Lake Warner, PO Box 11, Hadley, MA 01035

# In Memoriam

We are sad at the loss of our loyal friend and neighbor, Dorothy Fredera who passed early in May. She will be truly missed.



# Please Join Us for Upcoming Events this Summer at Lake Warner

#### June 22 - 10am - 2pm

Plant identification, invasive plant scouting, water quality monitoring. Come learn about techniques and methods for evaluating lake health. Some canoes will be available, but if you have one bring it down to the boat ramp on Mt. Warner Rd. and Rte. 47. Bring a lunch, drinks provided.

### July 13 - 10am - 2pm

Water Chestnut pull. Come take a canoe ride and help rid the pond of invasive aquatic plants. Some canoes will be available, but if you have one bring it down! Meet at the boat ramp on Mt. Warner Rd. and Rte. 47. Bring a lunch, drinks provided!

#### August 10 - 10am - 2pm

Water Chestnut pull. Some canoes will be available, but if you have one bring it down to the boat ramp on Mt. Warner Rd. and Rte. 47.

#### September 7 - 10am - 2pm

Water Chestnut pull. Some canoes will be available, but if you have one bring it down to the boat ramp on Mt. Warner Rd. and Rte. 47.



# Please Join The Friends of Lake Warner and The Mill River. We Need You!

We are a non-profit, citizen community organization. • Members receive a bi-annual newsletter. • Members are invited to participate in our activities, workdays and social events. • Your tax-deductible dues support our efforts to preserve, clean and maintain our lake. • Your dues also support the printing cost of our brochures and newsletters.

l want to join	🗌 Individual membership - \$25	Family membership - \$35	Sustaining membership - \$100
Name		Phone	
Street Address		City	
State	Zip	Email	

Please make checks payable to: Friends of Lake Warner (FOLW) Checks should be mailed to: Friends of Lake Warner, PO Box 11, Hadley, MA 01035