COLORADO WOLF & WILDLIFE CENTER

JANUARY 2024 · CONSERVATION · EDUCATION · PRESERVATION



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SOCIAL MEDIA HAPPENINGS

Stay up to date with the animals at CWWC, wolves and wildlife in the news, and advocacy opportunities.

Subscribe to our YouTube Channel: ColoradoWolf&WildlifeCenter We post videos of the training and enrichment we are providing for our animals, and educational vlogs \mathbf{eta} about wolves.

Follow us on Facebook: Colorado Wolf and Wildlife Center to get updates on new YouTube video postings, read feel good stories from other wolf/wildlife organizations, and learn about new wildlife findings in the research field.

Follow us on Instagram: @cowolfcenter to see pictures of our beautiful animals, stories of what we are doing around the center, and ways you can help wild wolf populations.. Keep your eye on our story for fun videos of the day to day lives of our wolves and keepers.

Follow us on Twitter: @Wolves_at_CWWC to see photos of our animals, read fun facts, and hear about events happening at CWWC.

Follow us on TikTok: @cowolfcenter for the videos you won't see on our other social media pages.

We hope to give you something to look forward to every day!





Happy Days and Dallas actors meet our wolves! How many readers remember **Patrick Duffy** and Linda Purl?



CALL US TO RESERVE YOUR APPOINTMENT TODAY!





COSTA RICA CLINIC

Since 2007, I have been traveling to Costa Rica. I initially went with some friends who were at a bar, where the owners were planning to purchase a house in Costa Rica. They invited all of us to join them, and I was very excited and accepted the opportunity. It was during this trip that I truly fell in love with the country for numerous reasons. The rainforest's natural beauty was awe-inspiring, and wildlife could be found everywhere. It felt like paradise, although no country is perfect, as I witnessed some street dogs in need of assistance. These dogs were emaciated, and some were afflicted with a disease called ehrlichia, which affects various blood cells. This disease is transmitted by infected brown ticks. With proper treatment, dogs can survive this disease, but antibiotics are necessary. My heart went out to these animals, so I purchased dog food and placed it in paper bowls for them.

Since then, I have been visiting Costa Rica twice a year and eventually purchased a small house in Las Monas, CR. Through the organization CWWC, I established Casey's Foundation, named after a dog I rescued in the United States. Casey was my beloved companion, and even after 17 years, her legacy continues to inspire me. The attached photos depict a recent clinic I held on Saturday, where we provided veterinary care for 40 animals in a low-income area, including both dogs and cats. Additionally, I have been able to bring six dogs back to the United States, where they found loving forever homes. On my next trip in May, I will be bringing another dog named Mia, who is severely malnourished and has no home. Unfortunately, United Airlines no longer permits dogs in cargo, so I must book a flight with American Airlines. Mia has a home waiting for her in Redstone, Colorado.

The wish list below outlines the supplies I currently require in order to assist more animals. All donations are tax deductible, and I extend my sincere gratitude to all who contribute.

WISH LIST

Any amount of money donations will be used for veterinarian services and supplies.

- Packaged dog treats
- Leaches and collars for medium to small dogs.
- Flea and tick collars—Seresto are the best; on Amazon. Adams is a bit cheaper.

Thank you, Darlene









All anyone in Galveston wants to talk about these days is coyotes A growing number of islanders have become attached to these so-called 'ghost wolves.'

Chris Gray | Chron | January 9, 2024

from a pair of recent sightings, one on New Year's Eve and the other over the weekend, have reignited an ongoing conversation about islanders' relationship to their unique canine neighbors. (There might have been a few Acme/ Roadrunner jokes in there, too.

Local officials, however, are used to the buzz.

"I don't know if it's so much that we have more coyotes, or they're just more visible right now," admitted Lindsey Krebs, Animal Services Supervisor for the City of Galveston.

The latest photos, posted Jan. 6 to the Completely Galveston Facebook group, show a coyote exploring the neighborhood around St. Augustine of Hippo Episcopal Church. The location, on Jack Johnson Blvd. (41st St.) near Avenue M 1/2, is about a mile from the seawall. The New Year's Eve photo shows a pair of animals checking out the scene at Porretto Beach on the island's East End.

