

**Lake Champlain Fish and Wildlife Management Cooperative
Policy Committee Meeting
Minutes**

Date: August 21, 2019

Time: 10:00 a.m. – 3:55 p.m.

Location: Club Room, Basin Harbor Club / Lake Champlain Maritime Museum, Vergennes, VT

Attendees

VTFWD: Louis Porter, Eric Palmer, Lee Simard, Bernie Pientka, Shawn Good, Kevin Kelsey

NYSDEC: Tony Wilkinson, Steve Hurst, Nicole Balk

USFWS: Wendi Weber, Sherry White, Bill Ardren, Steve Smith, Brad Young, BJ Allaire, Chris Smith, Andrew Milliken, Henry Bouchard, Jaziah Hannon-Moonstone, Caleb Spiegel (via phone), Randy Dettmers (via phone)

LCBP: Eric Howe

Senator Leahy's Office: Tom Berry

Representative Welch's Office: Thea Wurzburg

UVM: Ellen Marsden

Vermont Cooperative Fish & Wildlife Research Unit: Donna Parrish (via phone)

1. Meeting convened at 10:00 AM
 - A. Wendi Weber welcomed everyone to the meeting and thanked Andrew Milliken for organizing. Andrew went over some logistics about coordinating a trip over to the Lake Champlain Maritime Museum where lunch was held.
 - B. Steve Hurst introduced Nicole Balk, NYSDEC's new fish biologist that will be working on Lake Champlain.
2. Minutes – taken by BJ Allaire, USFWS
3. Last meeting minutes (August 22, 2018) approved – no further discussion or changes needed.
4. Agency Announcements and Budget Updates –
 - A. Tony Wilkinson: NYSDEC budget is flat moving forward into next year. The key challenge has been backfilling positions once they are vacated. They are hoping to post a job announcement to backfill the NYSDEC Region 5 fish biologist position soon with the retirement of Lance Durfey. Tony expressed how happy they were to have Nicole Balk on as a Lake Champlain Fish Biologist. Hatchery staffing levels are better than they have been in some time with currently 75 out of 80 positions filled. Steve Hurst talked about a new partnership that the department has with SUNY Cobleskill. They are funding an Aquaculture Engineer there and they are hoping to see good things in hatchery innovation from this cooperative.

- B. Louis Porter: VTFWD entered last year with a bad budget outlook including the possibility of closing Salisbury Fish Culture Station. Additional funding was found to balance the budget. The department is starting off this year with an estimated \$600K – \$700K gap in funding. Not the worst, but there is work to be done to fill that funding gap. Adam Miller, Fish Culture Operations Manager is moving to the wildlife side of the department. With Rich Kern, Brian Chipman, and Chet Mackenzie all retiring recently there will be some important vacancies to fill. Lee Simard has transferred up to the Essex Junction office from the Springfield office to fill Brian Chipman’s position. A tentative offer has been made to fill Chet Mackenzie’s position. Shawn Good will be taking on additional responsibilities in Region 3.
- C. Sherry White: Expecting a flat or slightly better fisheries budget in FY20. While hatchery funding has increased in recent years, the budget for fisheries and habitat restoration has been going down. This has meant fewer on the ground projects and not backfilling some positions. The Northeast Region has lost one complex manager, and Andrew will be overseeing additional offices and hatcheries in Massachusetts. The LCFWCO received approximately \$2 million in funding including \$500K dedicated to the sea lamprey control program. Bill Ardren received the national Rachel Carson Award for scientific achievement for his work on Atlantic salmon. The sea lamprey control team received a Strategic Conservation Award for enhancing sea lamprey control on Lake Champlain.
- D. Bernie Pientka (VTFWD) announced that there have been a number of recent reports (approximately 28 in the last week) to the department of people finding large (2ft – 3ft) American eels washing up on shore. This has been reported in multiple areas in the northern part of Lake Champlain. Not clear if this is a major die off event yet, but staff are asked to forward any reports of dead eels onto Bernie.
- E. Tom Berry: FY20 – With the 2-year budget deal we should have no reason to worry about a government shutdown. Budget numbers are looking strong so far. The House has marked-up and passed a budget, but the Senate has not had a chance to do their mark-ups yet. It is likely that we will have a continuing resolution entering into the next budget year that starts on 10/1/2019. Champlain specific funding was \$7 million last year and EPA / Basin Program funding was \$11 million, which was the highest ever. Possibly level funded for FY20 with the possibility of some additional funding for a UVM research vessel. Tom expressed the importance of having a USFWS base funding line dedicated to Lake Champlain sea lamprey control. Senator Leahy was able to include Lake Champlain in the Vessel Incidental Discharge Act (VIDA). This is important because it allows us to potentially tap into \$50 million in funding for invasive species control.

