

**CRASC Technical Committee Meeting Minutes  
June 21, 2001  
Conte Anadromous Fish Research Center  
Turners Falls, Massachusetts**

**1. Call to Order and Approval of Minutes from the Meeting on December 13, 2000**

Chair McMenemy called the meeting to order at 10:20 a.m.

Mr. John Warner found a typographical error on page 3, 2<sup>nd</sup> paragraph, 2<sup>nd</sup> line: delete 'to'.

Mr. Steve Gephard moved to accept the Minutes as corrected. Mr. Warner seconded the motion and the Minutes were accepted.

**2. Fry Stocking Update**

Mr. McMenemy reported that an estimated 9.5 million fry were stocked throughout the watershed this spring. The fry handled well, the weather was good, plenty of volunteers were available and the process went smoothly. The fry were small: 7-10/gram. Specifically, VTFW stocked 2.7 million fry; including 2.4 million from the White River NFH and 330,000 fry from the Roxbury SFH. The U.S. Forest Service released 825,000 fry including all of the fry from the Pittsford NFH.

Mr. Gephard reported that CTDEP stocked about 1.5 million fry (a record) from the White River NFH, Hogback, Kensington SSH, and the Burlington Trout Hatchery.

Mr. Caleb Stater reported that MAFW stocked 2.3 million fry from the White River NFH and the Roger Reed SFH. Six new streams were stocked in Massachusetts this year.

Mr. Duncan McInnes reported that NHFG relied on the Keene office Secretary to coordinate volunteers and a Technician with help from the U.S. Fish and Wildlife Service-Sunderland Office of Fisheries Assistance to get the fry out since the Keene Biologist position is still vacant.

Mr. Ken Gillette, WRNFH, reported that his hatchery provided 6,550,000 fry for stocking and Mr. Doug Aloisi, Pittsford NFH, reported that his hatchery provided 535,000 fry for stocking.

### 3. Fish Returns Update

The Connecticut River Coordinator's Office has maintained migratory fish returns on the Website at [www.fws.gov/r5crc](http://www.fws.gov/r5crc) and phone hotline at 413 548 9628.

Connecticut River Migratory Fish Counts 1998-2001 (2001 data as of June 19)

Fish Type	Year 1998 Total Fish Passage Counts	Year 1999 Total Fish Passage Counts	Year 2000 Total Fish Passage Counts	Year 2001 Total Fish Passage Counts
Atlantic salmon	300	154	77	36
American shad	318,372	196,549	228,859	279,470
blueback herring	11,646	2,735	10,588	10,605
gizzard shad	1,094	35,134	38,124	539
sea lamprey	101,758	22,142	24,090	56,325
shortnose sturgeon	25	1	0	0
striped bass	503	861	489	822

One of the 36 Atlantic salmon is thought to be a kelt released last winter. SOFA will be looking at the scales to confirm this before this fish is removed from the total back to the river.

Mr. Gephard reported one grilse at Rainbow with an adipose clip.

Returns on the Merrimack River are around 48 salmon and on the Penobscot River around 208. In Maine, the count for this year is just a bit above last year and suggests another poor run.

Mr. Slater reported sea lamprey marks at Holyoke suggesting holdovers from last year's tag and release study. Ms. Rowan spoke to Mr. Mike Twohey who conducted the Holyoke lamprey research project last year. Mr. Twohey denied that the lampreys are holding over and suggested that the marks are injuries. Apparently his work on the Great Lakes cannot substantiate holdovers though they too see lampreys that appear to have been marked.

Mr. Peter Colosi, NMFS, said that NMFS and the USACE have adjusted seasonal harvest permit restrictions to ensure that disturbances are not disrupting the run.

