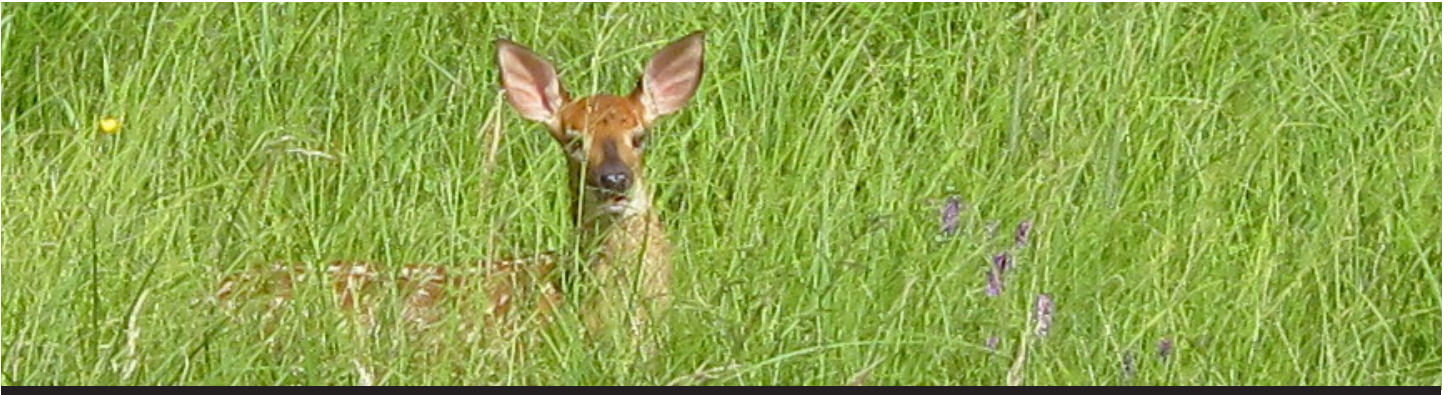


CONNECTIONS

THE NEWSLETTER OF COLD HOLLOW TO CANADA FOREST LINK



SPRING 2015

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CHC STEERING COMMITTEE

Bakersfield:
Mary Schwartz and
Forrest Dunnavant

Enosburgh:
Nancy Patch, Chris Damato
and Ward Heneveld

Fletcher:
Corey Brink

Montgomery:
Charlie Hancock,
Chair

Richford:
Bill McGroarty and
Lenny Tamulonis

PHOTOS: JOANNE WAZNY

CONNECTING FOR CONSERVATION

By Charlie Hancock

Greetings Friends and welcome to the Spring 2015 edition of *Connections*, the quarterly newsletter for Cold Hollow to Canada. Writing this, I can't help but reflect back on a month where the mercury never climbed higher than thirty degrees and mornings starting at minus twenty became the new normal. Even as I write this there's snow flying outside the window, but according to my calendar by the time you read this spring will officially be here. Let's hope that means the sap is finally running, and even on the colder days the sun feels warm again. Pretty soon buds will be popping and the skis will be stowed away again until next year. Hopefully you've had a great winter and fun plans for spring.

This coming year we're going to be giving CHC a bit of a face-lift; changing the format of the newsletter, re-vamping our website and outreach through e-mail, and expanding our presence online through social media. Our hope is that by harnessing this expanded technological potential we can get more information out to you faster and easier. One of our main activities as a growing non-profit is expanding outreach to communities and coordination among local conservation commissions, public entities, and other non-profit organizations. So connect with us on whatever platform you prefer to stay up to date and onboard as we work toward a healthy and intact forested landscape that supports a strong and sustainable local economy through stewardship, with permanent protection of core wildlife habitat and connectivity across the entire Northern Forest.

Happy Equinox!

