Region 2 Technical Bulletin

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Wildlife corridors:
Finding the way through a changing landscape

Not your average resident: *A young moose feeding on the landscaping watches a human resident walk past. Moose often visit Hamilton due to its proximity to the Bitterroot River riparian corridor. This moose was eventually relocated. Photo by Perry Backus, Ravalli Republic.*

by James Jonkel

Most of the time the story goes like this: Floundering through crusted April snow, an old male grizzly makes his descent from his den high atop the mountain divide to the snow-free valley below. The old bear knows the area well, but it has changed. There are new houses. The highway is busier than ever.

After reaching the lowlands, the bear waits for darkness before taking his normal route toward the river, in hopes of finding "spring green-up" grasses and forbs. Again his route has changed dra-

SNEAK PEEK

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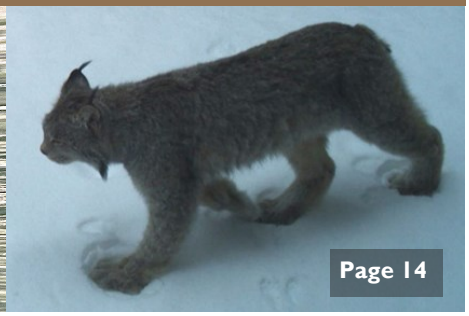

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Wildlife corridors (continued)

Looking for trouble: A black bear meanders along a driveway in western Montana.

matically. The leave strip between the old logging units has been thinned and hiding cover is minimal. At the bottom of his favorite draw, on his way to reach the river, he finds a new house. Skirting the property, he reaches the highway. Bright lights stream past, and when the way is clear he lumbers across the highway and into the river brush below.

Many of the prime low-elevation, fall, spring and summer habitats that are vitally important to grizzly bears and other wildlife are privately owned. In the past, many of these properties offered solitude, food, and security, but the amount of undeveloped private lands has been reduced as denser development becomes more common. Bears living on the edge of developed places, like many communities in the Region 2 area, still attempt to travel undetected and feed on natural foods, even when they are in close proximity to communities and rural developments.

The good news is that as long as bears and other wildlife have connectivity (wildlife movement corridors) between large blocks of habitat and access to habitat that is rich in natural foods, they will have a good chance of survival, even near development.

"How can you tell if your property is a good wildlife movement corridor?"

So how can you tell if your property is a good wildlife movement corridor and a spot full of desirable wildlife food sources? Look for these characteristics described below and please consider ways you can safely share your land with wildlife without encouraging them to stay too long. Sometimes the existing terrain features of a property, such as where it sits in relation to surrounding landforms or waterways, or what other development is nearby, make the property an attractive place for wildlife to use as a travel route. You did not influence this and can do little to change it, but understanding it helps to answer questions about why bears seem to pass through your backyard so often and why it is so important to keep unnatural foods secured from wildlife in these "hot-spot" areas.

One hot-spot travel area for bears is near water. Bears like to use any property adjacent to the banks of a river, stream, or lake to travel. These areas offer a good water source and a variety of vegetation for food and cover. A stream with vegetative cover flowing through a series of pastures, greenways, common areas, and small blocks of undeveloped homesteads is linking small patches of habitat, thus allowing wildlife a safe travel route through developed areas. If given a choice, wildlife will travel on the riverbank, mountain stream, or lake shore that has the least amount of development. So, if you live on a largely undeveloped piece of land that is across the water from a more densely developed stream bank, shoreline, or riverbank, then you are more likely to have bears and other wildlife crossing on your land.

Wildlife also travels down ridgelines and cross valley floors in route to another drainage. So developed areas that sit at the base of a cliff system, espe-

cially in areas where multiple side draws and ridge systems come together, are prime areas to expect to see a lot of wildlife traveling through. Private lands adjacent to any man-made features such as irrigation ditches, abandoned highways or railroad beds, power line and gas line easements, old logging roads, cattle trails, and bike trails are also areas to expect bears. Wildlife use these features as corridors to move across heavily developed areas.