#### **4. CRASC Congressional Briefing Update**

The Connecticut River Atlantic Salmon Commission convened a meeting in Washington, DC, on March 19, 2001. Commissioner Regan (VT) gave an overview of the Program. Mr. Bob Stira, Northeast Utilities, Mr. Tom Miner, Connecticut River Watershed Council, Mr. Charlie Olchowski, Trout Unlimited, Ms. Joan Godsey, Leverett Elementary School, and Mr. John O'Leary, MA Executive Office of Environmental Affairs, spoke to the value of the Connecticut River Atlantic Salmon Restoration Program. The briefing, hosted by staff from Olver's, Neal's, and Leahy's offices, was well attended. Commissioners Wayne Vetter and Ed Parker were absent. Fourteen legislative aides attended, with a cross section from each of the basin states.

The Connecticut River basin's legislators in the House and Senate have supported the CRASC recommendation to re-authorize the Connecticut River Atlantic Salmon Compact. Senator Smith (NH) and Representative Olver (MA) have each proposed a bill, supported by their in-basin colleagues, to authorize funding and extend the life of the Compact. (S. 703 and H.R. 2062).

There is no funding in the House appropriations bill for the Program. And, no action has been taken with respect to appropriations in the Senate yet.

Representative Olver issued a news release about HR2062 which received quite a bit of press coverage including Public Radio, Washington Bureau AP, and local papers throughout the basin. Much of the press has been favorable. An editor of a Massachusetts paper, however, has called for an independent review of the Program. The editorial was provided to the CRASC for their input as to an appropriate response.

Mr. McInnes requested that the Coordinator send copies of draft testimony to the entire Technical Committee for review and comment so that a document is prepared in case testimony is needed before the Senate.

#### **5. Personnel Update**

Ms. Rowan reported that the Connecticut River Coordinator's Office has one new vacancy. Permanent replacement of the GIS Specialist was not approved because the CRC will be losing \$75,000 in soft funds next year. Two temporary positions have been approved for 2002 if carry-over funding permits. One of these positions will be advertised at the end of the summer. The CTR/LIS Ecosystem Team funded a seasonal Biological Technician for the Sunderland OFA. Kevin Polosky is currently working and has helped with fry stocking and field work. MAFW and CTDEP have committed to a volunteer-match for the funding. Mr. Dan Flint, Richard Cronin NSS, took an early retirement in May. There is a party planned for Dan on June 29 at Chandlers in Deerfield. Talk to Ms. Darleen Cutting or Mr. Mickey Novak if you would like to attend or help with a gift. The Connecticut River Coordinator's Office hired, Mr. Darren Demarais, a temporary Biological Technician, to fill-in at the hatchery. A biologist position, GS-5/7, has been approved for the hatchery. The position will likely be advertised this summer.

Mr. Gillette, White River NFH, reported that Mr. Bruce Jenson, Assistant Manager, retired in January. The U.S. Forest Service and the CTR/LIS Ecosystem Team provided funding to hire a seasonal to help manage eggs/fry at the WRNFH this winter. The CTR/LIS Ecosystem Team funds were the match for the USFS funds. VTFW and NHFG provided assistance with volunteers. Mr. Paul Morse, Animal Caretaker, took an early retirement in May. Mr. Steve Jackson was hired to fill the vacant Assistant Manager position at WRNFH in June. A biologist position, GS-5/7, has been approved for the facility. The position will be advertised next week.

Mr. Aloisi reported that the Pittsford NFH is fully staffed.

Mr. Gephard introduced Mr. Tim Wildman who started in December. Mr. Wildman will be working on diadromous fish issues.

Mr. McInnes reported that the Keene biologist position is still vacant and will remain vacant for now.

Mr. McMenemy reported that VTFW hired Mr. Eric Palmer, a District Biologist from St. Johnsbury, to fill the Fisheries Division Director position.

Mr. Slater reported that, with the MA Water Quality Certificate in place, Holyoke Water Power is now responsible for hiring the fishlift seasonals at Holyoke. Slater lost the funding for these positions in the process though he is still responsible for some supervision there.

