

Network News



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Be on the Look Out for Invaders

By Sharon Anderson, Watershed Steward

Aliens? Not quite. Rather, the non-native plant water chestnut (*Trapa natans*). Neighboring Seneca River is already plagued with this glossy, green, triangular-leaved plant that can easily choke water bodies, out competing the native flora. Because its foliage can create a dense, nearly impenetrable mat at the surface, fishing, swimming, boating, and other recreational activities are severely limited.

During the past two decades, water chestnut has spread throughout the Central New York river/canal system near Cross Lake to Oneida Lake, and into the Oswego River Corridor. It now consumes well over 100 acres of our beautiful, quiet interior waterways, and its range is ever expanding. The shallow depths and soft sediments at both ends of Cayuga Lake, makes Cayuga Lake prime territory for the expansion of this exotic species. Therefore, our mission is to keep water chestnuts out of Cayuga Lake.

The Cayuga Lake Watershed Network has joined forces with other agencies to mount an education and monitoring campaign to stop the movement of water chestnut. Education is key because many people are unfamiliar with the plant and how it can be accidentally transported by the unaware. Boat traffic is a common means of transport from one water body to another. Waterfowl can do the same. People can cut and release it allowing it to float and settle in new areas. Wind and waves can rip loose plants freeing them to move downstream.

We need to hit this targeted plant hard and quickly as soon as it arrives. Now that the weather is warm and plants are growing, it is imperative to be on the look out for this invasive plant. Learn to identify water chestnut, report any findings in Cayuga Lake to the Watershed Network, and remove it before it produces seeds.

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Water chestnut (*Trapa natans*)

7th Annual Lakefest

Join Us for Music, Food, Boat Rides & Fun!
Learn About Your Watershed!

August 22, Myers Park, Lansing

“Celebrate Cayuga Lake!” (see back cover)

WATERSHED STEWARD'S MESSAGE

The Cayuga Lake watershed is definitely a great place to be!

By Sharon Anderson, Watershed Steward



...says Teal Arcadi, winner of our Essay Contest at the intermediate school category. To paraphrase this young author, there are many fun things to do on or near water like long canoe rides, hiking, swimming, or camping (see his essay on page 3).

Tucked in the corners of this watershed are bird sanctuaries, rich wetlands, farms that go back generations, stately forests and rushing waterfalls. The Watershed Network is concerned with the whole area that surrounds Cayuga Lake, dedicated to maintaining and improving the beauty and health of our environment. Summer is a great time to explore treasures that may be new to you as well as places that are favorite and familiar. As you travel from place to

place, take care that you do not carry with you unwanted hitchhikers. Invasive plants and animals that are not native to this area — frequently they come from other continents — are serious threats to its beauty and ecology. Unwittingly we introduce plants and animals like the water chestnuts and zebra mussels when purchasing ornamentals or moving boats between waterbodies. Your knowledge and awareness of this issue is our best defense.

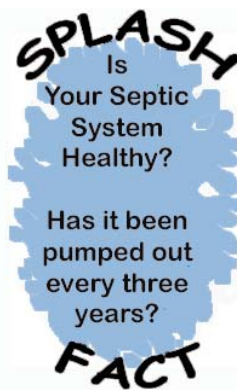
Arcadi writes, "Watersheds are a fragile and beautiful part of the ecosystem. They are amazing places that have taken thousands of years for the earth to create. They are a beautiful part of my life and are very special to me."

Whether you head out fishing, wade in a creek, sit quietly smelling fresh mowed hay or are regaled by songs at Lakefest, enjoy the summer! 🐦

THE NETWORK AT WORK

As we all enjoy the beautiful long sun-lit days, the Watershed Network has been quite busy as the weather changes from spring into summer. The ecological health, economic vitality and overall beauty of the Cayuga Lake Watershed is, of course, important to us. One way we strive to protect and improve these features of the watershed is through education. Over these past few months we helped the community to understand the US Environmental Protection Agency (EPA) Stormwater rules relating to construction by facilitating and co-sponsoring a workshop on Stormwater Phase II regulations. In Seneca County we had the opportunity to teach 450 sixth grade students about non-point source pollution and strategies to reduce contamination during their Outdoor Education Field

Day. What an exciting day it was! We were delighted to answer many thoughtful questions from our future watershed stewards.