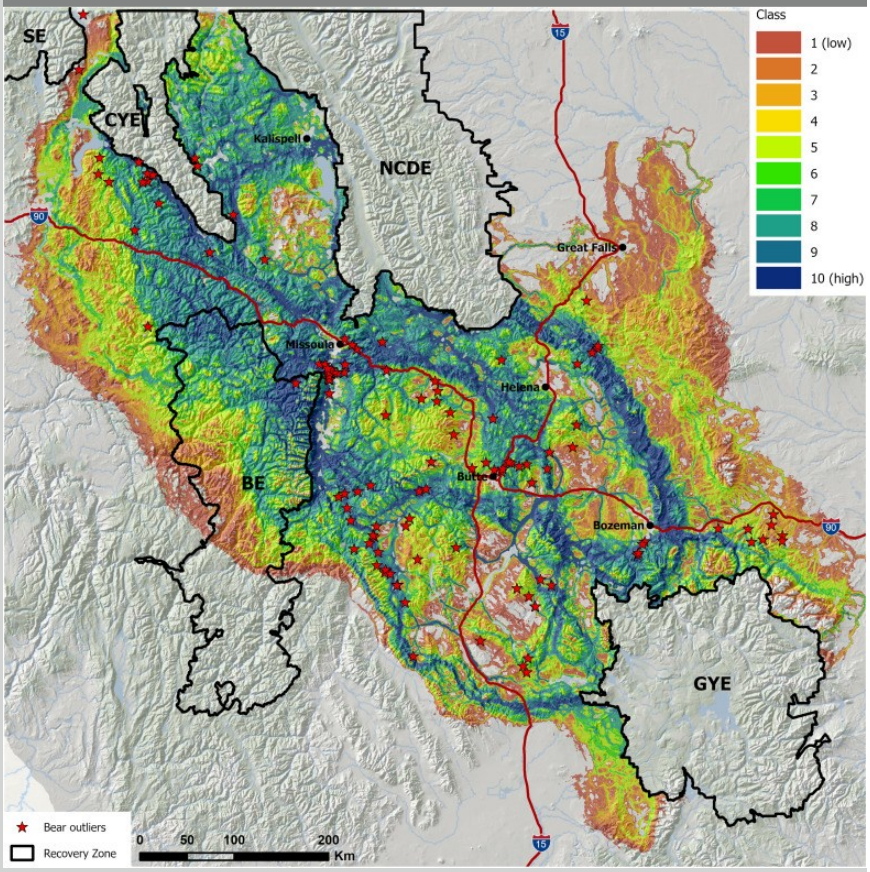
Bears will also often establish crossing areas that take advantage of existing bridges, underpasses, and culvert features that allow safe access over and under highways, interstates, waterways, and railroads. Be aware that if you live near one of these features, you may be in a wildlife travel route.

So, what can you do? Having an awareness and expectation that you may see wildlife in one of these areas is the first step. You can then take appropriate safety precautions for your family, pets, and livestock and minimize any wildlife attractants that you might have.

Keep Wildlife Moving Down the Corridor

While traveling across the landscape and maneuvering through developed areas, wildlife will take advantage of low-elevation productive habitats on private land, feeding and resting while waiting for the cover of darkness to travel further. When bears find a good patch of vegetation to rest and eat berries, grasses, or forbs for a day, or even for an extended period of time, this is typically no cause for concern. Just keep your distance and let them forage, rest, and move on. However, sometimes bears can be distracted by other food sources that ex-

Path to recovery: Modeled movement paths of male grizzly bears between recovery areas (black outlined polygons). Red stars signify bear observations outside recovery zones. Colors range from red (lowest predicted bear use) to blue (highest predicted bear use). Note bear observations and predicted use of the Missoula and Bitterroot Valleys. NCDE: Northern Continental Divide Ecosystem. BE = Bitterroot Ecosystem. GYE = Greater Yellowstone Ecosystem. From Sells et al. (2023).



Not for you: A grizzly bear is deterred from an attractant by an electric fence.

Sells, S.N., C.M. Costello, P.M. Lukacs, L.L. Roberts, and M.A. Vinks. 2023. Predicted connectivity pathways between grizzly bear ecosystems in Western Montana. Biological Conservation 284; doi.org/10.1016/j.biocon.2023.110199.

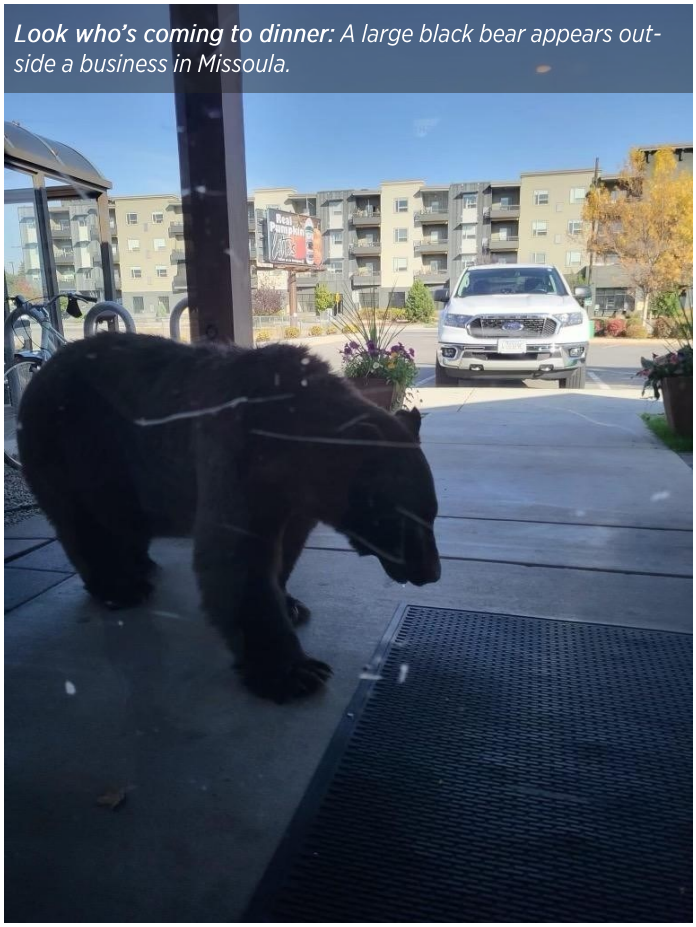
ist on the landscape because of human activity. Learning what these foods are and how you can help minimize these attractants on your property can help keep bears moving and feeding on natural foods.

