

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

Published by the Connecticut River Salmon Association

WINTER 2011-2012

A Look Back at 2011

'Interesting Year' Featured Both Good, Bad News

By Robert Jones, President, CRSA

It was an interesting year—especially the last few months. It started with the administration in Connecticut announcing that Connecticut's Kensington Atlantic Salmon Hatchery would be closed to help balance the state's budget. Connecticut members of CRSA and Trout Unlimited were made aware of the issues and mounted a campaign to "Save Kensington." The effort was successful and the administration backed off—but not entirely. With a favorable vote by the state employees on the administration's cost-saving proposals, Kensington was finally safe, at least for now.

Salmon returns throughout the region were exceptional this year, with nearly all of Atlantic Canada's salmon streams reporting significant and above average numbers. Maine's Penobscot River had 3120 known returns, the highest number since 1986. Returns to New Hampshire's Merrimac River numbered more than 400. On the Connecticut, the returns in 2011 (108), although not a record, were double the 2010 run (51). Although reasons for the increased returns aren't known, speculation includes the Greenland agreement which limits the commercial fishery for salmon in Greenland, and changes in the North Atlantic Ocean which may have been favorable to salmon. (See Steve Gephard's article on ocean research, below.)

(See 2011, page 2)

CONNECTICUT RIVER SALMON ASSOCIATION

36th Annual Dinner

Live and Silent Auction | Bucket Raffle | Rods, Reels, Trips and more!

GUEST SPEAKER:

Join Us for Reflections on the Best Rivers with "World Renowned Sporting Artist" Peter Corbin



January 21, 2012 | USS Chowder Pot IV 165 Brainard Road, Hartford, CT Social hour, auction preview: 5-6:30 p.m. Dinner: 6:30 p.m. \$40 per person

RESERVATIONS:

Download a reservation form at ctriversalmon.org or call Tom Chrosniak (860) 519-7451 / tchrosniak@comcast.net Jim Carroll (860) 236-5181 / jcarrolljr@comcast.net

International Conference on Salmon at Sea Held in France

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

It has been a widely held belief for years that the factors behind the recent decline in Atlantic salmon numbers occur in the ocean. Atlantic salmon is one of the most studied fish species in the world but until recently, most of that research was focused on the species' freshwater phase. Around five years ago, researchers in Europe created a cooperative, international research initiative known as SALSEA. The North Atlantic Salmon Conservation Organization (NASCO) began fund-raising and provided leadership and coordination as did other groups. Government agencies and industry and non-governmental conservation organizations provided funding, staff, equipment, and in-kind services.

The initiative spread to North America and Greenland and most Parties that are members of NASCO became involved. The objective was to learn more about the Atlantic salmon in the ocean and, ultimately, what factors were causing the decline in run sizes.

An international conference entitled "Salmon at Sea: Scientific Advances and their Implications for Management" was held in October of 2011 to present the initial results of SALSEA. The conference, dubbed "the Salmon Summit,"

(See Conference, page 7)

Of course with the good comes the bad: Tropical storm Irene hit New England in August. Damage was significant on Connecticut's coast but nothing like the flood damage in Vermont, especially at the White River National Fish Hatchery in Bethel. The White River overtopped its banks and raged through the middle of the hatchery. It has been estimated that recovery from the damage will cost approximately 14 million dollars. The availability of funds for damage recovery is uncertain at the present time.

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.

