

**Lake Champlain Fish and Wildlife Management Cooperative**  
**Policy Committee Meeting Minutes**  
Holiday Inn, Lake George NY  
April 27, 2006

Minutes by Dave Nettles

**Introductions:** The meeting was called to order by Policy Committee Chair Marvin Moriarty. Attendees introduced themselves with the following attendance recorded:

**Policy Committee:** Marvin Moriarty (USFWS), Gerry Barnhart (NYSDEC), Wayne Laroche (VTFWD).

**Fisheries Management Committee:** Dave Tilton (USFWS), Doug Stang (NYSDEC), Eric Palmer (VTFWD).

**Fisheries Technical Committee:**

USFWS: Dave Nettles, Bradley Young, Madeleine Lyttle, Nick Staats, Wayne Bouffard.

NYSDEC: Bill Schoch, Lance Durfey.

VTFWD: Shawn Good, Chet MacKenzie, Brian Chipman, Bernie Pientka.

UVM: Ellen Marsden

**Advisors:** Jaime Geiger (USFWS), Joe Racette (NYSDEC), Mark Sweeney (VTFWD), John Gobielle (VTFWD)

**1. Status of Sea Lamprey Control and the Salmonid Fishery:**

Bill Schoch conveyed that sea lamprey wounding rates have risen and that sea lamprey control is not meeting the intended wounding rate objectives as established by the Cooperative. Brad Young followed with a map handout descriptive of the sea lamprey assessment and control efforts on Lake Champlain and indicated the locations of controlled and uncontrolled sea lamprey populations and where new assessment efforts will be conducted. Sea lamprey distributions have expanded into new locations. The 2006 adult sea lamprey trapping in tributaries is, so far, exceeding capture rates observed in 2005. Sea lamprey barrier development planned in 2006 includes an Army Corps project to exclude sea lamprey from areas upstream of the existing but compromised Frog Farm (Waterworks) barrier on the Great Chazy River and the development and potential construction of a barrier screen on the Morpion Stream in Quebec. A future barrier is being considered for the LaPlatte River in Vermont.

Brian Chipman distributed handouts illustrating the trend and recent fall 2005 upswing of sea lamprey wounding to 90 and 54 fresh or healing wounds per 100 on Lake Champlain lake trout and salmon, respectively. Respective sea lamprey wounding targets for Lake Champlain are 25 and 15 per 100 fish. The walleye sea lamprey wounding target of 2 per 100 fish is likewise not being met.

Gerry Barnhart questioned whether sea lamprey wounding data for Lake Champlain sturgeon exists. Chet MacKenzie responded that data has been collected from captured adults. Brian Chipman added that comparative data may be available from a Purdue University study that addressed sea lamprey wounding and mortality in sturgeon.

Dave Tilton sought clarification of the significance of the walleye data to sea lamprey control lampricide treatments. Brian Chipman and Chet MacKenzie answered that spring walleye sea lamprey wounding in excess of the target level of 2 per 100 fish could justify and trigger a 2007 lampricide treatment of the Poultney River.

Bill Schoch described the locations where sea lamprey control has not occurred. Pike River and Morpion Stream in Quebec have not had their sea lamprey populations controlled but barrier establishment represents the best we can do toward control because Quebec will not allow the use of lampricides. The Poultney is tentatively scheduled for fall of 2007 provided wounding targets are not met. Other untreated populations exist in the Missisquoi, LaMoille and LaPlatte Rivers in Vermont. Bill conveyed that for lampricide treatments a 95% mortality of sea lamprey larvae is assumed and those not killed represent residuals that survive treatment. The residuals and compensatory sea lamprey dynamics represent the source of some parasitism largely beyond our ability to influence, thus, we need to target and control known populations. There was some discussion of early sea lamprey transformation from non-parasitic to parasitic phase, prior to fall treatments, and how to measure or deal with it.

Ellen Marsden was queried regarding her mark-recapture and micro-elemental study results. These studies represented efforts to determine contributions to the parasitic sea lamprey population from individual larval stream populations. The mark-recapture study resulted in too few returns to draw firm conclusions from regarding streams of origin. The micro-elemental study likewise failed to define streams of origin because the chemical signatures were too weak in adults to assign to streams of origin. The chemical signals were either masked or too diluted. Additional lab work is necessary to increase the resolution of the elemental signature somehow.

