The River Connects Us.

Connecticut River Watershed Council

David Deen

Mobilizing in the White River: CRWC joins other conservationists to develop a coordinated strategy for dealing with the highly invasive plant didymo.

Below: CRWC posted educational signs at boat ramps near where didymo has been spotted to educate people about how to prevent its spread.

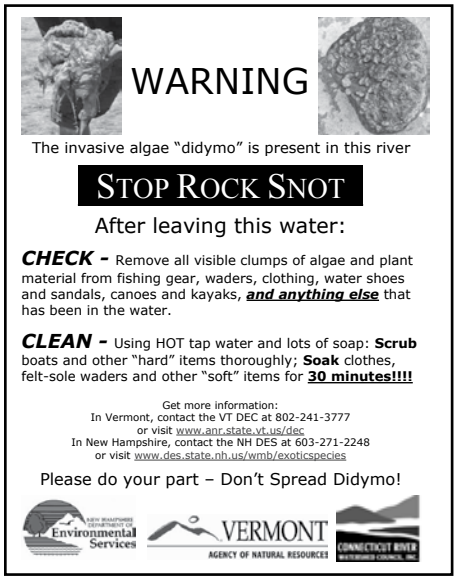
Didymo Invades Our Watershed

by David Deen

A truly nasty new invader has been found in the upper reaches of the Connecticut River watershed and threatens to spread from source to sea. Didymo (did-ih-mo), alias rock snot, alias *Didymosphenia geminata*, has been found at the headwaters of the river in the mainstem at the Connecticut Lakes and in the White River in the Stockbridge/Bethel reach of the river.

Didymo covers the river's cobble bottom and can grow so thick that it prevents water from circulating around and under the rocks of the cobble stream bottom, smothering other algae and killing invertebrates.

Didymo is tan to light brown in color, forms ropy strands, and feels like rough cotton, rather than the slimy texture of native algae. Identification can be challenging because it takes on the color of the sediment that covers it during high water (see testing information on page 2).



The mat formed during a didymo bloom interrupts the base of the food chain. By eliminating native plants and invertebrates, it eventually forces fish to abandon the site or starve. Young fish are particularly at risk, and larger fish then find themselves with no food source.

See "Didymo" Pg. 2

Didymo continued

Didymo is unusual in the Connecticut River basin because historically it has only been present in true cold water streams and rivers. Although it is now found in the Connecticut River, we do not know how it will react and grow, especially in the warmer waters of our watershed.

There is only one way to deal with didymo. We must prevent its spread by acting responsibly when we enter didymo-infested waters. When you leave a waterway that has or may have didymo:

- **Check:** Remove all visible clumps of algae and all plants from all equipment including waders, boats, paddles, vests and anything else that has been in the water.
- **Clean:** Scrub down all hard surface equipment with hot soapy water. Soak all soft materials including felt bottomed waders and swimming gear for 30 minutes in hot (140^{o}) soapy water.
- **Dry:** If none of the above is practical make sure all gear is completely dry for two full days before entering another body of water.
- **Tell us:** E-mail us with the exact location so that our river stewards can conduct a site visit.

If you think you've seen didymo send a wet, dime-sized sample to your state agency:

VT: DEC Water Quality Division
103 S. Main St. Bldg 10N
Waterbury, VT 05671-3777

NH: NHDES Limnology Center
29 Hazen Drive,
Concord, NH 03301

MA: Michelle Robinson, MA DCR
180 Beaman Street
West Boylston, MA 01583

CT: Guy Hoffman, DEP Bureau of Water Protection & Land Reuse
79 Elm Street
Hartford, CT 06106-5127

WELCOME

From the Director's Chair

by Chelsea Reiff Gwyther

Kristin Fleck

After spending six hot days in a sweltering courtroom in July, I had new appreciation for the fish trying to migrate through Vermont Yankee's super heated discharge. High heat—especially for a fish—is not easy to endure. I also had new appreciation for River Steward David Deen, our expert witnesses Dr. Dale McCullough and Dr. Ross Jones, and the Vermont Law School Environmental and Natural Resources Law Clinic. They were engaged in the trial portion of CRWC's appeal of Vermont Yankee's amended permit to further increase the temperature of the Connecticut River. We believe the new permit is not necessary. Vermont Yankee could run its cooling towers to reduce effluent temperature, but that would cut into profit. They are trying to shave cost at the River's expense, and that's not fair.