— The CHC Steering Committee



LIVING LEGACIES IN OUR FORESTS

By *Charlie Hancock*

Walk through almost any woodland in our region long enough and you're bound to come across a tree that makes you stop and stare. Sometimes it's a large diameter open-grown oak standing testament to a stand's days once cleared as pasture, providing shade to a small herd on a hot summer day. Sometimes it's a massive yellow birch growing on an outcrop so steep that an axe was never able to reach it. And sometimes it's a whole host of maple which have provided sap for the pan since early in the last century. While these sentinels of our woods stir our dreams of old growth forests, they tend to be found in stands that lack the overall age and structural diversity to qualify for this lofty distinction. That does not, however, make them any less important to the ecology of our forests. Where appropriate, these trees should be retained as "Legacy Trees."

Legacy trees are trees that are intentionally retained in the forest until they reach the end of their biological life span. These trees will become wildlife snag trees in the future. Snag trees are important because, as they decay, cavities are

created inside them that can be used as den sites for many species. They also provide an important food source for woodpeckers that feed on the insects inhabiting them. Large branches or entire trees of this diameter that have fallen to the forest floor provide important down woody debris for use by small mammals and several amphibian species. Fisher is one species that prefers fallen hollow logs for denning and rearing young. When managing our forests, we usually seek to identify approximately 4–6 legacy trees per acre to be retained during future harvesting operations to become these dead snags so abundant with other life. But don't despair if your woodland lacks even one tree that you can't wrap your arms all the way around. Today's small tree is always tomorrow's giant, so recruit the legacies in your own forest by thinking forward to which trees our grandkids will stand in awe of.

Take a walk in your woods and look for the legacies of your land. Chances are you already know where they are.



JOANNE WAZNY

WANTED: SIGNS OF SPRING

By Bridget Butler



ALAN D. WILSON, WWW.NATURESPICSONLINE.COM

Let's just set the record straight right away—robins are not a sign of spring. I'm sorry. I don't mean to burst anyone's bubble, especially after a very chilling winter, but robins aren't the harbinger of spring. Sure, they're a short-distance migrant, but they often stick around in the winter. Hmmm. Maybe not this winter. So okay, get a *little* excited if you see a robin in your backyard.

For me, the true harbinger of spring from the bird world is the red-winged blackbird or even the American woodcock. Red-wings will be back as early as the third week in February in parts of Vermont. Males set up their territories first and the females begin to arrive a couple of weeks later to

suss out who's got the best digs to hook up with for the breeding season. My heart truly thaws when I see that first male blackbird clinging to cattails in a still snow covered marsh.

Then you have the plump yet acrobatic American woodcock, who seeks out seeps where the snow has begun to melt, as it arrives in late March. As March fades to April, male woodcock begin their courtship displays at dusk in open fields across the region. Head outside with a hot drink and a folding chair for one of Mother Nature's best courtship show-stoppers. It starts with a frog-like series of peents from the ground as the male psyches himself up for a flight that rivals even Dan Marcotte's airshows. Listen, *peent—peent—peent*, then a whistle like twittering commences as he takes flight zig-zagging upward only to peak and then swiftly spiral downward chittering. The whole time he's hoping to attract the eye of a luscious lady woodcock watching with bated breath on the ground. Ahh, now that's spring!

Of course a warm April rain sets my heart aflutter because I know amphibians will be rising from the earth and making their way, sometimes through the snow, to vernal pools and ponds to mate. Spring peepers and wood frogs boldly call throughout the night peeping and quacking, sounding off for all to make their way to the most raucous mating party of the season. Chunky yellow spotted salamanders and skinny red-backed salamanders don't want to miss

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D. GORDON E. ROBERTSON

out, and slip from the leaf litter to run the gauntlet of cars on dirt roads to join the mating celebration.

Isn't spring just great? Maybe you've noticed spring happenings on your property; fresh black bear tracks in the snow, wildflowers like hepatica with a layer of fuzz to ward off chilly nights, or a stinky skunk-like smell from a red fox marking his territory. This is seasonal science at it's best, otherwise known as phenology. According to Wikipedia, phenology is "the study of periodic plant and animal life cycle events and how these are influenced by seasonal and interannual variations in climate." Mary Holland, author of a wonderful book called *Naturally Curious*, says that at one time these types of observations were crucial to human survival. She states, "While these events no longer play an integral part in the lives of most humans, awareness of them can provide a sense of connection with the earth that is unobtainable in any other way."

