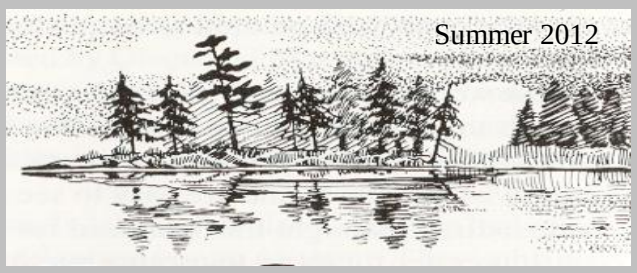
# Notes from the Hosmers




## Findings From Craftsbury Academy Water Quality Research: BLACK RIVER BASIN

*By Tyler Molleur and Rob Libby*

**INTRODUCTION**

The Craftsbury Academy Science Department has promoted the application of skills learned in classroom settings by extending the reaches of its students, allowing them to use the skills to analyze real-world situations. One aspect that is strongly stressed in the school's curriculum is learning about water quality.

The process of learning about water quality includes several weeks of lessons on identifying benthic macroinvertebrates (BMIs), performing chemical tests, and conducting physical surveys. Students also learn about what types of pollution and climate factors may exacerbate the water's condition through in-class lessons and further instruction from the UVM Watershed Alliance. Students then spend one day at an assigned area in one of the town's two major rivers collecting specimens and performing surveys and interpreting what the data means following data retrieval. For the purpose of this report, the data described will be focusing on the Black River.

*(Continued on page 2)*

## The Cutler Academy Story

*By Liz Chehayl, Albany*

On a sunny cold afternoon this January, cross country skiers of all ages, clad in colorful high tech outdoor gear, enjoyed the dining hall, lodges, shop, and other facilities at the Craftsbury Outdoor Center. Such a scene would have been very hard to imagine fifty years earlier. The young men of Craftsbury School (soon to be renamed Cutler Academy) were housed temporarily at Ethan Allen Air Force Base in Winooski, and the main campus building was under reconstruction after a devastating fire.

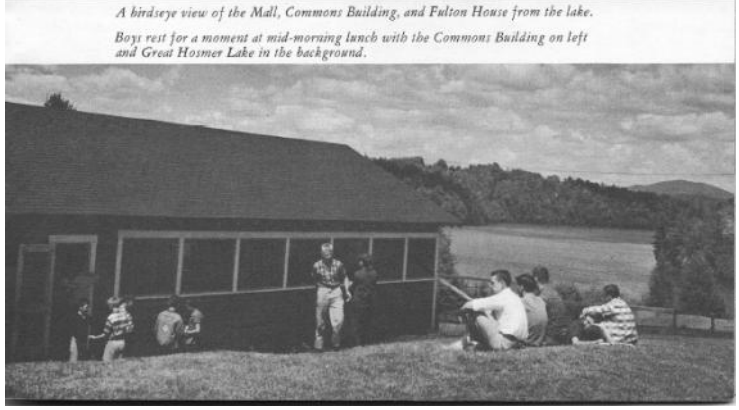
The set-back was very disappointing for teachers and staff at the new school. Only six years earlier, in 1956, two young private school teachers had discovered the beautiful setting on the shores of Big (Great) Hosmer and started the Craftsbury School. For four years it had been a summer school for boys, and it had only begun year round classes in the fall of 1959. Now this traditional boarding school in a remote area of Vermont was entering one of the most unsettling decades in American history with the added burden of new expense and displaced students.

Charles L. (Chuck) Early and Norman E. Rioux, the two teachers, described their philosophy and the origins of the school in the first brochure. On "75 acres of woodland, cleared areas, and several hundred feet of superb shore footage", a former dairy farm owned by Ellry (Ellery?) and Mary Davis, they would combine the study of Romance languages, history,

*(Continued on page 4)*

*The Lawnhouse Mall, with Fulton House, and a Student Cabin in the background.*

*A birdseye view of the Mall, Commons Building, and Fulton House from the lake.*



*Boys rest for a moment at mid-morning lunch with the Commons Building on left and Great Hosmer Lake in the background.*

2012 Summer Events—See Back Page

**The Hosmer Ponds Watershed Initiative**

Liz Chehayl
Judy Davis
Judy Geer
Nancy Moran
Diane Morgan
Steve Wright

Call Eric Hanson 586-8065 for more information about HPWI.

