

TRACKS

COEXISTENCE LESSONS FROM SPAIN BRYCE ANDREWS

In May and June of 2016, I had the good fortune to travel to Asturias, a rural, mountainous province in northern Spain. With the help of one of the country's preeminent carnivore researchers, I was able to connect with a number of Asturian farmers and livestock growers to discuss their approaches to living with large carnivores.



A high-mountain farm in Asturias, Spain.

Asturias and Montana have a good deal in common. Both hold rough, stony mountains and high densities of native wildlife. Asturias is home to both a strong population of Iberian wolves (*canis lupus signatus*), and European brown bears. The region has a deep pastoral tradition, too. For thousands of years, local farmers and livestock producers have moved seasonally from the low to high country, bringing their herds to summer on steep pastures in the mountains.



PEOPLE AND CARNIVORES

P.O. Box 6733
Bozeman, MT 59771-9922
(406) 587-3389

www.peopleandcarnivores.org

Spanish farmers—the word ‘rancher’ seems inaccurate, as most operations are small, raise many species, produce cheese, and grow produce—have a complex and difficult history with large carnivores. Over centuries, they have

embraced a number of important techniques for minimizing conflict and depredations.

Walk in the foothills near the Picos de Europa or the Sierra del Cuera, and you'll notice a few things: livestock graze almost everywhere, and all of them wear bells; stacked-stone huts dot the landscape, built by generations of herders summering with their animals; guard dogs are plentiful, enormous, and attentive.

Two things struck me about the Asturian approach to living with carnivores on the landscape. First, it was clear that people have historically moved seasonally into the mountains to care for their herds. This practice, which ensures a constant human presence, has done much to limit depredations on livestock. Second, the guard dogs were impressive, massive creatures. They're a species called the Iberian Mastiff (see p.5), developed over centuries to stand up to wolves and bears in the roughest country that Spain has to offer.

After meeting with a mastiff breeder, I came away deeply impressed by the breed's hardiness, devotion to work, and mild disposition with humans. The dogs spend their lives in the mountains. Commonly bonded with small herds of cattle, mastiffs are essential elements of many livestock operations. They have built a deserved reputation for thwarting both wolves and bears.



An Iberian Mastiff guards sheep in northern Spain.

There are conflicts, of course. Wolves and brown bears still kill livestock regularly, and farmers hunt large predators as the law permits. In spite of that, carnivores and farmers have long shared the mountains south of the Cantabrian Sea. Spending time in that landscape leaves me hopeful for the future of coexistence in the American West, and eager to borrow a few good practices from the old world.

STAFF



Lisa Upson – Executive Director

Steve Primm – Conservation Director

Bryce Andrews – Northern Field Director

Martha Sellers – Director of Development & Communication

Matt Barnes – Range Rider Coordinator

And our awesome contractors:

Bookkeeping – **Paula Posey**

Graphic Design – **Marla Goodman**

BOARD OF DIRECTORS

Bryan Haywood, Bozeman, MT – President

Liz Harrison, Bozeman, MT – Secretary

Charlotte Heldstab, Whitefish, MT

Gia Petito, Ann Arbor, MI

Elisa Prescott, Helena, MT

Mike Wood, Boston, MA

DID YOU KNOW?



Grizzly bear mating season takes place between May and July, but grizzlies undergo a “delayed implantation” where the fertilized egg does not start to develop until the bear begins dormancy. In addition, female grizzlies may have more than one mate, so cubs from a single litter could actually have different fathers.

LETTER FROM THE DIRECTOR

Dear Friends and Supporters,

In the Northern Rocky Mountains, fall can't get here quickly enough. It has been a hot, dry summer in many parts, with extensive wildfires and smoke throughout the region—challenging conditions for wildlife (and people).

Much has happened in addition to drought and fires since our last newsletter. Yellowstone grizzly bears were recently delisted. Grizzly bears are moving around quite a bit in all directions, from both the Yellowstone and the Northern Continental Divide/Glacier areas. In April, wolves in Wyoming were delisted, putting all wolves in the Northern Rockies region under state management. Mountain lions are getting into more human and livestock conflicts, including an attack on a Montana man (a very rare incident which in this case resulted in only minor injuries).