Bears that find unsecured garbage, dirty barbeque grills, pet food, and bird seed often find it hard to leave this easy and very satisfying food source. Suddenly a bear that was only traveling through your property becomes a resident bear, or two bears, or three. Once a bear finds these easy food sources, they can become conditioned almost immediately. A bear seeking human foods is certain to come in conflict sooner or later with people, and these bears often must be captured and removed or sometimes killed. To prevent this problem and protect yourself and bears, store garbage, pet food, and livestock feed inside a secure building or wildlife resistant container, and keep barbeque grills inside a garage when not in use or as clean as possible. Do not hang bird feeders, or if you do, make sure they are away from your house and hung at least 15 feet high and four feet from the nearest structure.

Even if you have all these backyard attractants secure, sometimes wildlife will stop and graze on non-native grasses and forbs in irrigated pastures, golf courses, and lawn systems. Bears feed on crops such as alfalfa, corn, wheat, oats, and fruit and will take advantage of mineral licks and sweetened protein licks left out for livestock. Bears also take advantage of elk and deer killed along highways, big game gut piles, and un-retrieved game. To minimize problems associated with these behaviors, keep fruit trees picked as soon as fruit ripens, minimize mineral licks and keep them far away from your backyard, landscape with vegetation that does not tend to attract wildlife, and move wildlife and livestock carcasses away from areas of human activity. Sometimes electric fencing can be used to secure beehives, chicken coops, and fruit trees from bears. Electric fencing can also keep some animals out of gardens and haystacks.

In most cases, following these simple tips is all you need to enjoy bears and other wildlife that will be sharing the outdoors with you in spring, summer, and fall.

If you have specific concerns or need more information on containing attractants or on how to get involved with neighborhood bear monitoring networks or citizen-driven mitigation efforts, contact me, James Jonkel, at 406-542-5500.



Look who's coming to dinner: *A large black bear appears outside a business in Missoula.*

For more information on living in bear country, visit the FWP website at fwp.mt.gov. Follow links to "Wild Things" and "Be Bear Aware," or visit the Missoulabears.org website.

James Jonkel is the Region 2 bear/lion specialist.

Reports from "the office"

REBECCA MOWRY

Moosing Around. As a wildlife biologist, there's no end to the variety of phone calls about urban wildlife finding themselves in precarious positions.

Often, there's not much we can do.

But last month, I got a call about a momma moose on the wrong side of the fence from her twin 2-month-old calves, just outside Hamilton. The calves were in the bar ditch and Mom was across the fence trying to coax them into the cottonwoods on the other side. But the metal, 4-bar fence—easy enough for an adult moose—was impassable to the calves. The road, though only 35-mph, was somewhat busy and on a blind corner. The danger was obvious.

When I pulled up to assess the situation, the calves were mewling pathetically beside the road while Mom nuzzled them from across the fence. On one side, they were blocked by a steep concrete drop-off where the creek ran under the road. On the other, the landowner had given me permission to open a gate—200 feet down the fence line. I needed to push the calves that way.

But how? The calves kept milling about, first along the fence, then back to the drop-off. A guardrail kept me from driving flush against the fence; the closest I could get was the opposing traffic lane. The first few times I tried to move them, I couldn't get them to commit to the correct direction. If I tried to herd them on foot, Momma Moose very easily could jump back over and squash me.

Finally, I staged my truck again and gave it another try. The calves began to move toward the gate. And this time, Mom helped—staying on her side of the fence, she moved alongside them. I honked and revved occasionally to keep them going and prevent them from crossing in front of me. Luckily no traffic came in those 15 critical seconds, and as soon as the calves reached the gate, they bounded to the side of their very relieved mother.

I really wish I'd have filmed it. Not only was it one of the few times something wildlife-related worked exactly according to plan, but it was a true feel-good moment. And the coolest thing was this: as soon as Momma had her babies back, she lifted her head and looked at me—thanking me? Did she understand what I had done? I like to think so. I actually gave her a thumbs-up in response, and she turned and led her calves toward the trees.

Rebecca Mowry is the Bitterroot area wildlife biologist.

A mess for moose: *This metal fence outside Hamilton was easy enough for an adult moose to jump, but impassable to her calves. Note: there are no moose in this photo, so you can stop looking (sorry).*

Reports from "the office"

RYAN KLIMSTRA

Do Not Touch. Springtime in Montana results in a lot of newborn animals on the landscape. Often, these newborns and new mothers are right in our backyards.