## **6. Fish Culture Subcommittee Update**

Mr. Gillette provided a summary of the last Fish Culture Subcommittee meeting which was mainly a post-spawning meeting:

Bill Fletcher: Effects of short term light deprivation upon milt production of wild Connecticut River ATS. Results were inconclusive - not worth another year's work unless tech committee would like another year's worth of data. 12 males were used in the study - 6 kept in dark for 11 days and 6 kept in the light and then all returned to the main tank 2 - no significant differences.

NANFH: has modified kelt diet with additional Vitamin A, and minerals - egg condition and eye ups improved. Fungus more of a problem with Connecticut River kelts than Merrimack kelts. Merrimack kelts more successfully trained on commercial diet than Connecticut kelts.

WSS: 87.9% eye up - 68,937 eggs. Sea-run x sea-run lower eye up (50%) than sea-run x parr (90%)

KSSH: Good spawning season.

WNFH: White River had a good spawning season. Egg take was 8.3 million, eye up was 89.3%, shipped 1.3 million. Eggs were small at White River - almost similar to the sea-run eggs. Total eggs incubated were 11.5 million eggs, total eyed- 9.6 million eggs. White River lowered its flow rates per stack from 5 to 4 gal/min. This seemed to help decrease egg mortality and formalin use.

RRSFH: 1.75 million eggs right on prediction. 5 year female fish are 10,800/fish, 4 year old females - 7,400/fish, 3 year olds - 3,460/fish. Cold weather kept reservoir cold - good incubating temp.

PNFH: Received 692,000 eggs from WRNFH - 79% eye up.

RSFH: Received 600,000 eggs from WRNFH - 76% eye up, most loss occurred 24 hours after disinfection.

RCNSS: 36 sea run females, 231,000 eggs, 78% eye up. 1 fall river fish taken from Smith Brook - complete spawn but had broken back and perhaps muscle damage and had to be put down after spawning - was laying sideways - no way to keep her healthy. Genetic mating completed. 2 control females spawned, reconditioned and released in January at Chicopee Boat Launch. 1 came back last week. Friday - a second fish - no scar, pit tag or anchor tag but very brown color and thin suggesting it was the second control fish released.

The Technical Committee discussed and provided the Fish Culture Subcommittee with four charges to consider prior to the pre-spawning meeting in the fall:

- (1) Determine the feasibility of reconditioning male kelts & if necessary design studies to evaluate changes to successfully accommodate male kelts.

Evaluate kelt holding facilities to determine if this plays a role in milt quality & identify needed improvements. Consider kelt milt production and quality in comparison to parr performance, identify fish health sampling implications, evaluate diet, review level of success in reconditioning kelts in other countries, investigate flows, water temperature, lighting requirements, and eye-up. This may become a critical issue if milt is the limiting factor in managing genetics and spawning protocols. Consult with fish health personnel, Gephard, McCormick, Slater, Ravita, Novak, Fletcher, Lofton, scientists in other countries...

Consider necessity of injected or implanted hormones & requisite handling, INAD requirement, Consult with McCormick, Slater, Ravita, Novak, Fletcher, ...

(2) Develop a study plan to test hormone use on sea-run salmon this fall.

Evaluate sea-run salmon holding facilities to determine if this plays a role in sea-run salmon milt quality & identify needed improvements. Consider impacts of handling, injections or implants, and INAD requirements. Consult with McCormick, Slater, Fletcher, Ravita, Novak, ...

(3) Determine if there is any relationship between feed and egg size.

Consider different brood diet used at domestic production facilities. Consult hatchery managers...

(4) Evaluate any needed changes in the egg disinfection protocol.

Consult with Cipriano and the Lamar FHU staff..

## **7. Genetics Subcommittee Update**

Mr. Gephard scheduled a meeting for the Subcommittee on July 6, 2001 at 10:00 a.m. at the Conte Anadromous Fish Research Center. The Subcommittee must decide how to manage the egg bank in light of the low sea-run returns. Kelts may be substituted for sea runs. Additionally, logistics of the expanded domestic marking program at the White River NFH must be considered.