5. Annual Report Highlights

Bill Ardren provided a summary and highlights from the 2018 annual report.

Pros -

- Condition factors for salmon and lake trout remain high.
- Recruitment of wild fish observed for Lake Trout.
- Salmon return numbers doubled in 2018 from the lows observed in 2017, except for the Winooski River.

Cons -

- Salmon and lake trout stocking number were below targets (487K vs 522K). *This was due to a fish kill event at the Adirondack Hatchery and ongoing construction at DDENFH and is not expected to be a concern going forward.
- Sea lamprey wounding rates remain above target levels for lake trout (48 vs 25) and salmon (29 vs 15).
- New virus was identified in Lake Champlain landlocked Atlantic salmon (Aquareovirus A).

A. Boquet Atlantic Salmon Redd Surveys – Bill Ardren.

The Willsboro Dam was removed in 2015 opening up over 70 miles of spawning habitat. A total of 192 redds were observed in 2018, the largest number observed since the survey started. Of those, 164 redds were below the Willsboro Cascade and 28 were above. Work continues with USFWS, NYSDEC, TNC, and towns to restore habitat with the goal of seeing more redds above the cascade.

B. Fisheries Monitoring – Bill Ardren.

Work on Lake Champlain continues for monitoring yellow perch, walleye, large and smallmouth bass, muskellunge, American eel, and lake Sturgeon.

C. Applied Research – Bill Ardren.

Many projects ongoing including monitoring sturgeon movement patterns and abundance, development of salmon and steelhead broodstocks, lake trout recruitment, downstream passage at the Winooski River Essex 19 Dam, and homing and imprinting cues for landlocked Atlantic salmon.

D. Salmonid Condition Indicators – Bill Ardren.

A working group was established in 2014 to draft a Protocol for Summarizing Indicators of Salmonid Condition. Three of the main contributors have now retired – Chet Mackenzie, Brian Chipman, and Lance Durfey. The goal of the plan is to maintain a balanced and robust fish population that provides a fishery for salmonids. A list of 16 indicators was selected to monitor the lake trout and salmon fishery. Thresholds for the 16 indicators were set at the 25th and 75th percentile bounds over the seven year desired state period (2011 – 2017). If indicators fall outside of threshold bounds it will be flagged. Starting with the 2019 FTC annual report, the status of each indicator will be included in a report card format. In the report card, the color for each of the 16 indicators (green, yellow, or red) will be discussed and assigned by the salmonid working group. Steve Hurst recommended that the group commit to meeting regularly to review the list of indicators. As we move forward indicators will likely be added, dropped, and change over time.

E. River-Run Atlantic Salmon Restoration Updates & Draft Plan – Bill Ardren.

This plan is where we get into the details on how we get to our management goals for restoring a salmon fishery to seven rivers (3 NY, 4 VT). There are four biologically based restoration stages – 1.) Reintroduction 2.) Recolonization 3.) Local Adaption 4.) Self-sustaining Natural Populations. Each river will have its own management goal for what restoration stage is achievable. Some river may never have a goal of getting past stage 1 or 2. The goal is to have a draft plan to VT and NY in September and a final draft ready for the January Fisheries Technical Committee Meeting.