In other words, these coyotes get around.

"It seems like it's been a little bit more in the residential area than we're used to," Krebs said about the recent sightings. "But they have a big food source on the beach, so we'll see them around the dunes a lot. Anywhere there's a green area you can usually see the coyotes, especially as it gets later at night. I think they're pretty much all over the island, though.

Krebs' office typically handles between three and five coyoterelated calls per week, she said, a number that was higher during last year's drought. Coyotes on the island weigh an average of 35 pounds, and hunting them is illegal. Krebs said she had never heard of one attacking a person, but their

Galveston has gone coyote crazy. Widely shared photos appetite for rodents and other small mammals is well-known and never-ending. Many residents credit them as a crucial check on the island's rat and feral cat population.

> Coexisting with coyotes is much easier when they remain wary of humans, which means not leaving garbage or pet food outside where it could make an easy meal, especially at night. The best way to get them to move on, Krebs added, is through "hazing," or basically making a lot of noise - banging pots and pans, shaking a can full of marbles or pennies, or just waving your arms and yelling. They're no fans of garden hoses, either.

> "Unfortunately, nowadays people tend to pull out their cell phones and record it," she said. "There's nothing scary about that. If you're loud, if you make yourself seen, that will usually drive the coyote away."

Interest in Galveston's coyotes increased sharply several years ago, when scientists began noticing the animals' uncanny similarities with red wolves, the once-plentiful Southern U.S. predators who were declared extinct in the wild in 1980. In January 2022, The New York Times Magazine ran a lengthy article on these so-called "ghost wolves," noting that researchers believe the local coyotes share certain specific genetic mutations, or alleles, with the red wolves that roamed the island long ago.

The amount of wolf DNA varies by animal, Krebs said, but can reach as high as 33 percent. Many researchers, in fact, prefer the term 'canids' in order to differentiate Galveston's coyote population from their mainland cousins. Last fall, residents' concern for the animals' habitat forced a developer to withdraw plans for a proposed residential development

attached to the new Margaritaville resort currently under them, Galveston's ghost wolves aren't going anywhere. Some construction near East Beach. That area has long been known islanders see them as a nuisance, others are mostly worried as, for lack of a better term, coyote central. about their pets, but a growing number of people have become attached to them as one more thing that makes the island unique As the number of projects like Margaritaville grows and even if it's still safer to admire them from a distance.

undeveloped areas of the island disappear, Galveston's coyotes have their fair share of local advocates, too. Several have called "They're breathtaking animals," Krebs said. "They're very a town-hall meeting from 6 to 8 p.m. Wednesday at the Moody intriguing. The fact that we have something that's not anywhere Gardens auditorium, the idea being "to share insights into their else, I'm sure, is eye-catching. And then they're taller, they have research and discuss the importance of these unique additions the longer face, you see red in them. They're beautiful, but also to Galveston's ecosystem," according to a news release from the having them where people can see them isn't a typical thing you see everywhere as well. International Wildlife Coexistence Network.

The one thing everyone can agree on is that, love them or loathe But, she allowed, "I think people get scared, too."



CPW plans for these wolves to be captured on tribal lands in eastern Washington during the capture season from December 2024 – March 2025.

DENVER – In an agreement announced today between packs, avoiding packs with known active chronic depredation Colorado Parks and Wildlife and the Confederated Tribes of behavior. the Colville Reservation, the tribes will be a source for up to Between December 18 - 22, 2023, Colorado Parks 15 wolves for the Colorado gray wolf reintroduction effort. and Wildlife fulfilled their statutory responsibility and CPW plans for these wolves to be captured on tribal lands successfully released 10 gray wolves onto public land in during the capture season from December 2024 – March Summit and Grand counties. CPW will not capture and 2025. The agreement between the state of Colorado and the release more wolves in the current capture season, which state of Oregon to allow for the translocation of ten wolves runs until mid-March 2024. The next releases will not occur this season has been successfully completed. until the December 2024 - March 2025 capture season. "We are grateful to the Confederated Tribes of the Colville Although the agency could release up to five more wolves Reservation for working with our agency on this critical next this capture season according to its Wolf Restoration and step in reintroducing gray wolves in the state," said CPW Management Plan, the additional time will allow the agency Director Jeff Davis. "This agreement helps CPW to continue to assess the releases in December and let CPW staff adjust

