

CONNECTIONS

THE NEWSLETTER OF COLD HOLLOW TO CANADA FOREST LINK



WINTER 2014

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EXPANDING THE TEAM

By *Charlie Hancock*

Hi friends, and welcome to the Winter 2014 edition of *Connections*, the quarterly newsletter from Cold Hollow to Canada. This year CHC enters its 7th year as an organization. From a small gathering of community members armed with magic markers and maps discussing what we value about the place we call home, CHC has grown to have engaged hundreds of people from across our region (in both the US and Canada) in our work celebrating the natural heritage of this place and working to protect it. We continue to expand our horizon with the projects planned for the coming year, and reflect that none of this could have happened without your engagement and continued support.

First and foremost with this edition we'd like to welcome Bridget Butler (the Bird Diva herself!) to the Cold Hollow to Canada team. Thanks to generous funding from the Vermont Land Trust and Vermont Chapter of the Nature Conservancy, CHC has been able to bring on a coordinator to expand our reach, assist the organization in our ongoing projects and new endeavors, and to keep us moving forward towards our goals. We're thrilled

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CHC STEERING COMMITTEE

Bakersfield:

Mary Schwartz and
Forrest Dunnivant

Enosburgh:

Nancy Patch, Chris Damato
and Ward Heneveld

Fletcher:

Corey Brink

Montgomery:

Charlie Hancock,
Chair

Richford:

Bill McGroarty and
Lenny Tamulonis

PHOTOS: JOANNE WAZNY



to have Bridget on board, and lucky to have someone who shares our passion for this place we call home. We're looking forward to great things in the coming years and are grateful to have her on the team as we strive toward our vision for conservation.

We've got a great edition for you this winter. Inside you'll find a message from Bridget herself, an update on our partnership with students at the University of Vermont looking at a trend analysis from our Keeping Track teams (examining the wide ranging mammals in our region), a look at the world of Christmas Trees, a re-cap of Cougars

Coming East with Sue Morse in early December, and an exploration from the forest to the finished bowl with local wood turner, artist, and teacher Al Stirt.

Do you have a story to tell? Musings on the natural world around us? Want share a discovery you've made or a question about something you've seen in our forests, fields or streams? Write us! We're always looking for contributors to our newsletter.

Happy Solstice,
– The CHC Steering Committee



JOANNE WAZNY

UVM STUDENTS GIVE CHC A HAND

By Nancy Patch

During the fall semester the University of Vermont has a required class for seniors in the multi-disciplinary programs at the Rubenstein School of Natural Resources. This Senior Project class pairs students with community groups to accomplish service learning projects that have real world experience. Cold Hollow to Canada was very lucky to have three exceptional students volunteer to help us with collating and analyzing the data for our four active Keeping Track teams. The students; James Farrell, Rhianna Sommers, and Michael Storage put together a 56 page document titled “Keeping Track: A Mammal Tracking Inventory of Focal Species in the Cold Hollow Mountains—Trends in Abundance, Habitat and Conservation.”

For those of you still unfamiliar with the Keeping Track program, it is a citizen science monitoring program taught by Susan Morse at Keeping Track Inc. Citizens attend a mandatory 5 day and two night training that teaches how to identify tracks and sign of several wide ranging mammal species found in our North woods. Each team consists of at least three members and any sign must be verified by at least two members to be included in the data. Transects are 2 miles long and walked once each season. CHC has trained 40 people and is in the process of training another ten this winter. Of those 50 people who have been trained, we have four active transects, one in Richford, one in Montgomery and two in Enosburgh. Please take a look at our website coldhollowtocanada.org to see the tracking pages and what we have accomplished over the last five years.

