



Troutlines

Special Points of Interest

- Brook Trout Genetics
- From the Archives
- TU Video Available
- 25th Annual Banquet

Chapter Meetings and Events Calendar

No December Meeting

January Chapter Meeting
Thursday, January 17

February Chapter Meeting
Thursday, February 21

25th Annual Conservation Banquet
Saturday, March 9

See Calendar on page 6 for more information.

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TU Kids' Trout Camp and the Genetic Structure of Brook Trout Highlight the November Meeting

November's chapter meeting featured two fine presentations. We heard about this year's TU Kids' Trout Camp and findings from extensive field work on brook trout populations in northern New Hampshire.

Concord area student and member of the local Boy Scout troop, Ethan Stockman attended the 2012 New Hampshire TU Kids' Trout Camp and gave a short presentation on his impressions followed by questions from the floor. Ethan had nothing but positive things to say about Trout Camp which was again held at the Magalloway Lodge on First Connecticut Lake from June 27 – July 1, 2012. There is a lot crammed into the five days: casting practice on grass then water; knots and tackle; safety; conservation; entomology; fly tying; electro-fishing with NH Fish and Game; and, of course, fishing on the upper Connecticut River.



Ethan Stockman - TU Kids' Trout Camper

Like trout campers from prior years, fishing one-on-one with experienced camp counselors on a rotating basis was a high point. Every camper got

First Donation to NHTU from TD Bank

by George Embley

At the October meeting of the NH Trout Unlimited Council, Elin Leonard, Assistant Vice President and Manager of the Contoocook branch of TD Bank, presented a check for \$1,745.95 to the State TU Council as part of the bank's Affinity Program. In order to qualify, fifty or more household or business accounts with TD Bank had to sign up for the program. As of May 31, 2012 there were 58 accounts. The donation from TD bank is based on a percentage of the average total balance of participating account holders.

This donation supports statewide cold water conservation efforts, youth education programs such as Trout in the Classroom, and other outreach programs. Grants to TU Chapters to support specific local projects are also possible.

Thanks to all TU members and friends of the chapter who have signed up or have spent time recruiting for the Affinity Program. In particular, the State Council is grateful to TD Bank for their generous donation and to Elin Leonard for her assistance and encouragement. Elin spent many hours at events such as our Youth Fishing Day and at other chapters' activities recruiting participants for the program. Without her help, achieving the goal of at least 50 active households would have been unlikely. And she has been instrumental in signing up over 20 additional participants since the May 31 deadline.

Presidential Commentary - Dan Stickney

I'm not done fishing yet.

Rather than going Black-weekend shopping I bundled up, grabbed my gear, and went to the Lamprey with my uncle from Pennsylvania.

The day was cold, but there were a couple of other anglers there; they proved that there were also fish present, which I couldn't personally attest to. It was a nice day to be out, at any rate.

We have several waterbodies available to us on a year-round basis - a few on the seacoast, the Androscoggin and Merrimack in certain stretches, and the Pemigewasset River in Bristol all come to mind, though many others reopen on January First - just check the lawbook for specifics before you head out to your favorite spot.

The fishing is different - fish counts are typically low, the water is COLD, and unless the temperatures are just right, eyelets can ice up, making casting tricky at best. That said, on a sunny forty degree day - ok, thirty-three degree day - it still feels good to be outside, focused on what's happening at the end of a flyline.

Plan on nymphing, as a rule, though I suppose a streamer or wooly bugger may well work also; once in a great while a few stoneflies will show up, mostly later in the season. If they do, fish may even rise and give you a chance to dig into the dry fly box.

I usually get out a couple of times during the Winter, more to keep the dust off than anything, but when I go I remember warmer days in the same spots, and it gives me something else to look forward to in the Spring.

Here's hoping for decent weather, a kind Winter, and a joyous holiday season for you and yours. Enjoy the sunny days when they come, and remember *The Optimist's Creed*:

*As you ramble on through life, Brother,
Whatever be your goal:
Keep your eye upon the doughnut,
And not upon the hole.*

See you next year.