Dave Nettles described 2004 efforts to investigate numerous smaller tributaries in New York using spot sea lamprey detection electrofishing surveys at near-mouth locations. No additional sea lamprey populations were revealed as a result of these surveys. Wayne Bouffard indicated that similar efforts in Vermont tributaries also failed to detect additional populations. Dave described the five Lake Champlain river-delta sea lamprey assessments and the resulting two sea lamprey control treatments. Three additional deltas will be added to the assessment schedule in 2006 (Beaver, Mullen, and Mill Brooks).

Calculation of wounding rates were discussed, in particular, the observations by Brian Chipman of higher wounding rates among northern Main-Lake, lake trout as opposed to those captured further south. Dave Nettles noted the inverse of that relationship as it pertains to salmon and sea lamprey wounding (higher wounding in the

South as opposed to North). The group discussion led to the conclusion that wounding rates are excessive any way you look at it and that all points show excessive wounding. Those observations are echoed in the absence of salmon runs and poor survival of salmonids. Ellen will check on her 2002 sea lamprey population estimate generated from her limited sea lamprey adult return information.

## **2. Staffing Capability for Sea Lamprey Control:**

Brad Young described the addition of four temporary USFWS sea lamprey assessment technicians, two in Vermont and two in New York. These staff will provide increased effort toward sea lamprey assessment and control activities. These additional staff were made possible by incorporating funds from federal funding in the GLFC Lake Champlain account.

Marvin Moriarty asked if sea lamprey program staffing is sufficient. Have there been adjustments to keep up with expansion of the sea lamprey population? The group responded that NY and VT resources have not kept pace and that additional positions may soon be lost. Focus was directed to the addendum describing the potential need for one additional biologist equivalent and one technician equivalent in addition to existing staff levels.

Wayne Laroche stated that Vermont has been making some position changes and has been meeting new challenges. He is prepared and committed to do what is necessary to move forward in process and personnel associated with sea lamprey control. The restoration of the cold water fishery will provide a good return for that investment. Vermont will meet the challenges as they are presented. Doug Stang stated that New York will help with additional seasonal funding and dedication of existing staff.

Gerry Barnhart asked if additional GLFC funding could be used to fund new positions. The group explained that the funds are limited and pretty much dedicated already. Wayne Laroche asked whether additional Federal money could be leveraged. Dave Tilton responded that his understanding of the federal view from Senator Leahy's office is that the program is 1/3 a federal responsibility, and that responsibility for funding the balance rests with the State agencies. Nevertheless, if State policymakers want to make a case to congressional supporters for additional Federal dollars in the FY07 budget, now is the time to do it.

Discussion shifted to sea lamprey program related responsibilities and the need to shift staff toward some of the more complex needs of the program. This is in recognition that some leadership is being lost by staff that have retired or are soon to retire.

Discussion moved to Vermont permitting processes with Wayne Laroche suggesting that Vermont will proceed toward a general permit if possible, pending the completion of plume studies and any conditional information that guides the preparation of permits to allow control activities to progress in additional Vermont waters (get the

ducks in a row). Eric Palmer followed that the challenge will be to make sure we address the complexities associated with the contentious permitting in Vermont.

Marvin Moriarty summarized the discussion with the observation that three items need to be addressed: 1. Vermont permitting; 2. Adequate staffing; 3. Adequate funding. Dave Tilton followed with a handout of Management Committee recommendations to the Policy Committee addressing the steps required to meet sea lamprey control program goals and laying a foundation for success but specifying a retreat from the program if success is unattainable (attachment).

There was group brainstorming on funding possibilities. Marvin Moriarty said he would attempt to convert any earmarks that the sea lamprey control program may receive into base USFWS funding, to potentially eliminate the possibility that earmarks end and so ends the program. Jaime Geiger asks if the Technical Committee has investigated other long-term funding options such as petitioning the stakeholders. Doug Stang answers that to do so would require a demonstration of success and we need success to justify the next step in that direction. If we find success unachievable we can all go home. Wayne Laroche stated that there are all sorts of complexities with such funding including administrative costs. Jaime suggests pursuing funding as you strive for success because funding is becoming increasingly more difficult to obtain.