Along with our wonderful and hardworking volunteers we were able to reach out to more watershed residents, with displays in Ithaca for Earth Day and Water Week festivities and in Interlaken for the Old Home Days. In celebration of National Water Week, we co-sponsored cleanups of the Cayuga Lake shoreline and Fall Creek, where a total near to 3000 pounds of trash was removed. Wow, what a lot of garbage!

All of this could not take place without cooperation amongst all of us who live, work and play in the watershed. Thanks to all of you who helped make a difference in the watershed! 🐦

Cayuga Lake Watershed Network

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An excerpt from the 2004 Essay winner, Intermediate Category

The Watershed

By Teal Arcadi, Trumansburg NY

Watersheds are a fragile and beautiful part of the ecosystem. They are amazing places that have taken thousands of years for the earth to create. They are a beautiful part of my life and are very special to me. Humans can also ruin them very quickly, and that is why we must all do our part to keep them clean and healthy for us and the animals that live in them.



Teal Arcadi

In the Cayuga Lake watershed there are many beautiful kinds of wildlife, such as herons, ducks, geese, cormorants, many kinds of song birds, and some spectacular fish, just to name a few. [...]

As for some of the prettier aspects of the Cayuga Lake watershed, it has some truly awesome gorges, all of which have something slightly unique to them: Taughannock Falls has huge shale cliffs, as well as being one of the tallest waterfalls in the region. Buttermilk Falls has tall, naturally made stone sculptures, and large round holes in the creek bed that sometimes go as deep as 14 feet into ground, and at Treman park, the water rushing down the gorge there has worn amazing pools into the stone creek bed and walls. Treman also has some of the most beautiful and untainted views in the Cayuga Lake watershed.

During all of the seasons I like to walk by all of the different bodies of water; they are magnificent and beautiful places, and each one seems to have something special to it. Whether I am hiking in one of the gorges, swimming in one of the lakes, or kayaking in some remote inlet, they are all wonderful places to be.

There are many fun things to do on or near water, like going on long canoe rides on one of the lake's weedy inlets or outlets, hiking in one of the gorges, swimming in the cold lake on a hot summer day, or camping near the lake. The Cayuga Lake watershed is definitely a great place to be. 🐾

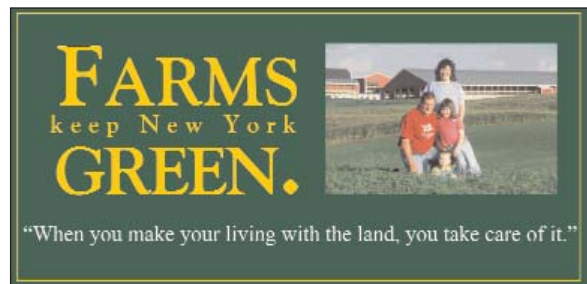
Farms Keep the Watershed Green

By Kathy Barrett, Projects Director, Cayuga Marketing LLC

The Cayuga Lake watershed is graced with a spectacular rural landscape. That landscape is maintained in large part by the families that farm here. Rolling fields of hay, corn and other field crops provide not only a scenic view but also an economic base for the rural communities within the watershed. In 2003 in Cayuga County alone, farms contributed 255 million dollars to the local community. The dairy farms in Cayuga County generated about half of that money through the sale of milk. Farmer's dependence on the land for their livelihood increases their interest and motivation to protect it. They manage large woodlands, pastureland, and croplands that hold soil in place and keep it from eroding. Agricultural crops and woodlands also convert carbon dioxide to oxygen, helping to lessen the greenhouse gas emission and the resulting impact on the environment.

The leading crops here in Central New York are corn and alfalfa. Those crops require significant amounts of nutrients—nitrogen, phosphorus and potassium (N-P-K). Dairy farmers use the nutrients in manure, which is abundant in N-P-K, to feed their crops. When crops are harvested, nutrients are removed. Farmers strive for the right balance of replenishing the nutrients in the soil to the right level to insure quality crop production the following season while not applying nutrients in excess of what crops need. Thanks to modern technology, this is an exact science. Farmers continually test their soils to ascertain the level of nutrients in order to know what is needed to optimize plant growth and they continually test manure for nutrients so they know how much of each nutrient is being supplied by the manure. It does not make environmental or economic sense for a farm to intentionally allow manure nutrients to be washed off the farm as that would defeat the purpose of applying the manure, which is to provide fertile fields in which to grow crops.

