

FIELD JOURNAL

Northwest Connections is a non-profit organization working to involve local people in the conservation and restoration of habitat linkages across rural landscapes in northwest Montana.

Wildlife Update: Carnivore Trends in the Swan

By Melanie Parker

Do fisher still persist in the Swan Valley? Do lynx actually occur in their predicted habitats? Do we really have more foxes than we used to? These are the kinds of questions that Northwest Connections set out to help answer five years ago.

For the last five years, skilled local crews have documented carnivore snow tracks on 150 miles of road, trail and ridge line in the non-wilderness portions of the Swan Valley. Each of our 13 transects are surveyed three times per year, at one month intervals between January and April. Our core crews are led by Tiger Hulett, Mike Stevenson and Tom Parker.

These surveys are designed to prove that local people can and should be integrated into annual efforts to assess the natural resources on which we



Tom Parker measures the stride of a lynx.

depend. In this case, our crew leaders gained their expertise as hunters, trappers and guides in this country. Now they are utilizing their skills to track wildlife and habitat trends across the landscape.

So what are those trends? Well, let's begin with lynx, since they are a hot topic these days. Lynx are mid-sized cats that are highly specialized carnivores. They depend upon deep snow and thickets of vegetation that support abundant snowshoe hares. Lynx sign remains pretty constant within our survey area. Lynx only inhabit a fraction of their predicted habitat in the Swan Valley and all of the sign we

encounter is confined to a couple of drainages.

Pine marten are an animal of a different color. Marten are strongly

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BOARD MEMBER PROFILE:

Mary Mitsos, of the National Forest Foundation joined NwC's Board of Directors in October. Mary is also the board president of the National Network of Forest Practitioners. She was Director of Community-Based Forest Stewardship providing leadership for the Pinchot Institute's program in Improving Forest Stewardship and Sustaining Rural Communities. Mary lives in Stevensville, Montana and loves hiking, traveling, and authentic Greek food!



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FACT AND FIGURES

- 8-10 – Number of grizzly bears estimated to use the upper Swan Valley in spring, based on NwC's track surveys.
- 9 – Number of grizzly bears confirmed in the Swan Valley by DNA sampling
- 135 – Number of DNA sets deployed to survey black bears in the Swan Valley in 2001
- 1273 – Number of DNA sets that will be needed to census the grizzly bear population of the entire Northern Continental Divide Ecosystem in 2004.

Where are they now?

Wildlands Volunteer Corps Alumni

In 1999, the first Wildlands Volunteer Corps (WVC) crew braved a cold rainy June to survey nearly 100 miles of Forest Service roads in the upper Lolo and Dunham Creek drainages. Since then, more than 70 different teenagers from Stevensville to Polson have contributed over 500 days of volunteer field work on behalf of the WVC. Many of our original WVC crew members have graduated from high school and are pursuing college degrees. We spoke with a few to find out what they're up to now and how the WVC impacted their school and career decisions.

Adair Muth, (Road Reconnaissance, '00; Whitebark Pine Survey, '00; Herp Survey, '01) is currently a sophomore at the University of Idaho majoring in Natural Resource Ecology and Conservation Biology (and Spanish!). Last summer she worked in western Montana with another WVC alumnus (**Chelsea Toone**) on a USFS "Beetle Crew," surveying for Douglas Fir beetles in stands affected by the 2000 fires. This year, she is working in the DNA Lab at University of Idaho's College of Natural Resources. Adair reports, "I am the only undergraduate in the DNA lab with my own project, which is pretty cool. I am working on sex identification on a wild elk population from fecal samples for the Idaho Fish and Game. Its never been done on elk feces, only bear and other critters..." Adair is also involved in a college club which helped re-plant riparian shrubs along a degraded streambank in the Moscow area.

She says, "My best memories from high school are definitely from your crews... I really learned a lot about myself on the crews and really

discovered the direction I wanted to go in my life and in my studies."

Casey Johnson has spent more time with the WVC than any other volunteer, logging over 36 field days on 12 different projects beginning in 2000 with the Road Reconnaissance crew. Currently, Casey is a freshman in Wildlife Biology at the University of Montana. He finished up his basic



training for the Army Reserves last summer, managing to squeeze in three days of cold, soggy restoration work on Dunham Creek before leaving for Georgia. Even though he'd already graduated, Casey agreed to come back this September to help monitor plant mortality on the Dunham riparian restoration project. He's also keeping busy with the student chapter of The Wildlife Society at the University of Montana. Casey reports they just returned from a field trip to the elk refuge in Jackson, Wyoming.

