

# ASRA Newsletter

LATE SUMMER/EARLY  
FALL 2005

## The Geology of Trout Habitat

by Carol Treadwell-Steitz and Jim Olmsted

**A**s pointed out in a recent Press Republican Article (Sunday, August 14, 2005). The Au Sable River is a world-class trout stream. The Au Sable like many rivers in the US is a meandering stream and trout have evolved over thousands of years to adapt to this environment. In this article we will explore the conditions that trout need to survive and how the nature of a meandering stream provides these conditions. We will also consider some activities that are detrimental to the lives of trout.

Some of the most important requirements for adult trout survival are cool water temperatures, pockets of lower water velocity, availability of escape cover, and an adequate food supply. Spawning and the rearing of trout require shallow, gravel-bottomed stream portions. Egg incubation requires a

constant flow of well-oxygenated water. Therefore, the trout has evolved remarkably to take advantage of the habitat provided by the meandering stream. The channel of a sinuous or meandering stream is characterized by deep pools in the meander bends and shallows between in which the riffles are found.

It is in the deep pools that the adult trout finds cover from predators, cool water temperatures, and rest from the high velocity portions of the stream. The shallow gravel bottomed riffles provide the perfect habitat for trout to spawn and for trout fry to grow.

Unfortunately for trout populations and fly fishermen who enjoy their sport, the habitat of trout has been encroached upon by human induced changes to the channel. As a result, ninety per-

cent of federally managed streams have become degraded.

One of the most disruptive practices to the natural stream is channelization. In this practice the channel is straightened, thereby eliminating its meander nature, destroying the deep pools and thus causing elevated water temperatures and elimination of cover. Vegetation is commonly removed from the banks further contributing to elevated water temperatures. Human changes that affect the health of the stream go far beyond the channel or banks of the stream. Improper homesite development within the watershed that feeds the stream can have a large effect on the stream channel. Bare ground from farming development and logging introduces large sediment loads to the stream

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### SPECIAL POINT OF INTEREST:

- The Au Sable River Association now has a web page, located at [www.ausableriver.org](http://www.ausableriver.org). We encourage you to explore the site, learn more about the river and the association, and tell your friends!
- And while you are there, please note our new e-mail address – [info@ausableriver.org](mailto:info@ausableriver.org).

## ASRA'S Annual Meeting

**T**he ASRA will once again be holding its annual meeting at the Adirondack Harvest's gala celebration. All members are welcome and encouraged to attend. The meeting will be held in the Cornell Coopera-

tive meeting room in Westport on September 17 from 4 to 6 pm. A guest speaker will present followed by a time to review the past year and plan for the next year. Following the meeting, there will be a dinner prepared with local foods, a

contra dance, and good cheer! The celebration and meeting takes place in Floral Hall located in the Essex County Fairgrounds. Tickets are required for the dinner and are limited. To reserve your ticket please contact the ASRA director.

## Stream Inventory Update and Opportunities

**T**his past spring the ASRA started a general stream inventory of the Au Sable River. The inventory is necessary to obtain meaningful and current data on the health of the River. The data will be used to develop prioritized goals for the future.

The ASRA is counting on volunteers to help with this important task. Over the summer there were several training sessions where volunteers signed up to survey a section of the river. If you have attended one of these trainings, the ASRA thanks you and reminds you to complete the survey and mail it to the ASRA. We would like to receive all

surveys by the end of September.

If you were unable to attend one of these trainings and would still like to help us, don't worry there are still opportunities. The ASRA's director will be holding a stream inventory day.

On September 24th, the director will be training and conducting an inventory on both the East and West Branches of the River. Volunteers will learn how to measure velocity, invasive species identification, erosion indicators, and much more.

The East Branch inventory will be held

across from Marcy Field in Keene. Volunteers will meet at 10:00am. The West Branch inventory will be held in the no-kill section of the river between Wilmington and Lake Placid and will start at 1:30pm.

These inventories are family events and all are welcome to attend. If interested please contact Anne Lenox Barlow via e-mail ([info@ausableriver.org](mailto:info@ausableriver.org)) or by calling 873.3752.

Please come join the fun and help the River!