to meet our unanimously adopted Colorado Wolf Restoration to any increased workload of having wolves on the ground in and Management Plan goal of translocating 10-15 gray Colorado, as well as allow time for the additional resources wolves per capture season for a total of 30-50 wolves." for CPW and the Colorado Department of Agriculture to support ranchers proposed in the Governor's budget to "The Colville Tribes is very pleased to partner with Colorado become effective July 1.

Parks and Wildlife to restore the wolf population in Colorado," said Chairman of the Confederated Tribes of the Colville Reservation Jarred-Michael Erickson. "The Colville people strongly believe in preserving our environment, including its fish and animals. We are thrilled that our restoration efforts on our own lands have progressed far enough that we can share some of these magnificent creatures with the citizens of Colorado."

Tribal representatives will provide guidance to CPW on target

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Colorado Parks and Wildlife secures source population of 15 gray wolves for reintroduction efforts from Confederated Tribes of the Colville Reservation

Travis Duncan | Colorado Parks and Wildlife

"After an incredibly successful first release of wolves from Oregon last month, our focus will be on refining our internal processes, continuing the work we're already doing to bolster our staff expertise and honing our notification structure so the public is well informed regarding release efforts, while also balancing the need for the safety and security of staff and gray wolves," Davis said.

PLEASE HELP COLORADO'S WILD CATS FROM BEING A TROPHY!

- 1. Petition packets are coming this week. We put our packets out to bid, and have been assured that we will have packets ready by Friday, February 2nd, at the latest. As soon as I know I can pick them up, you will know! The packets will be printed and stored in Denver, then mailed or hand delivered regionally. If you are able to distribute packets to volunteers in your area, please let me know. I will be connecting with regional contingents this week.
- 2. Complete the mandatory training. The Colorado Secretary of State requires volunteer circulators to take an online training before gathering signatures. To fulfill this requirement, please take a half an hour to watch the CATs Circulator Training Video by Friday, February 2nd. We will host a Zoom for questions and will send an invite around in the coming days.
- 3. **Review the resource guide.** It is attached to this email and <u>available on Google Drive here</u>. contains tons of helpful information, and answers to many of the questions we have been receiving.
- 4. Share the opportunity with friends. If you have not already, please share the circulator registration form broadly across your networks.
- 5. Attend or organize an in-person training session. After a successful in-person training in Boulder (thanks Boulder team!), we are hosting a second in person training session on Saturday, February 3rd in Denver at Gallery 6 on 918 W. 8th Ave. from 4-6:00 p.m. Please RSVP to Mark Surls if you would like to attend at <u>mark@catsarenttrophies.org</u>. We plan on having packets available at this event. If you would like to organize a training in your area, please let me know and I am happy to assist with resources and guidance.

Thank you to each of you for stepping forward for Colorado's mountain lions, bobcats and lynx. You are heroes, and we are so thankful for you!

Cheers! Samantha Miller

Hello!

CPW updates their Outdoor Comprehensive Plan every five years. The current plan from 2019-2023 has expired. CPW is asking for public input for the new 2024-2028 plan. Comments are due no later than February 28th. The comment link is below. There's time to review the current plan in the meantime. What's missing is any discussion about wolf/human interaction as we were just gathering ballot signatures at the time. A good place to start would be to review the Executive Summary. Priority III addresses Land, Water, and Wildlife Conservation. This would be a good area to comment on.

I suggest that this be a topic of discussion at our next meeting on February 11th. Thank you.

CLICK HERE TO MAKE A PUBLIC COMMENT

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Europe has a wolf problem, and a late Norwegian philosopher had the solution

Nora Ward | The Conversation | December 21, 2023



EU wolf populations: only the Baltic, Carpathian and Dinaric-Balkan wolves are of 'least concern'. Conservation assessment: Council of Europe 2022; *map: IUCN (Boitani 2018), CC BY-SA*

has now proposed a change in their international status, from "strictly protected" to "protected", which could allow people to hunt wolves

However, changing the protection status may not be the best solution, especially as only three of the nine wolf populations in the EU have reached favourable conservation status.