Make no mistake: this is a David and Goliath battle. Entergy, the owner of Vermont Yankee nuclear power plant, has seemingly endless resources and high-powered attorneys. Based on the 200 objections Entergy's attorneys filed during the rebuttal phase alone, they seem to be attempting to bury us under a pile of paper. We aren't easy to bury. On our side, we have scientists concerned that higher river temperatures may already have hurt fish. We also have committed staff and eager law interns who have spent countless hours making sure our voice speaks loud and clear on behalf of our river and communities. In fact, our rebuttal of their testimony was so convincing it led Entergy attorneys to grill our experts for an additional two days.

Left to right: CRWC ally Charlie Olchowski of Trout Unlimited; CRWC staff: Pat LaMountain, Alan Morgan, Megan Hearne, Christine Luis-Schultz, Andrea Donlon, and David Deen; VLS professor and lead counsel Pat Parenteau; CRWC's Chelsea Gwyther; VLS attorney Justin Kolber; and VLS interns William Brockett and Nate Jenkins.

At our request, the Environmental Court extended the stay that has been in place since last August, stopping this latest temperature increase. So while the trial proceedings move forward, the river is protected from additional temperature insult through spring 2008. Entergy's underlying permit, which we aren't able to address in this proceeding, still permits them to raise the temperature of the river by 13^{o} during winter months and 5^{o} during summer months.

All of the objections and additional trial time has delayed the final brief in our case and it's anyone's guess when the court will issue its verdict. Without the pro-bono services from the Vermont Law School, we would not have been able to go up against the staggering resources at the nuclear power plant's disposal. If you would like to show the law school professors and student interns your appreciation on behalf of the Connecticut River, email us at crwc@sover.net and we will compile the messages.

Restoring the Scantic at Springborn Dam

by Megan Hearne

Megan Hearne

The obsolete Springborn Dam on the Scantic River at Enfield, CT has bedeviled fish and boaters for decades. It's an insurmountable barrier to fish migration, an impediment to the natural transport of sediment and a real pain for boaters. Now, CRWC is doing its part to promote restoration of this stretch of the Scantic by partnering with CT Department of Environmental Protection (DEP) Dam Safety, American Rivers, and the Scantic River Watershed Association to improve the river's health.

Springborn Dam is the first barrier to migratory fish coming up the Scantic from the Connecticut River. American shad, alewife, Atlantic salmon, American eel, sea lamprey, brook trout, brown trout, and other fish would gain passage upstream. The section below the dam supports a high population of native brook trout that would reconnect to smaller upstream populations. Migratory fish and the tessellated darter would be able to transport the larval life stages of endangered mussel species upstream to habitat from which these mussels have been extirpated. (The larval stages of mussels attach themselves to the gills of fish for a free ride to new locations where they drop off to mature and reproduce.)

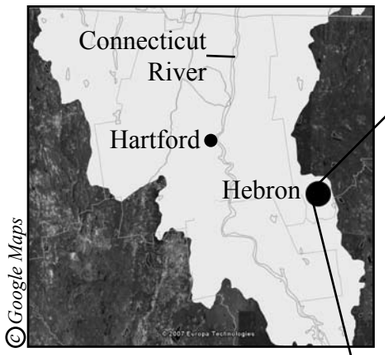
The October 2005 floods damaged the 18-foot high Springborn dam, owned by the CT DEP, and there's a dam safety order to make repairs. CT DEP Dam Safety's mandate is to reduce or eliminate safety concerns, not necessarily to consider the ecological and recreational impacts of the dam. To this end, CT DEP is already planning to hire engineers to study different options to repair the dam. CRWC became concerned that the authorities might not gather enough information to develop an option that also improves the river's health. We're particularly concerned that there be thorough sediment borings in the impoundment, which are critical for modeling potential dam removal. So, we and our partners have joined together to provide grant money and suggest how CT DEP can explore all restoration options equally. The American Rivers-NOAA Community-Based Restoration Program Partnership has granted CRWC $25,000 to augment CT DEP's study.