Here at FWP, we receive many phone calls each day from concerned members of the public regarding these seemingly helpless newborns. Nine times out of ten, there is no issue. The fact of the matter is mothers know best. Whether it is a white-tailed deer or a northern flicker or a raccoon or a black bear. . . mom knows what she is doing.

Animals like deer often stash their scentless babies for the day, sometimes for as long as 12 hours, while feeding or resting. Many birds fledge from the nest and then are fed on the ground by parents before they can fly. Those of us living in the wildland-urban interface have a front-row seat to this spring pulse of new life and that brand-new fawn tucked under a bush in your yard. The best thing we can do for these animals is to **refrain from interfering**!

We truly appreciate that people care about the wildlife, and we will always field your call; however, unless you have specifically been instructed by a professional from FWP to do so, DO NOT TOUCH or FEED the wildlife. If you are truly concerned about what you are seeing, a quick google search about the wildlife species or a phone call to FWP will likely reassure you that what you are seeing is normal.

Living lawn ornament: A fawn in a Missoula front yard.

Thanks for caring about Montana's wildlife; it truly makes our jobs more enjoyable.

Ryan Klimstra is the Missoula area wildlife biologist.

TORREY RITTER

Coming Full Circle. When I was a little kid, my brother and I got to tag along with my mom on a small mammal trapping expedition in the mountains of Wyoming. My mom was a nongame wildlife biologist with Wyoming Fish and Game, and she was using live traps and snap traps to inventory the mice, voles, and shrews of various habitats in the state.

My brother and I had a very important job. For any snap traps that did not have a small mammal in them, it was our job to set off the traps with a stick. Naturally for two small boys, this task was exceptionally fun, as the traps jumped in the air in a satisfying way with every poke from our "official" trap-poking sticks. Somewhere in the depths of our family photo albums is a photo of my brother and me with a rainbow in the background, our faces full of glee, just happy to be out in the field with our mom and have our own way to contribute to her work.

Of course, I did not know then that I would be following in my mother's footsteps, becoming a nongame biologist myself. I think maybe she had been secretly training me my whole childhood. When I took a field ornithology course in college, I was surprised to find that I already knew most of the birds we were

looking for by sight and sound. I had no idea I had picked up so much from being out with my mother all those years, and within a few days I was helping the other students learn birds more than learning new birds myself.

I even owe my first job with Montana Fish, Wildlife and Parks to my mom. She made a connection with the Region 3 nongame biologist while helping with a field trip and casually mentioned that her son might be looking for summer work. That summer, I was able to take a few weeks off from landscaping work to volunteer with FWP surveying for small mammals on a Wildlife Management Area (WMA) near Alder. By the next summer, I had a paid position doing all sorts of nongame wildlife work across southwest Montana. The rest is history!

Now, in a wonderful twist of fate, I get to invite my mom to help me with my field work. She is the best birder I have ever known, so each spring she joins me to help with bird surveys on the Spotted Dog WMA. There, we are using bird surveys to evaluate changes to the WMA since the property was purchased, including an ongoing grazing exchange with a neighboring landowner and a huge stream and riparian restoration effort. The bird surveys we use are intense, requiring keeping track of all the birds we hear and see during a 6-minute period, measuring the distance to each bird, and estimating the types and amounts of vegetation in the area. I certainly would not be able to do these surveys without the life-long training from my mom, and I certainly wouldn't be able to get so many done without her joining me in the field.

The magic of coming full circle in life is never lost on me, from volunteering as a kid with my mom as the nongame biologist to my mom volunteering as a retiree with me as the nongame biologist. I am so lucky to have been raised by such a nature-loving and outdoorsy family, and I could not be prouder to carry on my mom's legacy of nongame wildlife conservation. I love you, mom, and thank you.

Torrey Ritter is the Region 2 nongame biologist.

Reports from “the office”

KIRSTIE YEAGER

Walking the Ridge. There’s no better place to be than clambering along an alpine ridge. The 360-degree view extends as far as the eye can see. Colors appear sharper. The air is crisp. The sun is intense in this shadeless realm, yet snow lingers in the gullies. In it, mountain-dwelling, cold-adapted animals seek refuge from the summer heat. Wind flows unimpeded across the ridgeline, sometimes with humbling force. But the silence and stillness is enveloping and sobering and what I seek. It is within this tranquil vastness that perspectives shift, and the self evolves.

Today, I’m walking a ridge in search of goats. I and five other biologists are conducting a coordinated ground survey to assess the population. My part is to survey the ridge above the valley. The others are spread out below, perched on a rocky outcrop or along a lakeshore. We are hoping to spot these elusive animals that seem to move effortlessly through the unforgiving terrain.

My legs ache from the climb, but I’m energized by the sight of a vibrant meadow nestled in a bowl just below the ridge. In a rocky outcrop above it, I spot my first goat, a single billy. I don my binoculars and watch intently as he grazes in the shaded gully. He moves gracefully between carefully selected bites. He looks scrubby as he is still shedding his winter coat. After a few minutes, he pops up to a ledge with a magnificent view to bed. He is barely noticeable. I jot down the observation and move on.