BOARD OF DIRECTORS

Rudolph Besier, Old Lyme, CT Thomas Chrosniak III, West Hartford, CT David Egan, Guilford, CT James T. Glista, Enfield, CT Harold V. Gorman, Farmington, CT Robert B. Hoffman, West Hartford, CT William Hoyt, North Haven, CT Elizabeth Kendall, North Granby, CT Roger Plourde, Plainville, CT Vincent P. Ringrose, Jr., Kensington, CT Edward H. Ruestow, West Hartford, CT Robert B. Wolter, Little Compton, RI

OFFICERS

Robert A. Jones, President South Windsor, CT Richard G. Bell, Vice President Hamden, CT Gerald A. Feinberg, Treasurer North Haven, CT James J. Carroll, Jr. Secretary West Hartford, CT

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

Due to probable contamination by fish pathogens and the invasive algae Didymo at the facility, including wells and the water distribution system, it has been determined that all fish must be removed from the hatchery. Once this effort is complete the hatchery and equipment will be decontaminated. In the meantime, other federal and state hatchery facilities have been pressed into service to take on at least some the White River Hatchery production. There will be a significant reduction in fry production, but it has been determined that eggs for the CRSA Salmonin-Schools program will be available. It is noteworthy that had the Kensington Hatchery been closed, the entire restoration effort would have been in jeop-

The October snow storm did major damage to Connecticut's electrical system. A standby generator at Kensington, operated on pumped well water, was put into service late afternoon on October 29. Serious problems developed with this generator and arrangements were made to obtain a portable 60 KW generator from the National Guard. During the activation of the new generator Kensington's unit failed. The system was without water for about one hour. During that time, 50 large brood stock salmon died. The hatchery operated on generator power for some 96 hours. Were it not for the borrowed generator, all fish at the facility would have been lost.

The Whittemore Fish Holding facility was built to hold sea-run Atlantic salmon and was deactivated in 2003 for budgetary reasons. In March of 2010 the facility was reactivated temporarily to hold some Farmington River Survivor strain brown trout. The facility is operated on pumped well water and the standby generator started automatically and operated for ten days. Staff was unable to reach the site for two days. They had to clear the road to the facility with chain saws so fuel could be delivered to the site. All fish in the facility survived

The shad run in the Connecticut River increased significantly in 2011. Three

salmon made the 217-mile trip back up the Connecticut River above Wilder Dam. All and all it was an interesting year. •

JOIN OUR FRIENDS!

The following organizations have special upcoming events you might enjoy!

Connecticut Fly Fisherman's **Association Expo and Banquet**

February 4, 2012 Expo: 9am - 3pm Banquet: 6pm Speaker Loren Williams

Location: Maneeley's, 65 Rye St.

South Windsor, CT Tickets \$40

Visit: www.ctflyfish.org Mike Stewart: 860-653-4203

Farmington River Anglers **Association Annual Banquet**

March 3, 2012 Preview: 5:30pm Dinner: 7pm

Location: Cornucopia Banquet Hall, 371 Pinewoods Road

Torrington, CT Tickets: \$40

Visit: www.FRAA.org

Tom Karpeichik: 860-309-5510

Farmington Valley Trout Unlimited Annual Banquet

March 23, 2012

Location: USS Chowder Pot IV, 165 Brainard Rd., Hartford, CT

Tickets \$40

Visit: www.fvtu.org Bill Case: 860-678-7245

NEWS from the Connecticut River Atlantic Salmon Commission

William Hyatt of DEEP Elected New Chairman of CRASC

William Hyatt, chief of the DEEP Bureau of Natural Resources, has been elected chairman of the Connecticut River Atlantic Salmon Commission, or CRASC. The ten- member commission was established by a federal act as a federal, four-state compact in 1983 and then reauthorized in 2002 by Congress. There are two commissioners from each state, one from US Fish & Wildlife and one from National Marine Fisheries Service.

CRASC's mission is to provide interagency guidance for migratory fish programs including Atlantic salmon, striped bass, shad, sturgeon and various herring in the Connecticut River basin. It also has jurisdiction on issues of fish passage, dam licensing, water management and more. The federal law creating the compact makes possible the interagency cooperation between the states of Connecticut, New Hampshire, Massachusetts, and Vermont and the US Fish & Wildlife Service and the National Marine Fishery



Connecticut DEEP Bureau of Natural Resources head William Hyatt has been elected chairman of the Connecticut River Atlantic Salmon Commission (CRASC). [Photo: J. Carroll]

Service. The US Forest Service participates through the CRASC Technical Committee.

