THE CONNECTICUT RIVER SALMON ASSOCIATION N·E·W·S·L·E·T·T·E·R

PUBLISHED BY THE CONNECTICUT RIVER SALMON ASSOCIATION WINTER 2010–2011

CRSA's 35th Annual DINNER and RAFFLE/AUCTION!

Saturday, January 29, 2011

☛ ***NOTE NEW LOCATION!***

Chowder Pot IV
165 Brainard Rd, Hartford, CT

$40 per person

Diversified Silent Auction • Select Bucket Raffle Live Auction • Door Prizes • Special Grand Prize

Raffle and Auction items include fresh and saltwater tackle and equipment, limited edition and original art work, guided trips and other items.

For reservations, contact

Ed Ruestow (860) 521-1426 or Jim Carroll (860) 236-5181

or fill out the form inside this newsletter.

Artist and author James Prosek to headline CRSA's 35th Annual Dinner Meeting

Author and artist James Prosek

Artist, writer, activist, and Yale graduate James Prosek made his authorial debut at age nineteen with *Trout: an Illustrated History*, which featured seventy of his watercolor paintings of the trout of North America. His paintings have been shown in galleries throughout the country and he has written for *The New York Times* and *National Geographic Magazine*. He won a Peabody Award in 2003 for his documentary about traveling through England in the footsteps of Izaak Walton, the seventeenth-century author of *The Compleat Angler*. He co-founded a conservation initiative called World Trout in 2004 with Yvon Chouinard, the owner of Patagonia clothing company, which raises money for coldwater habitat conservation. His most recent book, *Eels: An Exploration, from New Zealand to the Sargasso, of the World's Most Amazing and Mysterious Fish*, was published this fall. Prosek is a curatorial affiliate of the Peabody Museum of Natural History at Yale, and a member of the board of the Yale Institute for Biospheric Studies. ◆

Atlantic Salmon Continues to Face Threats and Risks Throughout Range

By Stephen Gephard, Supervising Fisheries Biologist, CTDEP/Inland Fisheries Division; US Commissioner to NASCO

Throughout its range, the Atlantic salmon is under an assortment of threats and risks. We often explain the low returns to US rivers by noting that runs are depressed worldwide and the causes appear to be marine (in the ocean). As we begin a new decade, it is timely to review what these causes, threats, and risks are—or might be.

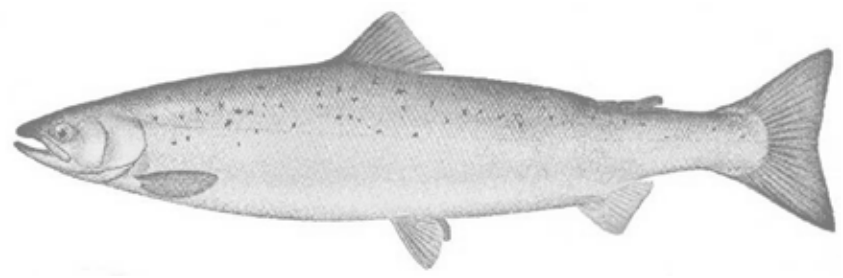
In North America, the Atlantic salmon ranges from northern Quebec down to Connecticut. In Europe, the species ranges from Russia along the Atlantic Coast down to Portugal. On both sides of the ocean, the healthiest runs of salmon are associated with low human population density and runs of salmon that have become extinct are associated with the highest human densities. In North America, the human density/salmon trend is close to south-north. Native runs of New England and around the upper St. Lawrence River are extinct, although some runs like those in the Connecticut and Merrimack are under restoration. Runs in the eastern Gulf of Maine, Bay of Fundy and Nova Scotia (central part

(Threats, page 5)

Report of the Salmon Studies Subcommittee at the CRASC Technical Committee Meeting of November 15, 2010

[From the report of the CRASC Technical Committee meeting prepared by Ken Sprankle, CRASC Executive Assistant]

Jay McMenemy [Vermont Fish and Wildlife, Subcommittee Chair] reviewed a summary of Atlantic salmon stocking for the basin for 2010. A total 6,009,362 fry (unfed and fed), 66,263 smolts (which must be further split into parr based on evaluation work) and 1 sea-run (control from 2009) were released in 2010. McMenemy noted that this stocking number is consistent with recent years but below the over nine million stocked in three years around 2000. The number of smolts is also below the target of 100,000.