I continue along the path before me, created by the goats themselves. To my left, steep rocky cliffs drop down to the valley floor. To my right extends a gradual timbered slope. The ridge is the confluence of these distinctive terrains. Tuffs of wool caught on branches indicate the way much like a row of cairns. I stop periodically to glass the ridge ahead and the cliffs below. Although I don’t see many goats, fresh tracks and scat remind me that they are nearby.

I notice a young bald eagle flying low along the grassy meadow just below me. Its white crown feathers are starting to replace the darker, mottled ones of youth. It dives unexpectedly into some brush and disappears. I stop in my tracks to watch in anticipation. What is it after? A mouse? A rabbit? More time than I anticipate passes, until the large bird pops out of the bushes and flies off with nothing. The seemingly doomed critter got away... this time.

Time seems to stand still here but much has passed. I realize that I have a long way to go before meeting the others. The rest of the ridge passes under my feet as I hurry to complete the survey.

Kirstie Yeager is the Anaconda area wildlife biologist.

The view from above: *Dalton Lake in the Great Burn proposed wilderness west of Missoula. Right: A mountain goat nestled in a rocky bed in the cliffs. Photos by K. Yeager.*

*...**and below:** A young goat investigates a rocky perch recently vacated by the biologist team. Photo by R. Mowry.*

Species Report: Mountain Lion

Recently, Region 2 decided to distribute Species Lead responsibilities among the four area wildlife biologists. While each biologist manages all big game species within their geographic areas of responsibility, Species Leads will compile regional harvest and survey data for reports, serve on statewide working groups and coordinate with other state species-specific efforts, and stay up to date on current research and management on a broader scale. We hope to include summaries of such activities in these Technical Bulletins. (FWP photo)

Lion management in Region 2 can be a hot topic. Whether you're a hound hunter, big game hunter, or wildlife enthusiast, chances are you have some opinions about how lions have been and should be managed in Montana.

We are still in the process of compiling our regional Mountain Lion Species Report; with the changes in lion management over the past 50 years, it has been quite the task compiling data and figuring out how best to analyze and present it. For example, in 1994, the Missoula Special Management Area (MSMA) was carved out of neighboring HDs in order to address chronic conflict in the Missoula metropolitan area. A good decision, but it makes comparing data pre- and post-MSMA challenging.

However, we can take a look at a few things that might be meaningful, such as the long-term trend in total harvest going back to 1971 (right). The last decade or so has seen relatively stable, moderate levels of harvest, following periods of intensely low and intensely high pressure. We can also look at the breakdown in harvest by watershed, going back to 1994 (next page).

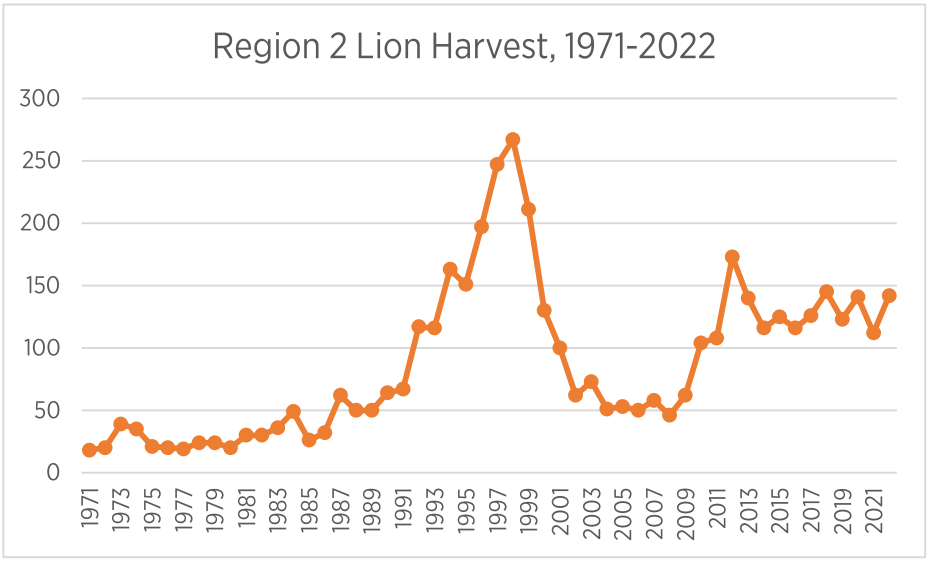
It has been interesting looking back at the old lion regulations to see just how much has changed. In 1971, anyone who wanted could get a mountain lion license for free (well, they had to have a conservation license, which cost $0.25). There were no quotas or harvest limits, except that you couldn't harvest juveniles or females accompanied by cubs. Despite those liberal regulations, harvest in the region was minimal. The first quotas were instituted in Region 2 in 1988.