Hyatt is Chief of the Department of Energy and Environmental Protection (DEEP) Bureau of Natural Resources, which includes the Inland Fisheries, Marine Fisheries, Wildlife and Forestry Divisions. His prior positions with the Agency include Director of Inland Fisheries (2000-2010), Supervisor of Fisheries Management and Senior Fisheries Biologist. He also served as a Research Associate at the Institute of Ecosystem Studies in Millbrook, NY, where he did his graduate research while getting an MS in Fisheries Biology from the University of Connecticut.

He has been active in the American Fisheries Society (AFS) and has served as president of both the Southern New England Chapter and the Northeast Division, and as a member of the AFS Governing Board. He is a past chair of the Northeast Fisheries Administrators Association and is currently chair of the Connecticut Invasive Plants Council and the Association of Fish & Wildlife Agencies Invasive Species Committee.

Leonard Gerardi New CRASC Tech Committee Member from Vermont

Leonard Gerardi has joined the CRASC Technical Committee as its Vermont representative. He is a senior fisheries scientist with the Fisheries Management Section of Vermont Fish & Wildlife in VT District 5, the "Northeast Kingdom." He brings thirty-six years of Atlantic salmon knowledge and experience to the CRASC restoration effort.

His first involvement with fishery science and management was as a University of Vermont Masters degree work-study student in the summer of 1975, working for US Fish & Wildlife Service field staff on Vermont's White River for the CRASC restoration program. His responsibilities and program involvement have included management of northeastern Vermont lakes with indigenous lake trout populations, of the Lake Memphremagog basin's potadromous landlocked salmon, steelhead rainbow trout and brown trout populations. It has also included Atlantic salmon restoration efforts in the Wells, Stevens, Passumpsic and Nulhegan River drainages and Paul Stream.

Lenny has a BA from the University of Vermont and a MS from the University of Massachusetts in Fishery Biology.

The CRSA "Salmon-in-Schools" Program

New Longevity Service Awards Introduced for CRSA Teachers and Schools

By Elizabeth Kendall, CRSA Director

Education Chair Dick Bell has announced two new CRSA awards: a 15-year service award for teachers and a 15-year service award for schools.



Marge Drucker was the first teacher in the Salmon-in-Schools Program, in 1996.

Marge Drucker was the first teacher in the Salmon-in-Schools program, which started at the North Haven Middle School in the fall of 1996. CRSA director Gerry Feinberg's daughter Jackie was a student in Marge's class and he suggested the program on a one-year trial basis. With this pilot program, funded by the CRSA, Marge was the Connecticut pioneer. After a year using the program as a science teaching tool, Marge enthusiastically endorsed it and that was the springboard for the program's expansion.

Marge now contributes her enthusiasm and teaching skills to students at the Barnard Environmental Magnet School in New Haven.

Jaunice Edwards started as a teacher at the Harris AgriScience Center in 1997, the year after the VoAg school was founded. She brought to her students a degree in marine science with a concentration in aquaculture. Jaunice has participated in joint



Above, Jaunice Edwards of the Harris AgriScience and Technology Center. Edwards is the recipient of a individual longevity award. Her school, Harris AgriScience Center, is one of two recipients of the school longevity award. She is the Director and Aquaculture Teacher at the Center.

school programs with over a dozen other schools incubating salmon as a science tool. She has led a school team with students to extended field studies on Cape Cod and to the Department of Fisheries and Allied Aquaculture at Auburn University in Alabama. Jaunice also pioneered the River to the Sea Program, which used salmon rearing as a tool to bring together students from different racial and economic backgrounds in a common academic project.

In 1997, East Granby Middle School, a school award recipient, made salmon aquaculture and egg incubation part of the school's environmental science curriculum. Dick Bell said, "East Granby has been notable for their devotion to the Salmon-in-Schools Program. The school has had several teachers who have made an outstanding contribution."