*The Hosmer Ponds Watershed Initiative is a community-driven effort, supported by the Craftsbury Outdoor Center and Vermont Land Trust. The goals of the Initiative are to increase our appreciation and understanding of this special place through outings, workshops, and gatherings. We hope to engage community members in thinking about long term conservation goals for the region and what tools are available to reach such conservation goals. If you would like to explore conservation options for your land, contact Tracy Zschau of VLT: 748-6089 or Tracy@vlt.org. There is money available to help cover the legal cost of setting up donated conservation easements.*

Vermont Land Trust
30 YEARS OF LAND CONSERVATION | 1977-2007

*(Water Quality—Continued from page 1)*

**PHYSICAL SURVEY**

Tests and observations were made near the Craftsbury Town Garage. Water temperatures were around 5C (41F), with a settling streamflow due to a rainfall two days prior to the survey. Despite this, the sediment deposits were low and the water was clear. Two pipes were found emptying into the stream, including a gutter from the fire house. The substrate is primarily composed of rubble, with 25-50% embeddedness and a minimal canopy. One bank of the river was mainly grass and the other bank was mainly hardwood trees.

A separate element of the physical survey is the streamflow profile, which is calculated by multiplying the area of the cross-section of the river by the average time it takes an apple to move 100 feet. The streamflow was 28.21 $ft^3$/sec in 1998; 35.83 $ft^3$/sec in 2005.

**CHEMICAL TESTS**

Students also determine the health of the water by assessing several chemical aspects of the stream. This includes dissolved oxygen (DO), phosphate ($PO_4$), nitrate ($NO_3$), pH, turbidity, total dissolved solids (TDS), temperature, fecal coliform and biochemical oxygen demnand (BOD).

Craftsbury Academy students in Rob Libby's science class learning how runoff influences water quality.

Dissolved oxygen is a measure of the amount of oxygen dissolved in water and is usually measured in ppm, or mg/L. The oxygen is used by aquatic species such as fish and plankton to survive underwater. Levels of dissolved oxygen are higher in colder, fast-flowing water and lower in warm, stagnant water. Acceptable levels of DO in streams ranges from 7-11 mg/L. In 2001, DO levels were around 12 mg/L, with 12.5 mg/L in 2005 and 13 mg/L in 2008. These are exceptional values for streams.

Phosphate and nitrate tests are critical tests to perform on Vermont rivers, especially because of the sources of runoff that can increase levels of these chemicals in waterways. Increased phosphate and nitrate levels can lead to toxic blooms of blue-green algae. Phosphorous begins to have impacts at 0.05 mg/L. Levels have been within the 0.21-0.25 range for the three years 2001, 2005 and 2008. Nitrate levels of less than 1 mg/L are considered excellent. A maximum of 1.3 mg/L was reached in 2005, with readings of 1.1 mg/L in both 2001 and 2008. Phosphorous levels are five times the level they should be by state standards, likely the result of runoff of human/animal wastes combined with gray water, fertilizer, and yard waste pollution.

Water temperature is an extremely variable piece of data and can be impacted by both direct weather, and indirect weather, such as a heavy rainfall causing the water to turn a darker color, therefore attracting more light and heat. Thermal pollution, such as runoff from nonporous, dark surfaces, can also elevate water temperatures. Temperatures were commonly between 5C (41F) and 10C (50F) during the years 2005 and 2008.

Because Vermont is downwind from many states that burn coal, the potential for rivers to be too acidic is possible from sulphuric acid occurring in rainfalls. pH levels help to determine which type of animals can survive under certain concentrations of hydrogen ion. In 2001 and 2008, pH levels were around 7.1, with a pH of 8.4 reported in 2005. Levels of 7-7.5 can sustain most aquatic life, with a fair amount of aquatic life being sustained between 6 and 9.

Turbidity is a measure of the amount of disturbed sediment in the water. Turbidity impacts the visibility of the water and also has an indirect impact on the temperature of the water (see above). Impacts from turbidity begin at 50 NTUs. In 2005, a measure of

**CHEMICAL TEST RESULTS**

| Category | 2001 | 2005 | 2008 | 2009 | Ideal |
|---|---|---|---|---|---|
| Dissolved Oxygen (ppm) | 12 | 12.5 | 13 | | 7-11 |
| Total Phosphate (ppm) | 0.21 | 0.27 | 0.21 | | <0.05 |
| Nitrate (ppm) | 1.1 | 1.3 | 1.1 | | <1 |
| pH | 7.05 | 8.4 | 7.05 | | 6.5-8.5 |
| BOD (ppm) | 4 | 3.5 | 3 | | <4 |
| Temperature (degrees C) | | 5 | 10.72 | | |
| E. Coli (colonies/100 mL) | 2000 | | 6.3 | 14.5 | <75 |

20 NTUs was indicated, with 0 NTUs reported in 2008. Turbidity can easily be increased by heavy rainfall, which occurred in the two days prior to the 2005 report.