F. Sturgeon Assessment and Status of Petition to List – Donna Parrish (phone) & Andrew Milliken. The petition to list lake sturgeon under the Endangered Species Act by the Center for Biological Diversity had a positive 90-day finding by the USFWS, meaning that there was substantial information that a listing may be warranted. The Service will now conduct a thorough species status assessment and 12-month finding to determine if lake sturgeon should be listed. Getting information from our state partners will be critical during this species status assessment. It maybe some time before this in-depth review begins. Candidate species are placed into 1 of 5 bins in the national listing work plan that is currently planning out to 2024. With the 12-month finding, the USFWS will publish either a not warranted finding or a proposed listing rule. USFWS will keep NYSDEC and VTFWD informed about the status. Lisa Izzo, Donna Parrish, Gayle Zydlewski, and Chet Mackenzie have been working for several years on estimating abundance of lake sturgeon. Dual-frequency Identification Sonar has been used for 3 year in the Winooski River (2017 – 2019) to estimate abundance of adult lake sturgeon. Data from 2017 showed 271 targets with a preliminary estimate of 119 adults migrating to the spawning grounds. In 2019, 18 of 19 tagged fish returned to the Winooski. The one tagged female has not returned in 3 years. Hopefully she will return in 2020. On October 10th, 2018 the first yearling sturgeon was caught after 2 ½ years of sampling. They have also been experimenting with side scan sonar to estimate overwintering delta populations.

G. Hatchery Updates

Federal Hatcheries – Henry Bouchard.

Dwight D. Eisenhower NFH – 109K salmon released in 2019 including some for the Memphremagog study. Things are on target for next year's stockings. DDENFH was selected as one of five National Fish Hatcheries in the country to undergo a modernization review.

White River NFH – Currently has 3-year classes of landlocked Atlantic salmon brood stock. This will be the first year that brood stock will produce eggs. Currently construction is going on to replace a number of valves that will allow the hatchery to isolate different well water sources to deliver desired water temperatures and improve energy efficiency.

Vermont Hatcheries – Kevin Kelsey.

Landlocked numbers were 7% below our target, but within the general + / - 10% goal. The walleye room is getting a lot of good reviews and attention both nationally and internationally. They are currently mixing a diet from France and Japan and they are seeing good results. The self-cleaning tanks are showing great results with less cannibalism and higher survival. Continuing their partnership with the Lake Champlain Walleye Association with raising walleye in extensive culture ponds. With their improved culture practices the hatchery can now produce as many walleye to harvest in a 5ft tank as is typically harvested from a ½-acre pond.

New York Hatcheries – Steve Hurst.

Hatchery staffing in the state is in a better position, fewer vacancies, than it has been in some time. There have been a number of upgrades made to the

hatchery monitoring system at Adirondack Hatchery to avoid future issues like the one last year where a number of landlocked salmon were lost. There is a new hatchery housing building at Adirondack Hatchery at a cost of approximately \$225K.

H. Sauger Updates - Steve Hurst.

After considering a brood source from Lac St. Pierre in Quebec and an upper Mississippi River strain, NYSDEC believes the cost to send staff and the amount of time it would take to collect gametes from Lac St. Pierre is too high. It was recommended that the Mississippi strain be selected. A letter will be drafted to Quebec to be signed by the Policy Committee. We will then wait to see Quebec's response before moving forward with a broodstock plan.

I. Lake Trout Research Updates - Ellen Marsden.

We have had lake trout reproduction going on in Lake Champlain for some time, but have only seen survival past about 5 weeks in recent years. UVM started seeing wild lake trout recruits in 2015 in their trawls. The percent of wild fish has continued to increase each year since 2015 (2015 = 27.8%, 2016 = 31.2%, 2017 = 55.9%, 2018 = 65.9%). The percent of wild fish in 2019 is 48.1%, but it is still early. Trawling gear only targets ages 0, 1, 2, and 3. In 2019, UVM began doing some targeted gill netting to collect lake trout age 4+. Wild lake trout seem to be growing as well as stocked fish and better than stocked fish over the winter. Work has been ongoing to use the maxillary bone as a non-lethal ageing tool. A lake trout from Lake Champlain collected in July was aged at 30 years. Wild juvenile lake trout are showing up in the highest percentage in the central lake, but are not yet showing up in the two known spawning assessment locations. Is there another spawning location that we do not know about? Work using sonar and an ROV to search for additional spawning sites has begun.