East Granby Middle School Principal Thomas Russo (left), with 8th grade Science Teacher Robert Paskewicz. East Granby Middle School is a recipient of the 15-year Service Award for schools.

Harris AgriScience Center is the second school to receive the long service award. In 1997, the school recruited five other high schools in a State Department of Education-funded program to bring together students from inner city and suburban schools to address racial and economic diversity. The River to the Sea program involved salmon culture, field trips, academic interaction and other projects. The program was supported by the US Fish & Wildlife Service as well as the CRSA that first year, and the association has continued ever since.

Though not an award recipient, Lyme Consolidated School is notable for beginning their use of the Salmon-in-Schools program in 1996; it was interrupted for several years but is very active now.

(See Awards, page 4)

CEU's Now Offered for CRSA Teachers Who Attend Orientation

By Elizabeth Kendall, CRSA Director

For the first time, the Capitol Region Education Council (CREC), in conjunction with CRSA, offered Continuing Education Units (or CEU's) for teachers who attended the orientation program in October 2011. Thirty-five percent of all attendees (and half of all teachers attending) signed up to receive credit for the annual all-day workshop.

Offering CEU's for the orientation adds credibility to the program and allows teachers the flexibility to be out of the classroom with a genuine academic purpose. CRSA will continue to offer CEU's through CREC as long as it is valuable to teachers. •

Salmon-in-Schools 2011 – 2012: Off to Another Successful Start!

The Teachers Orientation required of new teachers and available to experienced teachers was held October 26 at the headquarters of Northeast Utilities in Berlin, CT. We had some 40 attendees including teachers from seven new schools and a group of new teachers at schools who have participated in previous years.

New schools and new teachers include Valerie Cournoyer at Amity High School, Deb Costolnick at Hartland Elementary School, Geoffrey Picard at Lebanon Regional School, Alison Gadbout at Canton Middle School, Haia Spiegel at the Greater Hartford Academy of Math and Science, Gayle Hills at Reggio Magnet School, Tara Daly at Norton Elementary School, Jennifer Lopez at Tyl Middle School and Laura Heath at Granby Memorial High School. In several cases there are schools who are rejoining the program after an interruption.

In a first, the Farmington River Watershed Association and its executive director, Eileen Fielding, have introduced Saint Joseph College to Salmon-in-Schools. This is the program's first participation by an institution of higher education. Carol Millard is the faculty member who is using the program in a science class. It is an interesting development.

New liaisons this year are John Baracchi from East Hartford, Ted Rzepski of West Hartford and Gordon Tedford of Manchester, all of whom attended the Teachers Orientation. Ed Albrecht has returned as liaison for the Chester schools.

Egg deliveries are scheduled for the second and third weeks in January. Teachers are required to contact the CRSA to arrange spring stock out sites and dates. ◆

R2Sea Pairings Nearly Complete

By Elizabeth Kendall, CRSA Director

River to the Sea school partnering is almost completed: Kathleen Egan's 6th-grade class at Bristow Middle in West Hartford is almost (waiting on permission from the principal) paired with Kaitlin McGill's 6th graders at the Academy of Aerospace and Engineering in Bloomfield; Maureen Taylor's 8th graders at Two Rivers Magnet in East Hartford with Jen Reed's 9th graders at CT River Academy, also in East Hartford; and finally, Laura Heath's environmental science students from Granby Memorial High School, Jaunice Edwards' Aquaculture class from the Harris AgriScience and Technology Center at Bloomfield High School and Haia Spiegel's environmental science/river ecology students from AA&E/GHAMAS in Hartford.