The difference between the original amount of dissolved oxygen (DO) in the water and the DO consumed after five days is considered the biochemical oxygen demand (BOD). Lower amounts of BOD are preferable, generally between 0 and 4 ppm. These numbers mean that there is not an excess amount of nutrients in the river, preventing the aerobic bacteria from consuming most of the DO. In 2001, BOD levels were around 4 ppm, with levels at 3.5 ppm in 2005 and 3 ppm in 2008.

The Black River near the Craftsbury Town Garage where water quality tests were conducted.

One of the inevitable factors when considering the water quality is the presence of bad bacteria, such as E. Coli. Fecal coliform bacteria originate from contaminated human and animal wastes that make it into the water. Increased levels of fecal coliform have the potential to make organisms that utilize the water severely ill, similar to many of the food contamination reports that have occurred in the past several years. One report from The Hardwick Gazette in May of 2001 reported that Black River E. Coli counts ranged from 2000 colonies/100 mL and 3000 colonies/100 mL, which is well above the Vermont acceptable level of 75 colonies/100 mL for swimming. Even though this finding was extremely high, coliform tests are subject to error, and vary due to weather conditions and human influence. In later years, like 2008 and 2009, E. Coli counts on the Black River ranged from 6 to15 colonies/100 mL.

**POLLUTION TOLERANCE INDEX AND BMIs**

An effective way to measure the health of a river is to count the existing species that live there. Some BMIs are able to better tolerate pollution than others. Therefore, BMIs that can tolerate more pollution are weighted less than more sensitive species. In both 2005 and 2008, stoneflies, mayflies, caddisflies and water pennies were all reported, with each catergory found being given a 4. Other various BMIs with weighted values of three and four were common. In 2005, the total pollution tolerance index was 22, which is borderline excellent, with a PTI of 20 in 2008, which is considered good.

**CONCLUSION**

Based on the results of the physical survey, chemical tests and PTI values; the Black River is a relatively healthy body of water. The major concern in the river is the increase of phosphate and nitrate levels, which can be reduced by limiting pollutants like fertilizers, soaps, pesticides and plant and animal waste in stormwater runoff. ***

*The Black River used to be called Trout Brook in the 1800s. Despite finding aquatic insects and adequate dissolved oxygen levels in the Black River, local anglers have a hard time finding fish. Sedimentation from road and field runoff and high nutrient levels, also from runoff, could be contributing factors.*

## Calling Citizen Science Observers:

### Help Map the Dates and Locations of Birds, Flowers, Butterflies, and Weather Events

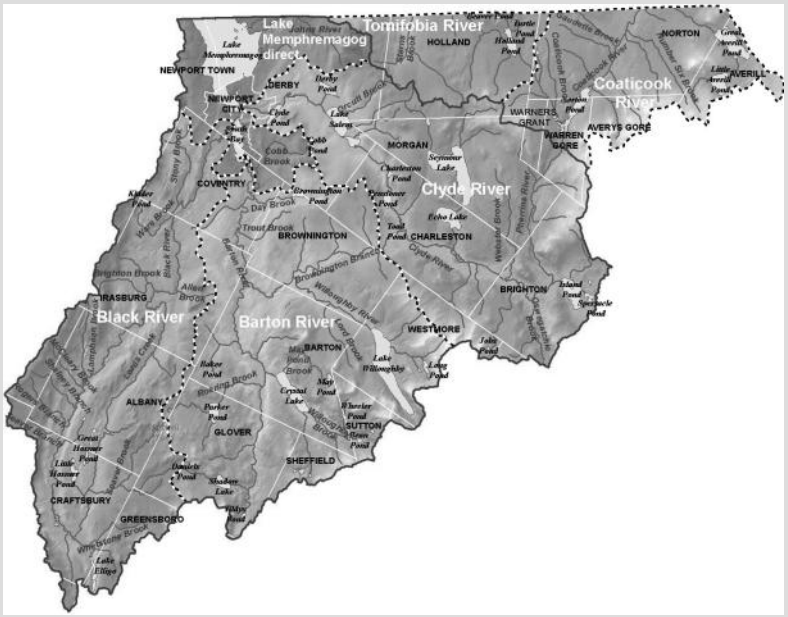
The Fairbanks Museum Community of Observers is a forum for observing and reporting changes in weather patterns and the habits of birds, butterflies, and wildflowers. Your observations will lead to wider conversations around questions such as the possible effects of global climate change on our landscape, ecosystems, and traditions. Are certain species consistently showing up earlier in the spring or staying later in the fall? Are flowering times changing? Are other species expanding their ranges in relation to habitat change, development, or weather shifts?