All best~

Dan

Editor's Soapbox - Gordon Riedesel

Waking up in the middle of the night seems to be happening the older I get. But the other night I was treated to the sound of a flock of geese migrating south. These weren't the hang-around golf course geese, they were the real deal. They were wild birds doing what they do in spite of the urbanized landscape a few thousand feet below.

My wife and I were driving across Nebraska the first of March three years ago and we were treated to an ancient and fabulous sight of hundreds of thousands of migrating sand hill cranes flying over and feeding on the grain fields of the central Platte River Valley.

The great central flyway is and has been one of the marvels of the natural world. The other night's midnight geese reminded me of those endless V's flying over the Great Plains in late winter.

The cover story in this edition of Troutlines on the genetic structure of brook trout in northern New Hampshire and this past summer's brook trout study in the Lower Warner River Watershed resonate with wildness. Wild trout are here. And so are wild mayfly nymphs, caddis nymphs, and millions of other aquatic insects that our favorite fish need to remain wild. The hunters among us know particularly well what

wild animals mean to us and to our environment.

Wildness belongs to geologic time. It seems that we have a responsibility to keep and savor wildness in our short lives for the rewards are worth the effort.

Happy Holidays.



November Meeting, continued from page 1

plenty of individual attention. Ethan said he learned a great deal from each one and was very happy to have landed three trout. Conservation day involved planting stream-side vegetation along Indian Stream as part of an ongoing stream stabilization effort. Fly tying was a hit and the food was both plentiful and good according to Ethan.

The Basil Woods chapter annually supports New Hampshire TU Kids' Trout Camp and provides extra funds that benefit campers such as Ethan from our area. James Denoncourt from Concord attended the 2011 Kids' Trout Camp and encouraged Ethan to apply. It should be noted that fly fishing's future from our chapter looks healthy because James was selected as the first peer counselor this year and with Ethan's positive experience they can carry TU's mission well into the 21st Century.

The evening's second presentation came from recent Dartmouth graduate Suzanne Kelson and Dianne Timmins of NH Fish and Game. Suzanne's Power-Point presentation was titled - *Conservation Management: Analyzing the Genetic Structure of Brook Trout*. Suzanne introduced her talk by noting that fish are good indicators of a watershed's health.

Suzanne's research approached fish from the genetic angle. Genetic diversity means that there are more differences in a population which, in turn have built in adaptability. Variation within a gene pool creates resiliency. Suzanne's study was able to utilize DNA analysis – and the results from this suggest management directions and a reconsideration of how we view brook trout.

The study area was centered on the Dead Diamond, Swift Diamond, and Magalloway watersheds that lie in the Second College Grant (just north of Errol and east of Dixville) with overlap into Maine. The study sampled fish from three sources: six tributaries, migratory adults from three mainstream rivers, and fish from NH fish hatchery broodstock that were historically stocked in these bodies of water.

Suzanne and her colleagues sample genes of 400 individual brook trout from 12 locations and found no evidence of hatchery ancestry. This finding challenges the widespread belief that hatchery stock have interbred with native fish stocks. However, over on Indian Stream in Pittsburg, there is some evidence of hatchery genes mixed with wild fish genes. But within this study area, hatchery fish –

last introduced in some tributaries in 2006 are not part of the local population. The study also found relatively high mutation rates over the last 100 years. There is strong evidence of genetic clustering in the study area.



Genetic biologist Suzanne Kelson explains brook trout populations in the Dead Diamond, Swift Diamond, and Magalloway watersheds at the November, 2012 chapter meeting.

In the tributaries, low levels of genetic diversity (particularly above waterfalls) show these populations are isolated. However, their genes are found in fish populations downstream – the result of a one-way migration. (Put into English: some fish went over the waterfall, lived, and reproduced downstream and now their genes are part of downstream brook trout populations.)

