

**Connecticut River Atlantic Salmon Commission
Turners Falls, Massachusetts
Meeting Minutes
April 3, 2008**

Agenda Items:

1. Determination of Quorum, Approval of Today's Agenda & Minutes of the November 20, 2007 Meeting

Chair Ed Parker called the meeting to order at 10:08 a.m. and adjourned at 12:14 p.m. Mr. Parker thanked both Mr. Wayne MacCallum and Mr. Eric Palmer for acting as the CRASC Chair in his recent absence at past meetings.

A number of Alternate Commissioners attended including: Mr. Scott Decker (NHFG), Mr. Palmer (VTFW) and Mr. Jaime Geiger (USFWS). Both the Vermont and Massachusetts Public Sector Commissioners and the National Marine Fisheries Commissioner were absent. Mr. Parker determined that a quorum was present.

A few minor changes were made to the agenda. The broodstock management issue has been resolved. The Congressional Outreach item was changed to address what has recently been accomplished. And, the status of the USFWS Fisheries budget in FY2009 and rescheduling the next CRASC meeting date were added to Other Business.

Mr. MacCallum made a motion to approve the Minutes from the previous meeting. Mr. Geiger seconded the motion adding that the meeting minutes were comprehensive and thanking those that prepared them, and the Minutes were approved.

2. Report of the Executive Assistant

Ms. Janice Rowan provided the following report:

The Migratory Fish Restoration Program is still coming to terms with two emerging issues. The U.S. Fish and Wildlife Service eliminated all of the sea-run Atlantic salmon, kelts and trout held at the Richard Cronin National Salmon Station after the infectious pancreatic necrosis virus (IPN) was detected. About a million eggs produced at the station were also destroyed and the facility was disinfected. The agency has since identified funding to make needed changes to existing infrastructure in order to minimize but not eliminate the risk of transferring the IPN virus among captive sea-run salmon and among hatcheries. These changes include partial isolation of the holding pools and the addition of isolated egg incubation units. Operating protocols at the station will also be revised to ensure disease containment. Changes were also made at the White River National Fish Hatchery to address the second emerging issue: the discovery of *Didymosphenia geminata* in the White River, one of the hatchery water supplies. In this case, the hatchery chose to incubate salmon eggs in well water only, controlling rate of development through the addition of a new chiller to the well water supply system. Production numbers and times were not impacted significantly. This eliminated the risk of inadvertent spread of the exotic diatom when stocking salmon fry throughout the basin

Many of the U.S. Fish and Wildlife Service Fisheries project leaders visited Washington, D.C. and met with staff from the basin's Congressional offices during the first week of March 2008. Staff appeared to be well informed about recent emerging issues. Overall, they continued to voice support for the program.

The Salmon-in-the-Schools Program is continuing in 167 schools throughout the basin. New Hampshire and Vermont teachers from 46 schools were trained at the White River NFH on November 7 by the New Hampshire Fish and Game and the U.S. Forest Service in cooperation with the U.S. Fish and Wildlife Service and other partners. The Connecticut River Salmon Association also trained new teachers on November 8 for a program that includes 78 schools. And, the Trout Unlimited Atlantic Salmon Egg

Rearing Program Orientation was held on January 10, 2008 at the Greenfield Community College for 43 schools in western Massachusetts.

Finally, we welcome a new Executive Director at the New Hampshire Fish and Game, Glenn Normandeau.

Ms. Rowan also provided an administrative report noting that the Commission has \$1,572.40 in the bank, having earned a quarter since the last meeting.

3. Report of the Technical Committee Chair

Mr. Slater provided the following report:

1. Fish Culture Subcommittee Update (and Fish Health Management at RCNSS)

The total egg production total for 2007 was about 9.5 million Atlantic salmon eggs. This total does not include 899,000 sea-run eggs and 100,000 kelt eggs taken at the Richard Cronin National Salmon Station and later destroyed at the WRNFH after IPN was detected.