In response to changing conditions and increasing pressures on large carnivores, we're doubling our field efforts, and focusing on the geographic area between Yellowstone, Central Idaho (where we'd like grizzly bears to recolonize naturally), and NCD/Glacier ecosystems. This is the area sometimes referred to as the “High Divide.” Because it links the three large core habitat areas, it's critical for large carnivore movement.

To increase our capacity to prevent conflicts, we redirected and added some staff time to the northern section of the High Divide, so that we now have two field people in the larger area. We've expanded our work setting up livestock carcass management programs, securing community trash dumps, cost-sharing guard dogs, and using scare devices and fencing to keep bears and mountain lions away

**WE WANT GRIZZLY BEARS TO THRIVE AS WILD ANIMALS,
RECONNECT WITH OTHER POPULATIONS, AND RECLAIM
MORE OF THEIR HISTORIC RANGE**

from smaller livestock (e.g., chickens). We also received a generous gift allowing us to add a temporary communications and program support staff member. Our short films have brought great attention to our work, so we decided it's time for us to move beyond facebook!

Lastly, a couple thoughts about Yellowstone grizzly bear delisting, as many of you have asked about our perspective. As you know, we focus primarily on solving the practical challenges of coexistence, with less emphasis on policy issues. But we never lose sight of why we do our work: because we care about large carnivores. In that light, we are concerned about grizzly bear delisting for a few reasons. We want grizzly bears to thrive as wild animals, reconnect with other populations, and reclaim more of their historic range. The more bears we have moving around on the landscape, the better chance those things will happen. Unfortunately, the population will probably continue to decline with hunting and an overall reduced priority (there are reports that numbers are already going down). Also, we would have hoped for more robust government-led conflict prevention programs. We will continue to focus our conflict prevention efforts in the areas where grizzlies are at greatest risk or the least stable.

The good news is that with our work to reduce conflicts, grizzlies are slowly expanding out from core habitat (where they are still protected). So together let's lay out the coexistence carpet!

Lisa.

lupson@peopleandcarnivores.org

FLADRY: KNOWLEDGE SHARING AND TRANSFER STEVE PRIMM



Participants in our Fladry Rendezvous review the materials and tools needed for proper fladry installation.

In late April, People and Carnivores hosted a gathering of wildlife conflict prevention practitioners at the Dry Cottonwood Ranch in western Montana's Deer Lodge valley to share experiences, insights, and innovations about fladry. Primarily a wolf-deterrent tool, fladry consists of short strips of flagging attached to cordage at regular intervals. Traditionally, the cordage was twine, string, or thin rope. In the past 15 years, however, innovators have started attaching the flags to flexible electric fence wire.

Fladry is primarily a scare device, operating on wolves' fear of unfamiliar objects in their environment. By stringing a line of the flapping flags along a pasture fence, ranchers can temporarily prevent wolves from getting in among their livestock. Conventional (non-electrified) fladry is effective at deterring wolves for short periods, until they lose their fear of it. Electrified fladry has the added negative reinforcement of a sharp, yet

harmless momentary shock, making it effective for far longer periods of time. In field settings, electrified fladry will keep wolves away for up to three months.

Our team—along with other practitioners—has been working for more than a decade to make electrified fladry an effective, reliable tool. The greatest challenges have been increasing the efficiency of its installation and making it easier to maintain. It was clear that a lot of coexistence practitioners across the West had developed good ideas and techniques, so we thought it would be worthwhile to bring some of us together to share ideas.

Montana FWP wolf researcher Nathan Lance presented the ground-breaking research he did with electrified fladry and captive wolves a decade ago, to reinforce what an effective tool it is.

Practitioners from various agencies and organizations shared various tools and products that make fladry more effective and easier to maintain.

P&C's field team will continue to share this knowledge with other working groups. Bryce Andrews recently presented on fladry installation to a team of USDA-Wildlife Services field technicians in Red Lodge. In addition to field workshops, we send our Fladry Manual to agencies and practitioner groups all over the West.



Participants test several different energizers to compare output.

