

Memphremagog Watershed Council
4/30/08

Lenny Gerardi, DFW Fisheries Biologist, spoke about fisheries in the Memphremagog basin. He pointed out that it would be more properly called the St Francis basin, as including the Tomifobia and Coaticook watersheds, Memphremagog drains north into Quebec and into the St Francis River.

The shallowest part of Lake Memphremagog is in Vermont where the lake gets no deeper than 50 feet. (This part of the lake can be mixed all summer long by the wind and thus there is no cold water refuge for certain fish species in the summer. About two miles north of the Que/Vt border, the lake drops off sharply and reaches depths of 350'. Vermont has spawning tributaries for cold water fish, but they head north into the deep portions for the summer.

Lenny listed the native fish species as: brook and lake trout, Atlantic salmon, round whitefish, burbot, brown bullhead, chain pickerel, yellow perch, white and longnose suckers, and various species of minnows. The headwater streams and a few lakes (ex. Jobs Pond) probably best represent the native fishery as they are not subject to stocking. Lake trout, a native species, are also stocked in some cases; a stocked fish will have its adipose fin cut off as an identifier.

The landlocked Atlantic salmon is the same species as Atlantic salmon but has developed a different life history. Possibly before dams were constructed on the rivers, Atlantic salmon would have come up into the Memphremagog basin from the sea, but now they are living their entire lives in the basin. The fish ladder at the Clyde 123 powerhouse opened last year with remarkable success for a newly opened structure. Salmon run up river from Memphremagog to spawn.

Steelhead and rainbow trout are naturalized here from the west coast and both Crystal and Willoughby lakes have "wild" reproducing populations. There are also some naturalized populations of brown trout. The walleye is probably not native. Rainbow smelt, also probably not native, has been spread around by DF&W as a forage species.

The common carp, white perch and northern pike are all nonnative. Pike is potentially problematic as it is a vigorous predator that can have a big impact on trout and salmon juvenile populations.

Lenny talked about what kind of habitat conditions fish need to survive. He listed:

1. Clean gravel in the rivers that allows fresh oxygenated water to flow through as a spawning substrate for salmonid species
2. Rocks and wood structure in streams and lakeshores for hiding and feeding
3. Aquatic vegetation, many especially warmwater species need plant beds for spawning, feeding and fry protection
4. Some species need cold water

Lenny pointed out that habitat destruction in the form of soil erosion clogs up the cobble and gravel many species depend on in streams. Dams and other obstructions in the rivers are a movement problem for some species, as is water level (on lakes) and flow manipulations. He spent some time describing how improperly installed culverts are a fish passage problem. DFW is also very concerned about the spread of disease and has recently instituted new bait fish rules to slow the spread of VHS (whirling disease).

Someone asked if beaver dams were a problem for fish, and Lenny said not particularly as they are not permanent on the landscape and fish can usually find their way through them.

Lenny also talked about a few invasive species such as didymo, an algae species recently discovered on the upper Connecticut River. He listed both alewives and rudd as undesirable introduced fish species.

Lenny's management suggestions included riparian zone management to ensure good cover of vegetation, and sediment runoff controls on land uses such as agriculture, forestry and development.

Lenny works regularly with fisheries biologists in Quebec to get consistency with fish regulations and they have done some joint sampling together.

Lenny pointed out the DFW owns a 16 foot wide edge of certain streams to allow access for fishing. (The strip moves with the stream as it meanders.)

Someone asked about the potential pollution from vehicles on the ice in the winter, and Lenny thought that perhaps that wasn't as big a problem as the oil and gas pollution from 2-stroke motor boats in the summer.

Attendees	Affiliation
Susan Alexander Districts	Vermont Association of Conservation
Lenny Gerardi	VT Dept of Fish and Wildlife
Don Hendrich Association	Memphremagog Watershed
Gail Lynch Association	Memphremagog Watershed
Fritz Gerhardt	Watershed resident and scientist
Ben Copans	VT DEC Watershed Coordinator
Penny Packard	Quebec Megog Watershed resident
Donald Chappelaine Association	Memphremagog Watershed
Susan Warren	VT DEC Lakes and Ponds program
Walter Medwid	NorthWoods Stewardship Center
Chris Roy	Newport Daily Express
Robin Smith	Caledonian Record
King Boyd Association	Memphremagog Watershed
Richard Delfavero	Orleans County NRCD