He writes, "I hope to be able to get a wildlife job... that gets me into the field doing research and monitoring. I want to be able to do a job that really helps. I enjoy the outdoors and everything that comes with it so much I would really like to be able to give something back... The WVC is really what got me interested in a career in

wildlife. I kind of thought about it a little before but never realized how much I would like it until I started going on trips with the WVC." The skills Casey has developed over the past several years will be much appreciated this summer when he returns for a college internship with Northwest Connections.

Chelsea Toone (Road

Reconnaissance, '99 & '01; Rattlesnake Wilderness Weed Survey, '00) is currently a University of Montana junior in the Wilderness and Civilization program. Chelsea worked in UM's Wilderness Institute office last year and was very excited when she got the job surveying for Douglas Fir beetles in the summer of 2002. She told me, "working on the beetle crew with **Adair (Muth)** was just like working on a WVC crew, only we got paid and had to sleep in hotels." Chelsea said her experience with the WVC was valuable because she already knew many of the field skills required in her job, even though she happened to be the youngest member of the crew.

Chelsea writes, "I actually have a lot to say about the Wildlands Volunteer Corps, but I won't, except that it is the foundation of my education. I mean that this program I am in right now and the passions that I have about the environment would not have ever been developed if I had not volunteered for three summers... I still use those experiences in the things I am doing now. I always will."

TIME NOT FORGOTTEN

Lilly Hoffman was one of ten Landscape and Livelihood Field Semester students who lived and worked with Northwest Connections during the Fall of 2002. She submitted this article to her school paper.

My friend calls it a travelin' heart, the transient lifestyle I lead. I suppose that's the best description of my constant pursuit of knowing people and places. It was my travelin' heart that brought me to the Swan Valley two months ago and it is that same desire to know about a place that brought me to the stories of Tom Parker.

In the three years I've been studying in Montana, I've become increasingly aware of our dependence on text to communicate the ideas that were once conveyed through stories. Today when we think of storytelling, our minds wander to the story-book characters of Dr. Suess and Shel Silverstein. We've slowly allowed storytelling to slip from our conversation as a means of sharing the experiences of our daily lives and passing history to the younger generation. When I arrived in the Swan Valley, I quickly learned that personal stories would

"I've begun to understand that you come to know a place in small pieces."

provide me with the greatest understanding of this place and the people that call it home.

So as the day's last rays slip behind the Missions and darkness makes it impossible to cut any more firewood, Tom settles into a faded leather easy chair and begins to share his experiences with the Swan Valley's old timers and the stories they passed to him.

"He just had so many rich stories, you know, both about loggin' and packing back into the mountains, and the things he'd seen and done." Through this description, Tom introduces me to Joe Wilhelm, one of Tom's first friends and mentors.

As Tom began working in the valley, Joe gave him advice about the country.

Well, I remember Joe told me, about workin' in the woods, is, keepin' yourself out of trouble. He told me about this one time he got hurt and got hit by a snag and he basically made the point that, you have to look all around and you see this thing that could dang sure get'cha and you think, "Well, if I do this and do that and the other thing I should be okay, but I better keep

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Field Notes

Andrea Stephens

On a bright, moonlit night at the end of September, after preparing a bonfire, spreading gear over a tarp on the river cobbles, and doing a bit of reconnaissance to find a safe place to survey, our Field Semester students donned wetsuits, masks, snorkels and strapped submersible flashlights to their wrists. We planned to survey the Swan River for fish and underwater habitat. We had been studying the importance of woody debris to stream ecology and had made observations of debris jams and their relationship to pools. But we had yet to observe the structure or function of wood from a fish's perspective.