The students were given all the raw data that the four teams have collected over the last five years and added the information not already entered into the on-line tracking page on the website. Their report also included detailed information on focal species including bear, bobcat, moose, mink, fisher, marten, and Canada lynx (CHC mascot). The

students were explicitly given the task of taking scientific information and presenting it in a manner that could be appreciated by the community at large and specifically municipal governments and public decision makers. Their work will continue as we present this information to individual towns sometime in January or February of 2015. The students’ presentations to the towns is above and beyond their class requirements but they are very excited for the opportunity. Stay tuned for time and place for the public events.

Some of the most interesting aspects of the report include the analysis of the tracking data in the three towns. The students looked at presence, abundance and frequency of different species throughout the year. They also addressed the threats of habitat fragmentation and need for conservation to maintain the populations of these wide ranging mammals in our area. We hope to report some of these findings in future editions of *Connections*.



ERWIN BAUER, US FISH AND WILDLIFE SERVICE

MEET BRIDGET BUTLER

By Bridget Butler



BRIDGET BUTLER

I am pleased to have this wonderful opportunity to work in a part of Vermont that holds my heart from when I moved here close to 20 years ago. Growing up in central New York, skiing and hunting were

a big part of my life as a kid. After graduating from the University of New Hampshire, I began my career as a naturalist working for a number of Audubon organizations throughout New England before arriving in Vermont. I came here looking to take a break from the non-profit world, find a little cabin in the woods, and enjoy the snow.

Honestly, I moved here because I heard northern Vermont got the most snow in the east and I wanted to ski some deep powder before settling back into my career again. I spent four years living and working in Jay as a snowshoe guide and snow school instructor at Jay Peak. Soon though, I needed to reconnect with another love — conservation education. I was fortunate enough to be able to land a job with Audubon Vermont and work with them for seven years, helping to establish the Forest Bird Initiative. It was through this work that I met landowners, foresters and loggers from all over the state who were passionate about their work, their property and the Vermont landscape. I played a sort of matchmaker between landowner and songbird in need, and nurtured relationships that would embrace bird-friendly management practices for woodlands. This is some of the most rewarding work I've ever done and it was a privilege to work with the great folks at Audubon Vermont.

As my passion for songbirds grew, I developed an alter-ego: The Bird Diva. For a few years I hosted a radio show about bird conservation, and then after leaving Audubon continued to lead walks, blog and give presentations about birds. Most recently, I was ECHO Lake Aquarium & Science Center's Conservation Education Specialist creating programs, exhibits, and short films about impacts on our watershed and how we can become better stewards. I also had the pleasure of being WPTZ NewsChannel 5's Conservation Correspondent capturing stories about environmental issues across the state. My work with ECHO and WPTZ connected me with folks striving to learn more about how to protect and preserve wildlife, water and the natural world.

So, it's with great excitement that I bring all that I've learned back to the part of Vermont that stole my heart so long ago. I truly look forward to working with the Cold Hollow to Canada steering committee and the communities they serve to promote stewardship and wildlife habitat protection across the region. Let's connect and affect change together for this landscape that we are all so passionate about!



BRIDGET BUTLER

A TREE FARM FOR CHRISTMAS

By Charlie Hancock



AMY DUNNAVANT

When I was little my family would always make an annual pilgrimage to our local Christmas tree farm to select the perfect tree for that year. We'd spend over an hour walking the rows, looking for the one that was just the right height, the perfect shape, and had the fullest, greenest foliage. After a careful and meticulous process we'd choose just the right one, and call over our local Christmas tree farmer to make the cut that would let us take our prize home, where it would be festooned with bulbs and ornaments, each one carrying a special memory and place in our heart.

Back then I took for granted that there would always be a magical place where acres and acres of perfectly lined trees would be waiting for our arrival each winter, but today I understand that there's a lot of hard work behind the scenes to make that magic happen. Most agricultural or horticultural endeavors are intensive in planning, labor and capital, and Christmas trees are certainly no exception.