Jaunice, Kathleen and Jen have participated in River to the Sea for many years and will assist and cooperate with their partner school. We're planning an overnight to Project Oceanology in April and will be sharing the excitement of salmon stocking on release day. Although we were not successful in finding a suitable partner, Mr. Paskewicz in East Granby will join us for some activities. Also, Gayle Hills' class at Reggio Magnet in Avon will share their salmon with a colleague and her class at Naylor Elementary School in Hartford. Reggio students were able to take a field trip to the Heublein Tower in Avon this fall just a few days before the big snowstorm. After a hike, they enjoyed a fantastic view of the Farmington River Valley from atop the tower. In the spring, they hope to take a trip to Long Island Sound to see where their salmon will eventually go.

The program is funded by a CT State Department of Education Bureau of Choice Programs, Interdistrict Cooperative Grant in cooperation with the Capitol Region Education Council and CT River Salmon Association (AA&E/GHAMAS, 2Rivers and Reggio Magnet are CREC Magnet Schools)

Awards (from page 4)

Dick Bell noted that according to CRSA's records, two teachers have been special supporters of Salmon-in-Schools. Teacher Jen Reed has used Salmon-in-Schools in her classrooms since 1999 at Windsor Middle School, King Philip Middle School, Two Rivers Magnet School and the Connecticut River Academy at Goodwin College. Starting in 2000, Paul Duva brought the program to students at Verplanck Elementary School in Manchester, Two Rivers Magnet School in East Hartford, Noah Webster in Hartford, Washington Elementary School and Bennett Middle School in Manchester. •

Report of the Atlantic Salmon Federation (Meetings of Nov. 8–10, 2011)

By Hal Gorman, President, Western New England Council; Director, CRSA; Director, Atlantic Salmon Federation USA

The ASF committee and board meetings held in New York November 8 – 10, 2011 were my first representing the CRSA and wild Atlantic salmon interests in Connecticut, Massachusetts, New Hampshire, Rhode Island and Vermont. My position also involves participation as a director on the ASF USA board of directors. Alan Chubba Kane on the ASF USA board represents Maine. There are directors on the Canadian ASF board for each of the eastern provinces. Individuals with expertise and interest apart from the regional directors are on both the US and Canadian boards as well generous patrons from both countries.

Maine

Alan Chubba Kane reported that the Maine Council is collaborating with ASF's US Office on a variety of fish passage projects around the state of Maine. The Maine Council has hired a new coordinator (a former teacher) to coordinate the Fish Friends program in Maine. Alan indicated that there had been very good returns of salmon to the Penobscot this year at 3,123 wild salmon—the highest number since 1986—and, on most other rivers, returns have improved in 2011. The Council is awaiting the release of the Draft ESA Recovery Plan for the expanded Distinct Population Segment of Atlantic salmon in Maine with hope that the plan will focus on major threats and include significant roles for NGOs; this Recovery Plan was due early in 2011 and is long overdue. For the Penobscot restoration program, he highlighted that a lot of money had been raised; however, it is important to remember that more money is needed and the program is not completed yet.

New Brunswick

The Miramichi Salmon Association (MSA), the New Brunswick Salmon Club and the Miramichi Watershed Management Council (MWMC) are continuing to urge the Department of Fisheries & Oceans (DFO) to make the appropriate regulatory changes that will enable the use of piscicides to eradicate invasive species, in particular, smallmouth bass in the upper Miramichi. Next year is the last year of DFO's mechanical elimination program (gillnet, trapnet, electrofishing) and although there has been some reduction in numbers, it will be difficult, using these mechanical means, to completely eliminate bass from the watershed. There were also questions concerning the impact of striped bass on salmon. Mark Hambrook of MSA reported that there certainly had been large increases in the population spawning in the Miramichi and they are there at the time of smolt migration. They may be consuming significant numbers of salmon smolt; however, he also pointed out the good returns to the Miramichi in 2011, even with increased striped bass numbers these past few years. He also noted the difficulties with approaching this issue due to their current listing under SARA.