One of the first stops we made was a root wad whose fractured tree trunk jutted above the water surface. The scoured-clean tangle of roots lay below the surface like a sunken ship. As the river's current hit the root wad, it was forced vertically down, creating (at low flow!) an eight-foot deep scour pool around and underneath the submerged root wad. The pool, not surprisingly, harbored a host of 6"-8" trout. The intricate web of the



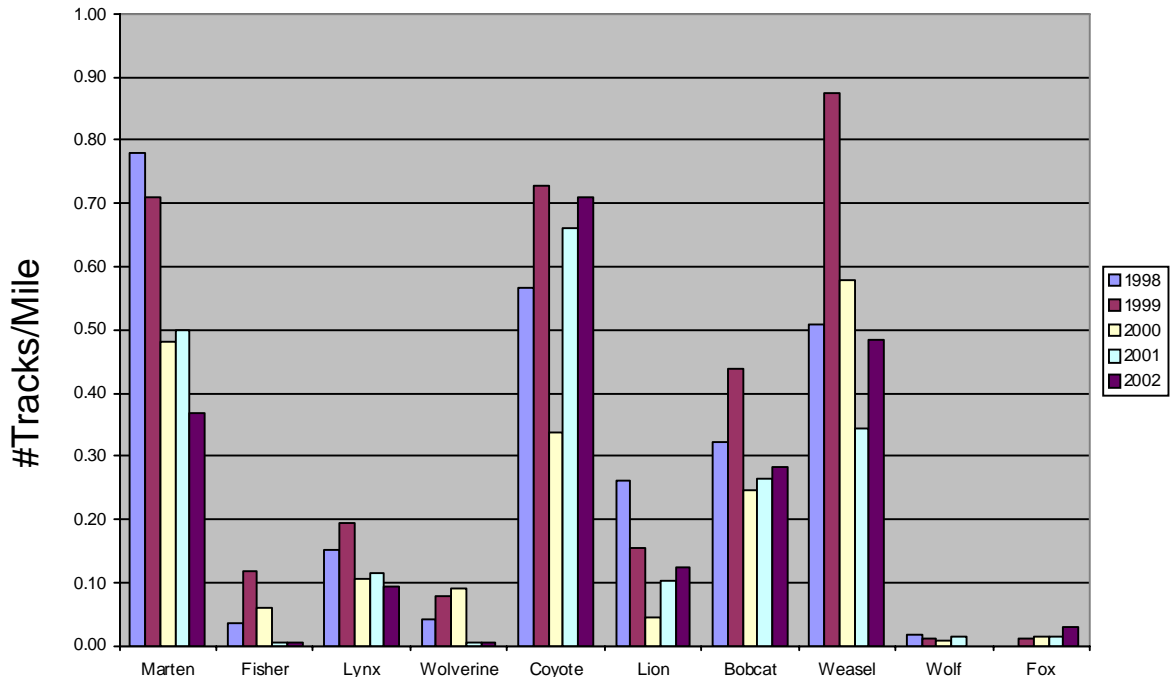
root mass itself slowed the water's flow and provided resting and hiding cover for fish small enough to fit between the strands of the web.

In addition, the rootwad forced the current away from the bank and into the middle of the river. There, the water dug a small mid-channel pool where we trained our lights on a 10" largescale sucker, resting effortlessly near the bottom. The snorkelers kept getting tangled up in each other's limbs as the current tried to sweep us away, but the pool was the perfect depth for a sucker's midstream resting pocket.

In all, we identified bull, brook, rainbow and westslope cutthroat trout; largescale suckers; mountain whitefish; and a myriad of sculpin ranging in size from one to six inches in length. The majority of these individuals were related, directly or indirectly, to wood in the channel.

Wildlife Update: Carnivore Trends

Carnivore Abundance



Cont'd from page 4

correlated to moist old growth forests, and at the very least prefer forests with lots of structural complexity. Marten sign is decreasing across the low and mid elevation portions of the Swan Valley. The distribution of the sign is extremely patchy and seems tightly correlated to public lands within the checkerboard ownership.

Fisher, a larger cousin of the marten, is one of our rarest carnivores. Fisher sign has never been abundant in our survey area, but is becoming even more difficult to encounter. Swan Valley fisher seem to prefer large stands of 100+ year old lodgepole pine, especially those areas with wetlands threaded through them. In 2002, we only found one fisher track in 169 miles of road and trail surveyed.

This does not bode well for the fisher and it is one reason we are encouraging locals to report any observations or sign that they think could be fisher.