The Kensington Salmon Station shipped 340,000 eggs to the Roger Reed State Fish Hatchery because of low water conditions. The eggs will be hatched at the RRSFH from which they will be trucked back to Connecticut for release in the spring.

Fry allocation meeting was held on March 7th. 5.9 million fry are available for 2008 stocking. This is down from 6.4 million last year. Stocking densities will be adjusted downward but all habitat will be stocked.

Ovarian samples from salmon held in the outside raceways at Cronin were clean – no IPN was detected. The nearly 200 sea-run and kelt Atlantic salmon held at the RCNSS were necropsied on January 15, 2008 by fish biologists from the Lamar Fish Health Unit. Results of disease testing of all fish on station determined that only one fish was positive for IPN. The facility was depopulated and disinfected this winter.

There is ongoing discussion about how the facility, including the outdoor raceways, might be used in the future. The USFWS will be installing an egg incubation system and instituting partial isolation of the holding pools at the RCNSS as part of plan for improving biosecurity at the facility and within the Program.

Milt cryopreservation study results – eye up was 71 % vs 85% for non-frozen milt. This is acceptable but the estimated cost to implement at a production level is about \$120K for the first year, \$60K/yr for next 4 yrs and then about \$10K/yr thereafter depending on quantities. USFWS has no \$\$ in 2008 or 2009 for this.

Salmon smolt fin assessment and the third calcein marking at the Pittsford NFH and Berkshire took place over the week of February 4. Mr. Bouchard noted that there would be about 8,000-6” smolts available for distribution from the Berkshire hatchery this spring. Smolts are being stocked now..

Passage studies at the Woronoco dam are scheduled for this spring. Kleinschmidt has requested smolts and they will be supplied by the Pittsford hatchery.

Mr. Gephard will coordinate with Mr. Bill Fletcher from the Northeast Fishery Center to ensure that data will be collected from outmigrating smolts at the Rainbow dam bypass. Migration is expected to begin around April 20. Sampling will take place Monday and Thursday evenings through the end of the run, or about the end of May. Mr. Gephard will also coordinate physiological smolt sampling with Mr. Steve McCormick.

2. WRNFH Operations

White River NFH will produce about 3.9 million fry this spring, down 11% from 2007.

The hatchery installed a new chiller system in late December. The first of the early egg takes will be available for stocking around April 27.

3. Genetics Subcommittee Update

The subcommittee met on January 29. Decisions were made with respect to which kelt eggs should be used to produce this year class of domestic broodstock in an attempt to minimize program impacts due to the loss of the sea-run eggs. Work continues on the development of a broodstock management plan.

The subcommittee attended a meeting at RCNSS and provided input to USFWS efforts to provide effective egg banking capacity at the RCNSS. The plan will address equipment and operational needs, protocols, and staffing. It is also understood that the objective is to minimize losses and maximize incubation capacity and flexibility in the event of any future disease concerns.

Mr. Darren Desmarais would be providing weekly assistance to the Conte Anadromous Fish Research Center until sea runs start returning in spring. The objective is to speed up genotyping for the backlog of Connecticut River Atlantic salmon genetic samples. Ms. Kitty Griswold reported that if the Lamar Fish Health Unit can identify any individual IPN positive sea-run salmon by PIT tag, she can assess existing samples for continent of origin.

4. Salmon Studies Update

Four radio-tagged adult Atlantic salmon are still holding in the Deerfield River and one is holding in the Williams River though no redds were observed there.

Mr. Bob Stira indicated that it was likely that the smolt-recapture project would be funded again this year.

Mr. McMenemy prepared the Connecticut River Section of the draft the U.S. Atlantic Salmon Assessment Committee report.

5. Fish Passage Subcommittee Update

Turners Falls Dam (Connecticut R.) – The new gatehouse fishway entrance has been installed and will be ready for Spring migration period. Evaluation studies by Conte Lab are planned.

Vernon Dam (Connecticut R.) – New power production turbines have been installed at this site. These have changed the station's flow field. Negotiations are underway with TransCanada to describe the type of downstream passage studies required.