Newfoundland-Labrador

Don Hutchens highlighted the increased returns of salmon in 2011 to almost all rivers, with the exception of the Conne

River on the south coast. He did, however, point out that DFO is only assessing 13 rivers out of 277 and this is inadequate to truly reflect the whole province. DFO prohibited retention of large salmon by anglers in Labrador in 2011 and the salmon by-catch in the resident net trout fishery was reduced from 4 to 3.

The Salmonid Council of Newfoundland & Labrador (SCNL) continues to foster a dialogue with the Nunatukavut in an effort to reduce the impact of the net fisheries in Labrador, and this resulted in a trap net project in 2011, jointly sponsored by the Nunatukavut, SNCL, ASF and DFO. Funding was also received from the Atlantic Salmon Conservation Fund and was greatly appreciated. While this project was not as successful in 2011 as had been hoped (low salmon catches), there are plans to continue it in 2012, as it may lead to better cooperation and understanding by aboriginal groups.

Quebec

Salmon runs in 2011 were very good in all rivers, with increases of 20-40% in rivers where fish are counted. The Fédération québécoise pour le saumon atlantique (FQSA) presented a brief to the Ministry of Natural Resources and Wildlife which outlines specific recommendations that would better protect Salmon River watersheds within the framework of new forestry management legislation to become law in 2015. The government has advised that they will be reviewing the role of hatcheries and that the current single hatchery will only be used to stock four rivers, down from 13, for genetic reasons. Hydro Quebec has announced a \$10 million program for restoration of North Shore rivers that will start shortly.

Atlantic Salmon Conservation Fund

The Canadian ASCF has funded 90 projects since 2008, with 250 partners. As a result of the economic downturn a couple of years ago, and its continuation this year, the Fund is limited to about \$300,000 annually for projects. They have a 10-year plan to be back to where they should be and that involves restricting administration costs. At the end of the 10 year period, they hope to be able to perhaps triple the funding of projects, to \$1 million annually.

Harold Gorman Elected President of the Western New England Council

This spring the CRSA board unanimously elected Hal Gorman as president of the Western New England Council. He succeeds CRSA long-time director Robert Wolter. Hal represents wild Atlantic salmon interests in Connecticut, Massachusetts, New Hampshire, Rhode Island and Vermont. In this new capacity, he also becomes a member of the Atlantic Salmon Federation USA board of directors.

Conference (from page 1)

was held in La Rochelle, France and was sponsored by NASCO and the International Council for Exploration of the Seas (ICES). It consisted of three days of posters and 37 presentations by salmon or oceanography experts. Many presenters focused on the socalled regime shift that occurred in the mid- to late-1980s when survival of Atlantic salmon in the North Atlantic abruptly shifted from relatively high rates to very low rates. Researchers wanted to know what happened back then. What was occurring with ocean currents? What was occurring with prey species? Water temperature? Zooplantkon populations? Post-smolt behavior? The work included studying presentday salmon, using the latest in genetic, electronic, computer, and satellite technologies and comparing their behavior with oceanographic conditions. We cannot go backwards in time and repeat these studies in 1970 or 1980 but there are oceanographic data from back then that can be analyzed as well as archived salmon scales and data from old, if more limited, studies.

The oceanographers began by explaining the how the North Atlantic is dominated by two gyres (circular oceanic currents), which in turn drive other currents, such as the Labrador Current. Atlantic salmon has evolved to use these gyres and currents to navigate between natal spawning rivers and oceanic feeding grounds. The system is fueled by very cold water sinking to the bottom of the ocean south of Iceland and traveling like a conveyor belt south along the ocean floor toward the equator. As it arrives, it warms up and rises to the surface, ending up in the southern gyre. Climate change is reducing the amount of cold water sinking up north and the entire conveyor belt is slowing down, weakening the gyres. We don't understand the direct impact on salmon at this time, but it could cause them to miss a current and not go to the area they need to go to, or it may require them to exert more energy to get there.