## **8. Salmon Studies Subcommittee Update**

Mr. Bob Stira reported preliminary results of the NU/SOFA/GCC smolt mark-recapture study. The outmigration estimate for this spring is 55,000 smolts. However, the estimate will be adjusted to account for a problem with the ink mark early in the season. A lot of shad (5,000), some spent, were observed this year dropping out of the canal and through the sampler. It was suggested for next year that some smolts be held to test survival after marking and handling to be sure that losses are not higher than expected. Mr. Steve McCormick acknowledged the value of this study to the lab and encouraged NU to find a way continue the work next year even if HGE buys Holyoke.

Mr. McMenemy reported that smolt estimate from index sites is down 20% from last year, probably as a result of fewer stocked fry and poor first summer survival.

The PG&E Deerfield Fish Passage Study has been limited to 4 radio-tagged fish this year because of the low number of adult returns. One of these salmon has passed Turners Falls and Vernon and has been tracked to the base of the Bellows Falls dam. Another was detected at the base of the No. 2 dam on the Deerfield River.

## 9. Shad Studies Subcommittee Update

Mr. Slater provided a summary of shad passage, to date:

Rainbow	160
DSI	4,661
Holyoke	272,565
TF Gatehouse	1,003
TF Spillway	2,627
TF Cabot	20,208
Vernon	1,183

Mr. Slater provided final numbers for American shad transferred from the Holyoke fishlift:

CTDEP	654
MAMF	158
NHMF	723
Conte Lab	77
<u>Above Vernon</u>	<u>71</u>
Total	1,683

Mr. Gephard indicated that CTDEP had hauled 71 shad above Vernon this spring. Mr. McInnes said that NHFG was unable to move any shad above Vernon because there is only one truck for three programs and high water precluded transferring shad when the truck was available. Next year, it may be possible for MAMF and CTDEP to make a couple of trips but it was difficult to schedule this year because Maine was expected to help this year but decided to take shad from the Merrimack instead.

Mr. Alex Haro provided a summary of preliminary results of the ongoing Turners Falls shad passage study. The passage results were about the same as last year with shad having trouble getting from the top of Cabot through the canal to Gatehouse. It is noteworthy that 26 repeat spawners were observed at Holyoke when the shad were tagged.

Mr. Slater indicated that the Shad Studies Subcommittee would be scheduling a meeting soon to discuss plans for additional work at Turners Falls to increase shad passage.

The Sunderland OFA electrofished blueback herring in the Chicopee River this spring. Approximately 1,307 herring were transferred to the Ashuelot River, with some stocked in the mainstem Ashuelot and some in the South Branch, and an additional 800 were transferred to the Westfield River in cooperation with NHFG and MAFW.

Ms. Rowan referred the Technical Committee to a draft blueback herring transfer evaluation protocol developed by Mr. John Galvez, USFWS-Gloucester OFA. The Technical Committee was asked to review the draft and provide comments.

## **10. Fish Passage Subcommittee Update**

Mr. John Warner provided the following update:

### **HYDRO LICENSING**

#### ***Holyoke Project***

- The dispute over the Massachusetts 401 Water Quality Certificate was settled with an agreement between HWP, Mass DEP, TU and CRWC.
- The City of Holyoke Gas and Electric Department and HWP have signed a purchase and sale agreement for the Holyoke Project. According to the P&S agreement, HGE would purchase the dam, canals, Hadley Falls Station and canal units, Cove Island and Log Pond Cove and the Texon Bldg in South Hadley, in addition to some other properties in Holyoke. The Texon Bldg. will be torn down.
- Agencies (MDFW, MDEP, FWS, NMFS) have recently met with HGE staff to discuss transition and requirements of the license.
- The rubber dam/inflatable flashboard system will be installed beginning in July. Tailrace excavation at the 2<sup>nd</sup> lift entrance will be done this summer too. There will be a meeting next week to discuss these issues.