Gilman Dam (Connecticut R.) – The owner has hired consultants and engineers to develop design plans for downstream fish passage. These facilities will be installed in time for smolt migration in 2009.

Fiske Mill Dam (Ashuelot R.) – Upstream fish passage facilities are under construction but the completion date is uncertain. At best it will be late in the migration season. The owner is responsible for operating and monitoring the facility. The details of trap or window are being finalized. The owner will likely use manual counts and video to monitor the passage results.

Woronoco (Westfield R.) – After trying to delay smolt testing at Woronoco for yet another year, the project owner has agreed to conduct the smolt passage study this spring.

Chicopee River Dams – There was some discussion about the need for fish passage at the first few dams on the river. There was some question about water quality that needs to be investigated. Some consideration on the value of passage to the overall program should also be made before any action is taken. It was noted that herring transplants did not take in the Westfield River. However, clupeid production potential could be

tested by dropping a load of shad upstream of the Dwight Stream Dam and monitoring for juveniles later in the season.

6. Other Business

Mr. Micah Kieffer reported finding an unusual radio-tag frequency when collecting telemetry data from shortnose sturgeon in the Connecticut River near Agawam. He requested help in identifying the source of the tag because it may be another sturgeon that has strayed from another river. The tag is operating at 165.3 megahertz and the transmitter is coding 32. This request will be provided to the Northeast Fishery Center since they had been doing work in the Hudson River.

Mr. Steve Garabedian announced that Mr. Boyd Kynard has retired.

Mr. Garabedian also noted that the federal budget omnibus passed in December but that it had not been sorted out to the field level yet. Mr. Archambault confirmed this fact and announced that the National Fish Habitat Initiative allocation was doubled.

Discussion:

Smolt stocking out of both the Pittsford National Fish Hatchery and the Berkshire National Fish Hatchery is underway and should be completed by the end of this week.

The calcein mark on released smolts is a non-lethal mark that can be observed on scales under certain light frequencies. The goal of the study is to see if the mark is retained and can be detected in returning adults a couple years from now.

Ms. Kitty Griswold is genotyping the male sea-run Atlantic salmon that tested positive for IPN at the Richard Cronin National Salmon Station to determine its country of origin (in case it was a stray).

Mr. Slater indicated that there is concern in the basin about the declining herring population. Connecticut, Massachusetts, and Rhode Island have all eliminated these fisheries. The USGS Conte Anadromous Fish Research Center is currently conducting a baseline genetics assessment on blueback herring, comparing populations in the Hudson River, Connecticut River, Nemasket River and Oyster River. Preliminary results show some interesting differences.

There is less concern about the shad population since it has been relatively stable though at a lower level than historic peaks. Creel surveys in Massachusetts indicate that the recreational shad fishery is primarily a catch and release fishery. This differs from the approach taken on the Hudson River in New York where the commercial fishery has been restricted and the recreational fishery has been closed.

Mr. Geiger questioned whether the multiple potential variables that have depressed the salmon runs (marine conditions, predation, bycatch...) are now impacting other anadromous fish runs? He suggested that there could be a common link especially since fish passage improvements for herring, as an example, have not been correlated with overall population increases for the species. Mr. Parker agreed that a multi-species approach was likely to engender more support and he suggested that these are still open questions begging additional research. He said that the Commission is in a good position to provide input and to advocate this approach.

Mr. Parker also requested that the Technical Committee review salmon production and stocking goals and explain why the goals are not being accomplished and what has to happen for these goals to be achieved. If the goals cannot be achieved under current circumstances, he suggested that the committee rethink the existing release strategy with the goal perhaps of releasing salmon only in the most productive habitat.

4. **Status of IPN/Fish Health Management at RCNSS**

Mr. Geiger noted that the focus of this discussion would be IPN management at the Richard Cronin National Salmon Station but that detection of the IPN virus at this facility also has implications for the Maine Recovery Program, the Merrimack and Penobscot River Restoration Programs. He introduced Mr. John Coll from the USFWS Lamar Fish Health Center saying that Mr. Coll would provide some background, a current status assessment, and a proposed plan of direction that would mitigate future risk. The USFWS desires concurrence from the Commission on this proposal.

