



Kemp's Point

Volume 14, Number 2, Fall 2013

News from the University of Wisconsin-Madison's Kemp Natural Resources Station

Coverts Uncovered

By James Govednik

co·vert (noun):

a thicket affording cover for game

I was not sure what to expect as I drove through the beautiful northern Wisconsin countryside on my way to the Coverts Workshop Weekend at the Kemp Natural Resources Station in late August. I had a pretty good idea the information on wildlife and habitat management would be useful, but I had no idea what was in store for the next three days. I received the agenda from Jamie Nack at the University of Wisconsin – Madison so I knew it was going to be a busy couple of days. I heard great things about the workshop from fellow Ruffed Grouse Society members and heard rumors of a monstrous 3 ring binder that all attendees receive packed with resources for wildlife and habitat management, so I was pretty excited. The informative workshops, hands-on field trips, and top notch presenters made the Coverts Workshop weekend a truly awesome learning experience at a location perfectly suited for a wildlife workshop.

When I arrived I checked in and got settled in the magnificent bunkhouse at the Kemp NRS. The log buildings were very resort like with a warm

north woods feel and the early 1900's décor was amazing. I had a good feeling about this weekend from looking around the grounds and chatting with the other attendees. The rumors of the giant binder were true! We received our information packed binder on the first evening. It is truly a wealth of wildlife and land management information. The rest of the evening was spent at a ruffed grouse and woodcock seminar presented by Gary Zimmer, a biologist with the Ruffed Grouse Society. It was a very informative presentation. After

that we had cake and ice cream and sat by the campfire and solved a few world problems during our discussions.

The next day we woke bright and early to a delicious blueberry pancake breakfast. The day started with some direction and outlines from Scott Craven and David Drake, both from the University of Wisconsin – Madison. The morning was

filled with wildlife and timber management seminars. In the afternoon we did a tour of the Northern Highlands-American Legion state forest, observing different forest age classes and forest types. That evening we had more great wildlife seminars. Later that evening many great conversations sprang up around the campfire.

The second day was packed with a variety of seminars on frogs, songbirds, small mammals, and various other forest creatures. We also went out in to the woods to learn various live trapping and

(Continued on Page 2)



Workshop participants learn about forest structure, timber management and habitat types.

Coverts....(Cont'd from page 1)

wildlife observation techniques. The seminars and field work really demonstrated the high level of knowledge and the passion of the organizers of the weekend: Jamie Nack, David Drake, and Scott Cra-ven. Very nice job to all three of you! Later that night, again around the campfire, there were great stories and conversations aplenty. A few of us stayed up a little later than the rest and continued our work from previous evenings on solving world problems. If I only I could remember the solutions that were discussed. Maybe a note taker would be a good idea for the next time we gather around the campfire to solve the world's problems. Then again, maybe not.

The last day was truly bitter sweet. The tour of the Ides property was a great learning experience. The Ides are inspiring people and very knowledgeable about forest management. We saw several different aspen age classes and learned about their individual benefits to wildlife. The only problem was this was the day to say goodbye to all the great people that attended and organized the weekend. I think everyone who attended gained some new friends and a bunch of great resources and contacts.

The Coverts Workshop Weekend was an experience I will not forget. Not only was it extremely informative, but it also inspired me to create my own wildlife management plan. The food was fabulous and the presenters were top notch. The combination of field

trips and classroom work was balanced and a great mix of subject matter. I made some great friends and know many other friendships were started that weekend too. Thank you to Jamie, David and Scott. Their knowledge and passion are the driving force behind the Coverts weekend. Their work is impor-

tant to wildlife management. Our job as graduates of the program (Coverts Cooperators as we are known after completing the program) is to spread the word about the importance of sound wildlife and land management. I can't wait for the Coverts reunion in a couple of years!

Right: Jamie Nack demonstrates mam-mal trapping techniques. Below: The 2013 Coverts Work-shop graduates.



James Govednik is a Wisconsin woodland owner and a newly minted Coverts Cooperator, Class of 2013. Congratulations, James!