Radio-tagged Atlantic salmon release from Holyoke Fish Lift was reviewed by McMenemy. Two fish were monitored in the Deerfield River (MA), three in the West River (VT), and one in the Cold River (NH). The remaining fish continued upstream of Bellows Falls, one in the Black River (VT), one in the Williams River (VT), and two passing upstream of Wilder Dam. One of the fish passing upstream of Wilder was located in the Ammonoosuc River (NH). McMenemy noted that the Black and Williams River fish both dropped out of those rivers and spent time in the main stem in the vicinity of Lebanon, NH, in the summer months. Two salmon were poached from the West and Cold Rivers (one each).

Smolt mark and recapture study findings were discussed with an estimated 2010 run of 245,000 smolts (+/- 95% of 135,000). McMenemy noted that the number of smolts marked at Cabot Station was one of the highest in the time series for this study. It was also noted that the subsequent catch rates of marked fish and Holyoke Dam/sampler was relatively low (low flows mean more water to turbines rather than to the canal and sampler), resulting in the large confidence interval [CI] of the estimate. However, even with the large CI, taking the lower 95% bound of the estimate, the smolt run at 110,000 fish is equal to the highest in the study time series.

Salmon Parr Index Site Assessments — McMenemy stated that due to hot and dry summer conditions in his region of Southern Vermont, his crew covered targeted sites. Salmon parr were noted as smaller than usual, with conditions negatively impacting larger tributaries such as mainstem Black River.

Dr. Caleb Slater [MA Division of Fisheries and Wildlife] commented that flows were quite low in his rivers and streams. At Westfield River sites, he observed dead sculpin. However, due to low flows he believed his capture efficiency was enhanced and as a result, sample numbers at sites were relatively good. It was unclear to him the effects increased sampling efficiencies may have played in numbers relative to other years' data.

Matthew Carpenter [NH Fish and Game Dept.] noted that in New Hampshire, the Ammonoosuc appeared average but he commented that upper basin sites appeared to have better flow conditions in general due to rainfall patterns. The Cold River was noted as having very low flows. Slater noted that on the Deerfield River, TransCanada had a license violation occur with minimum flows and as a result, Harriman Reservoir was drawn down to meet these flow requirements, a reservoir management response he had not recalled ever being required before. McMenemy noted that changes in Dartmouth College staff had resulted in no sampling of some small streams stocked and monitored by them in the past. He concluded with mentioning the Subcommittee will be meeting in December to discuss issues, recent research and ideas with new USFWS hire, Dr. Mike Bailey, who was working with salmon in Maine. ◆

The Connecticut River Salmon Association

The Connecticut River Salmon Association (CRSA) is a nonstock, nonprofit Connecticut corporation. Our mission is to support the effort to restore Atlantic salmon in the Connecticut River basin, a joint undertaking by the states of Vermont, New Hampshire, Massachusetts and Connecticut, together with the US Fish and Wildlife Service of the National Marine Fisheries Service, pursuant to an act of Congress in 1983.

Funding for The Connecticut River Salmon Association is received from membership dues, donations, grants, and special events.

Membership dues,
comments, and letters to the editor
may be mailed to:

CRSA
76 Deming Street
South Windsor, CT 06074
(860) 644-0159
email: info@ctriversalmon.org

www.ctriversalmon.org

Salmon-in-Schools Program

CRSA's Salmon-in-Schools and State Curriculum Standards

By James Carroll, Secretary, CRSA

Dr. Caron R. Stebinger, Science Resource Teacher at Beecher Road School in Woodbridge, made an excellent presentation of how the Salmon-in-Schools Program has been used as a science teaching tool by her elementary school to meet Connecticut state curriculum standards. Caron's Powerpoint presentation to over 20 new teachers at the November 1, 2010, CRSA Teachers Orientation included a brief history of the program at Beecher Road and an explanation of how CRSA teaching materials were adapted to meet state standards.

Now-retired teacher Al Concilio, who is the current CRSA liaison to the school, brought the program to the school in 1997. The school started with one tank and now has three.