It is rare to encounter a wolverine track, but it is predictable that when you do that you will be somewhere close to wild country. Swan Valley wolverines stay in the high country and we only ever encounter them at the very outer limits of the managed landscape. Because wolverines have such huge home ranges and because we do not survey their core habitats in the wilderness, we do not assume that the decline in our ability to detect them is a very powerful indicator of actual changes to the species.

Mountain lion sign in the

Swan Valley declined sharply after the winter kill of 1996-97. During 2000, we found four dead lions out in the woods. Two had died from hunger, one had been killed by another lion and one was unknown cause of mortality. This underscores the fact that prey quite often drive the populations of their predators, not so much the other way around. Northwest Connections joined several houndsmen and biologists in calling for a reduced hunting quota on lions until the population rebounds.

Coyotes are everywhere. The chart on page 6 shows a measure of how well distributed wildlife sign is across the watershed. It is common for us to encounter coyotes on every transect, on every repetition of that transect,

TIME NOT FORGOTTEN

cont'd from page 3

my eye on it." And he says, "You drop your guard for a half a second too long and it's goin' clobber ya, so don't drop you guard that half second or don't get yourself in a situation where dropping your guard for that half second's goin' get'cha killed." And that's stuck with me and of course you have to get that tempered with a few knocks, for that to really ring home, but those guys rang home a lot of stories about anticipating. And I hafta tell ya, it's served me very well in terms of keeping myself out of trouble in many circumstances.

The advice Joe and other old timers shared with Tom was a small portion of the relationship Tom developed with the land and the community. "What I hafta tell you is the stories Joe Wilhelm told me, inspired my interest, curiosity, and love for this place more than anything else. More than almost the country itself," Tom continued. "He'd laugh and chuckle and it was just like it just happened and it could'a been 30 or 40 years earlier, but it was just like it just happened."

Beyond lessons and advice, stories draw us closer to our home. As I sit and listen to Tom, I draw connections between his experience with Joe and my time in the Swan Valley. I've slowly come to know this place through my own observations and through the words of elders that have been passed

"Stories have a way of pulsing through you during your daily life. Once heard, they stick in your memory and either serve to quench your curiosity or move you towards further exploration."

down.

Now as I walk along the Swan River, the words of Bob Sheppard, an Ovando resident and fur-trapper, come to mind. After following him along the creeks of the Blackfoot, looking for signs of beaver and listening to his stories of fur-trapping in the area, I look for tracks, chewed trees, depressions in the bank and dams. His experiences not only gave me a deeper understanding of how the animals move across the landscape, but sparked my interest in the livelihood of fur-trappers throughout history.

I've begun to understand that you come to know a place in small pieces. That the stories Tom carries and shares about the old timers have served to educate me far more about the Swan Valley than any text book could do. Stories have a way of pulsing through you during your daily life. Once heard, they stick in your memory and either serve to quench your curiosity or move you towards further exploration.

As for me, it's a bittersweet exploration. My heart is calling me to my next home. I will carry with me the stories of this place and continue to search for more.

Random Quotes

"If I've learned one thing, it's that the people who live in an area make it a place; their connection to the land makes it special, makes it unique, makes it tangible. If you remove the people who call a place home, you've removed the spirit and soul of the place."

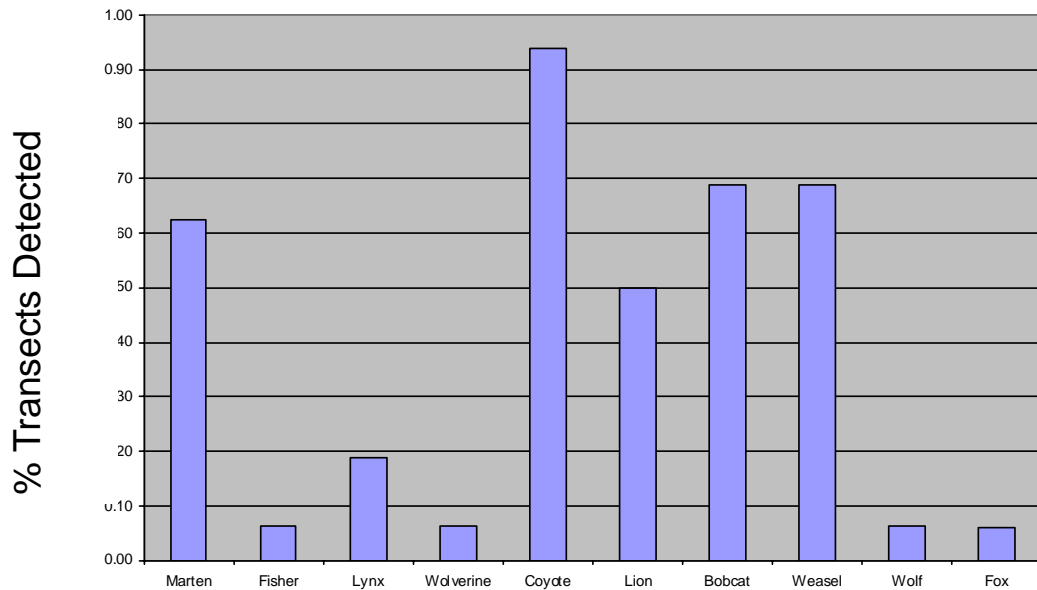
- Anna Holden
Landscape and Livelihood, 2002