One of the factors driving increased farm size is the desire to effectively manage manure and nutrient loading. It is easier to allocate and



Farm Bureau billboard

capture manure nutrients on larger farms. In the last 50 years, US dairy farmers have actually reduced the manure quantity by 37% while increasing the production of milk by 44%. Farmers have done this by improving how cows are fed and through careful genetic selection for cows that produce more milk with less waste.

There are other benefits for dairy farmers who milk more cows and crop farmers who plant more acres. These benefits can include better pay, better hours, health insurance, retirement plans, vacations

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Wood is good in streams

By Dana R. Warren Department of Natural Resources, Cornell University

As an ecologist, I have great regard for wood in streams. As a fisherman I also have great regard for wood in streams but that regard is tempered by years of frustration and lost tackle. From flies, to lures to hooks and worms, I and many others have lost the epic battle between fisherman and submerged logs. There are times

complexity may contain a single large fish, but likely little else. A pool with abundant woody debris or other complex habitat structure will not only hold that large fish but it will also provide space for a number of other fish as well. Woody debris and the accumulations of large and small wood into debris dams can significantly

debris dams that back up water may potentially lead to localized areas of bank erosion, these same dams are particularly important in dissipating stream energy during high flows and as such can actually reduce stream erosion on a larger scale. Additionally, in some cases, woody debris protects a bank that may otherwise be exposed directly to the stream flow.

In young streamside forests, large pieces of wood are unavailable, therefore smaller branches and limbs are most commonly found in streams and help create complex pool habitat. As forests age, larger wood becomes available. The primary mechanisms by which trees enter a stream system in this region are high wind events, dead falls, and bank erosion. Trees that fall into streams via bank erosion are particularly useful in creating fish habitat because they not only provide large, stable wood for pool formation but the attached roots also increase complexity. As forests in the Cayuga Lake watershed age and streams continue to meander, we should expect to see more large wood entering our streams.

Despite the importance of woody debris to fish and the physical characteristics of the stream, people frequently remove wood from streams. Wood may be removed to protect a downstream structure such as a bridge, to reduce local lateral scour, because it is not as aesthetically pleasing to some people, or occasionally in well-intentioned efforts to “clean-up” the stream. While it is not always possible to leave large wood just upstream of a bridge, in other circumstances I strongly advocate that we keep wood around for the benefit of fish and the aquatic ecosystem as a whole. 🐟



Photo courtesy of Dana Warren

Woody debris dam along Cascadilla Creek

when the temptation to remove wood is quite strong, however, in doing so one runs the risk of killing “the goose that lays the golden egg.”

Wood in streams is often referred to as “woody debris,” giving some indication that wood is not often appreciated. Yet woody debris provides important ecological functions in a stream. Among the many virtues of wood in streams, fish habitat is perhaps the most widely recognized. The wood that annoys me by making it a challenge to cast into a stream is the same wood that enhances stream pool habitat for fish. An open pool with little internal

increase habitat complexity. With more complexity, fish not only have access to more refuges from potential predators, but they also have greater visual isolation from competitors, which can lead to greater population densities.

In addition to providing habitat complexity for fish, woody debris and debris dams can also act as key physical structures in streams. Large woody debris in a stream channel can lead to the creation of a pool either by backing up water or by creating a scour pool below the wood. The removal of wood from streams can therefore lead to changes in the characteristics of the stream itself. While

Look Out for Invaders *continued from cover*

Physical removal by hand pulling is an effective control of water chestnut for small and newly established populations. This annual weed that dies back each year produces hard, spiny seeds that sink to the bottom where they persist through the winter. A single seed, when it sprouts in early spring, can produce 300 new seeds in a single year. Hand pulling may be daunting after that.