Science Resource Teacher Caron Stebinger talks with one of her students at Beecher Road School in Woodbridge. [Photo: Jim Carroll]

Salmon-in-Schools was taught in the fifth grade from 1997 until 2005 "in connection with learning about adaptations of vertebrate animals." In the summer of 2005, Beecher Road realigned its science curriculum with the state standards and starting in 2006, the project moved to the 6th grade. It was made compatible with CT Standard 6.2: "An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact."

For the academic year '07–08, a very enthusiastic teacher moved from the 6th to the 4th grade, where the project was integrated with CT Standard 4.2, "All organisms depend on the living and nonliving features of the environment for survival; and 4.2a "When the environment changes, some organisms survive and reproduce, and others die or move to new locations."

Caron said, "In Language Arts the program uses the senses to write poetry; in Math it builds on adding decimal numbers, and reading and interpreting data charts. For Social Studies, it develops map skills through studying the source and path of the Connecticut River; the cities and rivers in the state and the environmental history of the state. In Art, we use and study observational drawing by James Prosek, James Audubon, Georgia O'Keefe and John Bateman."

Dr. Stebinger said at the river in May when the students stock out their salmon fry, the students create a site map and record sensory observations, noting information about plants and animals. They also notice erosion and placement of boulders, rocks, gravel and sand. They are asked to find evidences of human impact on the local land ecology. There are materials also used during the school year to develop data teams, make examinations of eggs and alevin using scopes and other science exercises.

(State Curriculum, page 4)

Liaisons Key to CRSA Program Success

From the 1996 pilot program in North Haven, the CRSA learned that schools would need support for egg delivery, in school talks, tank set up assistance, problem solving and interface with the CRSA and the CT DEP. The 72 schools in the 2010-2011 academic year are ably and enthusiastically supported by our liaisons.

Gary Bogli	*Manchester, CT*
Alan Concilio	*Beacon Falls, CT*
Tom Halligan	*Vernon, CT*
Richard Heffernon	*Washington Depot, CT*
Fran Kucharski	*Chester, CT*
Craig Mergins	*Hartford, CT*
Roy Pritchard	*Cheshire, CT*
Richard Reynolds	*Simsbury, CT*
Kevin Segar	*Willimantic, CT*
Tom Stanton	*Winsted, CT*
Derek West	*New Haven, CT*
Gary Whipple	*New Fairfield, CT*
Robert Winot	*Broad Brook, CT*

Steve Gephard and staff of the CT DEP plus CRSA directors Dick Bell, Jim Carroll, Bob Hoffman, Elizabeth Kendall, and Vin Ringrose also are liaisons to schools. Bob Wolter, a CRSA director living in Rhode Island, is a liaison in the RI school program, which is managed by the RI DEM Division of Fish & Wildlife. — J. Carroll

2010 CRSA Salmon-in-Schools Program Update

By Dick Bell, Education Chair and Vice President, CRSA

Nine new schools joined our program for the 2010-11 academic year, bringing the total to 72. They came from as many Connecticut towns, and are: Alma Pagels Elementary School, West Haven; Bedford Middle School, Westport; Chapman Elementary School, Cheshire; Eli Terry Middle School, Terryville, Mansfield Middle School, Mansfield; Milner Core Knowledge Academy, Hartford; New Canaan Country, New Canaan; Reggio Magnet, Avon; and Roger Ludlowe Middle School, Fairfield.

Schools have come into the program through many different doors and these new ones are no exception. Both Chapman and New Canaan Country, for instance, have in fact been here before: both were previously in the program, and dropped out for a year. They're now back, Chapman with a new, and New Canaan Country with a veteran, teacher. I have both a prep school classmate and a college classmate who have served on the Board of the New Canaan Country School. They were aware of and interested in the School's entry into the program. They were also very concerned when it dropped out, and both of them spoke to me about whether it could get back in again. I assured them we welcome prodigal sons and daughters.

Dropping out for a year is not common but it is not unheard of either. There are many good reasons why this may make sense: a lead teacher may transfer without a replacement; the teacher may be assigned to a different class level with different objectives; he/she may also be assigned to the same bunch of kids for the next year in a different grade and may seek some variety in the science or activity program. We've seen them all—and more. It is logical to us and we bear no grudges. As a matter of fact, it's flattering to have them come back.