The Fairbanks Museum will provide the tools to help you record what you see and hear. They will create maps with the information you provide that show the characteristics of your area through wildflowers, birds, butterflies, and weather patterns.

Go to http://communityobserver.fairbanksmuseum.org/guide, where you can register to get started. And come to the event at the library on Wed. 25 July at 6:30 pm.

# Lake Memphremagog, Tomifobia River and Coaticook River Basin Water Quality Management Plan

The Vermont Agency of Natural Resources has approved the Lake Memphremagog, Tomifobia River and Coaticook River Basin Water Quality Management Plan. The Black River is a part of this watershed. The plan provides an overview of the health of the basin and specific actions to address threats to surface waters in the basin. It is the result of the combined efforts of local watershed groups, residents, a variety of stakeholders, ANR, and natural resource professionals from other state and federal agencies. You can access this plan at www.vtwaterquality.org and link on the right margin of the site under "What's New", Final Basin 17, or request a copy from Ben Copans, Vermont DEC, Watershed Management Division, St. Johnsbury 802-751-2610 ben.copans@state.vt.us.




Some of the findings indicate that the Black River watershed (350 km^2) contributes the most phosphorous to Lake Memphremagog (21,730 kg Ph/year) compared to the Barton, Clyde, and Johns River watersheds. The Clyde River watershed (375 km^2) contributes 6,868 kg Phosphorous/year. As a result, the Black River is being targeted for phosphorous reduction programs such as riparian buffer plantings to reduce runoff and use of best management practices for agricultural runoff. Lake Memphremagog is listed as impaired for phosphorous and as a result, algal blooms are becoming a problem. Phosphorous levels on Lake Elligo have also been rising and are of concern.

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*(The Cutler Academy Story—Continued from page 1)*

English, mathematics and an athletic program "under one Vermont sky…a well-rounded summer program which would be the finest available."

The brochures in subsequent years feature the "lawn houses"—tents with screens on all four sides—that were the classrooms. Local men, Loney Hill of Craftsbury and Harry Hall and Richard Carter of Albany, built sleeping cabins and the dining hall, which is still in use today. Early and Rioux, who had used all their capital, $500, on a down payment for the land, would pay the $25,000 for this phase of construction with a loan co-signed by Miss Jean Simpson, a remarkable woman and benefactor of so many projects in Craftsbury. According to Norman Rioux she explained her willingness to participate "because education is the only thing for which I can never say no."

Brochures and written recollections differ on the dates and details, but in 1957 or 1958 the founders of the Craftsbury School parted ways. Remarkably, this meant that Craftsbury now had two private boys schools, as Rioux moved his attention to buildings on Craftsbury Common, where he would found the Sterling School (now the four year accredited Sterling College). Some teachers, including Douglas Field, would join him in his endeavor there. The two schools seemed to diverge in their academic emphasis, with Craftsbury "more conservative than progressive" educationally. A list of required clothing included one dark suit, 8 white shirts, and a school blazer.

Other teachers would remain at Craftsbury School with Early to begin the transition to a year-round school, including George Ballard, who became assistant headmaster. In 1959, Early was joined by his sister, Eileen Cahall, who taught art and managed admissions, and her husband Hubert, who was the business manager. Knowing that more substantial buildings would be needed, and having been turned down by the banks, Early paid another visit to Miss Jean Simpson. Craig Cahall, his nephew, recollects the story he heard. "Driving a fancy Buick and dressed in a suit and white shirt, he knocked on the door, which was answered by a maid. Miss Jean Simpson was out, but when she returned he was invited to lunch. They enjoyed speaking French together and sharing their academic interests. She told him that she would give him

another $25,000 right then."