#### ***Fifteen Mile Falls Project - Connecticut River - NH/VT***

- The New Hampshire 401 WQC has been finalized without appeal, allowing for FERC to issue a license this summer. Following license issuance, the Settlement Agreement for the project requires PG&E to implement fish passage when they are notified that a stocking program for Atlantic salmon is implemented upstream from the project. A spill event during the smolt study allowed 12 fish to pass Moore and Comerford and eight of these fish reached Turners Falls. This opens a new option for fish passage and should be studied further.

### **FISH PASSAGE ACTIVITIES**

#### **Upstream Passage**

##### ***Turners Falls***

- Evaluations of shad passage are being undertaken by NU and Conte (Alex Haro) again this year.
- The “flip lip” on Cabot bypass discharge was installed and operated, though the problem of eroding the downstream bank was not alleviated at all flow conditions. Further discussions are needed.
- Passage totals at Gatehouse continue to be a concern.

### ***Deerfield River Passage Trigger***

Of the salmon from Holyoke radiotagged and released for the Deerfield River study, one salmon has been recorded at Deerfield Number 2.

### ***West Springfield Eelway***

The Mass.EOEA and MDFW have secured funds to construct a geotech style eel fishway with capture tank at the DSI-West Springfield Project. The project owner is a partner in the project and Conte Lab (Alex) has providing technical advice, Final design drawings are being completed and construction should begin soon.

### **Downstream Passage**

#### ***Cavendish - Black River - VT***

The bypass with a flow inducer was re-evaluated again this spring. Formal results have not yet been received, but reports are that while improved, passage is still less efficient than we'd like.

#### ***Wells River/Boltonville - Wells River - VT***

A small bypass sluice (5cfs) and collection box were installed this spring. While smaller and handling less flow than standard designs, it is an improvement over having no sluiceway at all. The ability to get more flows for the fishway are limited by license conditions.

#### ***Newbury Project - Wells River - VT***

The project owner has submitted design plans for a bypass facility at the project and has received agency approval.

#### ***East Barnet Project - Passumpsic River - VT***

JW met on site with Curt Orvis (FWS-Engineering) and Len Gerardi (VDFW) and representatives of CVPS to discuss our concerns about passage effectiveness at East Barnet, based on Steve McCormick's observations and smolts sampling there. CVPS agreed to develop a plan to study the passage of smolts at the project., We are awaiting the study plan.

### **Dam Removals**

#### ***Ashuelot River***

McGoldrick Dam in Hinsdale (2<sup>nd</sup> dam on the river) should be coming out this summer after a 1-year delay to address historical preservation issues. Winchester Dam (5<sup>th</sup> dam) is also scheduled to come out but that is less certain. The West Swanzey dam removal project has been

complicated by a covered bridge upstream. The footings of the bridge may be impaired once the dam is removed and this issue has to be addressed before any further action can be taken.

Two dams on Yokum Brook in Beckett, MA, are also under consideration for removal.

The U.S. Army Corps of Engineers has completed construction of the Townshend Dam electric fish barrier on the West River.

## **11. Other Business**

**ISAv** A blood test (PCR) used to screen for viruses has revealed a suspected case of Infectious Salmon Anemia, ISAv, in a sea-run salmon from the Penobscot River. The only salmon of 85 returns to date to have blood test positive for ISAv is now isolated at the Craig Brook NFH, Maine. A 28-day cell culture is underway to confirm the results.

**Research Forum** The Technical Committee hosted the Research Forum on January 25, 2001. Fifteen speakers presented information on a variety of topics from genetics to anaesthetics. Eight-four people attended the forum which was hailed a success. The potential for a parallel forum in Maine is under consideration.

**Award** *Ambassador for Science* recognition was bestowed upon the CRASC by the U.S. Geological Survey at a ceremony in Reston, Virginia, on April 24, 2001. The award is meant to honor significant contributions toward scientific knowledge and integration of that knowledge into sound scientific decision-making. Mr. Tom Menard, Massachusetts Public Commissioner accepted the award for the Commission. The plaque will be permanently displayed in the conference room at the Conte Anadromous Fish Research Center.