## Should You Get Your Water Tested?

**H**ave you thought of getting your drinking water tested? Contaminated water can cause mild to severe gastrointestinal illness as well as other health concerns. You should consider testing your water if you:

- Have a septic system,
- Have a "stomach bug,"
- Have a new home or are undergoing construction,
- Are opening your summer camp,

*"Contaminated drinking water can cause mild to severe gastrointestinal illness as well as other health concerns."*

- Have not tested your water in a long time,
- Have land that has or does house farm animals,

- Are in the business of assuring a household's safe water supply, or

- Are a business serving the public.

The Boquet River Association runs a laboratory to help landowners determine if their water is safe. The lab tests for the presence of total Coliform and *E. Coli* bacteria. In addition, a full range of tests can be performed with BRASS' partner Alchemy. For more information on water testing and how to sample your water contact BRASS.

Lab: 962.8296 Office: 873.3688

E-mail: [brasslab@boquetriver.org](mailto:brasslab@boquetriver.org)

## River Life Walk

**H**ave you ever wondered what lives in and around the Au Sable River? If so, you are in luck. The director of the ASRA will be holding a River Life Walk on Sunday, September 11, 2005. The walk will be part of Adirondack Harvest's annual celebrations. In addition to the walk, there will be a taste-off and tours of the Rivermeade Farm on the 11th.

The walk will start at 10:00am at the farmer's market located in Marcy Field,

Keene, NY. During the walk we will explore the plant life along the river's banks, search for signs of animals that come to the river, and get our feet wet looking for aquatic life. All are welcome to attend this family event. Please, wear comfortable clothing and footwear. And remember, there will be opportunities to "get your feet wet."

For more information contact the director at [info@ausableriver.org](mailto:info@ausableriver.org) or call 873-3752. We look forward to seeing you and your families there!



## Environmental Disaster in Nearby River

By Anne Lenox Barlow

If I were to tell you that there was a recent spill on a New York river that killed countless number of fish and prevented thousands of people from accessing clean drinking water, what pollutant would come to your mind? Oil? Or, maybe factory chemicals? Well, what about manure? That's right, manure.

On August 11<sup>th</sup>, the Black River, which starts in the northwestern portion of the Adirondacks and flows into Lake Ontario, experienced its largest hazardous substance spill when three million gallons of liquid manure were released into the river. The manure spill originated on a farm in Martinsburg, which is a town just south of Lowville in Lewis County. It occurred when an earthen wall containing the liquid manure burst, allowing the manure pit's contents to

flow into the river.

The huge amount of manure turned a river known for its whitewater rafting, Pacific salmon, walleye, and black bass fishing, and the city of Watertown's drinking source into a brown, polluted mess. The spill decreased the amount of oxygen in the river, killing between 200,000 and 250,000 fish. In addition, the manure contained *e. coli*, a bacteria harmful to both humans and animals. This caused the city of Watertown and other municipals to stop drawing drinking water from the river. People living along the river were also told not to drink from, swim in, or give the water to pets or livestock.

Because the river levels were low, officials predicted it would take longer for the manure to wash downstream and enter Lake Ontario. By the time this

article went to print, all municipals were once again drawing water from the river and public swimming was permitted. Officials stated that once in Lake Ontario, the manure would be diluted, causing less of an issue for cities and towns on the lake. But, to be safe many of the cities and towns were testing their drinking and public swimming waters.

The farm where the spill originated has been fined by the New York State Department of Environmental Conservation. Fines were given for violations of water quality standards, of the facility's Controlled Animal Feeding Operations permit conditions, for a discharge into waters of the State without a DEC permit, and for the release of materials that were injurious to fish.



Left: Three children examine macro invertebrates found in the East Branch of the Au Sable River.

Below: An eager artist draws plant-life growing along the Au Sable River for the trail run's scavenger hunt.



## Trout Habitat (continued from page 1)

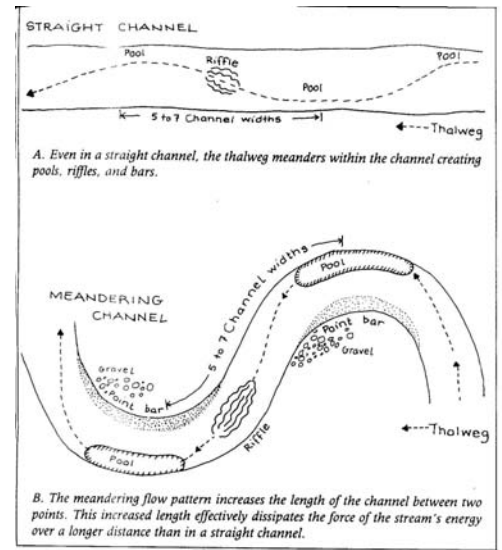
therefore destroying the spawning and rearing habitat. The holes between gravel particles become filled with fine sediment eliminating the openings in gravel beds required to hold eggs and to provide cover for fry to hide. Once a watershed is developed other hazards to fish health can occur such as chemical or manure spills, or the possibility of toxic substances washing off road surfaces and farm fields into the stream.