As with most things in the life of a tree, one must first consider the soil. I remember a family friend in real estate once saying that what matters was

location, location, location. One could say the same thing about growing Christmas trees. Christmas trees are grown best on gently sloping soils that promote good internal drainage, and are relatively deep (ideally 3–4 feet from bedrock). Soil pH is another consideration, as most of the preferred species grown in this region prefer a range of 5.0 to 6.0.

Once you have the right spot, a Christmas tree farmer must determine what to plant. Across the United States about 12 species of pines, spruces and firs are sold as Christmas trees, with preferences tending to vary geographically. In the east, preferences range from standards such as the Balsam fir, to the more exotic and expensive Blue spruce. Fraser fir and Scotch pine have also been historically grown in the east, while Douglas fir, Noble fir and Grand fir are more common varieties in the west. Each species has its own aesthetic (and olfactory) character, as well as characteristics that affect their ease of growth, and their longevity once they're in your living room. In general, pines are the most susceptible to disease and require the most pruning to shape them into the hallmark trees generally sought after; however once cut they tend to hold



their needles better than spruces or firs. Spruces shed most readily, but are hardier trees that require little maintenance. Firs tend to be somewhere in between, and are the most common species that you'll find in most of New England.

The next step is planning the layout of the field. Evergreen seedlings, which are generally two years old and about eight to ten inches tall when you plant them, are commonly spaced at 5-by-5 feet (which will allow for more than 1,700 trees per acre) or at 6-by-6 feet (allowing for about 1,200 trees per acre). While this can seem wide open when the trees are first planted, they fill in quickly.

Once they're in the ground you're only just getting started. Christmas trees take around ten years to reach commercial maturity, and there's plenty of work to be done in the mean-time. You can't just put your feet up on the porch and watch them grow! Even newly planted trees need careful attention, as double tops must be cut off in the first couple years to avoid the development of a multiple stemmed tree that will have a hard time finding a home. As the trees continue to grow they must be sheared (pruned) to ensure the full conical shape consumers like to see in their living room. Starting in early summer the tips of each whorl of branches around the trunk need to be trimmed back. This diverts the tree energy away from upward growth and causes the tree to bush out and become fuller instead. Careful shearing takes time, lasting all summer on a large Christmas tree farm.

In addition to the shearing of the trees, the rows must be mowed or brush hogged, and species that thrive in open fields such as bindweed, vetch, bedstraw and goldenrod must be kept at bay as they compete for sunlight, water and nutrients. This is especially important when the trees are young and more susceptible to competition. Insect and disease attack are also an issue that needs to be addressed on the Christmas tree farms, with bugs like gall midge or balsam twig aphid, or needle cast fungi that can leave a tree stark naked, never see a bulb or a bobble.

And none of this comes cheap! Equipment on the Christmas tree farm includes everything from an auger for planting and shears for shaping, to a tractor for mowing and a chainsaw for cutting, let alone the rest of the equipment you'll find at a commercial operation like the netting spool that helps you get that neatly packaged evergreen on the top of your Subaru or in the back of your pick-up. Between the planting stock and the equipment involved, starting a large commercial Christmas tree farm can run in the tens of thousands of dollars, and money doesn't grow on trees.

So next time you head off to the Christmas tree farm keep in mind that your beautiful Balsam, or your fantastic Fraser, is only the result of years of love and labor. And remember as you search for that perfect Christmas tree that, really, all Christmas trees are perfect.

ABOUT MY WOODS

About My Woods, a free smartphone app, is now available for download. Woodland owners in Maine, New Hampshire, Vermont and New York now have a new tool to help learn about their woods. Available for both Android and iPhones (and tablets), you can access the app by going to the App Store (Apple) or Play Store (Android) and simply typing "About My Woods" in the search bar.

FINDING PATTERNS IN THE WOODS

By Al Stirt

In my 40-plus years of woodturning, I've made many styles of functional and decorative bowls. In this article, I'm going to talk about what first drew me to woodturning and what keeps me constantly interested in making bowls. I'll focus on bowls that come from our local Vermont forests.