I'd like to push you beyond awareness—into action. What's great about phenology is that the observations we collect can serve a greater purpose. There are a number of citizen science projects out there that you can be a part of this

year, knowing that the data from those projects helps inform scientific discovery and decision making. Think about starting a notebook this spring, noting some of your observations. Check out the sidebar for a list of projects you can be a part of and consider sharing your observations and photos on our new Facebook page. My hope is that the coming signs of spring will not only uplift you and peak your curiosity but tap into your inner sense of stewardship this year.

Vermont Atlas of Life

<http://bit.ly/VTAtlasofLife>

Vermont Reptile & Amphibian Atlas

<http://bit.ly/VTRepAmphib>

Vermont eBird

<http://bit.ly/VTeBird>

Nature's Notebook

<http://bit.ly/NaturesNotebook>

FIND US ON FACEBOOK!

We've jumped into the world of social media in order to expand our reach and connect with other conservation organizations. If you're on Facebook, try searching for "Cold Hollow to Canada" or visit our website at www.coldhollowtocanada.org and you can join the Facebook page by clicking the like button. *Make sure you select "Get Notifications" in the dropdown menu so we pop up in your feed.* We hope you find lots of things on our page to share with your friends!



COUGARS COMING EAST, OR ARE THEY ALREADY HERE?

By Nancy Patch



© SUSAN MORSE

In December of 2014 we had the wonderful opportunity to have Susan Morse come to Enosburg Falls to present Keeping Track's PowerPoint show, "Coming Soon: The Cougar Returns to the East." Sue is known to CHC members and is the founder and science director of Keeping Track Inc. CHC has sponsored three Keeping Track trainings since 2009 with one now in progress. She is also a nationally known tracker who has worked with large cats for decades. This topic of cats in the northeast is clearly of great interest as we had a huge turnout at the Opera House. We also received some feedback from some folks who attended and wanted to learn more. There was specific interest in what is going on in Quebec, just to our north.

There are countless anecdotal accounts of people seeing catamounts in Vermont, Quebec and elsewhere in the northeast, but there have been far fewer actual scientific documentations of the big cats in our neck of the woods. While many of these eyewitness accounts are often discredited, that does not mean that some are not credible. In fact there is some evidence of cougars in our midst. Readers

of this article in our *Connections* Newsletter should know that different local names for cougar are not of different animals. Catamount, cougar, puma, panther, painter and mountain lion are all names for the same critter!

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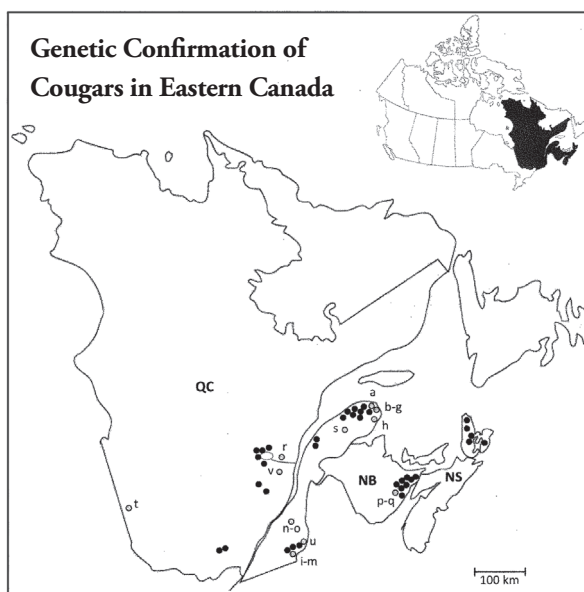


Figure 1. Sampling sites and positive identifications of Cougars in eastern Canada. Black circles represent the scratching posts installed at different localities, and grey circles represent scratching posts with positively identified Cougar samples. The letters refer to the labels in Table 2. QC = Québec, NB = New Brunswick, NS = Nova Scotia.