Since this invasive plant plagues water bodies in other parts of the northeastern United State including Lake Champlain, there is much to be gained by finding effective controls. Area resource managers are currently investigating possible biological control agents for water chestnut. Chemical treatment using a selective herbicide can be permitted by NYS Department of Environmental Conservation, if the necessary conditions are met. Collectively, with these continued efforts, water chestnut can be stopped from spreading and over time even be reradiated from Central New York, as well as from the other infested parts of this country.

The Watershed Network is part of a team of people working to design and implement a program, "Weeds Watch Out!" (W20!). This is an education and outreach program that was developed to thwart the spread of invasive aquatic plants into, within, and from the Oswego River Basin. It is a regional effort, with workshops being planned throughout the watershed to teach people how to identify and remove the plants. (See box with upcoming events). If you see water chestnuts, pull them out! Then notify the Cayuga Lake Watershed Network office (607-532-4104) or manager@cayugalake.org, so we can keep track of sightings within the watershed. 🦋

How You Can Help

- Remove all plants and plant fragments from boat pro-pellers and trailers before leaving launch sites and dispose of the plants in trash receptacles or burn them. Drain all bilge water, live well and bait buckets before leaving infested waterways.
- Learn to identify water chestnut and other aquatic weeds. Know which bodies of water are currently infested and use caution in these areas.
- Get involved! If you identify water chestnut, report sightings, pull them yourself and encourage your neighbors to do the same.
- Spread the work, not the plant. Please share this material with others.

If left uncontrolled, water chestnut will promote:

- loss of waterfront property values
- loss of native aquatic plant species
- disruption to the natural environment
- loss of recreational opportunities (boating, fishing, swimming)
- loss of fish habitat
- loss of natural aesthetics
- potential threat to choking off our open canal ways
- restrict economic development along our beautiful canal system, to which Cayuga Lake is connected

Upcoming W20! Events:

July 12, 2004, 7-8:30pm. Workshop, Skaneateles. First Presbyterian Church Hall, 97 E. Genesee Street.

July 15, 2004, 7-8:30pm. Workshop, Baldwinsville. Lysander Town Hall, 6 Lock Street.

July 18, 2004. Water Chestnut Hand-Pulling. Contact Bob Palmer, Oneida Shores Rotary Club, (315) 668-2298

July 19, 2004, 6:30-8:30pm Volunteer Training. Contact Amy Samuels, CCE of Onondaga County, (315) 424-9485, ext. 233.

August 10, 2004, 6:30-8pm. Workshop, Auburn. Contact Kelly Fallone, CCE of Cayuga County, (315) 255-1183 ext. 225

Farms Keep the Watershed Green *continued from page 3*

and the opportunity to specialize in an area they most enjoy. It's understandable that multiple families may choose to work together. The farm therefore has to be larger since the number of cows per family earning their living on dairy farms is similar regardless of the total farm size. With these added benefits, it may be easier to attract quality workers and keep people interested in farming as their profession.

Farming is the economic base for our rural counties.

Farms provide jobs and tax revenue while bringing money into our communities from the sale of milk and other farm products. In addition to the economic value, these farms are aesthetically pleasing to all who live, work and play in our watershed. Without these farms, our watershed may not be as green. 🦋

Cayuga Marketing is a group of 26 dairy farmers located in Central NY that sell their milk together.

ANNOUNCEMENTS:

Lawn Care Workshop

Healthy Home and Yard Care for Clean Water offered by Cornell Cooperative Extension of Tompkins County, Wednesday August 11, 7:30-9:00 pm at 4-H Acres, 418 Lower Creek Road. Small changes in home maintenance and yard care can make a big difference for water quality. Topics will include environmentally responsible lawn care, protecting water quality around your home, and stormwater management. Free. Pre-registration required. Call (607) 272-2292.

Current Projects in The Cayuga Lake Watershed

Cayuga Lake Watershed Intermunicipal Organization (IO) has begun implementing the *Restoration and Protection Plan* (RPP) by using the grant funds awarded by the NYS Department of State, Environmental Protection Fund. Project manager Darby Kiley is working to oversee the projects and seeking future funding.

This summer the Town of Caroline will begin work on a stream restoration on Six Mile Creek. The IO along with the Tompkins County Soil and Water Conservation District and the City of Ithaca will provide support and partial funding for the approximately \$400,000 project.