FLADRY IN ACTION — Bryce Andrews

For the past two years, People and Carnivores has partnered with the Hanson ranch, as well as the U.S. Department of Agriculture's Wildlife Services division, in an effort to non-lethally deter wolves from entering a 30-acre pasture during the ranch's spring calving season. On the Hanson ranch and elsewhere, we use turbo fladry to keep cattle and wolves separated and safe. It's not a complex technology—just an electrified, braided wire of the same sort that one might use for a temporary livestock fence—hung some 27 inches off the ground and adorned with regularly spaced flagging.

When properly installed and electrified, fladry provides a double disincentive to wolves. Moving in the wind, the flags disturb and dissuade approaching predators. If wolves pluck up their courage and move closer, a stout electric shock from the wire sends them packing.

This approach has worked exceedingly well on the Hanson ranch. Though wolves were often in the area, and a history of



This wolf was caught by a trail camera avoiding the electrified fladry around a calving pen.

depredations exists, no calves were lost during the past two years. While fladry is not a cure-all for wolf issues—in time, the novelty of the flags can wear off, and wolves may learn to exploit gaps or weak spots in the line—it worked well on this project as a tool to reduce losses to predators.

GRIZZLY-TOUGH, SOLAR-POWERED CHICKEN COOPS **BRYCE ANDREWS**

In spring of 2017, we began an experimental project in the Mission Valley. Having identified unsecured chicken coops as a major cause of grizzly bear conflict and mortality on the Flathead

Reservation, we have partnered with two farmers to design and build a pair of mobile, solar-powered, grizzly-resistant coops. Both of our partners farm in essential grizzly habitat—one of them along the western front of the Mission Mountains, and the other near a key migration corridor on the valley floor.



Our more robust chicken coop design is a welded structure with an integrated electric fence.

Mobile coops—known as chicken tractors—such as the ones that we’ve undertaken to build and fortify, are an essential part of raising cage-free poultry. Moving across the pastures of a farm, they allow the birds to feed naturally and assist with insect control.

Our design is simple, consisting of a rectangular coop with an integrated, five-wire electric fence. Suspended on insulated posts from the coop’s frame, the fence travels with the coop. A solar-powered energizer keeps the wires hot enough to turn away hungry bears. As both of our partnering farms have expressed interest in scaling up their chicken production, we’re equipping each prototype with an energizer capable of electrifying multiple coops.

As we complete this project—one coop is in progress, with the other slated to be built in early fall—we look forward to seeing how our design stands up to the rigors of farm life in grizzly habitat.

COMPOSTING LIVESTOCK OFF THE RANCH **STEVE PRIMM**

On any commercial-scale cattle ranch, some cows and calves will inevitably die during calving season. In the past, ranchers have used an out-of-the-way bit of their land as a place to pile up this dead livestock. While expedient, the “dead pile” often becomes an attractive feeding stop for bears and wolves, and with live domestic animals nearby, the carnivores may decide to prey on them as well, increasing the likelihood of additional conflicts.

One solution is to remove livestock carcasses from the ranch and into a secure facility where carnivores can’t reach them. While a conventional landfill can work, there are positive reasons to transport them to a properly designed carcass composting site where they can break down quite rapidly—generally within a few weeks.

People and Carnivores is working with many partner organizations to develop carcass removal programs in several watersheds across western Montana—providing strategic advice, technical assistance, funding, and electric-fence construction services. This spring, in partnership with the Big Hole Watershed Committee; US Fish and Wildlife Service; Montana Department of Transportation; Wildlife Conservation Society; and Montana Fish, Wildlife, and Parks, we collectively launched a new carcass composting site in the upper Big Hole Valley, near Wisdom.

So far, the site has taken in more than 55 carcasses. Next up, a partnership in Madison County to develop similar programs in the Ruby and Madison watersheds.



Dead livestock are transported to the site, covered in wood chips, kept moist, and monitored for ideal composting conditions.

WHAT IS CONNECTIVITY?