We have a world class trout stream in our back yard. It is imperative that we be vigilant in our protection of the river and its watershed from human activities that destroy habitat: channelization, excess sediment, pollutant runoff, and

agricultural runoff.

### Sources:

Hunter, Christopher, 1991, Better Trout Habitat, Island Press, Washington D.C., 320



## The Great Adirondack Trail Run

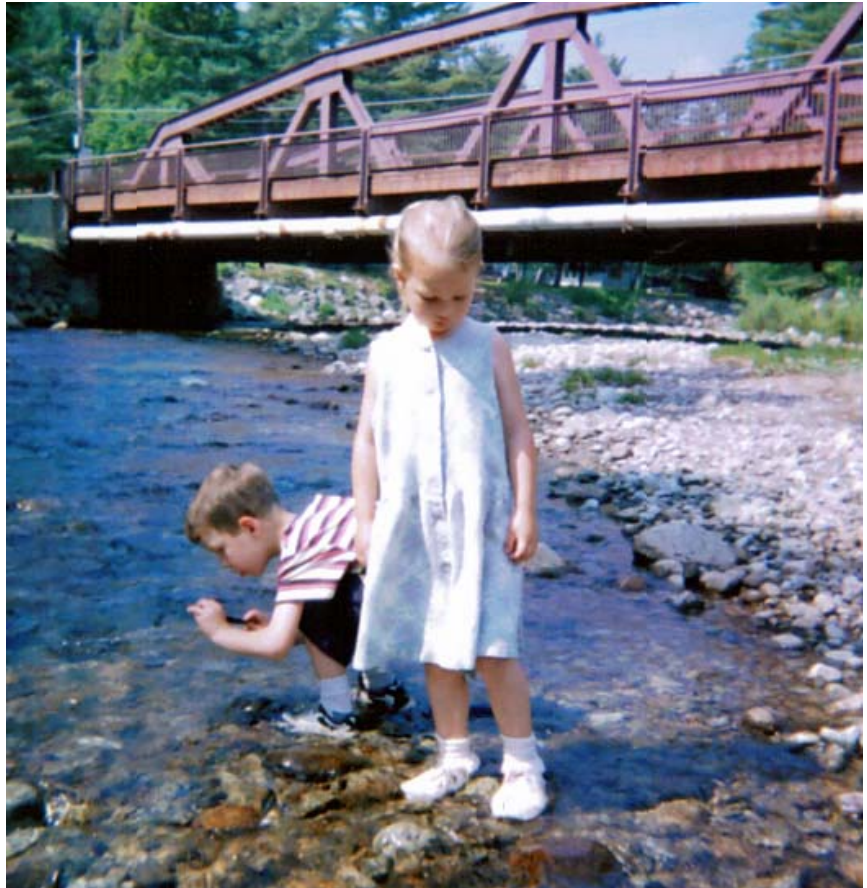
The Great Adirondack Trail Run was held on June 25th, 2005 by the Mountaineer in Keene Valley, NY. The 3.5 mile and 11 mile runs were a great success, despite the heat and humidity. Results are posted at the Mountaineer's web page, [www.mountaineer.com](http://www.mountaineer.com).

The event, which included a children's scavenger hunt, a river walk, live music, and good food and cheer, raised almost \$1,200 that was split between the Boquet River Association and the Au Sable River Association.

We greatly appreciate the generosity of the Mountaineer, located in Keene Valley, and the sponsors - Patagonia, Salomon, Montrail, Smartwool, Honey Stinger and Trail Runner Magazine. Thanks for your support!

*The event raised almost \$1,200  
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Boquet River Association and  
the Au Sable River Association.*

*Thank you!*



Above: Two children look for signs of life in a tributary of the Au Sable during the trail run's scavenger hunt.

## New Invasive Species Found On the Au Sable River

By Anne Lenox Barlow

**W**e have a new neighbor in the Au Sable watershed. Some find this new neighbor to be a little showy but rather pretty and therefore welcome. Others find this neighbor to be both unwelcome and rather pushy. Despite these negative feelings, it continues to take root and settle along the East Branch. By now you may be asking why you haven't been introduced yet. Well, maybe it is about time. Members of the Au Sable River Association I introduce you to the Indian Cup Plant (*Silphium perfoliatum*).