Caroline Daguet, a biologist with Appalachien Corridor in Quebec, attended the presentation by Sue and sent a research article “Genetic Confirmation of Cougars in Eastern Canada” by Lang et al. in the *Northeastern Naturalist* (2013). The study used scent posts to collect hairs to enable DNA analysis of these hairs for identification. This genetic analysis can identify their presence and if they are of North or South American origin, but it cannot conclude whether the animal is 1) a remnant of a persisting population, 2) captive animals released or escaped, or 3) dispersers from western or southern populations. A report compiled for Appalachien corridor shows that between 2002 and 2011 five samples of cougar hair were collected in the Sutton range. One sample had an unknown origin, two were South American and two were North American origin. The analysis could not determine if there were just two animals, one North American and one South American, or if there were more individuals. According to the report; given the low density of animals in Quebec it is unlikely that those individuals could be successful in finding a breeding partner, though food availability would not be a limiting factor. A South American puma would indicate that the source of the animal was probably the illegal pet trade, and that it “escaped” or was released into the wild.

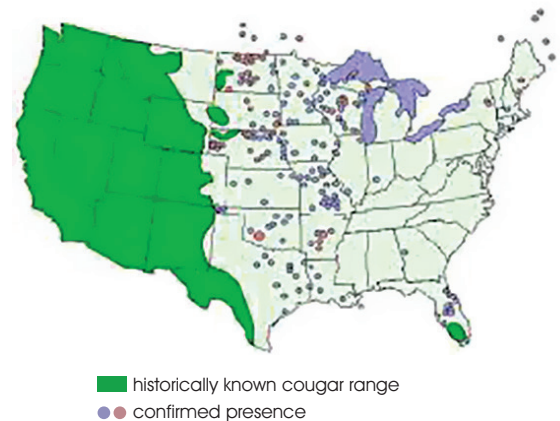
It is not improbable that a cougar could travel very large distances. They are in fact known to be long distance dispersers, going hundreds and even

Kittens are born to established populations of resident males and females.



© SUSAN MORSE

Cougar Confirmations: 1990 to Present Outside of Established Range in North America



thousands of miles in search of a females and good habitat. In 2011 a cat was killed by an SUV while crossing the road in CT. Based on DNA analysis of that cat it was determined that its origin was the Black Hills of South Dakota. This DNA evidence also linked the animal along its extensive travel route through Minnesota, Wisconsin, Ontario and the Lake George region as it journeyed over 1,500 miles between South Dakota and Connecticut. The presence of porcupine quills embedded within the cougar’s hide confirmed the fact that this young transient was a wild cat, capable of killing its accustomed wild prey. This lion was a young male, 2–5 years old, and not quite full grown.

Sue Morse is convinced that the big cats are indeed expanding their range. “In recent years, especially in the last 15 years, there has been a remarkable expansion of cougars into the Midwest from new source populations that exist in the Dakotas. Cougars have also established a new breeding population in eastern Manitoba, which is just a hop, skip and a puma leap away from Ontario. The Cougar Network is a research nonprofit organization devoted to documenting evidence of cougar expansion in the east. Cougar Network creates and updates maps that document scientifically validated evidence of cougar dispersal all along the Mississippi corridor, from Minnesota to Louisiana.” Based on the above mentioned research there definitely have been dispersing animals in our area. However, no biologist in the northeast has confirmed any

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evidence of a breeding population. The challenge is that young females tend to settle closer to home, though they do sometimes move to a more distant territory. Some scientists are skeptical and don't believe that cougars could return here on their own, but Sue believes that it will be just a matter of time before they return to the east, probably via a Canadian route. She does agree that it is very unlikely that a breeding population is currently present. She has found no evidence of scent marking anywhere in the east outside of Florida. Scrapes and claw raking are ubiquitous scent-marking signs that are easily found in habitats occupied by cougars seeking to communicate with one another.