Mr. Coll gave a PowerPoint presentation that was provided to the Commissioners.

Background

The infectious pancreatic necrosis virus (IPNV) was isolated from at least two female and one male asymptomatic sea-run Atlantic salmon held at the Richard Cronin National Salmon Station in 2007. The virus was successfully detected using ovarian samples for the females but not using kidney/spleen or blood testing post-spawning. The kidney/spleen test was effective in detecting the virus in the post-spawning male. This does indicate that no test is 100% effective in screening for the virus. The virus is an unusual Canada 3 genotype last seen in the early 1980's in Canadian Arctic char. Results (few fish infected, low titre) seem to indicate that horizontal transmission was insignificant in this case. Reoccurrence of the virus is outside of our control since the fish arrived carrying the disease.

Current Status

All fish held at the Richard Cronin National Salmon Station have been destroyed. The facility has been disinfected.

Risk Mitigation Proposal

1. Segregate/isolate adults in four pools with partitions, separate equipment and new protocols to minimize risk of virus transmission such that if Pool 1 has one fish that tests positive, all of the fish in that pool will be destroyed but the fish in Pools 2-4 will be retained. This phase of the proposal has been designed and sent out for bid already. The USFWS has set aside funding for this purpose.

Question for Discussion: Does this portion of the proposal minimize risk such that cooperators will accept eyed-eggs or fry from the remaining sea runs held at the station?

2. Fish health testing in 2008 will include (a) blood screening upon capture (which may not be effective for IPNV); (b) testing of all mortalities for bacteria, virus and parasites; and, (c) non-lethal ovarian sampling for females at spawning and lethal kidney/spleen for all post-spawn males. In the interim, the Lamar Fish Health Center will continue to look for a dependable, non-lethal test that will spare males. This is the least risk alternative.

Question for Discussion: Do the cooperators agree that male sea runs must be lethally sampled and that this is the key to accepting eggs or fry from the station?

3. Milt cryopreservation is an option that can be used to mitigate the loss of sea-run males. Recent success here with Norwegian technology suggests that this could be accomplished at a production level. The option comes at a cost of about \$122K in the first year, \$60K/year for the next four years, and \$10K/year thereafter depending upon the number of males spawned. The cost of this option could be defrayed if programs on the Merrimack River or in Maine were to get involved, sharing the burden of the license fee. Alternatively, a smaller scale sperm bank could be implemented by the Northeast Fishery Center for about \$16K for the first year and \$6K/year thereafter. The smaller program would be scaled to maximize genetic variability in the egg bank – the source of all domestic broodstock. There is no USFWS funding currently available to implement either option.

4. Isolated egg incubation facilities will be established at the Richard Cronin National Salmon Station to minimize the risk of transferring the virus to the White River National Fish Hatchery. Eggs or fry would not be transferred from the station until cleared by fish health inspection results. Incubation will be completed in isolated stacks of hatch trays for both production and egg bank purposes. Stack incubation will result in the loss of 25% of the stacks (or 25% of the production) if one fish from Pool 1, for example, is found positive. Additionally, any egg bank stacks with eggs produced from fish in Pool 1 would also be

destroyed. The USFWS is pursuing design and soliciting bids for this option. Funding has been set aside for this purpose.

5. A second egg incubation option is under consideration. It is essentially the same as described above for production but differs for the egg bank. In this case, eggs destined for the egg bank will be incubated in egg jars such that 90-300 egg families could be accommodated. This option has the potential to preserve more eggs in the event that a sea run tests positive but only if males are lethally sampled. In this case, 25% of the production, still held in stacks, is lost if one fish in Pool 1 tests positive. However, only the eggs from positive testing broodstock are lost in this case. The jars will be placed in a trailer that had previously been procured as an isolation site to protect the WRNFH from exposure to ISA_v. The trailer was never completely assembled but most of the components are in-hand. There is adequate water at the facility to use the trailer. The USFWS is developing an estimated cost for setting up the trailer. There may not be sufficient USFWS funding to implement this option.