Favorite Photo



Evening on the Swan Divide

Carnivore Distribution



and at all elevations along the transect. Lots of interesting questions arise when looking at coyote sign: have they always been this abundant? How dependent are coyotes on carrion killed by predators such as mountain lions? Do coyotes directly or indirectly compete with lynx?

Bobcats, while not as abundant as coyotes, are quite common in the Swan Valley. Bobcats primarily eat small mammals. We see them hunting throughout much of what was once core lynx habitat. There are many theories as to why this might be the case, all of which remain untested.

Weasel sign includes both short and long tailed weasels, though by far, the majority are short tailed weasels. Ermine, as trappers call these critters, turn white in the winter and blend in with the snow so they are less vulnerable to overhead predators than pine marten. We find them

to be much more tolerant of large openings than marten. Weasels constantly zig and zag from one downed log to another, hunting voles and other rodents. They are well distributed across our survey area, showing up on %70 of our transects.

Most people who live in the Swan know that wolves are not unheard of, but nor are they common. We have yet to find evidence of successful wolf breeding in the Swan, though established packs exist just over the mountains in the South Fork of the Flathead.

Foxes are one of the big stories in the Swan. Foxes were not common here, according to local trappers and residents, for a long time. Recently, several pairs have made themselves known. We have not heard any good explanation for why foxes may be showing up more in the Swan, but many people seem to like having them around.

In sum, we could say that a glance at the trends indicate that the generalists are winning. Those animals that have specialized habitat needs, such as marten, fisher and wolverine, are becoming more and more difficult to detect, while common carnivores are becoming even more common. In the absence of trapping pressure, the suggestion is that habitat changes are primarily driving these trends.

For those interested in learning more about our native carnivores, Northwest Connections will be offering two animal tracking clinics this winter (see calendar on page 7). These workshops are open to people of all ages and background. Participants in this class will also have the opportunity to become volunteer trackers and can then assist with our ongoing carnivore track surveys.

We hope you can join us!

Events Calendar

Staff Retreat

December 2

Board Meeting

December 3

Winter Solstice Gathering

December 21

Winter Field Studies

January 5-12

January 19-26

March 23-30

Mountain Lion Ecology Trips

February 2-8

Animal Tracking Clinics

February 15-16

March 1-2

Wildlands Volunteer

STAFF and BOARD

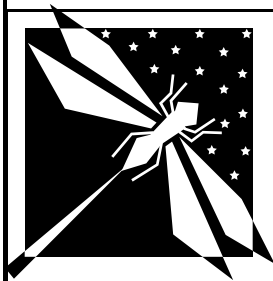
Permanent Staff: Raeann Henrekin, Tom Parker, Melanie Parker, Andrea Stephens, Lyndee Stevenson

Seasonal Staff: Rob Henrekin, Tiger Hulett, Deb Hulett, Jessie Shoup, Mike Stevenson, Rob Jensen, Steve Lamar

Board Members: Roger Marshall, Gary Freyholtz, Agnes Beck, Sue Stone, Melanie Parker, Tom Parker, Bob Love, Mary Mitsos.

Wish List

- Digital Camera
- Digital Projector
- Copy machine
- Filing Cabinets
- 4x4 passenger vehicle
- Slide projector
- Office Desk



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*All things
are
connected:
the land, the
animals and
the people.*