Instead, perhaps the time is ripe for a renewed focus on learning to live – again – with wolves. Proven prevention strategies, such as fencing and the use of guard dogs, play a critical role in this.

But the question may be fundamentally philosophical. Namely, it boils down to how to coexist – and the cultivation of ethical principles and values which undergird a successful coexistence.

'Deep ecology' and the equal right to exist

Europe's "wolf problem" is fast becoming a source of social and political tension. Relative conservation success across the continent has led to calls for action from worried politicians and farming and hunting groups. And the European Commission In this task, the work of Norwegian environmental philosopher Arne Næss (1912-2009) might be of help. Næss is known as the father of "deep ecology", an ethical theory that contends that all life has intrinsic value. Næss argued that all beings, whether human or nonhuman, have an equal right to exist and flourish, a principle he called "biospherical egalitarianism".

As this applies to wolves, Næss was clear: wolves have just as much a right to be here as we do.

Næss wrote an essay with biologist Ivar Mysterud stating: "The wellbeing of the species wolf as part of human and nonhuman life on Earth has value in itself!" As a result, they argued, "humans have no right to reduce this richness and diversity, including wolf habitats and races, except to satisfy vital needs!"

Despite this ostensibly radical challenge to human-centred ethical norms, Næss demonstrated a pragmatic approach in how the principle of biospherical egalitarianism was applied in practice. For example, he considered the important contextual factors of local wolf-human interactions, writing:

For some sheep holders, the need to protect their sheep from wolves or to be in some way compensated is today vital. It means protecting the basis of their economy and home where they have lived for generations.

In addition to human interests, he also took seriously the moral obligation to reduce the suffering of sheep and other domestic animals.

This is especially salient as humans have reduced the capacity of these species to evade wolves.

Mouflon, the wild ancestor of domestic sheep, do their best to avoid large predators by fleeing into mountains. In contrast, after thousands of years of selective breeding, modern livestock have fewer genetic defences and are left to fend for themselves in fenced-in fields.

Man has a heart, not just a brain

Næss avoided a one-size-fits-all answer to the question of wolves (a position other scholars criticised him for). But his focus on articulating general ethical principles to serve as a backdrop for contextual decisions may have importance in the increasingly heated and political nature of this rewilding debate.

For example, Næss used the term "mixed community" to denote places which comprise humans and those species who play a clear role in human affairs. Challenging the tendency to define community only in human terms, Næss contended that this framing helps to "break down some of the barriers commonly erected between humans and any other



Photo: Ondrej Prosicky / Shutterstock



Næss thought early 20th-century ecological thinking was too shallow and hadn't reckoned with underlying philosophical problems. *Bård Løken/NTB, CC BY-NC-SA*

forms of life within our common space".

In doing so, this can open pathways for increased identification and empathy for nonhuman others - a capacity Næss believed all humans have, stemming from an inherent continuity between human and nonhuman life.

Indeed, as the pioneering American conservationist Aldo Leopold similarly maintained, perceiving ourselves in a community with others is a prerequisite for moral action. In this case, it helps to make concrete the idea of a wolf's right to exist they are members of the community just like us.

Applying this ethical framework of "mixed communities" to current EU deliberations can have some benefits. For example, it may inspire the further development of creative, mutually beneficial solutions such as economic compensation for livestock losses - a move which Næss called for as well as improving wolf-attack prevention. It may also play an effective role in countering the oftenbaseless fear and hysteria around wolves (Næss blamed the brothers Grimm for the animals' bad public image).

Perhaps most important of all, though, is the potential for connecting with our emotional elements. As Næss said: "Man has a heart, not only a brain."

To move towards a sustainable coexistence, it is not enough to appeal to abstractions about scientific



'Slow down! Wolf!' A warning sign in Poland. Michael Schroeder / Shutterstock

benefits or devise perfectly efficient compensation schemes. This must also derive from a sense of solidarity with other species - a full recognition that, in Næss's words: "Humans are not alone on this planet."