The Wisconsin Coverts Project is a fun and informative four-day workshop held each August at Kemp Station. The workshop is open to private

woodland owners from Wisconsin and the Midwest who are interested in managing their property for wildlife. For more information about the Wisconsin Coverts Project, a woodland wildlife management program for private landowners in Wisconsin and the Midwest, please contact Jamie Nack (jlnack@wisc.edu; 608-265-8264) or visit the Coverts Project website at: <http://fwe.wisc.edu/coverts>.



Hello, Kitty!

By Karla Ortman

I know they are out there, but I have never seen a wild cat on the landscape. My home is shared with four cats who sometimes *think* they are wild cats, but that's not quite the same thing. Thanks to modern technology, like the trail camera, we now have tools to see the more secretive wild animals with which we share our world. Such was the case during the Coverts Workshop held at Kemp Station when a bobcat triggered one of the trail cameras deployed by the workshop participants. This was first the recorded bobcat observation on the property, so it was definitely a neat "capture."

Three wild cats are native to the state — the Canada lynx, the cougar and the bobcat — but only one, the bobcat, is known to breed here. The 2012 Bobcat Population Analyses completed by the Wisconsin Department of Natural Resources, which is based on harvest and reproductive data, estimates the current bobcat population at fewer than 2,000 individuals. Known primarily to live in the northern half of the state, the elusive and adaptive cat has begun to take up residence farther south in recent years.

Bobcats are solitary animals and each animal establishes a home range or territory. Home ranges of males in Wisconsin are about twice that of females. Males stake claim to about 23 square miles, and females 11 square miles. Home ranges of males will overlap with those of females, but will not overlap with those of other males. This reflects the

biological drive of males to mate with multiple females and sire many offspring. The range overlap also benefits females, as an intruding male harboring a desire to kill a litter of young would likely be driven off by the paternal resident male.

Bobcats use scent to mark their home range. This communicates to other bobcats that a cat already lives in this territory. Scent marks are made with urine, scat, mouth and



Bobcat captured on a trail camera this August -- a first for Kemp Station.

anal glands, and glands located on their cheeks and paws. The scent marks are respected by other bobcats as a feline social hierarchy does exist. (Our companion cats mark their territory too, which can include their people. Thankfully they usually do this with their cheek and paw glands!)

Resident adult bobcats may shift their home range if conditions, such as prey availability, change. Transient cats usually move through resident home ranges while searching for a territory of their own.

When a resident bobcat dies, a transient will take over the territory, bringing new genetics to the area's population. Thus, it is thought that the home range system and mutual avoidance serve the overall population in several beneficial ways.

The name, bobcat, is short for "bob-tailed cat", referring to the animal's 5- to 6-inch tail. One of our cats has a "bob-tail" either from an injury or he was born that way. He did not appreciate having his tail length

measured to determine whether we could "officially" refer to him as a bobcat—we can't as it is 7-inches long. The scientific or Latin name, *Lynx rufus*, (genus and species) references the reddish tone of the gray/tan fur ("rufus" being the Latin for "reddish" or "red"). This coloring serves as perfect camouflage when combined with the cat's black spots.

Black hair tufts and "sideburns" round out the unique markings of this cat.

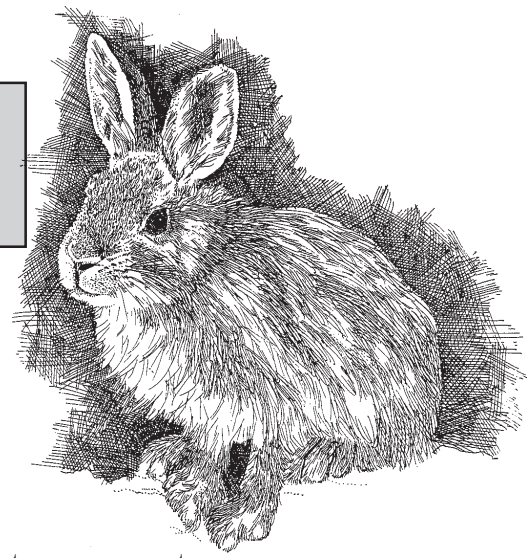
The average bobcat weighs about 20 pounds; females weigh less than males and are also smaller in stature. You will know the bobcat track by its 1 ½ - 2 inch width and 1 ½ - 2 ¼ inch length — this is a bit larger than a domestic cat and much smaller than the 4-inch track of the Canada lynx.