Researchers from the Pacific Ocean made presentations on their work with Pacific salmon and reported that such regime shifts occur in the Pacific also. However, these regime shifts appear to be occurring regularly, back and forth, sometimes favoring salmon in the north and sometimes favoring salmon in the south. This is different than what we are currently seeing in the Atlantic, where it appears that we are "stuck" in one unfavorable regime.



Above, the French flag flies above the harbor in historic La Rochelle, France. The city was the site of the October 2011 conference "Salmon at Sea: Scientific Advances and their Implications for Management," held at the Aquarium La Rochelle. Dubbed "the Salmon Summit," the conference was sponsored by NASCO and the International Council for Exploration of the Seas (ICES).

North Atlantic studies in which trawlers captured post-smolts migrating toward feeding areas have expanded our knowledge of these migrations. Due to our rapidly developing understanding of the genetics of Atlantic salmon, many of these smolts could be identified for their country of origin by analyzing their DNA. Maps were presented showing congregations of post-smolts along the continental shelf west of Ireland and Scotland and into the Norwegian Sea. Data in North America reveal that many smolts pass through the Straits of Belle Isle on their way to Greenland.

There were presentations on what salmon are eating and where the common prev species are commonly distributed in the ocean. These data were compared to studies from 30 and 40 years ago, and it appears that the distribution of many important food species have shifted northward. It appears that feeding salmon are following them northward, expanding into areas not commonly seen previously. But it is not clear if all salmon are doing that and if some salmon are ending up in parts unknown. If salmon must migrate farther north to find food, does this reduce their survival rate by requiring them to engage in longer, more energetically-demanding migrations?

Do they arrive back home later than normal? There are also some data that indicate new predators are now expanding into the migratory lanes. These include silver and white hake, goosefish, and spiny dogfish.

Needless to say, the conference presented too much information than can be effectively passed along in this brief article. The conference did not offer a "eureka" moment where all problems with Atlantic salmon at sea were explained and technological solutions were offered. (Did anyone really expect that?) However, I left feeling that we had taken a large step forward in our understanding of salmon at sea. Moreover, I feel it is safe to say that the data that were produced by SALSEA will take years to fully analyze and important technical papers will continue to be published from these and other scientists for many years to come. These results will also point the way for important new studies, because that is how science works.

While the conference did not leave us with encouraging news that perhaps we are on the verge of a new regime shift back to the "good old days," we can hope that as we learn more about salmon in the sea, we will be able to adjust management strategies so that even if we can't reverse major oceanographic forces beyond our control, we can conserve Atlantic salmon stocks while the species adapts to these changing conditions. •



CRSA Begins Transition to Online Distribution of News, Information

Beginning with this issue of the Connecticut River Salmon Association newsletter, CRSA will begin a formal transition to online distribution of this and other CRSA news. If you are currently receiving this newsletter by mail but are NOT a dues-paying member of CRSA, we ask, if you wish to continue getting this newsletter, that you send your name and email address to us at newsletter@ctriversalmon.org. **THIS WILL BE THE LAST NEWSLETTER MAILED TO NON-MEMBERS.**

If you are currently a dues-paying member of CRSA, you may opt to continue to receive the newsletter in hard copy via US mail. However, we **strongly encourage** our members to sign up for electronic distribution instead. *Just email us at newsletter*@ctriversalmon.org and put "Newsletter" in the subject line of your message.

Application for CRSA Membership		
Name	PATRON: \$500	
Address	LIFE: \$250	
	sustaining: \$100	
CITY STATE ZIP	sponsoring: \$50	
Telephone	contributing: \$25	
☐ SEND NEWSLETTER TO MY EMAIL AT:	FAMILY: \$25	
Please make checks payable to "CRSA" and mail them to:	regular: \$20	
CRSA 76 DEMING STREET SOUTH WINDSOR, CT 06074		

THE CONNECTICUT RIVER SALMON ASSOCIATION

76 Deming Street South Windsor, CT 06074

Visit us at www.ctriversalmon.org