The Scantic River has a long history of dams. The first dam on the site of the current Springborn dam was built by Shakers in 1840 and used to power first a gristmill then, later, a sawmill. In 1901 the Gordon Brothers increased the height of the dam and built a mill to recycle waste wool for sale to carpet mills. Upstream dams were used to support the famous gunpowder plants in Powder Hollow. Later these and other Enfield mills supported the carpet industry. Currently the mill building adjacent to Springborn dam does not use the dam or impoundment at all. It houses STR Inc., a multinational company that conducts quality assurance testing and compliance monitoring for a variety of industries.

Recreational paddlers flock to the Scantic River but this dam presents the worst portage in the region. It's an especially nasty obstacle during the annual Scantic Spring Splash Canoe and Kayak race sponsored by the Scantic River Watershed Association. www.scanticriverwatershed.org.

CRWC frequently partners with other departments within CT DEP on fish habitat restoration efforts, but this is our first project with the Dam Safety group. The fate of Springborn Dam will be CT DEP's decision in the end, and our goal is to make sure they have all the information they need to make the best choice for the river.

Out & About



© Google Maps

Outline of the Connecticut River basin in Connecticut

Megan Hearne

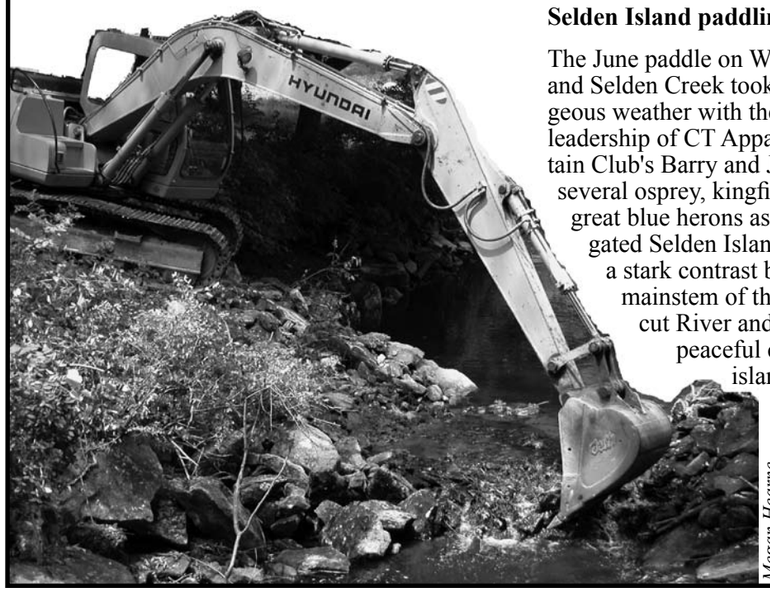
Connecticut

Raymond Brook dam removed

In July, CRWC and our partners removed this four-foot dam, returning Raymond Brook to its natural state, and re-connecting 41 miles of high quality habitat. The result will in time allow the brook to return to its natural state, allowing fish to pass in both directions and providing other species, such as freshwater mussels, with higher quality habitat. It took one week to complete the dam removal and stream channel restoration in Hebron, CT. The contractor did a great job, moving boulders with the delicacy of a woodworker. Brian Murphy from CT DEP and Laura Wildman from American Rivers were the on-site managers, ensuring the project's success, while Ethan Nedeau of BioDrawversity relocated 1,800 mussels from upstream of the dam. He found some excellent habitat for them at the confluence of the Jeremy River. (MH)