Alma Pagels was introduced through the extensive and energetic efforts of Christine Galik, a West Haven PTA member. Previously, she had been involved with the program as a teacher at Beecher Road ES in Woodbridge, and wanted to see it for her children in West Haven. She even applied for and received the necessary funding from the Watershed Fund, a grant-making foundation affiliated with the Regional Water Authority of South Central Connecticut.

The lead teacher at Eli Terry in Terryville surely ought to know something about us. Since the beginning, the salmon eggs destined for delivery to our schools have been prepared and packaged at the Burlington Hatchery under the expert supervision of DEP's Joe Ravita, her husband! So this one is all in the family. (And Joe—if you're reading this—these eggs better be good!)

Bedford is our second school in Westport, the other being award-winning Staples High School. Not to be outdone, Bedford is jumping in with both feet by operating three tanks in this, its first year. There are no veteran teachers in the school, but, to prepare themselves, the current ones involved attended not only this year's teacher Orientation in November, but they had to come to last year's as well!

Speaking of teachers, I want to say an additional word of thanks to those who helped us at the Orientation. This affair, our annual training session for teachers, was attended by over 40 people. It was double-barreled in that we ran one program for veteran teachers simultaneously with the usual one for new teachers. Caron Stebinger of Beecher Road in Woodbridge and Lucy Lindeyer of the environmental staff at Holcomb Farm in West Granby were both presenters at the new teacher sessions, while Vickie Climie presented, along with Steve Gephard of the DEP, at the veteran program. All were very well received and we are most grateful for their help. I must say that asking veteran teachers to do this and then seeing the results is great fun; they are, in a sense, our alumnae.

Registration this year was again done electronically, and was the smoothest and most efficient yet. The registration information feeds into the directory, which we used to struggle to get out before February. This year, you saw it online and could print it out for your own use before Christmas.

The Stocking Guide is also available online at our website. It's important to schedule your stocking early: that date is the target of your DI management effort, which makes sense, and can be a great help to you, only if you know what you're aiming at.

Remember that there are reservation requirements applicable to many stocking sites: some require town approval and reservation; other sites are in private ownership and you must deal in advance with that owner. The three largest and most popular sites are the Salmon River Rec. Area, Devil's Hopyard State Park and the Salmon River at People's State Forest. Check your Stocking Guide for rules and directions. Reservations at these three major sites must be made in advance through me at bellawrg@cs.com. Several schools with large groups coming (up to 7 buses!!) have already done so. These major site reservations will be subsequently posted on a stocking calendar at the website so you can see who's where, when, and what's left to be available. This will be up shortly.

Best wishes for a successful and rewarding year.

State Curriculum *(from page 3)*

According to program evaluation forms returned by the orientation participants at the end of the meeting, the presentation provided an excellent insight into how to use the materials in the Salmon-in-Schools Program to successfully meet the Connecticut science curriculum standards. ◆

Threats *(from page 1)*

of the range) are in big trouble. Salmon runs farther north—Newfoundland, Labrador, and northern Quebec—may be stable. The relationship in Europe is the same but the pattern is not as simple as south-north due to the more complex pattern of human density. Native runs are extinct from the heavily industrialized areas of the Baltic states, Poland, Germany, Denmark, Portugal and parts of Sweden, Spain, France, and England/Wales. Diminished but stable runs of salmon still are found in these last four regions but most of the healthy runs are found in Iceland, Ireland, Scotland, Norway, Finland, and Russia, although even these regions are not without problems.

Dick Bell (right) with a guide on the Little Cascapedia River in Canada. The salmon weighed an estimated 24 lbs. and was released.

It is premature to conclude that salmon cannot coexist with humans, but the track record so far is not encouraging. So, we will start the list of threats with:

1. Human Infrastructure: The impacts of some things, like dams, are obvious while those of other things, like high-tech wastes that can act as endrocrine disruptors, are not. Clearly, there is a lot to do to make watersheds and coastal waters more hospitable to salmon.