Dave Tilton mentions the sea lamprey summit scheduled for April 6, 2007 where funding will be explored in an attempt to put lamprey control on a firmer fiscal foundation.

### **3. Discussion/Decision:**

Gerry Barnhart voices that in the absence of commitment we cannot succeed with sea lamprey control on Lake Champlain and the stage needs to be set for success in Vermont.

The Policy Committee favors the Management Committee Recommendations. The process will be to sit down and craft a message to the Vermont Administration. Eric Palmer suggests the identification of the Vermont permitting process bottlenecks so they can be surpassed. Wayne Laroche suggests proceeding immediately to expedite the process (develop the message in the next few weeks or ASAP). The Management and Technical Committees will support this process as called upon by the Policy Committee.

### **4. Status of Federal Advisory Committee on Alternative Sea Lamprey Control Technologies:**

Dave Tilton distributed a handout showing the federal register notice of official DOI Establishment of the Lake Champlain Sea Lamprey Control Alternatives Workgroup. The FACA charter was signed by Secretary Norton on March 30. Dave read the names of members. Ellen Marsden will facilitate the early meetings as chair. FWS will provide administrative support.

## **5. Budget Plan:**

Brian Chipman reviewed the budget and GLFC balance stating the program solvent through 2007 with existing funds. This estimate of fund balance included the addition of the Missisquoi and the Poultney Rivers to the control schedule. The LaPlatte and LaMoille have yet to be added to cost projections.

## **6. Development of a Strategic Plan for Fisheries Resources in Lake Champlain:**

Ellen Marsden described the development of the basis for a Strategic Plan. Plan development will include: guiding principles, background and broad community development, identify threats, and specify the maintenance of habitat among many other items. Dave Nettles will represent the FWS in Strategic Plan Development. The Plan should be complete or nearly so by the next Policy Committee Meeting. Jaime Geiger inquired concerning the importance placed on this plan. Gerry Barnhart and Eric Palmer stressed its importance.

## **7. Lake Champlain Salmonid Production – Status of Federal and State Hatcheries:**

Lance Durfey presented information regarding Lake Champlain stocking stating that the stocking targets were met but the mix of species was different due to the loss of salmon at the White River NFH. New York diverted production to Lake Champlain, brown trout were used to supplant salmon and Vermont made up production to collectively adjust for the shortfall at White River. Jaime Geiger expressed appreciation for the partnership and support in the Lake Champlain Cooperative that helped the Fish and Wildlife Service manage losses at hatcheries in Vermont and New York. Doug Stang indicated that NY will be moving toward more Sebago strain Atlantic salmon production in its gene pool.

## **8. Communications and Coordinated Cormorant Management on Lake Champlain:**

Mark Sweeney presented information on the current status of Lake Champlain cormorant management. There is now a Champlain Cormorant Communication Committee (CCCC) made up essentially of the membership of the newly reinstated Wildlife Technical Committee. They hope to include the Department of Agriculture in the future. Mark defined the Wildlife Technical Committee responsibilities and described the Wildlife Services responsibilities as similar. Other contributors to the committee are by invitation.

The charge of the CCCC is to compile information and provide input to guide cormorant management on Lake Champlain. They meet twice a year on the same day as the Wildlife Technical Committee, once pre-season and once post season in March and October.

Management has largely focused on Young Island in Vermont where zero population growth is targeted. Management includes egg oiling, limited harvest of adults and re-vegetation. Vermont is also preventing the establishment of new colonies on state land. New York is monitoring the cormorant population and preventing and eliminating, if need be, any new populations under their jurisdiction. The Nature Conservancy believes that cormorant control on the Four Brothers Islands Reserve is not appropriate until development of a regional plan, further monitoring, better understanding of cormorant movements and establishment of Lake Champlain target population levels

The Missisquoi NWR is monitoring populations, looking for leg bands and exploring the possibility of control in the future. Quebec plans no population control in 2006, is monitoring and discussing how to deal with navigation aid island populations given the need for construction activities. UVM is continuing monitoring and banding. Wildlife Services will allow no expansion of cormorant colonies to Lake George, continue with telemetry research and prevent and eliminate new nesting sites with egg oiling and limited take. Audubon Vermont is doing enclosure studies to investigate vegetation impacts.