When I started turning, I quickly fell in love with the patterns that could be found in the infinite variety of grain and color. When looked at as a whole, my work is about finding harmony between pattern and form. I'm constantly exploring how to make the grain patterns work with the shape of the bowl to create something that reflects collaboration between the wood and me.

I'll give a brief overview of the process of making a bowl from part of a tree and I'll show some of my favorite pieces made from local woods.

I'm lucky to be able to utilize many sources of wood from our local forests. While I work with many local species in log length, I am also able to use shorter pieces that would be destined for the firewood pile.

One of the main challenges in making bowls from local wood is dealing with moisture content. Wood cut from fresh logs is wet. When wood dries, it shrinks and warps and can crack. If allowed to dry in the log, wood is invariably too cracked to use — if it hasn't rotted first.

For thousands of years woodturners have solved this problem in a few different ways. One is to turn the bowls directly from green wood, start to finish. These bowls shrink and distort but, using proper techniques, they don't crack.

The other main method is to turn the bowl twice. First when the wood is wet and then again after it's dry. The bowl is first turned with thick walls to allow room for warping and shrinking. After drying, the piece is turned to the final thickness. This is the method I use for the vast majority of the pieces that I make.

A typical salad bowl will start as a block of wood cut from a log with the length being equal to the diameter. I cut the block down the middle to get rid of the center. The center of the tree will nearly always crack if left in the bowl.



Ideally, each half will yield a bowl. I draw a circle on each half and using a chain saw or band saw, cut out a rough circle.



PHOTOS: AL STIRT

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CONNECTIONS



The piece is then mounted on the lathe to turn what will become the back of the bowl. The green wood turns very easily compared to dry wood.



Next, the bowl is turned around on the lathe and hollowed out.



I coat the bowl with wax and dry it, under carefully controlled conditions, for a few months. After the bowl has dried to approximately 6% to 8% moisture content, I turn it a second time to its final shape and finish.

Many years ago, I stumbled upon a way to orient the block of wood on the lathe to get wonderful patterns from straight grain wood. While I also love to use highly figured wood, I wanted to

explore the beauty inherent in the geometry of the grain structure of “normal” wood. Here are a few examples.

Butternut (now facing a devastating blight in the form of Butternut Canker) has a beautiful spiderweb pattern revealed when it's hollowed out.



Black Cherry generally produces soft patterns and has a wonderful silky smooth texture and a color that gets richer with age.



Black Ash, although difficult to turn, displays a starkness that seems architectural.



PHOTOS: AL STIRT

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I'm also interested in figured woods. Here's a photo of a log of soft maple that had been through a debarker. The debarker did not cause the ripples going across grain. They are a reflection of how the wood fibers grew. The ripples indicate that the wood inside will have curly grain.



I cut the log with a chain saw mill into boards about 3" thick. Shallower pieces tend to show curly grain better.



Here's a finished piece from that log.



Occasionally I work with wood that has been "degraded" in some form.

First is a piece of Soft Maple that was attacked by the Ambrosia Beetle. The streaks of color arise from the holes left by the larvae.



Next is a piece of partially rotted — spalted — Yellow Birch. The dark markings are called zone lines and are usually an indication of barriers put up by different types of fungi trying to protect their territory. If you catch the wood before it gets too soft, the results can be spectacular.



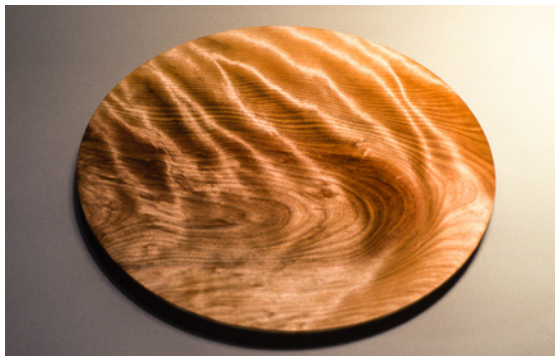
PHOTOS: AL STIRT



Crotch wood, formed where the tree branches out, can also yield wonderful patterns. Although most crotches from local trees have ingrown bark, occasionally you can find sound ones. This one is a great example from a Yellow Birch tree.