Selden Island paddling trip a success

The June paddle on Whalebone Creek and Selden Creek took place in gorgeous weather with the enthusiastic leadership of CT Appalachian Mountain Club's Barry and Jean. We saw several osprey, kingfishers, egrets and great blue herons as we circumnavigated Selden Island. This provided a stark contrast between the busy mainstem of the Connecticut River and the calm and peaceful creek behind the island. (MH)



Megan Hearne

Massachusetts

New permitting program in place

A new permitting program for docks and water withdrawals begins this year in the stretch of river between the Sunderland Bridge and Holyoke dam. Any new or expanded dock or ramp, or water withdrawal greater than 100,000 gallons per day, will need a permit from the Holyoke Gas & Electric Department (HG&E), owner of the Holyoke Dam. Permitees will still need state permits from the MA Department of Environmental Protection (DEP). The change is part of HG&E's land-management plan under its Federal Energy Regulatory Commission's (FERC) license. There is no fee for HG&E's permits. Application forms and a detailed description of the permit program are available at the HG&E website, http://www.hged.com/html/crlmp_permit_program.html. (AD)

CRWC's watchful eye results in an enforcement action

River Steward Andrea Donlon reviews and comments on many discharge permits in the MA section of the watershed. Between July and the end of September, she reviewed and submitted comment letters on draft National Pollutant Discharge Elimination System (NPDES) permits for the Holyoke and Easthampton municipal wastewater treatment plants, two state fish hatcheries, one paper mill in Turners Falls, and a general permit for non-contact cooling water. It's all part of our attempt to protect and improve water quality in the Connecticut River and its tributaries.

As part of our oversight of the East Deerfield Railyard, we reviewed the Storm Water Pollution Prevention Plan (SWPPP), submitted by the railroad company, Pan Am Railways, and found it to be completely out of compliance with the facility's NPDES permit and federal regulations. CRWC and the Town of Deerfield wrote and called EPA about the SWPPP's deficiencies, and in July, EPA issued an administrative order to Pan Am. Under the Administrative Order, Pan Am is required to re-submit its SWPPP and to submit other required documents. We know this enforcement action would have not happened without CRWC and the Town's interest and persistence. (AD)

Upper Valley

Development issues

CRWC and the Connecticut River Joint Commissions are working closely with a North Haverhill developer to mitigate impacts of a proposed 80-unit recreation vehicle camping area hard on the shore of the Connecticut River in Haverhill, NH. David Deen has filed lengthy comments with the developer and the NH Wetlands Division that issues permits for development in riparian zones. We're supporting the developer's suggestion for riparian zone improvements but are concerned there might be some permanent fixtures installed in the floodplain. We're awaiting the NH Wetlands Division decision on the permit to see whether further action will be needed.

On the Vermont side of the river in Hartland, VT, a quarry owner has applied for a permit to extract more stone at their existing site, which would essentially reduce a mountain of stone down to river level. David reviewed the permit and conducted a site visit with the quarry owner. We're satisfied that the engineering design will prevent increased runoff from the quarry into the river and that the quarry owner will mitigate adverse environmental and aesthetic impacts. We don't expect to request party status in the Act 250 proceeding. (DD)

Dams and dumps in the North Country

Public Service Company of New Hampshire (PSNH) is applying to the Federal Energy Regulatory Commission (FERC) to renew its license to operate the Canaan Dam near the border of Vermont, New Hampshire, and Canada. As parties to the licensing process, CRWC, along with state and federal resource agencies, are calling on the FERC to require up and down river fish passage at the dam, plus riparian zone improvements along the shore of the reservoir. As of their initial filing, PSNH has rejected our request for fish passage and riparian zone mitigation. Stay tuned as we move through the full relicensing process.

David Deen

Erosion visible at the proposed Canaan waste facility and transfer station.