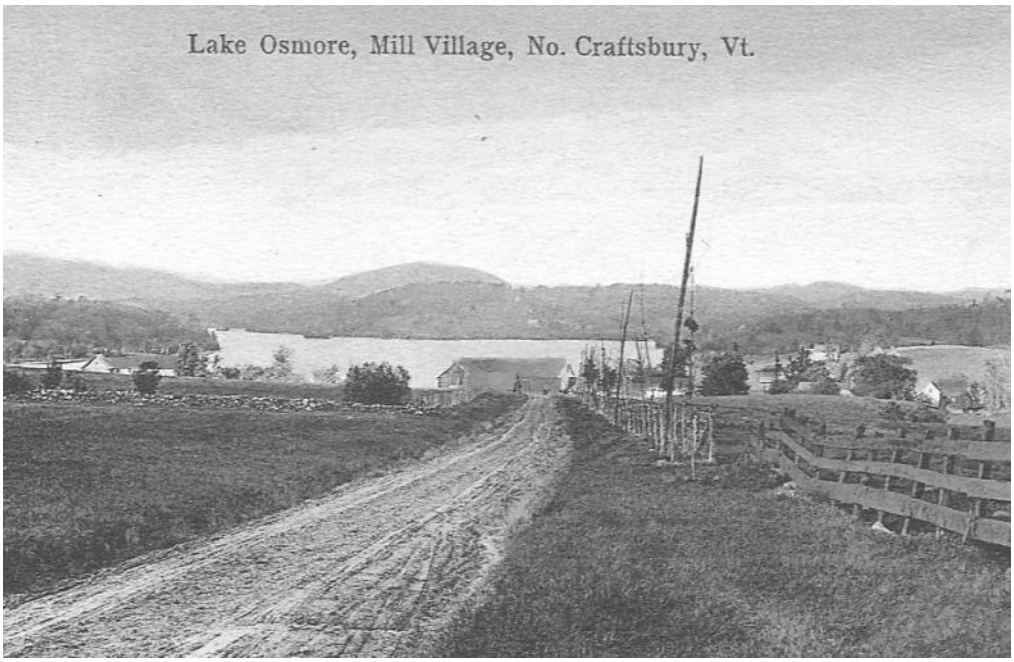
A beautiful, three-story building containing classrooms, a library, laboratories, dormitories, administrative offices and faculty apartments was completed in 1960. Fifty three students and at least fifteen faculty and staff, some with families, had returned from Christmas vacation on January 4, 1961, when a fire began in the ceiling of an upstairs dormitory. The building was successfully evacuated and there were no injuries, although Hubert Cahall was so distressed that he was taken to the hospital. Without hydrants, and with ice thick on the pond during a terrible winter, the building and its contents could not be saved.

In a series of articles that week on the front pages of the Burlington Free Press, a remarkable Vermont story unfolded. Faced with the loss of the school, Senator Winston L. Prouty made contacts in Washington, D.C. to secure the use of houses and the officers club at the abandoned Ethan Allen Air Force Base in Williston. A committee was formed to aid the school, other schools and businesses volunteered their services, and military units swung into action. Working practically around the clock, they repaired frozen and broken pipes, got heating turned on, and moved the school into the base just one week after the fire.

Amidst these adult concerns, there were children of faculty and staff who delighted in the woods and lake, campfires and boats, swimming and fishing. Doug Field (jr.) recalls living in one of the lawn tents during the summer session, with the showers up the hill, and describes it as a "child's paradise". Family camps around the lake were filled with children who renewed summer friendships. There was at least one strenuous hike that ended in a corn roast, and Craig Cahall describes watching Miss Jean Simpson scaling the steep incline in a jeep.

Perhaps to make a fresh start in the rebuilt but smaller building (only 2 stories), the school was renamed Cutler Academy in 1962. The first edition of the Cutler Centenarian calls Cutler an ideal spot for winter activities, such as skiing, ice hockey, figure skating, etc. It notes that Stowe is only a "32 minute ride" from Cutler, and that there is a ski tow at the school, with competitions in skiing and ice hockey with other schools. At around the same time another new element was introduced…girls. The Pennell School was formed, with the girls housed at what is now the Craftsbury Inn and transported to Cutler Academy for classes. Susan Field, then a young student at Craftsbury Academy, remembers the "huge sparking of interest" this created in the town.