Interestingly, as a recent study showed, most people living in rural communities in the EU already believe that wolves have a right to exist, corresponding with Næss's relative optimism about the possibility of mixed communities. This is all the more important to remember in light of the worrying political divisiveness in relation to Europe's so-called wolf problem.

KEEP UP THE PUSH FOR ELECTRIC VEHICLES

As a mom, I rely on my car every day to get my family where they need to go work, school, doctor's appointments, extracurricular activities, parks and play dates. This is a reality for parents like me up and down the Front Range who need to keep their families on the move but also care about improving our air quality and fighting climate change. One solution to our collective dilemma is electric vehicles (EVs). We are lucky to live in a state like Colorado, where leaders and regulators are leading the charge not only on creating the infrastructure to support more EVs on the road but making them affordable and accessible to all Coloradans. Tax credits and other incentives are key to widespread adoption of EVs; we need to sustain and expand them, especially for lower-income families and in communities that are disproportionately impacted by the effects of air pollution and climate change. Join me in calling on our elected officials to keep up the good work. Electric vehicles are a big step on the path to a more sustainable environment.

- Ciara Fernandes Faber, Denver

WAYS TO COEXIST WITH WILDLIFE

Kelly Murphy | The Gazette | January 9, 2024

Re: The editorial titled "Colorado puts wolves in a deadly dilemma". "Let's begin with the fact that Colorado wolves are considered an endangered species, which means they are protected. Is it possible for someone filled with hatred to harm them and try to hide it? Yes, it is possible, but if caught, there will be consequences.

The article continues to argue that the reintroduction of wolves in Colorado is putting these majestic creatures at risk, and I question whether the author truly cares about that. While it is true that Wyoming has a strong dislike for wolves and may kill them if they cross into the state, the majority of Coloradans support the presence of wolves and believe they should be here.

According to voter data from Proposition 114, 127,719 Colorado residents on the Western slope voted "yes" to reintroduce wolves. More than twice the winning margin came from Western Colorado. Wolves are native to this area, and if it weren't for ill-informed public fears and government programs, they would still be thriving.

Human greed has unfortunately taken over, and we can see it in this situation. This land belongs to all of us, and wolves were here long before ensure a successful coexistence. cattle producers. The public land where most cattle graze is exactly that – public. It belongs to change and appreciate what we have?" everyone. Grazing allotments are designated areas on public land where ranchers are allowed to graze Kelly Murphy Colorado Wolf and Wildlife Center, Divide their livestock. The Bureau of Land Management



authorizes livestock grazing on 7.8 million acres in Colorado, and the grazing fee for public lands is only \$1.35 per animal unit per month, which is significantly less than what it costs to feed my cat.

Additionally, the Colorado Parks and Wildlife helps compensate producers for any losses caused by elk herds grazing on the hay intended for cattle.

Every profession comes with risks and both profits and losses. We all have choices, and I don't believe there is any business that doesn't understand that.

There are many ways to coexist with wildlife if we choose to. As Coloradans, it is important to respect our wildlife, whether it's a moose, a wolf, a bear, or a deer. We should strive to be role models and take pride in preserving wild places for wild creatures. Colorado has suitable habitat and enough prey for wolves. Wolves play a crucial role in maintaining healthy ecosystems, and this is common knowledge. We also know that wolves pose no threat to humans and have numerous economic benefits for Colorado.

Producers should be grateful for the opportunity to graze their livestock on public land, the support provided by the Colorado Parks and Wildlife, and the advocacy of pro-wolf individuals who want to

Wouldn't it be wonderful if we could embrace

The Coming War on Grizzly Bears

Last year's shameful slaughter in Alaska may be repeated soon in Montana



Doug Peacock | Alta | December 21, 2023

Photo: Joel Sartore

About 10 months back, Alaska Department of Fish and Game workers were ordered to conduct an aerial hunt and kill all the bears and wolves they saw from their helicopters. A total of 94 brown bears (including mothers and 11 cubs), five black bears, and five wolves were fatally shot from the air between May 10 and June 4 of last year, according to a *New York Times* op-ed by Jon Waterman, a former ranger at Denali National Park and Preserve.