**Fish Request** Mr. Ken Bergstrom, Western Massachusetts Center for Sustainable Aquaculture, requested 20 Atlantic salmon broodstock to replace fish at the Berkshire Hatchery. Mr. Bergstrom also requested about 1,000 parr to grow out as smolts and domestic broodstock for stocking and educational purposes. The hatchery was depopulated this spring after the Lamar Fish Health Unit detected ERM and BKD in spawning brook trout last fall. The hatchery will be entirely disinfected this summer before clean stocks of fish are returned to the facility. No parr are currently available. Mr. Slater commented that he had not heard of this request and would need time to consider it. The Technical Committee agreed to await Slater's comments before approving the request.

## **NASCO**

Mr. Gephard provided an update on the 18<sup>th</sup> annual NASCO meeting held this month in Mondariz, Spain. A 20 metric ton subsistence fishery remains plus a one-year commercial fishing agreement was established with a self-adjusting quota system for the West Greenland fishery that included 3 successive harvest periods, from mid-August until the end of September, with separate quotas that have built in evaluation and feedback mechanisms permitting additional levels of harvest or closure based on actual catch per unit effort.

The harvest issues between France and NASCO over the interceptory fishery on the St. Pierre and Miquelon Islands remain unchanged and contentious. The U.S. delegation plans to contact France in an attempt to get an observer on the islands in order to better understand the June-July fishery.

NASCO has established a research program with outside funding to address a number of categories of research. Anyone can apply for the research funds but they must be sponsored by a NASCO delegation. The idea is to better coordinate research among nations and encourage cooperative efforts.

Mr. Gephard pointed out that NASCO has developed guidelines on transgenic salmon and the federal government is grappling with the issue in the USFDA, USFWS, NMFS, and even USEPA. The bottom line is that the States need to develop policies to ensure that land-based aquaculture facilities cannot bring in transgenic salmon which are a threat to existing stocks because of their size, feeding behavior, predator susceptibility, and cross-breeding potential.

**PNFH Construction** Mr. Aloisi told the Committee that the intake construction has been delayed at the PNFH because the bid exceeded available funds. The option of holding these pre-smolts at the White River NFH was discussed as an interim solution while the funding issue is resolved. [Aloisi received notification that the funding request has been forwarded to Congress from DOI]

**Smolt Tagging** Mr. McCormick provided an update on this spring's smolt research. Both wild smolts and hatchery smolts were tagged and released in Vermont and New Hampshire with best outmigration success observed among tributaries to the South. McCormick requested assistance tagging smolts in the fall and the Coordinator offered the assistance of the Sunderland OFA.

**PIT Tags** Mr. Ben Letcher is convening a new Northeast PIT Tag Steering Committee to allow for bulk purchases of PIT tags at reduced cost.

**Historical Data**

Mr. McMenemy provided the Technical Committee with an appendix from *Fishing in New Hampshire, A History* by Jack Noon. It provides a review of salmon citations from historic records that clearly shows salmon to have been present in New England in substantial numbers in the 1600s and early 1700s. The Appendix was included in the book to counter an archaeologist's theory that salmon numbers were always insignificant here.

**12. Next Technical Committee Meeting Date**

The next Technical Committee meeting date is October 11, 2001.

The next CRASC meeting date is October 25, 2001.

### Attendance

Janice Rowan	USFWS
John Warner	USFWS
Duncan McInnes	NHFG
Peter Colosi	NMFS
Ken Gillette	USFWS
Doug Aloisi	USFWS
Jamie Pearlstein	USGS
Ben Letcher	USGS
Steve McCormick	USGS
Tim Wildman	CRDEP
Ben Rizzo	USFWS
Bruce Williams	USACE
Jon Truebe	Lakeview Engineering
Warren Fisher	NH/VT Volunteer
Rose Fisher	NH/VT Volunteer
Kevin Pelosky	USFWS
Bob Stira	Northeast Generation Services Co.
Alex Haro	USGS
Steve Rideout	USGS
Caleb Slater	MAFW
Steve Gephard	CTDEP
Jay McMenemy	VTFW
Darleen Cutting	USFWS