There is a lack of written documentation for the next ten years at Cutler Academy, but there are still teachers from the school who remain in the area. All were just beginning their careers when they arrived at Cutler. Joe Patrissi, a new graduate of Lyndon State College, stayed there with his wife and new baby for the 1969-70 school year, teaching English and coaching soccer (including a surprise win over Craftsbury Academy). The school seemed to be at a crossroads, without a headmaster, and the faculty was divided on the value of traditional education. Patrissi favored a more flexible approach. Having read a book about Vermont's haunted places in class, he enjoyed taking students on a ghost hunt in Greensboro and Albany, and may have gotten an admission that at least one place really had mysterious noises and music in the night! The 30-40 mostly affluent students were still wearing blazers and ties, but cultural changes were infiltrating the school. When John Durwood, who had a military academy background, was chosen as headmaster, about half the faculty, including Patrissi, left at the end of the year.




*Visit the CRAFTSBURY HISTORICAL SOCIETY to see the originals of this and other old photos of Craftsbury (open 10 to 12 on Wednesdays; 11 to 1 on Saturdays). If anyone has old photos of Big Hosmer Pond which we could reproduce in our next newsletter, please contact Diane Morgan, 586-9697 (dmorgan260@pshift.com), or Eric Hanson, 586-8065 (ehanson@vtecostudies.org).*

Two Craftsbury residents, Mabel Houghton and Rob Libby, started their teaching careers at Cutler Academy in the early 1970s, when there were just six faculty and perhaps 20-30 students. Culturally and financially it was a difficult time to maintain a private school, particularly in a location like Craftsbury. The school seems to have entered into an agreement to enroll students from the Bronx. Libby, who was coaching sports, says that there was an extensive extramural schedule around Vermont, and the science labs were fairly well-stocked, but the city students were "petrified" of the woods. Houghton also noted how ill-suited the school's rural location was to the needs of the students. A school begun with good intentions had run its course, a victim of bad luck and changes in society, and it closed in 1975 or 1976. ***

# American Marten and Lynx Return to New England *By Jillian Kilborn*

Two elusive furbearers that have long been rare in Vermont and New Hampshire are on the move. American marten and Canada lynx sightings and track observations have been increasing and animals have been documented in both New Hampshire and Vermont over the past few years.

American marten, which are state threatened in NH and endangered in Vermont, seem to be moving their way across both states. Within the past 10 years NH has experienced an explosion in observations, and in recent years marten have been found in Vermont as well. Typically found in northern habitats due to their deep snow preference, marten seem to be moving through New Hampshire's northern mountains to Vermont's Northeast Kingdom and possibly along the spine of the Green Mountains.

Canada lynx are also making a comeback, although not as evident as marten in the Northeast. Canada lynx, which are federally threatened, have been documented in multiple locations in both New Hampshire and Vermont. Lynx, much like marten, are very well adapted to deep snow conditions and are highly dependant on snowshoe hare densities. While extirpated through most of New England, it is thought that lynx persisted in Maine where high lynx densities were observed during the early and mid 2000s. Now as snowshoe hare densities decline, the lynx are likely on the move searching out new habitat, including forests in New Hampshire and Vermont.

Here in the Northeast marten and lynx are important species to consider when managing our forests. Research in Maine has shown that landscapes that are managed to meet the habitat needs of both marten and lynx will provide habitat for 84% of the other wildlife in the same area. Therefore, long term planning and forest habitat management for these two species can help to ensure the maintenance of a variety of other wildlife as well.

However, in spite of this recent success, many computer models have actually predicted a retraction of marten and lynx distribution as a result of climate change. As our winters warm and snow depths decline, it is likely that marten and lynx ranges will shift north again. So now that they are returning, the question still remains, where will they go, and where will they persist?