Like the Maple mentioned above, Yellow Birch also can get curly. Typically, the curls are at a diagonal to the grain direction and, if strong enough, can resemble lightning.



Sometimes Sugar Maple decides to become Birdseye Maple. This figure, almost unique to Sugar Maple, is much sought after for veneers. I used to have a contact in Maine who gathered Birdseye logs and would sell mostly to buyers of veneer logs. Choice logs would go for thousands of dollars. I was able to buy the logs that the veneer buyers rejected. They were very particular about

the amount of heartwood allowed as well as how deep the figure went etc. That source dried up when the veneer buyers started buying the former rejects to use as saw logs.



Finally, our local species can yield really interesting burls. Here are three of my favorite burl bowls. First is a spectacular Yellow Birch burl. Unlike the Curly Maple discussed earlier, this burl was smooth on the outside giving no indication of the figure inside.



PHOTOS: AL STIRT

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Next is a very rare Hophornbeam burl. The dark patches are not ingrown bark, but part of the wood. The texture and hardness was like ivory and it turned beautifully.



The last piece is a small covered bowl made of Black Cherry burl. Our local Cherry burls have great pattern and color but often have many bark inclusions and other defects.



AL STIRT

This has been a brief overview of some of the pieces I've made from our local forests. If you want to see more of these and other types of work I've done you can go to my website, www.alstirt.com.

COUGARS COMING EAST WITH SUE MORSE

By Nancy Patch

I just wanted to provide a quick report on the excellent presentation at the Opera House in Enosburg Falls on December 2nd. The hall was filled to capacity with approximately 150 in attendance.



Everyone was treated to an excellent program with Sue's engaging stories and world class photography. Sue has been studying big cats for decades and she has seen some dramatic movement of this beautiful animal in the last 20 years. They are definitely expanding their range and according to Sue there is verifiable evidence of cougars in Manitoba, Ontario, and throughout the middle part of the United States east of the Rockies. Sue left us with much to think about and hope for the return of the big cat. The established natural range of the cougar has been west of the Rockies, a population in West Texas, and a small population in Florida (the Florida Panther).

But so many people have said they have seen cougar much further east including Quebec, New York, Vermont, NH and Maine. We do know that cougars can make very long dispersal journeys, in fact one cat was known to travel from South Dakota to Connecticut before he was killed by a car. One of our CHC members responded after the show that we should look further into reports just north of the border. I have done just that by contacting Two Countries, One Forest and other organizations and in next issue of *Connections* we will have further information on this subject as well as a more in depth article on the future of cougars in North America and their life history. But I will leave that for later as we gather information from our partners to the north. One thing we do know is that animal dispersal can be far and occur at a regular frequency and so in the past they were able to adapt to changing habitat. Things are now different as the human footprint literally stands in the way of this movement. Our work at CHC is to protect core habitat and connect those cores to allow animal movement of all kinds. This is especially important as global climate change effects take place. Maybe the cougar can be our canary.