2. Overharvest: Historically, overharvest of salmon in rivers, coastal areas, and the sea played a role in the demise of salmon populations. Presently, most directed fisheries have been closed, yet harvest may still be an issue. No one deliberately fishes for smolts or post-smolts but are the mackerel nets and the herring trawls accidentally killing these young salmon? We don't know for sure.

3. Aquaculture: Originally viewed as the savior of wild salmon, this industry poses threats in the form of spreading diseases and parasites to nearby wild runs, competition for food, genetic swamping of wild runs through the interbreeding of aquaculture escapees with wild salmon in nearby rivers, and degradation of local estuarine habitat. The recent decline of wild salmon is paralleled by an almost perfect reverse trend of rising production of sea cage salmon. We cannot precisely document the mechanism of negative impacts and therefore cannot conclude definitively that the aquaculture industry is contributing to the demise of wild salmon, but the circumstantial evidence seems compelling.

4. Global Warming: Impacts to date appear to include warmer weather and water temperatures in most rivers. In areas like southern New England, Portugal, and France, such warming could push the environment beyond the limits of the species. Another result has been increased melting of the ice around the North Pole that lowers the water temperature of the Labrador Current where adult salmon feed. This may have impacts on the productivity of this patch of the ocean (less food).

5. Ocean Acidification: We are still learning about this but the concept is that acid precipitation is now lowering the pH of the ocean water. This, in turn, can kill plankton, which is the foundation of the ocean's food web that supports the salmon (less food).

6. Fundamental Changes in the Marine Ecosystem: Modern shopping malls require an "anchor store" like Macy's, Nordstroms, or J.C. Penny to draw a steady stream of shoppers that will guarantee business to smaller stores, like a greeting card store. Ecosystems often have keystone species that "drive" the food web and the North Atlantic had cod. From the Grand Banks to inshore estuaries, cod dominated. There were also flourishing populations of other groundfish, herring, menhaden, offshore runs of tuna and swordfish, and inshore runs of diadromous species like river herring, shad, eel, and salmon. They all interacted and the system *worked*. All of these species have been decimated and the keystone—cod—is shattered. While some species may be slowly recovering, the North Atlantic in 2011 is a far cry from what it was in 1711. The inter-relationships between predator and prey, the flow of marine derived nutrients, and diverse population genetics have all dramatically changed. How easy is it for a fish that migrates through all of these zones and interacts with all of these species to prosper now that everything is different?

The answer to the question of the salmon's decline? We know of no single answer. It would be wonderful if there were one clearly defined problem that we could identify, castigate, scream about to politicians, fund-raise against, and finally defeat. But, in truth, there may not be one cause. Perhaps the problem is that all six of these factors—and perhaps others not listed—are contributing to the salmon's decline. A little here, a little there: death by a thousand cuts.

The solution? I think the best we can do for now is to continue to support good science at all levels to study and understand our freshwater and saltwater ecosystems, demand environmentally responsible actions/policies from our political entities, and support conservation and restoration efforts by government agencies and private organizations like the Connecticut River Salmon Association. ◆

Report of the Atlantic Salmon Federation Meeting of Nov. 9-11, 2010

By Robert Wolter, President, Western New England Council and Director, CRSA

ASF had their annual meetings in New York from November 9-11. These busy three days included various Standing Committee meetings, the Gala ASF New York Dinner, a joint Canadian/Us Board of Directors Meeting and the Annual General Meeting of the USA ASF..

On November 11, 2010, the ASF Annual General Meeting for the United States was held, followed by the Joint Canadian/US Board of Directors Meeting.

ITEMS OF INTEREST:

Fred Whoriskey received the 2010 Lee Wulff award for his work in tracking smolts and kelts. Fred will remain closely connected to ASF in his new position at Dalhousie University, where he will be in charge of their Ocean Tracking programs and studies.

Canada's Atlantic Salmon Fund—Chairman Remi Bujold spoke and said the fund is now down to Can$26 million and it is their goal is to increase it to $40 million by 2018/2019. They presently are paying out about $250,000 per year but their eventual goal is $1 million per year. The recipients are expected to invest 25% and the fund 75%. Their investment advisors receive 5% P.A.