Based on information from the RPP, the Environmental Protection Fund grant also identifies roadbank erosion as a source of sediment to Cayuga Lake watershed. The IO is working with the Towns of Genoa, Ovid, Ledyard, and Dryden to stabilize and vegetate steep road ditches that carry excessive amounts of sediment to adjacent streams.

Look for updates of the IO projects in the Autumn Cayuga Lake Watershed Network Newsletter.

2004 Essay Contest Winners

The Watershed Network is pleased to announce the 2004 Essay contest winners. The Network would like to thank Goulds Pump-ITT Industries for sponsoring the contest. With over 200 entries, the final prizes were

2004 Essay Contest Winners

Adult: Carrie Laben

High School: Violet Goncarovs

Intermediate:

1st place Teal Arcadi

2nd place Kate Perkins and Emmett Neno

3rd place Chris Corning, Bryan DiDona,
Morgan Kuryla


difficult to decide. Writers were asked: *"How Does The Cayuga Lake Watershed Affect Your Life?"* Congratulations to all winners and participants! An excerpt from each of the first place winners will be printed in the Network's Newsletter. This issue features Teal Arcadi, the Intermediate first place winner. *Look for the High School and Adult winners in upcoming issues.*

Interactive CD-ROM is Now Available!

PROTECTING THE CAYUGA LAKE WATERSHED, which is filled with information about both the Cayuga Lake watershed and the concepts behind watershed management planning is now available! **PROTECTING THE CAYUGA LAKE WATERSHED** covers topics consisting of a broad overview of watershed principles and processes, detailed review of the *Cayuga Lake Watershed Restoration and Protection Plan*, and the CD encourages further exploration of watershed assessment and planning techniques that are available via the Internet and other published materials. People who can benefit from this CD include residents and visitors to the watershed, stream stewardship groups, municipal officials and planners, and students of all ages.

PROTECTING THE CAYUGA LAKE WATERSHED is free to Network members and available to all others for the cost of shipping and handling. Please contact the office, (manager@cayugalake.org) or 607-532-4104 if you are interested in a copy of the CD.

Fun On the Lake!

The **Cayuga Lake Floating Classroom** program is up and sailing this summer and fall and ready to take school and other groups out on Cayuga Lake for a lively day of hands-on activities and learning about the lake. For more information, contact Dennis Montgomery of Tiohero Tours, (607) 281-1581 or email at: dennis@cayugawoodenboatworks.com 

Upcoming Board Meetings:

Thursday, September 9th, 7pm.
Wells College.

Thursday, October 14th, 7pm,
Goulds-ITT Industries.

For more details please contact the Watershed Network office.



Another Invader to Watch for: Pale swallow-wort

By Fran Lawlor, Swallow-wort Management Coordinator, The Nature Conservancy

Pale swallow-wort (A.K.A “Dog-Strangling vine”) is a milkweed family vine that is causing increased concern among land managers and naturalists in central and northern New York and areas of Canada bordering on Lake Erie, Lake Ontario and the St. Lawrence. Closer to home, the plant has been identified through out the Cayuga Lake Watershed, in every county that borders the lake. It is everywhere! Pale swallow-wort (*Cynanchum rossicum*) is a twining,

Photo courtesy of The Nature Conservancy



The small flower of the pale swallow-wort

herbaceous, perennial vine; it dies back to the ground every winter. It is capable of altering the soil community in which it grows. In open areas the vines form a dense tangled mass, extremely difficult to walk through. In thickets and woodlands the vines scramble up shrubs and young trees.

Once pale swallow-wort establishes itself, significant amounts of wildlife habitat can be lost. Wildflowers and tree seedlings are greatly reduced. Valuable forage is lost and increased grazing pressure is put on the remaining vegetation. Deer and other wildlife do not graze on this toxic vine. Insect numbers and diversity of all types is significantly reduced in areas dominated by pale swallow-wort. This affects the whole food chain. Some preliminary studies have shown reduced bird presence and diversity.

Pale swallow-wort has been found in cropping systems not subject to annual tillage. A Christmas tree grower near Rochester says the plant was unknown to him 10 years ago and it is now his major weed management problem. The National Poisonous Plant Lab in Logan, Utah reports the plant was fatally toxic in a preliminary test using a goat. Land managers should

be aware if the plant exists on their property, especially if the land is used for grazing livestock.