From head to toe, the bobcat is designed to be an exceptional hunter. A strong, light skeleton supports a heavy musculature. Rear legs are longer than the front legs to increase jumping and springing abilities. Cats

(Continued on Page 7)



**Five Questions with Sean Sultaire's
"Where's the Hares?" Research Team
Forest & Wildlife Ecology, UW-Madison**



1) Where do snowshoe hares live?

Snowshoe hares are a Wisconsin native, and their range has historically included the northern half of the state. The bulk of their range is across the boreal forest of Canada and Alaska, with range extensions into the contiguous U.S. in the Northeast, Midwest, and Rocky Mountains. Ideal snowshoe habitat is dense young forests that provide cover from predators, and persistent deep snow cover for a significant portion of the year. Generally, areas with abundant conifers (pine, spruce, fir) support the highest hare densities.

2) Is the snowshoe hare actually a rabbit?

Snowshoe hares are in genus *Lepus*, and are true hares. Occasionally they are referred to as 'snowshoe rabbits' but this is a misnomer. Being hares, snowshoes give birth to precocial (well-developed) young (leverets) that are born furred and ready to take on the world. In contrast, rabbits give birth to blind and fairly helpless young. For this reason hares generally do not construct nests or burrows for their young. The other true hare that may occur in Wisconsin is the white-tailed jackrabbit (actually a hare), which colonized the state after many forests were cleared for agriculture. Since then they have become rare in the region.

3) How is the snowshoe's habitat changing in our state?

The climate has changed considerably in Wisconsin in the past 50+ years, and the most drastic changes have come in the winter. This has led to declines in the duration of snow cover, which is expected to continue in the future. Snowshoe hares, being at the southern extreme of their range within the state may be particularly sensitive to these changes. Other changes may also be occurring that could adversely affect hares. Forests in Wisconsin have aged considerably within the past few decades and many of them may no longer have the dense cover that hares need for protection from predators. Right now we are in the process of visiting known historic hare locations in winter, and looking at tracks

to determine if hares are still present. Then we can use the information on where they are and are not found to determine what factors are most important to snowshoe hares in Wisconsin. Particularly, we are predicting that this species has shifted its range further north within the state as a result of these changes.

4) What about the snowshoe hare's biology makes it prone to impacts from these changes?

Snowshoe hares are a snow adapted species and exist at the southern extreme of their distribution in Wisconsin. Their coat turns white in the winter-time to match snow cover, and their big feet allow them to out-race predators in deep, soft snow. For this reason we believe they could be particularly sensitive to a warming climate. Interestingly, the molt to white is not instigated by the presence of snow; it is actually day length. As snow amounts decline they may not be able to adjust. Even with snow cover, as days get warmer snow will likely become harder and more crusted, which could favor predators over snowshoe hares. Basically under changing snow conditions snowshoe hares may be losing their advantage over predators such as coyotes, which are not well adapted to snow. Historically, populations at this range limit have been characterized by very high predation rates, and seemed to barely be sustainable. Given this delicate balance, even small changes could result in local population extinctions.

5) Will cottontails be affected the same way?

If anything, I would predict that warming winter conditions will benefit cottontails because they are not well adapted to extreme winter conditions. As

(Continued on Page 6)





Kemp Profile: Collin Buntrock

How is your project funded?

My project is funded through the Gordon R. Connor Center of Excellence.

How will information from your research be used?

The results from this study will aid timber valuation. With a procedure to determine the extent of facultative heartwood, procurement foresters and log buyers will be able to more accurately value standing timber and thus place bids on timber sales with greater confidence.

Describe a typical day of field work:

I usually pull out of Kemp Station at the crack of dawn. This way, I beat the heat and also the late afternoon mosquito swarms. When I reach my study sites, I often chat with loggers and foresters for ten

Hometown: Elgin, MN

Educational background and current area of study:

I received a BS in forest science from UW-Madison in 2008. While an undergrad, I worked for the South Dakota Division of Forestry. I also spent a summer preparing timber sales for a sawmill located in northern Wisconsin. I am currently a graduate research assistant at UW-Madison, working towards an MS degree in forestry.