In four other tributaries and in the mainstem rivers, the populations have a higher degree of genetic diversity. The evidence suggests that brook trout genes flow within these portions of the watersheds thanks to seasonal movements within mainstem rivers. Larger trout are believed to be responsible for the spread of genes throughout whereas the resident brook trout populations in the upper reaches

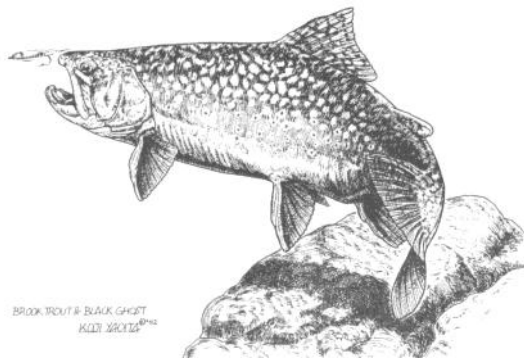
Genetic Structure, continued on page 4

Genetic Structure, continued from page 3

form the population base. Importantly, migrating fish are key to maintaining the population. Spawning primarily occurs in the mainstem. Transponders have allowed researchers to follow and map fish locations. Some larger fish travelled over 20 miles in one summer – and others move from one tributary to another.

Although there is no evidence of genetic mixing of wild trout and hatchery trout in the Second College Grant watersheds, there are two important factors that may prove problematic for the wild trout. First, stocked trout that enter the mainstems tend to push the natives into the tributaries and interfere with natural movements and reproduction. Second, if the main stems warm – regardless of reason – development, clear cutting, sedimentation, climatic warming – then reproduction of the wild trout population is jeopardized. Both Dianne Timmins and Suzanne Kelson answered questions following the slide presentation.

We came away realizing that the results of genetic testing of a large sample of brook trout provide solid information and raise questions about management of this important resource. As we have heard from many times, high quality watersheds, cold-water, interconnectedness, and habitat quality are key to maintaining successful trout populations. It is clear that hatchery fish are meant to be caught and kept. Native trout populations are different. Exactly how much fishing pressure and removal is tolerated is something experts need to help us with. Since anglers cannot do genetic testing themselves to determine if a fish is or is not a native fish, the TU ethic of catch-and-release is no longer a simple proposition. Many of us can happily release that hatchery brookie so that another angler can enjoy the hook up too. But in terms of managing healthy, self-sustaining trout populations, hatchery fish don't play a positive role. And based on the work of Suzanne, Dianne, and the other biologists at NH Fish and Game it becomes evident that management of our brook trout fisheries in New Hampshire is now better informed but also more complex.

*Affinity Donation continued from page 1*

This effort has reached an important milestone, but it is by no means over. Each year TD bank bases their donation on the account balances of all participants on the anniversary date (May 31). Clearly, more participation increases the size of the donation, but we also need to offset inevitable attrition of participants so that we are sure to meet the minimum requirement of 50 households each year.

So if you are a TD Bank customer, please help. There is NO COST or RISK TO YOU! Five minutes of your time could make a difference in our coldwater conservation efforts. Just visit your local TD Bank (or call the Contoocook office at 603-229-5915) and ask to be added to the Affinity Program through Trout Unlimited, and they'll take care of the rest. You don't have to be a TU member to join this program, so if a friend or relative is a customer of TD Bank, ask them to help. You can find more information about this program at the chapter's Links and Resources page www.concordtu.org/links_and_resources



Drawing courtesy of www.davewhitlock.com

State of TU Video Now Online

Paul Doscher described what went on the national TU meeting in Asheville, NC in last month's issue of TROUTLINES.

He recently sent along a link to a video by TU National President, Chris Woods on the work that TU is doing. Paul notes the video very informative and reaffirms what TU chapters are all about. You will see what several other chapters have been doing from stream clean ups to fly fishing schools to making a difference. Paul suggests watching this video rather than something other than the usual television fare.

[http://vimeopro.com/troutunlimited/
stateoftu2012](http://vimeopro.com/troutunlimited/stateoftu2012)

From the Archives

Jim Timmins came across a document that appears to date to 2003 or so and is a brief summary of the Basil W. Woods, Jr. Chapter. As you can see, some things have changed, others keep on. We thought we would share this with our readers.