J. Aquatic Habitat Restoration Updates - Chris Smith & Nicole Balk.

Chris talked about the number of regulations involved with doing aquatic connectivity projects including VT stream alteration permits, NYSDEC SEQR and Protection of Waters Permit, as well as VT and NY Dam Safety permits. There are a lot of technical resources available that go into these projects including VTFWD Aquatic Organism Passage Guidelines, NYDES Stream Crossing Standards and Specifications, and VT Culvert Assessment Protocols and Data Base. Financial resources include NYSDEC Water Quality Improvement Program (WQIP), Eastern Brook Trout Joint Venture, Great Lakes Fishery Commission, and VT State Wildlife Incentive Grants among others. Plans for the Imperial Dam fish ladder are currently under review and construction could begin as early as 2020. Projects including the Quarry Dam (West Branch Ausable) and Rome Dam removals were highlighted. Work has begun on a 300 – 400 linear foot bank stabilization project on the Battenkill River. There are 7 facilities up for hydro relicensing in 2019, and 11 more in 2020. Other projects highlighted includes the Mill Pond Dam removal (Colchester, VT), Ottis Brook in the Ausable River drainage, and a perched culvert project in Waitsfield, VT. Working with many groups and conservation agencies and looking at projects with a biological and ecological lens to evaluate projects.

K. International Year of the Salmon – Jazzy Hannon-Moonstone.

The International Year of the Salmon aims to bring people together to share and develop knowledge more effectively, raise awareness, and take action. Jazzy has been working closely with the Lake Champlain Basin Program and the Lake Champlain Maritime Museum. A dedicated

web page can be found at lcbp.org/salmon. There are four sets of salmon display panels to help spread the word about the International Year of the Salmon. There have been a number of education and outreach programs and school visits. A salmon themed tour of the Lake Champlain Maritime Museum's canal boat the Lois McClure has made several visits around the lake with over 2,000 visitors. Funding was made available for a community generated movie with the Swanton Arts Council and the Missisquoi NWR. Agents of Discovery is a free game for your mobile device aimed at getting kids out to see conservation work in action. A number of different missions have been set up around the lake. There will be a Lake Champlain Salmon Festival at Volunteers Green in Richmond, Vermont on October 5th (9:30 – 3:30).

6. Lunch – During lunch break, Susan Evans McClure and Matt Harrison gave a tour of the Lake Champlain Maritime Museum and the Schooner Lois McClure.
7. Lamprey Control Update – Brad Young.
 - Hoisington Brook in Westport New York is a new tributary that will be added to the treatment rotation. An Environmental Assessment to add this tributary is nearly complete and staff hope to be able to treat the brook this fall.
 - In 2019, 8 post-treatment surveys were done to evaluate how effective 2018 treatments had been.
 - A total of 5 pre-treatment surveys were completed to see if a treatment is warranted in 2020.
 - Two delta surveys, Mill Brook Delta and Hoisington Brook Delta, were done on approximately 75 acres. It was determined that no delta treatments would be needed in the fall of 2019.
 - A total of 7 streams were trapped in 2019 (NY = 3, VT = 3, Quebec = 1).
 - There are 6 rivers scheduled for treatment this fall in the southern portion of Lake Champlain.
 - In 2020, 3 TFM treatments and 1 combination treatment are proposed.
 - Post-treatment surveys showed successful treatments in the Little Chazy River and Rea Brook, both of which were treated for the first time in the fall of 2018.
 - Wounding rates for lake trout and salmon remain above targets. It is important to remember that it's not just a reflection of the number of adult lamprey in the lake, but includes variables like the number of ~~host~~hosts in the lengths that are counted, attachment frequency, etc.
 - There have been a number of improvements to trapping sea lamprey adults in the last couple of years. This includes new and improved traps in Pond Brook and Sunderland Brook, a new low head barrier in Trout Brook, as well an experimental type of trap being tested in Malletts Creek.
 - Toxicity study was completed at a cost of \$341K. The study allowed Vermont to raise their advisory threshold from 3ppb to 100ppb. NY will keep their advisory threshold at 50ppb.
 - Thanks to Senator Leahy for his continued funding and support of the program. For the second consecutive year, there has been a dedicated line item in the USFWS budget for funding sea lamprey control on Lake Champlain.
 - It's important to find a way to fund the sea lamprey program after Senator Leahy is no longer in office. The Management Committee and Policy Committee in coordination with the GLFC, Senator Leahy's office, and other potential partners were tasked with developing a strategy for approaching the transition from a program run on annually appropriated GLFC funds to a

program with long-term dedicated Lake Champlain Cooperative funding. Progress will be discussed at the 2020 Policy Committee Meeting.