This slaughter was ordered by the Alaska Board of Game, a governor-appointed seven-person group composed of trophy hunters, trappers, guides, and fishers, but no scientists. The board's desire was to protect game animals, especially caribou and their calves, from predators. Of particular concern was southwest Alaska's Mulchatna caribou herd, which had been closed to hunting since fall 2021. The herd had peaked at approximately 200,000 animals in 1997 and had since declined drastically to just over 12,000.

The board suspected predators, but as Waterman wrote, state wildlife biologists presented evidence that Alaska's predator-control program of killing wolves over the past 12 years had been ineffective in increasing the caribou herd. The causes of the decline, rather than wolves, were legal overhunting, illegal poaching, climate change–inflicted habitat loss, overgrazing, and disease. But the board ignored this data, voting to extend the wolf-control program and adding bears to the hit list. This decision was made without public comment and without adequate science.

A state biologist had wrongly predicted that fewer than 25 grizzlies (Alaskan brown bears and grizzlies are the same subspecies) would be killed in the aerial hunt. The fact that the State of Alaska allowed that number to swell nearly fourfold as more than 100 animals were mowed down in just 17 working days shows how easily predator hunts can spiral out of control.

Response to the carnage was swift and strong. In mid-June, the Anchorage Daily News carried this opinion: "Alaska's Bear Slaughter Is Disgusting, Heartbreaking." A couple of months later, the New York Times published Waterman's op-ed: "Alaska's Slaughter of Bears Must Stop." He argued that the massacre was "a foolish and hapless effort to protect [by killing the bears] what is left of the plummeting numbers of the Mulchatna caribou herd."

We in America are hell on predators. There's plenty of support for predator control among moose and caribou hunters in Alaska, as well as among trappers and trophy hunters in Montana. That's because so many people still believe that dead coyotes and wolves mean more deer and elk for hunters. The Alaska Department of Fish and Game asserts on its website that "predators often kill more than 80 percent of the moose and caribou that die during an average year, while humans take less than 10 percent." This statement is more than questionable, and it and similar statistics are hotly debated among wildlife managers and biologists throughout the world.

The predator-killing argument is an ancient one. In the *Anchorage Daily News* op-ed following last spring's hunt, nature writer and author Bill Sherwonit argued that "this regressive, brutal, and inhumane management style hearkens back to 19th and early 20th-century strategies when bears and wolves were widely considered vermin, and many people believed 'the only good bear is a dead bear.'"

Sherwonit went on to say, "The state's advisory announcement also gives a sanitized version of the operation, providing numbers and other data and nothing of the killing itself, the terror of the animals being chased down by helicopters, their pain and suffering, particularly those not immediately killed by their wounds, the killing of parents and cubs. To be out there in that killing field: Well, it must have been a barbaric and appalling thing to witness. War indeed seems an appropriate analogy."

That grabbed my attention. The fact is, they shot every single bear and wolf they spotted from the choppers. I thought about how it would have been for those grizzly families. The hunters would have shot the mother bears first. Some cubs would have made easy targets as they clung to their dead mothers. Others might have been wounded and finished off as the choppers closed in on them. Still other cubs must have scattered, running for their lives. The helicopters would have dropped lower to hound these little bears out of the brush or down the ravines, where they could be dispatched.

There's nothing quite so terrifying as running from a low-flying helicopter that is on your ass, trying to kill you.

I had my death-from-above moment with friendly fire in the wild Central Highlands of Vietnam, compliments of the 101st Airborne. A helicopter chased me onto a bare ridgetop, firing M60 machine gun bullets after me, then dropped a tracer round between my legs as I dove into the brush. Later that night, as I squatted with my Montagnard comrades in a Vietcong foxhole and listened for mortar fire, I shook uncontrollably for many minutes. That had never happened to me before.

The same year that I got out of Vietnam—1968—I ran into grizzlies in Yellowstone and became a partisan for them. For the next couple of decades, I lived alone with grizzlies, filming them in the wilderness. A half century later, I still live in grizzly country. The fat handful of books I've written celebrate the joy and value of sharing the landscape with a creature who, if it chooses to, can kill and eat you (though they seldom do).