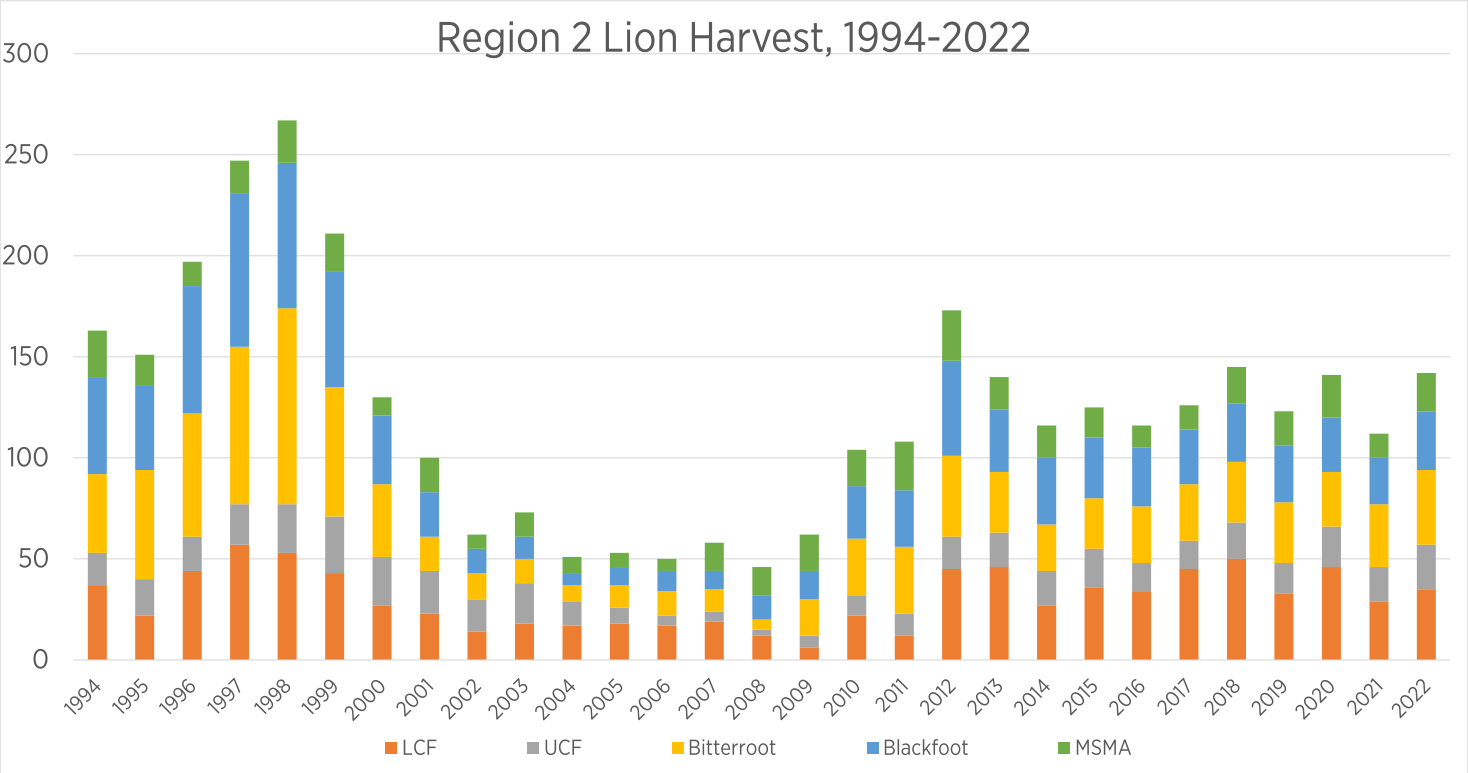
Since then, harvest has largely been regulated by the quotas set by FWP, and the lion regulations themselves have become more and more specialized.

Some years, we had a total quota with a female "sub-quota", meaning only a set number of females could be harvested (though male harvest was just limited by the total quota). Other years, both males and females had their own quotas. Some years the only way you could hunt a lion was if you drew a limited license. Other years anyone with a general license could hunt, until the quota was met. Still other years (and until recently), we had a "hybrid" system where drawing recipients got a head-start on lion hunting in the early winter, and general license holders only got to hunt later in the season.

We hope to have the report finished next month, in time for the West-Central Ecoregion Population Objective Committee meeting. What's that, you say? See the box on the next page!

Rebecca Mowry, Mountain Lion Species Lead





Lion harvest by watershed. LCF=Lower Clark Fork. UCF=Upper Clark Fork. MSMA=Missoula Special Management Area.