BEAVER (*CASTOR CANADENSIS*), A KEYSTONE SPECIES

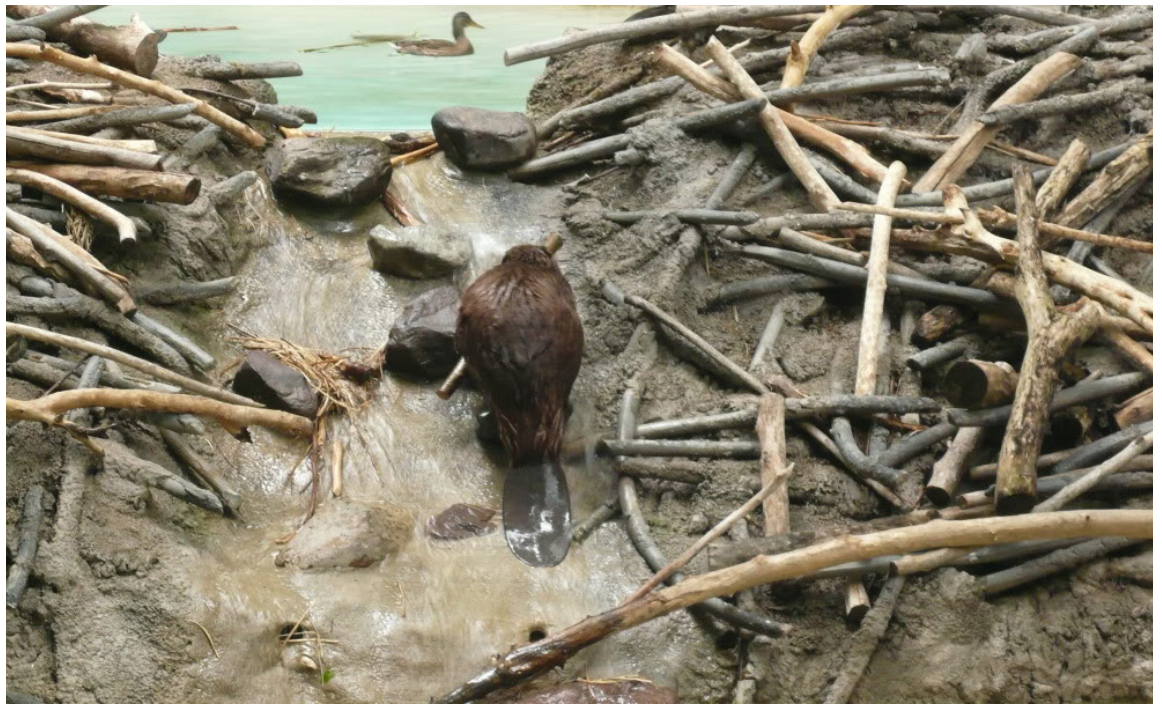
By Nancy Patch

The Beaver is considered a “keystone” species because the habitat that the Beaver creates for their own life cycle needs will provide habitat for a very diverse number of other species. Some of the species that benefit from a Beaver Impoundment (beaver pond) include all manner of birds and waterfowl such as Great Blue Heron, Canada Geese, Snow Geese, ducks galore, Belted Kingfisher, owls and hawks. Some of the mammals you will find near and within a Beaver Impoundment are muskrat, mink, otter, moose, bobcat, black bear, as well as fox, coyote, and deer. This list could be much longer, and is one of the reasons why a naturalist would love the Beaver.

The beaver was loved a few hundred years ago for another reason; their fur. It seems everyone in Europe wanted a beaver hat or beaver coat. The fur trappers were some of the first European visitors to North America following the explorers. Trappers were not settlers, they came, exploited the resource and left. It is estimated that when the first explorers came to this country, as many as 200 million beaver were in the continental United

States. By the time the first settlers began arriving in Vermont in the mid 1700s, beaver had been extirpated for almost 100 years as a result of unregulated harvest (Kim Royar VTF&W). The beavers were in fact so over trapped that when settlers did arrive they did not recognize the rich lowland meadows as beaver meadows. These meadows often became the first areas to plant crops. No trees had to be cut and stumped, and the soil was deep and workable. It was therefore a surprise and sometimes still is when those beavers want to re-colonize their original habitat. In 1921, the beaver was actually reintroduced into VT, and has possibly reached its carrying capacity on the landscape. Because of development and agriculture there is no room for more beaver.