Discussion:

Mr. Coll indicated that false negatives are possible even with lethal sampling of males.

Mr. Tom Wiggins suggested a need to test fry as a follow-up to confirm that there are no fish positive for IPN_v.

Mr. John Warner observed that an unaddressed need now exists to alter protocols for holding fish at Holyoke and other trap locations.

Mr. Wade Jodun said that it looked like there was enough time to segregate the tanks before fish arrive on station. The incubation facilities will also be completed before spawning time. The estimated cost is about \$170K. The source is deferred maintenance funding.

Mr. Coll acknowledged that these plans will increase the cost of fish health testing and spawning. He did not think that there were good prospects for improved testing in the immediate future.

Both Mr. Slater and Mr. Palmer demonstrated a desire to proceed with lethal sampling for the males. Mr. Slater indicated that the proposed isolation plan was adequate but suggested isolation protocols and personnel training will be needed to implement this proposal effectively.

Mr. MacCallum felt some additional consideration should be given to other priority work – maybe take some risk here and spend the money to get at another limiting factor in the program.

Mr. Parker requested additional time to consider the discussion and the proposal since it was provided just prior to the meeting. Mr. Geiger offered an additional week for comments and decisions but noted that further delays will jeopardize contracts and infrastructure changes. Mr. Geiger agreed to send out a list of decisions that are required and to identify the timeline for responding by the end of the week.

5. Status of Didymo Management at WRNFH

Mr. Ken Gillette reported that *Didymosphenia geminata* was discovered in the White River last year above the hatchery intake. This created concern about the potential for infesting the hatchery and accidentally transferring the diatom throughout the basin because the hatchery traditionally used surface water from the river to control egg incubation. In response, the hatchery chose to eliminate use of river water last fall. A chiller was installed to manage temperature concerns and fry will be ready for release as usual this spring.

Mr. Geiger expressed his satisfaction with how this emergency was managed such that the threat to the hatchery and the environment was eliminated. He said that these unexpected emergencies (Didymo and IPN_v) were addressed through the use of deferred maintenance funding and that this fund source was pretty well tapped for the year.

Cooperators have worked together to address the Didymo issue. The Northeast Aquatic Nuisance Species Panel has developed a fact sheet detailing recommendations for preventing the spread of the disease.

Mr. Parker reported that the State of Connecticut is developing a biosecurity policy with a number of components including replacing felt sole waders with lug soles, new stream sampling gear disinfection protocols, and public outreach. Other disinfection and transfer policies are under development.

Mr. Eric Palmer provided details about the discovery of Didymo in Vermont, outreach efforts, draft SOPs, and disinfection procedures. There have been collaborative outreach efforts between NHDES and VTANR. He noted that spread prevention protocols for Didymo apply to other aquatic nuisance species and disease issues. This is the broader message.

Mr. MacCallum reported that Massachusetts had instituted Best Management Practices for controlling the spread of invasive plants at the beginning of the year. The BMPs apply to all contracts/contractors as well as biologists.

Mr. Geiger observed that aquatic nuisance species and fish health management can be linked. He noted that these programs do not always receive the support that higher profile programs generate and so we remain in a reactive rather than proactive mode. This is a concern since we can expect more of these issues in the future.

6. Status of Broodstock Management

This agenda item was covered in the Report of the Technical Committee Chair. The Genetics Subcommittee has met and is working to draft a broodstock management plan.

7. Congressional Outreach

Mr. Archambault reported that the USFWS scheduled a total of 60 meetings with Congressional Offices in the Northeast. Mr. Geiger, Mr. Archambault, Ms. Rowan, Mr. Mickey Novak, Mr. Dave Tilton, Mr. Joe McKeon and Mr. Gillette visited offices of Senators and Representatives from the basin. There is a lot of interest in the program and there is wide support for key issues and activities. The visits generated requests for information from offices planning to make appropriations requests. House and Senate requests had to be submitted already.