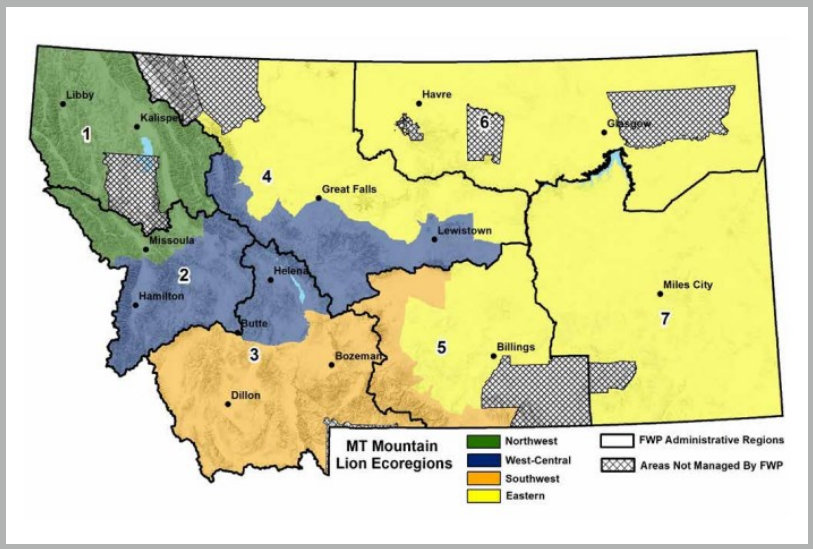
The Mountain Lion Monitoring and Management Strategy

The FWP Fish and Wildlife Commission adopted this strategy in 2019 as a tool to guide future management of mountain lion harvest quotas across the state. Here are the **key points:**

- The strategy divides Montana into four **"ecoregions"** (below), all of which span multiple FWP administrative regions. These ecoregions are based on lion habitat quality and distribution; with the vast territories and complex social structures of mountain lions, these ecoregions will help FWP manage lions more meaningfully across the larger landscape. Region 2 lies within the Northwest Montane and West-Central ecoregions.

- Second, the strategy calls for periodic monitoring of lion populations in each ecoregion using "spatial capture-recapture", or **SCR**. This monitoring will enable FWP to keep tabs on lion populations and ensure management goals are being met.

- Third, the strategy then uses "adaptive harvest management" to integrate SCR estimates with population goals. This involves arming stakeholder groups (called **Lion Ecoregional Population Objective Committees**, or LEPOC) with the best science and data and tasking them to come up with management recommendations. During LEPOC meetings, stakeholders and FWP scientists determine what they want the lion population to do (increase, decrease, or remain stable), what lion harvest quota will meet that goal, and how quotas should be distributed across individual hunting units.



Nongame Spotlight

It's a hummingbird...it's a bee...it's a SPHYNX MOTH!

Photo by A. Anderson.

My job with FWP as the new mountain lion monitoring biologist can be exciting during our winter field season. However, writing about post-holing through powder on cold winter days didn't seem like a fitting summer story, so I'll hold off for now. Instead, I thought I'd share a note from my personal quest to learn more about the incredible biodiversity our region has to offer.

It was one of those classic spring days where the morning was all doom and gloom, dark clouds and drizzling rain. As soon as I finally got up the gumption to go on a walk despite the rain, the clouds suddenly broke and I found myself walking in a magical bloom of warmth and sunshine. Good timing, sky! When I got to my destination of a wildflower covered hillside, I was not the only one getting out to enjoy the break in weather. Bees, butterflies, and other intrepid spring pollinators were also out and about making the most of the afternoon sun.

Of all the buzzing activity, there was one unique critter that caught my eye as it flew from flower to flower. Its long, pointed wings flapped constantly as it fed, very similar in shape and movement to a hummingbird. But it was much too small to be even our smallest hummingbird species. It was closer in size to a large bumblebee. Luckily for me, this strange creature took a break on an arrowleaf balsamroot flower, enabling me to snap a photo while it sat still, long tongue curled up in a beautiful spiral. Once home, with photo for reference and the help of my good friend The Internet, I was able to finally identify this strange creature as a sphynx moth; specifically, a Clark's sphynx moth, one of 26 known species found in Montana.

Sphynx moths are related to butterflies and moths (order Lepidoptera) but are their own distinct family (Sphingidae). They can be found on every habitable continent, have the longest tongue of any butterfly or moth, and (according to the Smithsonian) are the fastest flying insect in the world with an unspecified member of the family clocking in at 33 mph! Despite their unique flight pattern and speed, their life cycle is similar to other butterflies and moths. Adults lay eggs on a host plant which the caterpillars eat when they hatch. These larvae munch around for a bit before they pupate someplace safe and eventually emerge as vastly changed flying adults.

For a short afternoon walk in the local wildflower patch, I considered the afternoon a great success! There is what feels like an unlimited supply of new species of plants and animals to learn about here in western Montana. Sometimes it just takes looking closely at small creatures to find something unique and marvelous.

Alissa Anderson is the statewide mountain lion monitoring biologist, housed in Missoula.

Sphynx moth in flight. Photo by Leslie Flint.
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Nongame Spotlight

The Loon Ranger

Before starting work with FWP this summer, I did not think much about the common loon. I honestly only knew them for their haunting and famous wail that often echoes over northern lakes in the summertime. I used to hear them on lakes where I grew up in Michigan, but did not give them much thought until about a month ago.