What questions does your field research answer?

My research investigates the occurrence of facultative heartwood in stand-grown sugar maple across northern Wisconsin and the UP of Michigan. Facultative heartwood is a discolored column of tissue that develops after a tree is injured. In current markets, forest products produced from maple with little facultative heartwood are more valuable than products containing sizable volumes of heartwood. Many foresters and loggers have long speculated that heart size differs across soil type and site quality, and that mature trees have proportionally larger hearts than young trees. One objective is to test the validity of these claims by collecting age and growth information from sugar maple growing on different soils and habitat types. My second objective is to develop a multi-variable model for explaining tree and site-level differences in heart size.



Heartwood diameter varies in size from very small (left) to quite large (right). Arrow points to outer edge of heartwood.

or fifteen minutes. I try to keep these folks well-informed of my progress. Many have offered their two cents on my project as well. The type of data I collect on a given day depends upon the pace of the logging crew working on the sale. Before a stand is harvested, I'm busy locating, tagging, and measuring suitable study trees. Later, after my study trees are harvested, I return to the site and measure the total area of facultative heartwood on the stumps using imagery analysis software. My study sites are located in Forest, Marathon and Oneida Counties and in Michigan's Upper Peninsula near Houghton.

(Continued on Page 6)



The Season in Review



Clockwise from upper left: UW-Stevens Point students get their skulls on; Kemp outreach participants display completed bat house; UW-Madison forestry students at timber harvest; UW-Madison plant pathology students and Northwoods Mycological Society members after fungus foray; UW-Madison forestry students learn to mark trees for timber harvest; Kemp outreach participants make shiitake logs; UW-Madison student displays red-backed vole; At Center: Lakshore restoration research field techs collect small mammal data

Kemp Profile....(Cont'd from page 5)

What is the biggest challenge you have faced working on this project?

A major challenge I've faced is how to account for stand history and disturbance. For example, many maple-dominated forests near Merrill, WI were once sugar bushes. When trees are tapped for maple syrup year after year, they are subject to a considerable amount of wounding and stress. These wounds become infection courts for pioneer and decay-causing microorganisms and can initiate the formation of facultative heartwood. If stand history isn't accounted for while selecting sites, then few reasonable connections can be made between my measurements and the extent of facultative heartwood.

What have you enjoyed the most about working on this project?

I had the privilege to stay at Kemp Station while I performed my field work. Together, the facilities, the fantastic views, and the wonderful people make Kemp Station one-of-a-kind; I am truly blessed to have been able to call Kemp Station my home this past summer.

Hares....(Cont'd from page 4)

the winters warm and snow cover decreases, this species might be more successful in northern Wisconsin, where historically they were rare. Interestingly this could also negatively impact hares as past studies have shown that in areas where cottontails and snowshoes exist together there tends to be fewer snowshoes.

Reprinted with permission from the House Rabbit Society-Wisconsin Chapter 2013 Summer Newsletter, www.wisconsinhrs.org



Kitty....(Cont'd from page 3)

walk in a digitigrade stance — on their toes — and with claws retracted, the webbed skin and fur between their toes silence their approach. Claws are extended when needed for quick movement and traction. The sharp claws are also used to grab and control prey in order to quickly deliver the killing bite with its large canines or fangs. Bobcats have short jaws and large jaw-closing muscles that make their bite powerful.

The bobcat's vision is described as "extraordinary." Felines have large eyes, with pupils that can expand to an area three times larger than that of a human's pupil. This feature makes their eyes more sensitive at low light allowing them to see very well at dusk and dawn. In addition, they have the best binocular vision of all carnivores and highly developed peripheral vision. This combination enables them to judge depth and distance with great precision and detect movement within a wide visual field.

I am especially fond of cats and find them quite attractive. Their fancy accoutrements are not just for looks; instead they provide the animal with an acute tactile sense. The accoutrements to which I refer are the whiskers. Whiskers are very thick hairs. Hair grows from a hair follicle in the skin, but with whiskers, the follicle from which it grows is a blood filled sac where hundreds of nerve endings exist. This special design enables the cat to sense even a change in air current. Amazing!