The presence of an apex predator, such as a catamount in the northeast, is a benefit to the ecology of the region. This animal was once part of the ecosystem and could be invaluable in the future as a means to keep prey species in check—species that otherwise become overpopulated, such as the white tailed deer and beaver. Beaver and porcupine are also common prey for cougars. As the climate warms, deer will not be limited by deep snow and cold winters. The numbers of hunters are diminishing every year, and our system needs an additional predator, other than humans. Sue is very quick to say that she herself is a hunter and not opposed to hunting prey animals like deer, moose and caribou, but she believes that hunting apex predators is inappropriate. Sue is personally concerned that current unsustainable hunting quotas for cougars in western states, especially South Dakota, are damaging in multiple ways. When resident male, and even female cougars, are permitted to be killed at the rate they are, opportunities for successful population expansion into vacant habitats throughout the east become less and less likely. The stable social system of a given cougar population is disrupted when resident mature Toms are killed—inviting an influx of young dispersing males that move in in response to a vacancy in the habitat. Research has documented that these young males cause increased mortality among kittens which they are impelled to kill—a phenomenon called infanticide. When trophy hunters kill females, the impacts inevitably go beyond the individual animal killed, because she is either pregnant or mother to kittens that will now be orphaned, and will lose her support.

Sue also explained to me that “The northeast is the only region of the US that has not benefited from a USFWS supported reintroduction of an apex predator. There needs to be a federally endorsed Eastern Cougar Recovery Plan that among other things would solidly acknowledge the incalculable value of apex carnivores in all large and suitable habitats throughout the east—including our region which is indisputably the largest. Hunting practices that prevent or threaten natural recolonization should be prohibited.” It has been shown through research in other parts of the country that when an apex predator is present the health of their prey population and its forest habitat is improved. The varied habitats across the northern forest region can definitely support cougars and other apex predators such as the wolf. Even if we chose not to actively restore cougars through translocation efforts, we should at least make a commitment to protecting them as they seek to make the journey on their own.” Our forests would be a better place for it.



Young Cougar



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.

Tracking Project Results

Sponsored by CHC & town Conservation Commissions

Hear about the results of two of Cold Hollow to Canada's tracking projects. With the support of our local conservation commissions, Cold Hollow to Canada organized the Wildpaths Program and the Keeping Track Monitoring Program to inspire the long-term stewardship of wildlife habitat. Three UVM students analyzed and completed a report on trends in abundance, habitat and conservation. Join us for these FREE presentations to learn more about bear, moose, fisher and other mammals that share the landscape with us.

Enosburgh: March 23rd, 7:00 pm, Cold Hollow Career Center

Richford: March 24th, 5:00 pm, Arvin A. Brown Public Library

Montgomery: April 1st, 6:00 pm, Montgomery Town Office

Is Vermont Getting Warmer?

Sponsored by the Richford Conservation Commission

Dr. Alan Betts of Atmospheric Research in Pittsford is Vermont's leading climate scientist and has worked on climate change adaptation planning for Vermont. He'll be talking about the changes biologists and climatologists are already seeing in our region and right here in Vermont. Find out how scientists are tracking bud burst in plants and bird migration patterns to learn more about climate change.

Richford: Wednesday, April 15th, 6:30 pm, Emergency Services Building

Enosburgh Town Forest Walk

Sponsored by the Enosburgh Conservation Commission

Saturday, April 18th from 9:00 am – Noon

Meet at Longley Bridge Road at the town forest parking lot.

Birds & Breakfast

Sponsored by CHC & the Richford Conservation Commission

Bird walk at the Richford Town Forest

Saturday, May 23rd, 7:30 am, with breakfast to follow
Leader: Bird Diva, Bridget Butler

Details to be announced! Please check back on our website or Facebook page for details about where we'll be carpooling from and where we'll be gathering for breakfast and conversation.

**Don't forget to check coldhollowtocanada.org for updated Upcoming Events*