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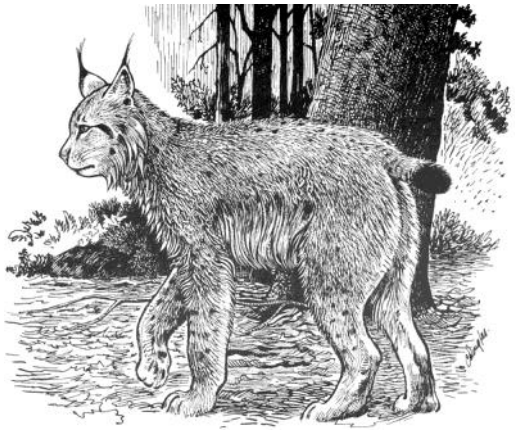
*Jillian Kilborn is a wildlife biologist for the NH Fish and Game Department. She lives in Island Pond and will be presenting a program on marten and lynx on 18 July at 7 p.m. at the Craftsbury Public Library.*



## Canada Lynx

- Snowshoe hare consist of 60-97% of diet
- Populations cycle with hare populations usually over a 10 year time span.
- High populations can be 10 times the population during low periods.
- Home range can vary from 10 to 300 square miles (e.g., Hardwick to Albany and the Lowells to Stannard mountain if lynx lived here).
- Solitary lynx from Colorado have roamed as far as Idaho and Iowa.

## American Marten

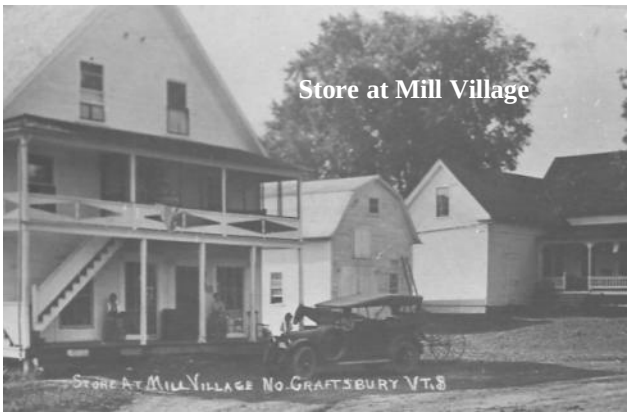
- Home range can vary from 0.04 to 6 square miles (e.g., the Black River valley from King Farm Rd. to Page Pond Rd. if martens lived here - 4x1.5 mile area).
- Capable of moving up to 10 miles per day when dispersing.
- Where fisher are present, marten tend to be found in areas of deeper snow.
- Voles are major part of diet, but prey also include red squirrels, snowshoe hare, fish, small birds, and other rodents.
- One major reason marten are more sensitive to habitat alteration is their avoidance of open areas.

## WILDLIFE SIGHTING MAPS

1) As you may remember, the *Craftsbury Outdoor Center* has a map link on the webpage where you can pinpoint any wildlife you have sighted in the Hosmer Ponds area. www.craftsbury.com Choose Page: Outdoor Center Home, Click on: Community, and Hosmer Ponds Wildlife Map. You'll have to register with a google account to input data.

2) The *Craftsbury Conservation Commission* is expanding the area for sightings, and providing a paper map of the town of Craftsbury where you can in person locate any wildlife you have seen. The map will reside in the Craftsbury Town Hall and will also be brought to various events throughout the year.

Please visit the website and/or the map to put a colored dot representing any wildlife or signs of wildlife you have observed.



# News from the Craftsbury Outdoor Center

**An update on snowmaking:**

♦ For those of us who love winter, it was a very good year to have snowmaking capability.

♦ Due to the widespread lack of snow, most of the high schools in northern VT came to train at the center, taking advantage of our offer of free skiing for high school teams.

♦ The Center had over 1800 local elementary school children visits this winter where the kids skied for free. We had an additional 7,500 skier day visits by high school nordic teams and other ski groups.

♦ We ended up hosting more ski races than originally planned, stepping in as a back up site for both high school and New England races when there wasn't enough snow at the originally planned site.


♦ We've been happy to hear from businesses in the greater community that are benefiting from this influx of skiers—good for the local economy!

♦ Lake water level measurements showed very little correlation to our snow-making. Lake levels went up and down after a period of snowmaking, bearing out our earlier research indicating that the natural inflows, outflows, evaporation, and rain are much greater than the amount of water we used for making snow. Lake levels varied 2.5 inches over the winter (0.79' to 1.00' on the measuring scale). During 12 hour periods of snowmaking, the level never dropped by more than 1/100 of a foot (0.01), and often there was no change. Last fall, we observed lakes levels drop by more than 4 inches (0.33 ft.) over a dry two weeks, but then rise again after a rain event.

**Other news:**

♦We're excited to be joining the Forest Bird Monitoring Program, thanks to the work of Eric Hanson. See box for more details.