ASF will stop financing FISH FRIENDS in Canada as of 10/1/11. The Regional Councils will either support it with their own funds or eliminate the program. Some Councils have an egg problem as there are no sources of eyed Atlantic salmon eggs available. (In the past the Regional Directors for these councils were able to collect and fertilize eggs for them.)

Genetically Modified Atlantic Salmon—Fred Whoriskey discussed this issue and its problems. A company by the name of Aqua Bounty has submitted samples to the US Federal Drug Administration (FDA) in an attempt to get it approved for human consumption. The fish grow to normal size in about a fifth of the time but still eat the same amount. It could open a Pandora's box if the aquaculture industry is able to buy eyed eggs. A close watch is being maintained on this development.

Greenland—The subsistence catch was up again. Some think it is because the catches have been underreported in the past. Others feel that with global warming, the range of the Atlantic salmon goes further north and there are more fish available for subsistence fishing. ASF and NSF are serious in their desire to limit the subsistence fishery in Greenland and are holding their payments to the Greenland Fishermen's Association in escrow. There was a discussion on the quotas NASCO imposed on Greenland in the past which were as high as 1000 tons in the 80's. The discussion then went on to why NASCO imposed commercial Atlantic salmon catch quotas on Greenland and the Faroes but not on Norway, Scotland, Ireland, etc. Lots of speculation but no definitive answers. ◆

CRSA Needs YOU!

If you are receiving this Newsletter and are not a member of CRSA, please consider joining our organization. In this way you will be supporting our School Program, our web site and this Newsletter. You will also be adding your name to the list of individuals dedicated to the health and welfare of the Connecticut River and the restoration of Atlantic salmon and other fisheries resources. See the insert in this newsletter for membership information!

THE CONNECTICUT RIVER SALMON ASSOCIATION
76 Deming Street
South Windsor, CT 06074

Visit us at www.ctriversalmon.org

Application for CRSA Membership

Name _____

Address _____

_____

City _____ State _____ Zip _____

Telephone _____

❑ Send newsletter to my email at: _____

Please make checks payable to "CRSA" and mail them to:

CRSA • 76 Deming Street • South Windsor, CT 06074

patron: $500	❑
life: $250	❑
sustaining: $100	❑
sponsoring: $50	❑
contributing: $25	❑
family: $25	❑
regular: $20	❑

SEND YOUR EMAIL ADDRESS TO THE CRSA!

The CRSA has had a web site for a number of years. It has provided information about the CT River Basin salmon recovery program or CRASC, the CRSA Salmon-in-Schools education program, and information about salmon programs in Maine, Canada and among North Atlantic countries. Our Salmon-in-Schools teachers and schools started using the Internet (through our web site) for online registration in 2009. Their salmon fry stock outs have been scheduled through the web site since 2008. Our schools have applauded the value of these Internet-based tools: improved communication with security so important in the current educational environment.

Now, we hope to offer the same improved communications to our members, making our newsletter and other vital news about salmon restoration available to you via your email inbox. Benefits to you include:

- the CRSA newsletter in full color
- frequent updates about salmon issues and news
- timely information about upcoming CRSA events
- reduced CRSA operating costs, with savings directed towards educational and environmental programs

We will NOT provide your email address or other personal membership information to any other organization or individual without your express written consent. We will use your email address ONLY to communicate with you about CRSA or CRSA-related news. All email addresses and other membership information will be maintained in a secure online system. ***You may opt out of this system at any time.***

You can send your email address by US mail to 76 Deming Street, South Windsor, CT 06074 or visit the CRSA web site at www.ctriversalmon.org to sign up.

Connecticut River Salmon Association
Annual Dinner & Auction/Raffle – Saturday, January 29, 2011
Chowder Pot IV, 165 Brainard Road, Hartford, CT 06114

Name: _____ Address: _____
City/Town: _____ State: _____
Telephone: _____ Email address: _____

Guest: _____ City/Town: _____
Guest: _____ City/Town: _____
Guest: _____ City/Town: _____
Guest: _____ City/Town: _____

_____ Dinners @ $40.00 = $_____ Make checks payable to "CRSA Dinner"

RSVP by January 24, 2011
Mail with payment to CRSA Dinner, 23 High Gate Lane, West Hartford, CT 06107