The Policy Committee is ok with proposed activities.

Joe Racette asks if there is a perception of fishery impacts by cormorants. The group responds that the fishery evidence does not support population level impacts but that there is limited evidence pointing to localized fishery impacts. The Cooperative remains cognizant of fishery impacts elsewhere.

John Gobielle described Lake Champlain's cormorant population as highly mobile and suggests that island populations are a poor way to view cormorants. Instead they should be viewed as a lake-wide or regional population because of wide-ranging movements.

## **9. Five minute updates:**

Jaime Geiger described the status of American eel investigations. There have been two workshops to date and USFWS and NOAA are developing draft recommendations regarding the status and trends that will guide potential listing determinations. Madeleine Lyttle provided a web site for more information ([fws.gov/northeast/ameel](http://fws.gov/northeast/ameel)).

Bill Schoch reported on the Army Corps of Engineers activity on the Great Chazy River sea lamprey barrier. A preliminary (basic) plan is in place and they are entering a design/study phase to come up with a plan to make this barrier impenetrable to sea lamprey. Sea lamprey are surpassing the barrier somehow.

Dave Tilton reported on the status of the Sea Lamprey Summit. There was a recent panel discussion at the AFS northeast meeting. The date has been established for April 6, 2007 at the Hampton Inn in Colchester, Vermont. There is a web page under development. The USFWS has committed to cover the \$2-3,000 cost for the event per Marvin Moriarty.

Brad Young reported on the progress on the Morpion Stream sea lamprey barrier establishment in Quebec. The design incorporates a flow-through screen with no hydraulic head. Cooperation has been excellent and the design is acceptable to Quebec officials. The stage is set to pursue permits in Quebec. The mayor of Notre Dame de Stanbridge is donating city land for barrier site and dedicating city employees for monitoring and maintenance. A contract has been developed with a Montreal contractor to coordinate the project. Costs are below those projected. An educational display is planned at the site and it remains possible that construction could occur this year. The downside is that sea lamprey will continue to out-migrate and contribute to the parasitic population for 4-5 years.

Ellen Marsden reported on the recent papers suggestive that sea lamprey are native to Lake Champlain. The papers both suggest the presence of sea lamprey in Lake Champlain for about 10,000 years. This idea presumes evolution in the lake. The evidence used is genetic differentiation between marine populations and even between lake populations. Some species interaction discussion ensued by the group regarding potential lost resistance by native salmonids. Wayne Laroche suggests that if native sea lamprey may have been suppressed in Lake Champlain by predation by sturgeon or American eel and that changes in stream habitat to finer sediments preferred by sea lamprey could help explain recent upsurges in population strength. More discussion ensued regarding the merits or difficulties associated with these studies. Dave Nettles asked Gerry Barnhart what the GLFC concludes. Gerry says there has been no conclusion but that the evidence is held in open minded consideration. The group consensus was that regardless of origin, sea lamprey are at nuisance levels and require control.

Shawn Good deferred the alewife discussion to Bernie Pientka. Bernie distributed a handout showing the distribution and life stages of alewife collection to date.

Dave Tilton presented the National Habitat Initiative and inquired about the Cooperative's interest in opportunities for Lake Champlain under a new Joint Venture, perhaps the "Lower Laurentian Joint Venture.". Joint Ventures were encouraged. Jaime Geiger suggests openness to small projects as well as few partners. He encouraged openness to possibilities and suggested the Cooperative is well positioned to entertain preliminary ideas. Marvin Moriarty suggested the investigation of joint ventures to see how it might pertain here .... then discuss whether to pursue initiatives. Eric Palmer sees the upside but also sees a downside of substantial administrative investment. He also cautions that the on the ground activities usually require "turning dirt". It also requires staff commitment. Marvin continues that ideas need to be broad in scope ... broader than sea lamprey control. Doug Stang pointed to a workshop planned at the upcoming AFS meeting and suggests learning more there. Gerry Barnhart thinks we should wait until the Strategic Plan is better developed but also thinks the idea worthy of consideration. Dave Tilton proposed to continue to gather information and share with the Management Committee. Then revisit the idea at the next Policy Committee meeting.

The next meeting will be scheduled in conjunction with the sea lamprey summit next spring.