Once established, pale swallow-wort is difficult to control. Small patches must be dug out by hand. The entire crown must be removed and destroyed. Large stands can be managed to prevent seed crops by mowing when pods are very small (early July). Large stands can also be cultivated on a yearly basis to achieve control over time. Stay out of infested areas during

Photo courtesy of Toni DiTomasso, Cornell



Pods have broken and downy seeds have been dispersed from the tangle of pale swallow-wort vines

seed dispersal to prevent seed dissemination to unaffected areas. Likewise, clean boots, ATVs and other equipment when coming out of infested areas.

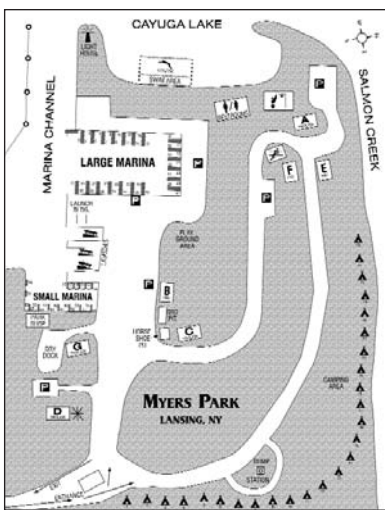
For more information, please contact Fran Lawlor, TNC, 269 Ouderkirk Road, Pulaski, NY 13142. (315) 387-3600. 🐾

How to identify pale swallow-wort:

- Vine grows 2 - 8 feet.
- Glossy, oval to wedge-shape, pointed tip leaves
- Opposite leaves (2 1/2 - 4 1/2 inches long and 2 - 2 1/2 inches wide)
- Flower clusters at the base are small and fleshy
- 5 pink to maroon petals on flowers are visible in late-May through mid-July
- Fruit is a smooth, slender, pointed pod about 1 1/2 to 2 1/2 inches long
- Frequently borne in pairs, the fruit are abundant in late summer and fall
- Pods split open in late summer, spreading many downy seeds

Mark Your Calendar for Lakefest – August 22nd!

The Cayuga Lake Watershed Network will hold its annual Lakefest Sunday, August 22nd, 12 – 4 pm at Myers Park, Lansing, Pavilion D. Please join us for a free picnic, generously provided by Wells College, and music by Classic Folk. Puppeteer Tom Knight will follow with songs and skits that thrill children and adults and the recipient of the 2004 David Morehouse Award will be announced. Throughout the day will be activities and displays from local organizations and there is also a swimming beach at the park. The Network's annual meeting, during which new members of the board of directors are elected, will take place during the event.



Myers Park, Lansing

Myers Park is off Route 34B; look for a turn towards the lake opposite the Lansing schools. Signs for Lakefest will guide you to the park and pavilion D. The park charges a \$2 admission fee per car for people who are not residents of Lansing. Those who would like to take a boat ride to Myers Park to attend Lakefest need to arrive at the



Children enjoying the puppet show. Lakefest 2003

Farmer's Market in Ithaca by 12:00 pm to ride the *Haendel* up the lake. There will be one return boat trip that will dock at the Farmer's Market by 5:30 pm. For more information about the boat ride to Myers Park, please contact Dennis Montgomery at (607) 697-0166.

We hope you will invite your friends to join you for a great afternoon on the beautiful shores of Cayuga Lake. If you would like to volunteer to help that day, please contact us at manager@cayugalake.org or (607) 532-4104. 🐦

7TH ANNUAL LAKEFEST

August 22 – Myers Park, Lansing

12:00-4:00	Swimming, Boat Rides & Displays
12:00-1:30	Picnic & Music by Classic Folk
1:00-3:00	Floating Classroom boat rides
2:00-2:45	Puppeteer Tom Knight
2:45-3:00	Dave Morehouse Award Ceremony
	Treats by Tompkins County Dairy Princess
3:00-4:00	Watershed Network Annual Meeting

The Mission... The Cayuga Lake Watershed Network seeks to protect and improve the ecological health, economic vitality and overall beauty of the watershed through education, communication and leadership.



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- 🐦 Education
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