The beaver’s life cycle is linked to the ecological cycle of the habitat they create; the impoundment or pond. A beaver will scout out a stream flow and identify a location where they can build a dam which will raise the water level and expand a pond through the lowland floodplain of the stream channel. The water is where the beaver





can feel safe, and move quickly away from its predators. No predator will follow a beaver into the water. The beaver builds a lodge in the middle or along the edge of the impoundment. It is made of tree branches and mud, just as the dams are. The best way to tell if a beaver pond is active is to look at the lodge and dam and see if the sticks that make up this construction are fresh. The beaver will occupy a pond site for as long as the food around it remains close enough to gather. Beaver feed on the cambium layer or growth area of trees and on roots and tubers of wetland plants. Their favorite tree species are birch, poplar (aspen and cottonwood), red maple, willow or alder. Once the food source is depleted they will abandon the dam to go either upstream or downstream looking for better habitat. Once the beaver have left the dam eventually breaks allowing the beaver meadow to form. Eventually trees and shrubs grow back once again providing the food source and the cycle can begin again. (A slow moving stream called Beaver Meadow Brook runs through my property and I can see evidence of decades worth of old dams, and varying successional stages of the meadows and forest.) Beaver also live along the edges of large rivers where they do not build dams and they excavate into the bank rather than build a lodge.

Beaver do not hibernate or slow down in the winter. They stockpile branches at the bottom of the pond to feed on during the winter. They live

in family groups of a male, female and their 1 and 2 year old offspring. A litter is on average 4 young. It also appears that this monogamous mating of the adults lasts for life. After two years the young are kicked out to go and find and make their own habitat. This is a dangerous time for a beaver when their predators have an edge. Coyote, bobcat, fisher, fox and black bear will all prey on beaver who is at a great disadvantage on dry land.

There can sometimes be conflicts between humans and beavers when the beaver floods a field or road, or damages too many trees. If you have a problem with a beaver but you decide you want the beaver and your road, you can build a beaver baffle. This is a pipe that is placed into the dam below the water level which will keep draining the pond, and keeping the water level down. The beaver will repair a dam when it hears running water, but if it is below the water line it is usually left alone. There is usually now no place to trap and relocate a beaver so if you want them removed, VT Fish and Wildlife can be called.

For me, I love to sit near a beaver Impoundment and watch all the wildlife that frequent it. I do this either through direct observation or by identifying sign and tracks of animals that have come and left. But it does offer solace that an animal that had once been extirpated, can make a comeback, and recreate such a fabulous habitat.



UPCOMING EVENTS

BAKERSFIELD CONSERVATION COMMISSION

Meets the last Monday of every month at 1:00 PM in the Town Hall Building, 40 East Bakersfield Rd, Bakersfield.

ENOSBURGH CONSERVATION COMMISSION

Meets the fourth Monday of every month at 7:30 PM at the Cold Hollow Career Center, 184 Missisquoi St., Enosburg Falls.

MONTGOMERY CONSERVATION COMMISSION

Meets the first Wednesday of every month from 5:30 to 7:30 PM at the Montgomery Town Office, 98 Main St (VT Route 118), Montgomery Center.

RICHFORD CONSERVATION COMMISSION

Meets the fourth Tuesday of the month at 5:00 PM in the upstairs conference room of the Arvin A. Brown Public Library, 88 Main St, Richford.

WILD AND SCENIC RIVER STUDY COMMITTEE

Meets the third Thursday of every month from 7:00 PM to 9:00 PM. Locations vary so visit www.vtwsr.org for up-to-date information.

COLD HOLLOW TO CANADA STEERING COMMITTEE

Meets the third Monday of each month from 6:00 to 8:00 PM at the Cold Hollow Career Center in Enosburg Falls or Bakersfield Library. We rotate the location, so please let us know if you'll be joining us. It'd be great to see you there.

**Please check coldhollowtocanada.org for updated Upcoming Events*