In the aftermath of the butchery in Alaska, ex-governor Tony Knowles told the *New York Times* that he hoped people would learn from it: "This.... massacre is not just an Alaskan issue of people shooting from a plane. They killed 94 brown bears without any scientific support.... This hopefully will be a shock wave that will cause a new look all over America on how we handle our wildlife." I couldn't agree more.

Montana, where I live, has the largest grizzly population in the Lower 48. Very rough estimates count 30,000 grizzlies in Alaska; 1,800 in Montana, Wyoming, and Idaho, the bulk of them in Montana; and a few in Washington State. Most of these bears intermix. And Montana is where wildlife officials are planning a "grizzly bear management" program. But first, they need the federal government to end grizzlies' protection under the Endangered Species Act. This is called delisting.

For now, grizzly bears in Montana (and throughout the Lower 48) are covered by the ESA as a threatened species. That means the U.S. Fish and Wildlife Service (FWS) is in charge of managing their populations. State fish and game agencies cannot legally kill (or "take") a grizzly south of Canada without permission from the feds. But this tier of power could shift and vanish any day, as efforts to delist grizzlies and states' rights issues meld. My fear is that if ESA protections are removed, a trophy hunt will inevitably be launched and Montana will enact an Alaska-style predator slaughter.

This is a very possible outcome. For one thing, grizzly bears are easy to shoot. During the course of two

decades in the wilderness of Wyoming and Montana, while carrying camping gear and 16-millimeter movie equipment, I managed to sneak within about 100 yards of at least 200 wild grizzlies in and around Yellowstone and Glacier National Parks. There is a public record of my sightings; almost all those bears were captured on film, which is now archived at Texas Tech University.

I'd like to say something else about killing bears: As someone who hunts, I don't think dispatching brown bears with a weapon capable of bringing down a B-52 is very challenging. In fact, because I could have shot any of those 200 bears, I have always suspected that grizzlies are easy to hunt. Easy, say, compared with black bears, who are spooky forest creatures and a test for a fair chase (no baits, helicopters, or dogs) hunter. Grizzlies, by contrast, are open-country animals, and their dominance at the top of the food chain means they don't automatically run away.

Enter Greg Gianforte: You may recall the headlines about him assaulting a journalist during the 2017 special election for Montana's sole U.S. House of Representatives seat. After winning the governorship three years later, Gianforte was characterized by Rolling Stone as "a Trumpist Republican...a wealthy creationist, best known for body slamming a reporter on the eve of his election.... And he'd just shot a collared Yellowstone wolf to show he would do what he pleased on the hunting issue, research and rules be damned."

That particular wolf was caught in a leg trap on a ranch 12 miles up the Yellowstone River from my house, just north of Yellowstone National Park. I heard about it from neighbors. We don't know how long the wolf was left suffering in the trap, possibly overnight. Although the incident was widely reported in the news, there were no eyewitnesses. The ranch manager, neighbor Matt Lumley, who is also the president of the Montana Trappers Association, caught the wolf and called up Governor Gianforte, who shot it in the trap. Lumley and Gianforte apparently had an arrangement. According to the Washington Post, in 2022, on the same ranch, Lumley crossed a mountain lion's tracks on the snow, got the dogs out, and treed the animal; he notified the governor, who came over and shot the lion out of the tree. (Gianforte's press secretary disputed that account, saying that the governor was present when the mountain lion was treed.)

Gianforte was voted into office two years before like-

minded Republican supermajorities in Montana's Senate and House of Representatives. Collectively, these politicians dislike wolves and bears and have passed bills that make it easier to get rid of them. Wolves in Montana were delisted from the ESA in 2011, and trapping them was authorized the following year. Since then, an average of 245 wolves have been legally killed annually. That's more than 2,000 dead wolves.