David Deen, our river steward, has been working with adjacent landowners in the town of Canaan to quash the town's request for a proposed new waste facility and transfer station at a site on highly unstable land, too close to the Connecticut River. CRWC helped abutting landowners appeal the ANR permit in the VT Environmental Court. In response, the town has requested a permit at a more suitable site. Should that last permit be granted, the town has indicated it will give up its permit request on the original site near the river. (DD)

2007 World Rowers Tour a Success

by Karl Meyer

Our hosting of the World Rowers Tour was an international success. Staff, volunteers, and sponsors came together to provide our seventy-five guests with a delightful experience on the river. We raised over $8,000 in support of our water quality programs and continue to accept donations. It's our hope that the outreach and team spirit this event garnered will continue to benefit the Connecticut River for years to come. Here are a few highlights from the Tour.

Henning Liese

Day 1: Blending Ceremony. The 2007 FISA Tour began with this world-class ceremony. FISA representative Stig Bjerregaard and tour organizer Marilyn Shapiro joined Executive Director Chelsea Gwyther and River Steward David Deen as crews from across the globe mixed waters from their home rivers with a basin of sparkling Connecticut River water.

Putney corn and this quad scull symbolize the spirit of the Tour's first full day on the river. A well-earned lunch at the Putney Boathouse helped crews fortify themselves for the row to Brattleboro on the Tour's longest day. Later, dinner and dancing provided fun at Graeme King's boat works.

Christine Luis-Schultz

Day 2: Rain threatened, but never materialized. In late afternoon crews pulled up to Unity Park where a band played and local residents cheered. FirstLight Power sponsored a hearty meal prepared by the Smokin' Hippo Restaurant and ice cream from Bart's.

Day 3: The day began with an elegant breakfast provided by the crew of the Mystique, one of Hartford's Lady Katherine Cruise vessels. The Mystique, bedecked with each FISA country's flag, followed the graceful scullers from the heart of the city to the glimmering backwaters of Wethersfield Cove.

Henning Liese

Day 4: Slipping past narrow ledges, low hills, and wide meadows, rowers had a spectacular last day on the Connecticut. As the rowers neared the river's mouth, the day had a quiet, New England feel. The air had a hint of salt in it as crews muscled 30-foot sculling boats onto waiting trailers, slugged down water and bid goodbye to New England's great river.

Henning Liese

Henning Liese

Mission
CRWC works to protect the Connecticut River watershed's diversity of habitats, communities and resources. We celebrate our four-state treasure and collaborate, educate, organize, restore, and intervene to preserve the health of the whole watershed for generations to come.

Board of Trustees
James Okun (Chair), Christine LeBel (Secretary), Van Wood (Treasurer), Raul de Brigard (CT Chair), Ed Gray (VT/NH Chair), Tony Lovell (MA Chair), Ken Alton, Jamison Colburn, Rick Hartmann, H. Clay Hawkins, Deborah Hinman, Phyllis Magoon, Sue Merrow, John Sinton, Brewster Sturtevant, Stanley Swaim, Hooker Talcott, Jr., Pete Webster, William Webster. Emeritus: Astrid Hanzalek, Tom Rice, Martin Weiner

Staff
Chelsea Gwyther, Executive Director; David Deen, River Steward (VT/NH); Andrea Donlon, River Steward (MA); Megan Hearne, River Steward (CT); Pat LaMountain, Finance Director; Christine Luis-Schultz, Membership Director; Alan Morgan, Regional Office Manager

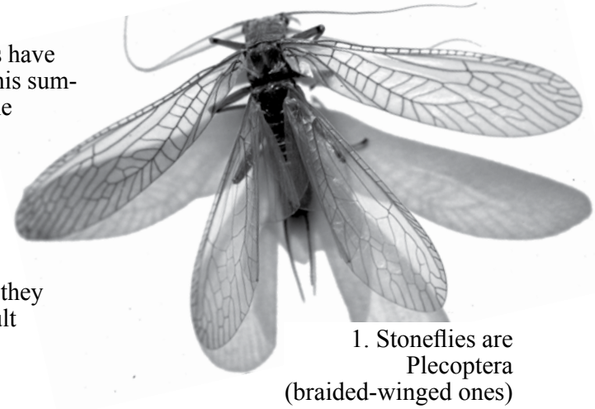
Currents & Eddies
Editor: John Sinton; Editorial Advisors: Alan Ternes & Ed Gray; Design: Chelsea Gwyther. © 2007 Connecticut River Watershed Council, a 501(c)3 nonprofit. Contributions are tax-deductible.