- There is a new attempt in the work to block lamprey from passing under the Frog Farm on the Great Chazy River.
- A new low head barrier is being propose on the cascade of the LaPlatte River in Shelburne Vermont to prevent lamprey from migrating above the cascade.

8. Strategic Plan Update – Steve Hurst.

- A charge to create a new Strategic Plan for Lake Champlain Fisheries began in October 2017.
- After a slow start, the Strategic Plan Working Group has had 5 meetings since the fall of 2018.
- The new Strategic Plan is designed to be a 5-year fisheries management plan and should have measurable goals and objectives and has moved away from a fish community based plan to more of a species specific plan.
- The plan is focused on outcomes and strives for measurable objectives that are set up in a tabular format so that they can be transferred to an annual report card.
- There have been a lot of struggles with what the goals and objectives should be and what actions can be taken to achieve those objectives.
- There was a collective discussion on what we need to do and where to go from here.
- Next steps – Review comments and update tables, review by the management team, fine tune the narrative, circulate a draft, and finalize the document.
- Several people commented that this was a good process to go through and may change how we manage fisheries on Lake Champlain.
- There was discussion about how there are aspects of the fishery that are just not measurable or manageable.
- The question was raised if we should make this just a three species management plan (landlocked salmon, lake trout, and sea lamprey).
- For much of the fishery we don't even have baseline data to know where we are starting from.
- There is a need to do more creel surveys.
- There was a lot of discussion on how inclusive this plan should be. This plan is different and is not just a plan for what we are doing, but a plan for where we need to go. There were some concerns that there may be different management philosophies and desired outcome for different agencies.
- Wendi asked if this was a 3 species document is this something that could be done in a month? Steve said probably.
- Steve said that he would like to see us push to complete this as it is following the original charge to cover all fisheries species.
- It was agreed that the Strategic Plan for the big 3 species would be finalized and completed for the January Fisheries Technical Committee meeting and that work would continue on the larger Strategic Plan for completion by June 30th of 2020.

9. Cormorant Management on Champlain – Caleb Spiegel (phone) and Randy Dettmers (phone).

- In May of 2016, the US District Court for the District of Columbia remanded the Service's 2014 Environmental Assessment (EA) and depredation orders for cormorant management until the Service completed an adequate National Environmental Policy Act analysis.
- An EA was completed in 2017, but did not cover wild and stocked fisheries due to the lack of readily available scientific information.

- In 2018, the USFWS started working with the Association of Fish and Wildlife Agencies to find out more information on cormorants and their impact on fisheries. Four workshops were held and a summary report was produced in December of 2018.
- In March of 2019, a 3-day meeting was held summarizing available information and discussing management alternatives.
- In the spring of 2019, the USFWS identified possible management alternatives and at a July meeting with Principal Director Margaret Everson approval was given to begin pursuing some of the new management alternatives.
- The next step is for the USFWS to brief Assistant Secretary for Fish and Wildlife and Parks, Robert Wallace. If approved by the Assistant Secretary, the approved alternatives will serve as the basis for the NEPA process.
- Caleb said that he was not able to say much about the proposed alternatives until the Assistant Secretary has a chance to sign off on them, but USFWS staff anticipates that more information will be available soon.
- Randy gave an update on control efforts on Lake Champlain. Permits to NYSDEC are for the state and not specifically for Lake Champlain, so actual takings on Lake Champlain can be hard to determine. The numbers for 2019 are not yet available.
- Shawn Good expressed the growing concerns from anglers and asked why only 93 birds were taken in Vermont in 2018 when 1500 were authorized? Caleb said that the authorization was for public lands and it's believed that the birds had moved to private lands.
- Tom Berry asked if egg oiling was continuing on the Four Brothers Islands. Caleb said that it had been done in 2018, but he was not sure about 2019.
- Steve Hurst said that the GLFC recently sent a letter to Margaret Everson to ask for relief from this order. Wendi said that she would check on the status of this request on report back to NYSDEC.