Mr. Archambault suggested that it might be helpful for the Commission members to send letters of support for the program to the Director of the USFWS (Mr. Dale Hall), the basin Congressional delegation, and Chairs of the House and Senate Appropriations Committees [Senate Appropriations: Mr. Robert Byrd, Mr. Thad Cochran; Appropriations Subcommittee for Interior, Environment & Related Agencies: Mr. Russ Feinstein and Mr. Larry Craig; House Appropriations: Mr. David Obey and Mr. Jerry Lewis; Appropriations Subcommittee for Interior, Environment and Related Agencies: Mr. Norman Dicks and Mr. Todd Tiahrt.] It will be most effective if this is done before the committees conference later this spring.

Mr. Parker requested information on what was presented, any identified concerns, and outcomes from the USFWS visits to Washington, DC this past March. He noted that such follow-up will help the States respond appropriately to any inquiries that they receive.

Mr. Parker noted that any climate change funding legislation is likely a couple of years away. Wildlife adaptation is a key component of the existing bill and, if enacted as written could bring millions of dollars to the State and Federal agencies. He suggested that the Commission needed to start thinking about what climate change will mean to the restoration program and how those funds could be used so that a strategy is in place for those funds if they materialize.

Mr. Parker reported that the Association of Fish and Wildlife Agencies (AFWA) has provided Federal budget requests for Atlantic salmon and anadromous fish restoration for the USGS, NOAA and the USFWS, and it will do so again.

Mr. Jim Carroll suggested that the Commission consider three strategies for involving legislators and developing program support: (1) Visit the Congressional delegation in Washington, DC; (2) Use personal connections to connect with Congressionals and decision makers; and, (3) Use the school programs as an opportunity to engage the legislators in their districts. He noted that there are 5,600 students involved in the program in Connecticut alone. This is a significant number. Mr. Parker thanked Mr. Carroll for the suggestion and noted how grateful and truly appreciative he was for the assistance that Mr. Carroll and Connecticut River Salmon Association have provided.

Mr. Parker indicated that NEASC has been inactive since Mr. Lee Perry's retirement almost a year ago. That group had previously organized a regional approach to identify and present common needs for the programs in the Northeast.

8. Other Business

USFWS Fisheries Fiscal Year 2009 Budget

Mr. Geiger provided the Commissioners with a copy of the President's Proposed FY2009 Budget. It calls for an \$11.5M program reduction (nationally) including losses of about \$2M in hatchery operations and \$6M in fish passage and habitat restoration. Mr. Geiger observed that the magnitude of this reduction is unprecedented. If enacted, it will result in production cuts and reduction of fish passage and habitat restoration activities and, in Region 5, these cuts will be made based on the revised Fisheries Strategic Plan (currently in draft form).

New Meeting Date

The Commission rescheduled the June 19 meeting for September 4, 2008.

Russell Biomass Project

Mr. Bob Jones asked about the status of the Russell Biomass Project. He was concerned that the project would be drawing 800,000 gallons of water from the Westfield River. Mr. MacCallum indicated that the State would be carefully reviewing and commenting on the project.

Attendance

Janice Rowan	USFWS
Eric Palmer	VTFW
Bill Archambault	USFWS
Richard Shelton	NH Public Sector
Scott Decker	NHFG
Darleen Cutting	USFWS
David Perkins	USFWS
Caleb Slater	MDFW
Robert A. Jones	CT Public Sector
Jim Carroll	CRSA
Henry Bouchard	USFWS
Jay McMenemy	VTFW
Jaime Geiger	USFWS
Wade Jodun	USFWS
Ken Brownell	USFWS
Matthew Carpenter	NHFG
Steve Garabedian	USGS
Ken Gillette	USFWS
John Warner	USFWS
Ed Parker	CTDEP
Larry Lofton	USFWS
Mickey Novak	USFWS
Wayne MacCallum	MDFW
John Coll	USFWS
Tom Wiggins	VTFW