Membership Information
Become a member or give a gift membership by contacting us at:
Phone: (413) 772-2020 x 201
Email: membership@ctriver.org
Web: www.ctriver.org

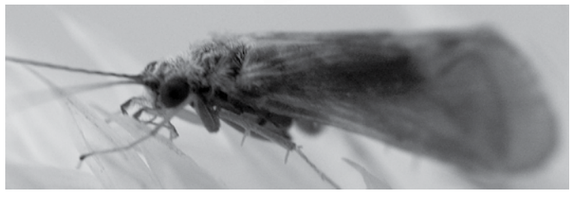
Printing generously donated by
DARTMOUTH PRINTING COMPANY

Nature's Calendar: Growing up

We hope our readers have had plenty of time this summer to investigate the rivers and streams of our watershed. Perhaps you've found some of the aquatic nymphs we illustrated in our last issue. Here they are, now in their adult form.

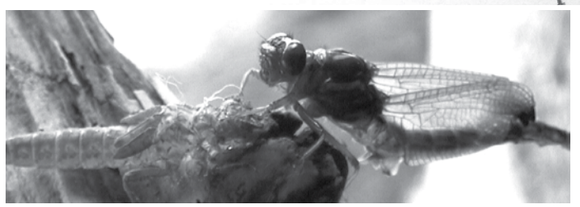


1. Stoneflies are Plecoptera (braided-winged ones)



2. Caddis flies are Trichoptera (hair-winged ones)

3. Dobson flies are Megaloptera (large-winged ones)



4. Dragonflies and damselflies are Odonata (toothed ones)

5. Mayflies are Ephemeroptera (short-lived ones)

Photos: 1 John Pickering www.discoverlife.com; 2,5 Rick Hafele www.laughingriver.com; 3 Bev Wigney www.magickcanoe.com; 4. Kirsten Martin

Connecticut River
WATERSHED COUNCIL
15 Bank Row, Greenfield, MA 01301

Nonprofit Org
US POSTAGE
PAID
South Deerfield, MA
PERMIT NO. 8

Speaking Out Against Sewage

Andrea Donlon

CRWC and Appalachian Mountain Club co-hosted a canoe tour in July of outfall pipes from Holyoke to Springfield, MA.

The Connecticut River provides recreational opportunities, beautiful views, a healthy fishery, and water for hydropower. When it rains, it also acts as a catch basin for sewage. Each year, Holyoke, Springfield and Chicopee, MA discharge over one billion gallons of sewage-containing overflow directly into the Connecticut, causing significant pollution downstream of the Holyoke dam.

Holyoke's wastewater discharge permit is up for renewal and a new one was recently drafted. CRWC and several others commented on the draft, resulting in a public hearing and extended comment period. CRWC members and allies came out in force, focusing on these concerns:

· Holyoke continues to operate 14 outfall pipes, with no numerical limits set for these discharges. There is no overall plan or schedule for eliminating sewage discharge from these outfalls.

· Like all discharge permits along the Connecticut in MA, this draft permit does not set nutrient limits on its wastewater. Connecticut is spending lots of money to comply with nutrient limits to improve the health of Long Island Sound, which has a dead zone from nutrient overload. It's time for MA to reduce nutrient loading, too.

In this day and age, it's appalling that we're dumping raw sewage into rivers where we swim, fish, and boat. It is equally appalling that there is no schedule to fix this problem. To view our comment letter or link to the draft permit, go to our website, www.ctriver.org