Yes, that is correct. We have a new invasive species along the banks of the river. Indian Cup Plant is a perennial with yellow daisy-like flowers. It grows to be 3 to 8 feet tall and the clumps spread out to be between 1 and 3 feet across. The leaves are opposite and simple, broadly triangular to ovate. Besides the showy flowers, the plant's most notable characteristic is the fact that the large leaves fuse together at their bases to form a "cup."

The plant prefers moist, rich soils and prefers to grow along streams and in floodplains but can tolerate drought once established. In its native habitat, the tallgrass prairies of the Midwest, Indian Cup Plant happily coexists with the other natives. But, here in the Adirondacks the story is a different one. And on a recently summer morning, I met with Steven Flint, of the Nature Conservancy, to learned this new story.

Not long ago, probably about 15 years ago, at least one plant was placed in a perennial garden somewhere between Keene and Keene Valley. Finding the habitat to be a perfect match, the plant started to spread downstream. Steven theorizes the Indian Cup Plant spread through seed, which is carried downstream during seasonal floods. Once deposited from the flood waters, the plant grows. And its growth can be rather proliferate. Since Indian Cup Plant was planted, the plant has spread downstream from Keene Valley to Keeseville.

It is this aggressive characteristic that makes Indian Cup Plant an invasive. Like purple loose strife, Japanese knotweed, or common reed, Indian Cup Plant pushes out the native

vegetation, creating a monoculture (an area of only one type of plant), which can negatively effect native soils and wildlife. What makes this characteristic even more alarming is the fact that this is the first occurrence of this plant escaping into the Adirondack Park. Therefore, it is imperative to enact control measures to keep the plant from spreading into more pristine areas of the Park.

While it is still not clear what the best control method is, we do know there are steps we can take to help control the spread of Indian Cup Plant. The first step is to not plant this perennial in your gardens. By planting Indian Cup Plant, you could inadvertently speed the spread of this aggressive species. The ASRA is also asking that any person who owns land along the River's banks and has Indian Cup Plant growing please contact the director, via telephone (873-3752) or e-mail

([info@ausableriver.org](mailto:info@ausableriver.org)). When reporting the plant, please indicate when the plant started growing and whether or not you planted the species or if it appeared on its own. And don't worry if you planted the cup plant, you won't get in trouble since we had no idea this plant would cause these concerns.

*"What makes this characteristic even more alarming is the fact that this is the first occurrence of this plant escaping into the Adirondack Park."*



Above: Indian Cup Plant growing along the Main Branch of the Au Sable River.

## Au Sable River Association

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*Working to protect and  
enhance the natural and  
cultural resources of the Au  
Sable watershed.*



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## Letter from the Executive Director

Dear Members,

I would like to take this time to both thank Mary Logalbo for her service with the ASRA and introduce myself. Mary left the ASRA at the end of June to drive cross county and further explore her graduate school options. I started mid-June and have been “flying solo” since the end of that month.

My husband and I moved to the area last year, so he could take a job teaching middle school music and band at Beekmantown. We came here from Syracuse and are greatly enjoying the area. We both are excited to start raising our family here.

My formal education includes a B.S. from Penn State University in forest science and a M.S. from

SUNY College of Environmental Science and Forestry in forest and natural resources management. I have education and outreach, grant writing, and research experiences that I gained while working for Penn State Cooperative Extension, SUNY, and Syracuse University. I hope that my education and past employment experiences can help the ASRA grow.

I am looking forward to working the ASRA board and members to continue to protect and enhance the natural and cultural resources of the Au Sable River. The ASRA currently has many grant funded projects going on including a wetlands survey, improving Lake Placid’s snow fields, stabilizing the bank of the river near its mouth, and a stream survey. In addition,

there are many non-grant funded projects, educational opportunities, and meetings. The association can only participate in these activities with funds from non-grant sources. So, I ask that if you have not sent in your annual pledge, please do so. The ASRA is depending on you. If you already have sent in a donation, I thank you. Your generosity will allow the association help the river and the people who depend on it.

If you have any questions, comments, or concerns about the ASRA please e-mail, write, or call me. I am excited to work with you.

Anne Lenox Barlow  
Executive Director