Bobcats and their cousin, the lynx, share a prey preference for snowshoe hare. But unlike the lynx, bobcats quickly adapt to feed on other prey if snowshoe hares are in short supply. The size of the predator usually dictates the size of the prey, so most of what the bobcat eats weighs between 1 ½ to 12 pounds – this includes cottontail rabbits, squirrels, mice, birds and reptiles. Bobcats also feed on carrion or road kill, and they will take down a white-tailed deer if necessary, but usually target sick, injured, very young or old deer.

Cats use the stalk and ambush approach to hunt. Most hunting occurs when prey is active, usually at dawn and dusk. The hunt is driven by hunger and, for females, the need to feed kittens. Albeit fast and agile, bobcats do not chase prey any great distance. Instead they hunt by searching their home range until prey is found. Remember the whiskers? During this search, the bobcat will spread out its whiskers like a fan to maximize its sensing ability. Once prey is found, the cat will stalk and/or pounce. After capturing prey, the cat will "wrap" its whiskers around and against the prey in order to detect



Photo by Susan C. Morse, from "Bobcat: Master of Survival," Kevin Hansen.

any slight movement in the captured animal, to prevent escape. If rabbit or hare are plentiful in an area, the bobcat may sit and wait for prey to come near enough to attack. With this tactic, a hunting bed or "lookout" is used. The bobcat selects a spot, crouches and waits. This is where the patience comes in, as the cat rotates its body position to change its vantage point, waiting for dinner to show up. Keep in mind the wide visual field – while waiting for prey, the cat may appear to be staring off into the distance at nothing, when in fact, it is watching a very wide area for movement.

It is pretty neat to think that a bobcat may be watching as I walk the nature trail at Kemp Station or that just beyond the trees as I drive down Kemp Road a bobcat may be searching for dinner. And as my cats stalk and pounce on the feather toy during playtime or the spider innocently making its way across the floor, I will indeed see a bit of wild cat, or bobcat, in them. If I ever do have the good fortune of seeing a bobcat in the wild, I hope I can suppress the urge to call out to it, "Kitty, kitty kitteeeeee!" 🐾



Like Kemp on Facebook

Educational opportunities
Field notes
Snapshots from Kemp
Research updates
Station news
Sightings & phenology reports

www.facebook.com/kempnrs



Kemp Natural Resources Station
9161 Kemp Road
Woodruff, WI 54568

Giant Water Bug (Family Belostomatidae)

I did not see it, but I heard the story. It was curious, creepy and intriguing. Forestry student, Collin Buntrock (featured in the Kemp Spotlight on page 5) had been swimming near the Kemp boathouse. While in the water, what Collin described as a “huge creature” swam toward him. What he fished out of the water turned out to be a very large insect. He did not keep the specimen, nor did he take a photo, but after some Internet research, we suspect he may have come upon a Giant Water Bug. This winged insect measures over 2-inches in length, and wields impressive, scary looking front legs. The front legs are used to grab prey which they stab with their beak and inject a poisonous enzyme that stuns the prey and liquifies its innards that are then sucked out by the large bug. The giant water bug eats other aquatic insects, tadpoles, and small frogs, fish and snakes. The male giant water bug tends to the eggs once they are laid by the female. In one genus, the female deposits up to 100 eggs on a plant stalk just above the water’s surface. The male hovers below the water, guarding, climbing up to fend off predators. With another species, the female adheres the eggs directly to the male’s back, which he then totes around and tends to until they hatch. Other names for this creature include: “Electric Light Bug,” as it is does fly at night and is attracted to lights, and “Toe-biter,” which leaves little to the imagination! But rest assured, if you encounter a giant water bug, it will not attack you. But if you mess with it, you just may be privy to the stab of its mighty beak, which is reported to be painful. Happy swimming!



Kemp's Point Volume 14, Number 2

Published semi-annually by the University of Wisconsin-Madison's Kemp Natural Resources Station. To receive this free newsletter, update your address, or receive a back issue contact:

*Karla Ortman, Editor
Kemp Natural Resources Station
9161 Kemp Road
Woodruff, WI 54568
(715) 358-5667
kemp@cals.wisc.edu*

This newsletter is also available as a PDF at the Kemp website, www.kemp.wisc.edu.