First organizational meeting held 30 years ago on March 27, 1973, and was chartered as the Concord Chapter of TU on May 15, 1973. It was later renamed in memory of the late Basil W. Woods, Jr., a founding member, and the first secretary-treasurer of the chapter. The chapter membership currently exceeds 200 members.

The chapter's leadership keeps members advised of current legislation and other issues relative to conservation, and the state's cold-water fisheries, and has resulted in successful efforts in both.

During the 80's the chapter was a leader in the successful effort to preserve the Sewalls Falls area as a free flowing stretch of the Merrimack River in Concord by blocking the construction of a new dam after the breach of a pre-existing one. Since that time, chapter volunteers have helps with scatter stocking and conducted follow-up anglers' surveys in cooperation with the NH Fish and Game Department and the US Fish and Wildlife Service.

The chapter holds an annual fund raising banquet, and with its proceeds has been able to support many conservation and cold-water fisheries related projects. Some notable accomplishments include the preservation of Clarksville Pond through a conservation easement, the purchase of a state-of-the-art water sampling test set for the Upper Merrimack River Advisory Committee, a Wild Trout Symposium, and was the first contributor to the NH Fish and Game Department's Fishery Habitat Conservation Account.

Other Chapter projects include annual fly tying classes, a Youth Fishing Day, volunteer stocking, support of a Soucook River habitat study, and support of the new NH Fish and Game's Wild Trout Management Program.

The chapter now has over 350 members, we still hold Youth Fishing Day every Spring, teach fly tying, hold an annual conservation banquet, participate in many new activities, and financially support many conservation efforts. The March 2013 banquet will be our 25th Anniversary.

Troutlines

December, 2012

Calendar through May, 2013

Thursday, December 6. TU Board of Directors Meeting.

No Chapter Meeting in December.

Thursday January 3, 2013 Board of Directors Meeting.

Thursday, January 17, 2013. Chapter Meeting. Ben Nugent, NH F&G will detail and discuss the "Results of the Lower Warner River Watershed Survey" conducted this summer. Several chapter members participated in this "our backyard" project. This will be a great program.

Thursday February 7, 2013 Board of Directors Meeting.

Thursday February 21, 2013. Bill Thompson of the North Country Angler in North Conway will present "Fly Fishing in the Saco Valley". This promises to be a good introduction or reminder on this northern NH resource.

Thursday, March 7, 2013 Board of Directors Meeting.

Saturday, March 9, 2013 25th Anniversary Annual Conservation Banquet. Grappone Center, Concord.

Thursday, April 4, 2013 Board of Directors Meeting.

Thursday, April 18, 2013 Judy Tumosa, NH F&G and some Trout in the Classroom teachers will share with the chapter this year's Trout in the Classroom activities. Elections for chapter officers will be held.

Thursday, May 2, 2013 Board of Directors Meeting

Thursday, May 16, 2013 Annual chapter picnic. Place and exact date and time to be determined.

All chapter meetings at 7:00 PM, Society for the Protection of NH Forests, 54 Portsmouth Street, Concord
unless posted otherwise.

Planning for the 25th Anniversary Conservation Banquet

March 9, 2013 will be the Chapter's 25th Conservation Banquet. This fun and important annual event requires planning - and if you would like to help out, we'd love to have you. The Banquet Committee meets Monday evenings January through early March. If you would like to help let us know by email concordtu@yahoo.com or drop a note to Basil Woods TU, PO Box 3302, Concord NH 03302

Newsletter Information

Troutlines is published September through May. Chapter members who have given TU national their e-mail address will receive an e-mail notice from us through the TU national server that the latest newsletter is online at our chapter website. Paper copies are sent to members who don't have an e-mail address listed with TU national.

If you would prefer to receive paper copies of **Troutlines** rather than electronic copies, drop us a line to either our e-mail or mailing address. If you now receive a paper copy and would prefer to read it online, drop us a note and update your membership information with TU national.

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