LISA UPSON & STEVE PRIMM

We often use the word “connectivity” in discussions about grizzly bears, wolves and other carnivores. Sometimes we use esoteric terms like this without fully explaining what they mean. So what does connectivity mean? It represents everything we work for, with your support, on behalf of grizzly bears, black bears, wolves, coyotes, and cougars and by extension other wildlife.

In this region, we have three large habitat complexes (Greater Yellowstone, Central Idaho, and Northern Continental Divide/Greater Glacier). In between these habitat cores is a highly matrixed landscape with a fair amount of development and settlement; public lands used by ranchers for cattle or sheep grazing, recreationists for hunting, outfitting, hiking, biking, and motorized use in many areas; and a lot of roads.

What we end up with is an expanse of human activity and fragmented habitat, making it hard for large carnivores to roam. Add to these obstacles multiple attractants—livestock, livestock and game carcasses, campers’ food, garbage dumps, fruit trees, chicken coops, and beehives—and it’s clear there are countless conflicts waiting to happen.

There are no high-quality habitat links in a landscape like this; there is no swath of protected land guiding animals back and forth from Yellowstone to Idaho or Glacier. To get from Yellowstone to Central Idaho—something bears naturally want to do in order to expand their range and become part of other populations—a grizzly has to make its way through country that’s full of attractants. Our job at People and Carnivores is to remove as many of these obstacles as possible, so large carnivores can move about as they want to, and safely.



Large carnivores need to be able to move freely across the landscape without getting into conflicts.

Put simply, connectivity is essentially clearing the landscape of attractants so that:

- Large carnivores connect and exchange with existing populations, and
- The “explorers” of the large carnivore world expand their range into territory they used to occupy but haven’t for several decades.

Our mission is to reconnect and restore large carnivore populations by working with those who make the decisions about their survival. When we say we work to “lay out the coexistence carpet” for wolves and bears, our goal is connectivity, and our strategy is to remove attractants so that conflicts are averted. With always-increasing human impacts and activity on the landscape, conflict prevention and coexistence is quickly becoming the wildlife conservation strategy for not just the future, but the present as well.

WITH ALWAYS-INCREASING HUMAN IMPACTS AND ACTIVITY ON THE LANDSCAPE, CONFLICT PREVENTION AND COEXISTENCE IS QUICKLY BECOMING THE ESSENTIAL WILDLIFE CONSERVATION STRATEGY

THE MASTÍN ESPAÑOL AT A GLANCE BRYCE ANDREWS

Mastiffs have a long history in northern Spain. The breed was developed by transhumance herders who seasonally moved herds of sheep, goats and cattle from lowland villages to summer grazing in the mountains. Mastiffs have long been part of this seasonal migration, and were used to protect flocks and herds from large predators such as brown bears and wolves.

The Spanish mastiff is an enormous dog, with males reaching 185-220 pounds, and females not much smaller at 145-170 pounds. With necks protected by ample folds of skin, and a size far outstripping that of the Iberian wolf, the dogs are formidable guardians of all sorts of livestock. Some farmers and breeders prefer to work their mastiffs in male-female pairs, bonding the dogs with herds of livestock and feeding them on the mountainside.

In Asturias, mastiffs have been documented in successful encounters with both wolves and brown bears. This capacity for deterring predators—combined with an iron constitution that allows them to subsist on a varied diet and remain with cattle in inclement weather—has made the mastiff an essential part of many Spanish livestock operations.



Iberian Mastiffs are an essential component of many Spanish livestock operations.

PEOPLE AND CARNIVORES

P.O. Box 6733

Bozeman, MT 59771-9922

Non-Profit Org
Us Postage

PAID

Bozeman, MT
Permit No. 94



Film: Bear Poles in the Backcountry

Wherever people and grizzlies share wild country, it's important to keep bears from getting unnatural foods. If they find that camps and campgrounds are a place to get an easy unnatural meal, they're going to keep coming back, exponentially increasing the chance of a deadly encounter. People and Carnivores has installed more than 200 carcass poles in places where grizzlies and humans are sharing the landscape and our latest film tells this story.

Follow Us Online

Visit our website to learn more about our programs.

Support our work,
make a donation online!

 Like us on Facebook

Learn about our upcoming events, and the very latest on our field projects.