I began my summer internship with FWP in mid-May, and thanks to Torrey Ritter and Jessy Coltrane, I am now affectionately known as the "loon ranger", which has become a title that I am incredibly proud and honored to have behind my name. I've realized that these birds are more than just their calls, but are an incredibly important species that not only needs our protection but are valued immensely by our communities.

The last few weeks I have spent surveying loons, I have learned how they communicate with each other, what their body language means, and just about every fact you could know about their breeding and nesting behavior. For example, you might think their distinctive wail is just a fancy call they use to communicate with one another, while in reality it can have several different meanings depending on the pitch and number of notes. A short wail with only two notes is often used when a bald eagle is close by to warn their partner of potential danger. The *tremolo* is another distinctive call they use, but is a territorial call used when a predator, rival loon, or boater is a little too close for comfort.

Loons are incredibly territorial birds, with usually only one pair nesting per lake, which is another reason public education and buoys around nests are so important. So far I've seen a loon almost maul a duck, as well as a pair viciously attack a family of river otters, which is a story all its own. One of my favorite parts of this job (besides being on alpine lakes all day searching for beautiful birds) is the connections I'm making with not only FWP employees but also with the public. The communities that surround loon lakes love these birds so much, and keeping a great relationship while continuing education is the best way we can continue to protect and preserve this species.

I'm so grateful to be here and a part of FWP this summer, and I can't wait to continue learning about my new favorite bird, the common loon.

Bay Noland-Armstrong is a summer intern for the nongame program. She a student at the University of the Georgia, majoring in Wildlife Sciences.

Photos by B. Noland-Armstrong.

Reports from “the office”

MIKE EBINGER

Snow Specialist. After a long, cold winter, I was excited to pick up trail cameras that were deployed for lynx monitoring in the Blackfoot and Clearwater watersheds. Deployed in December after the general hunting season closed, these cameras took motion-activated pictures of everything that walked within the infrared sensor range. Each camera was paired with a high-tech, battery-powered scent pump that distributed a few drops of scented lure once per day. While the goal of this remote monitoring was to detect the presence of lynx during the winter monitoring period, the pictures often give us additional glimpses into animal lives.

For example, the two pictures below are only a few seconds apart and show some interesting aspects of lynx’s ability to travel on top of snow. First, in the picture on the left, note the width and spread of the toes as the front left foot makes impact. It is stepping directly on a set of snowshoe hare tracks. Note the width of the lynx pad compared to that of both front feet of the hare. In the second frame on the right, the lynx has taken one full stride (left-right-left) and is again weight bearing on the front left foot. Note that although the snow crust collapses slightly under foot, the lynx is still able to avoid “post-holing.” Also take notice that the left rear foot is in the exact spot where the front left foot was in the previous shot.

This gait pattern is referred to as “direct register” in the tracking world and is common among cats and foxes. For species that do not exhibit direct register gaits, the position of the rear track relative to the front (inside versus outside) can often be an indicator of the sex of the animal leaving the track.

Mike Ebinger is the Blackfoot area wildlife biologist.

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Montana Fish, Wildlife & Parks, through its employees and citizen commission and board, provides for the stewardship of the fish, wildlife, parks, and recreational resources of Montana, while contributing to the quality of life for present and future generations.

THE **OUTSIDE** IS IN US ALL.

The University of Montana Wildlife Biology Program reached out to us in 2022 with an exciting new opportunity. A private donor had offered to fund a summer internship program for an undergrad wildlife student to work for FWP. As much as we love our jobs here at FWP, none of us will be around forever and we always need to be thinking about training up those that will replace us. This new internship represented a great opportunity to give a student some experience working for us and to help them on their career path. Not to mention, we can use the help!

As stated on the job announcement: "The intern will be expected to participate in meetings and field activities where they learn first-hand how professionals navigate challenging issues surrounding wildlife management within a social-ecological context. An explicit intent of the internship is for the intern to learn about leadership in conservation through direct exposure."

This summer, our intern is Iris McKean, a second-year wildlife biology student. Iris was born and raised in Glasgow, Montana in an outdoorsy and conservation-oriented family so it was no surprise she signed onto the Wildlife Biology program at UM. Iris describes herself as a curious person who saw this internship as an important steppingstone and an incredible way to gain a wide array of experience and knowledge in the wildlife field as she begins to launch her career. So far, she has helped with the black bear monitoring project; tagging harvested bears; assisting with loon, bighorn sheep, and mountain goat surveys; releasing biocontrol insects for weed management on a WMA; and working with the public at the front desk at the Missoula office, among other duties. She has also had the opportunity

to attend hunting season setting meetings and learn about how hunting regulations are set.

"This summer has been filled with vast and diverse experiences," Iris said. "I now have a better understanding of the role wildlife biologists play in maintaining the integrity of wildlife populations and how each FWP staff member contributes to the betterment of the Montana outdoors. I'm so appreciative of this opportunity and am excited for future wildlife jobs so I can apply what I've learned."