10. Lake Champlain Basin Program Updates – Eric Howe.

- The FY19 budget was the largest ever for the LCBP and helped support a large number of projects.
- Work is continuing to support the International Year of the Salmon.
- Over \$485K went to free flowing rivers to support dam removals. Five Vermont dams have been selected for removal.
- LCBP funded \$155K to support the Lake Champlain Boat Launch Stewards at high-use public boat launches to prevent the spread of invasive species. This included funding 14 seasonal staff that inspected 10k – 12k boats and trailers.
- An eDNA project has been funded (\$13k) for early detection of quagga mussels in the Richelieu River.
- Upcoming projects include forage fish community monitoring (\$238K) and funding a TNC project to restore aquatic habitat connectivity in the North Branch of the Boquet River watershed (\$130K).
- Steve Hurst expressed his thanks for the continued funding and efforts that have been put towards the Champlain Canal barrier feasibility study.

11. Additional Agenda Items;

- A motion to approve the FTC 2018 Annual Report was approved.

3:55 p.m. **Adjourn**

DRAFT

LAKE CHAMPLAIN FISH AND WILDLIFE MANAGEMENT COOPERATIVE

Policy Committee Meeting

August 21, 2019, 9:30 a.m. – 4:00 p.m.

Club Room, Basin Harbor Club/Lake Champlain Maritime Museum, Vergennes,
VT

FINAL DRAFT Agenda

- 9:30 a.m. **Coffee and Treats (provided)**
- 10:00 a.m. **Convene**
Introductions, Review Agenda, Logistics *Wendi Weber, Andrew Milliken (USFWS)*
Review/Approve Minutes and Action Items from 2018 *Policy Committee: Louis Porter (VTFWD),
Tony Wilkinson (NYSDEC), Wendi Weber*
Agency Announcements and Budget Updates
FY 19 and 20 Federal Budget and Legislative Updates
Relevant to Lake Champlain *Tom Berry (Senator Leahy)*
- 10:30 a.m. **Fisheries Updates**
Fisheries Technical Committee Annual Report *Bill Ardren (USFWS) 15 min.*
Salmonid Condition Indicators *Bill Ardren, Bernie Pientka (VTFWD) 15 min.*
River-Run Salmon Restoration Updates & Draft Plan *Bill Ardren (USFWS) 15 min.*
Sturgeon Assessment and Status of Petition to List *Donna Parrish (USGS), Andrew Milliken
15 min.*
Hatchery Updates *Kevin Kelsey (VTFWD), Steve Hurst (NYSDEC)
Henry Bouchard (USFWS) 15 min.*
Sauger Update *Steve Hurst 5 min.*

Lake Trout Research Results *Ellen Marsden (UVM) 15 min.*

Aquatic Habitat Restoration Updates *Chris Smith (USFWS), Nicole Balk (NYSDEC),
15 min.*

International Year of the Salmon *Jazzy Hannon-Moonstone (USFWS) 10 min.*
- 12:30 p.m. **Lunch (provided) and tour of the sailing canal boat *Lois McClure* and International Year of the Salmon
at the Lake Champlain Maritime Museum (2 minute drive)**

- 1:30 p.m. **Sea Lamprey Control**
 Status, Assessment Results, Control Updates, 2019 Plans
 Lampricide Toxicity Study Results, Environmental Assessment, Next Steps
Brad Young (USFWS)
- 2:15 p.m. **Strategic Plan Review and Update**
 Review of approach, draft revised plan and next steps
Steve Hurst, Eric Palmer (VTFWD), Andrew Milliken, Ellen Marsden & team
- 3:30 p.m. **Cormorant Management on Lake Champlain**
 Results of recent Cormorant and Free-Swimming Fish Workshop, next steps, status of control on Lake Champlain
Caleb Spiegel and Randy Dettmers (USFWS) via phone
- 3:40 p.m. **Lake Champlain Basin Program Updates**
 Update on Fish and Wildlife Related Projects and Aquatic Invasive Species
Eric Howe (LCBP)
- 3:55 p.m. **Additional Agenda Items; Review Next Steps and Action Items**
Policy Committee
- 4:00 p.m. **Adjourn**
- 4:15 p.m. **Rowing Champlain Longboats at Maritime Museum**
All who are interested