♦An exciting goal for this summer is to develop and test some prototype electric launches for use with our sculling programs. This will decrease engine noise, cut our use of fuel, and eliminate some of the other negatives of gasoline-powered engines on the lake. ***

## Monitoring Forest Birds

Initiated in 1989, the Vermont Forest Bird Monitoring Program (FBMP) is an effort to track long-term changes in populations of interior forest songbirds. Monitoring sites have been established at 30 mature forest tracts representing 9 different forest communities across Vermont and New Hampshire. A new tract on the Craftsbury Outdoor Center's property will be added this summer. Each study site consists of a series of five sampling points spaced approximately 200 meters apart. During the height of breeding activities in June, each site is visited twice by a volunteer or a staff biologist skilled in visual and aural bird identification. At each survey point all the birds seen and heard are recorded. As one of the only projects in the Northeast that collects habitat-specific data across a broad range of forest types, the FBMP provides critical baseline data with which to monitor future population changes. The FBMP is a program of the Vermont Center for Ecostudies www.vtecostudies.org.

*Looking southwest over Little Hosmer Pond. The King Farm Road and Craftsbury Common are in the background.*

Notes From the Hosmers
c/o Eric Hanson
P.O. Box 22
Craftsbury, VT 05826

***E-newsletter:*** *if you would rather only receive an electronic version of this newsletter, please email nancy@nancymoranphoto.com*

# *Notes from Hosmers* (Summer 2012)

- Craftsbury Academy Water Quality Findings for the Black River
- The Cutler Academy Story
- Historic Hosmer Pond Photos
- Lake Memphremagog Watershed Plan
- American Marten and Lynx Return to New England


*Children checking their wing spans at the Bald Eagle program last summer.*

## 2012 Summer Events (all events are free and open to the public)

### Hosmer Ponds Open House

- **Sunday, May 27, 5-7 p.m.**
- **Location: Hosmer Point Camp on Big Hosmer**

Come explore Hosmer Point, meet some of the staff, and visit with lake friends and neighbors. We'll be serving pizza from the camp's wood-fired oven. Beverages will be provided as well.

### Marten and Lynx in Vermont

- **Wednesday, July 18, 7 p.m.**
- **Location: Craftsbury Public Library**

Presentation by Jillian Kilborn, wildlife biologist and manager of the 25,000-acre Connecticut Lakes Natural Area for the NH Fish and Game Department. Co-sponsored with the Craftsbury Public Library.

### Black River Wetlands Walk

- **Saturday, August 18, 9:30 a.m.**
- **Location: Meet at the Craftsbury Elementary School**

Exploring rich fens, sedge meadows and marshes with Liz Thompson, Conservation Biologist and co-author of Wetland, Woodland, Wildland. Dress for getting wet! For more information, call 586-9697.

### Paddling the Black River

- **Saturday, September 8, 9 a.m.**
- **Location: Meet at the Craftsbury Elementary School**

An easy paddle on the Black River most likely from the Black River Rd. to the North Craftsbury Rd (subject to change based on water levels and access). Bring binoculars, water, a snack, and shoes that can get wet. Call Eric Hanson, 586-8065 if you need a canoe or place in one.

### Other Area Events

**Hardwick Trails BirdWalks (Saturdays May 5, 12, 19, and 26)**

Meet at the trailhead in the Hazen Union Parking lot at 7:00 a.m. on Saturdays in May. All ages and skills are welcome. Updates can be found on the Hardwick Trails Facebook page.

**Bernd Heinrich—topic TBA but always something interesting**

- **Monday, July 23, likely around 8:00 p.m.**
- **Location: Craftsbury Outdoor Center**

Bernd Heinrich, UVM professor and author, will share stories from the natural world once again. He's an entertaining and extremely knowledgeable ecologist of the northwoods. Check the Center's website for details and any changes on date and time. www.craftsbury.com.

**Fairbanks Museum second session of the citizen scientist training program, Community of Observers**

- **Wednesday, July 25, 6:30 p.m.**
- **Location: Craftsbury Public Library**

Learn to observe and record butterflies and weather patterns. For more information, call 586-9683.

## Help support HPWI honorariums for our speakers and event leaders

**Send donations to:** Craftsbury Outdoor Center, Hosmer Ponds Watershed Initiative, 535 Lost Nation Rd., Craftsbury Common, VT 05827 or stop by the office. THANKS!!! The Craftsbury Outdoor Center has set up an account under their non-profit status to process donations.