For Montana's Fish, Wildlife and Parks agency, the grizzly population presents different management problems than wolves do. Bears don't run in packs and have a vastly slower reproductive rate, the lowest of any land mammal in North America (musk oxen and polar bears are close). Wolves, like dogs, birth sizable litters at frequent intervals. Female grizzlies don't breed until they're about five years old, and they keep an average of two cubs with them to teach and protect for another two years. Add to that the isolation of populations like the one in and around Yellowstone, which suffers from lack of connectivity and perhaps genetic diversity.

So, if you think we have too many grizzlies—as those in Alaska did last spring, or as many in the Lower 48 did at the turn of the 19th century—and you don't want to rely on poison, giant traps, or set guns to reduce the population, your options are limited.

Counting grizzlies has been a cottage industry in Montana, Wyoming, and Idaho for decades; yet none of the resulting numbers pass rigorous scientific scrutiny. The Greater Yellowstone Ecosystem population is estimated at about 700 to nearly 1,100, with that extra 300 to 400 bears added after a recalculation of a mathematical formula. The count is important because the FWS has used it twice in the past two decades to justify delisting the Yellowstone grizzly population, as a prelude to trophy hunting. Both attempts were rejected in federal court. My conservation group, Save the Yellowstone Grizzly, filed an amicus brief during the second lawsuit to force consideration of climate change when determining the future status of grizzlies in the contiguous states; the FWS has so far discounted this existential threat. Federal courts have affirmed that habitat quality and connectivity between different population segments are at least as important as population size when making a decision on whether to delist.

Two years ago, Gianforte announced that Montana was petitioning the FWS to remove ESA protections



A mother grizzly with three cubs near Larsen Bay on Kodiak Island, Alaska. Last spring, hunters in helicopters shot and killed nearly 100 grizzlies in southwest Alaska. Photo: Joel Sartore

for grizzly bears in the Northern Continental Divide also allows for their possible reintroduction to another state or area, namely California. Of course, the grizzly Ecosystem, an area encompassing Glacier National Park and the Bob Marshall Wilderness Complex. A has been missing from California for nearly 100 years. month later, Wyoming made the same request of Last spring, Alta Journal 23 contained an article, by FWS for the Yellowstone population. These pending associate editor Ajay Orona, on restoring the grizzly petitions are due to be decided beginning in February. bear to the Golden State. It featured the efforts of the

If the delisting efforts are successful, two Montana laws will go into effect. A 2021 measure specifies that a person can shoot a grizzly bear if it is "threatening to kill a person or livestock," which is a recipe for a likely repeat of the Alaska massacre, because "threatening" is not defined. A second law prohibits Fish, Wildlife and Parks from relocating grizzlies captured during any type of conflict occurring outside of a federal recovery zone. This law will effectively eliminate the possibility for mixing—needed for genetic diversity—between populations like those around Glacier and Yellowstone National Parks, making true recovery impossible for Yellowstone's isolated bears.

Delisting will make trophy hunting a foregone conclusion in Montana. The Alaska massacre teaches how easily a state can lose 100 bears. I don't think the Yellowstone grizzly population can survive such intensive killing.

Keeping Yellowstone's population of grizzlies healthy

- California Grizzly Research Network, a multidisciplinary group of scholars and scientists out of UC Santa Barbara. They are looking at suitable reintroduction sites and food systems and are planning to conclude
- their work in 2025. The group is optimistic that grizzly bears could be brought back. The team leader, Professor Peter Alagona, describes grizzlies as "the Swiss Army knives of bears. Drop them off in most environments and they'll survive. The bigger question is whether or not people will tolerate them."

As we've seen in Alaska, human tolerance can swing either way. I'm hopeful that the citizens' embrace of wildlife in California will spread to Montanaand, by extension, Wyoming and Idaho. The federal government must not delist the grizzlies in those states. Any discussion of using the Yellowstone bears as transplants to California is moot if they're being decimated. The future of grizzlies everywhere will be in jeopardy if Gianforte and the trophy hunters get their way.



Gray wolves were reintroduced to Colorado in December 2023, the latest attempt in a decadeslong effort to build up wolf populations in the Rocky Mountain states. SciLine interviewed Joanna Lambert, professor of wildlife ecology and director of the American Canid Project at the University of Colorado Boulder, who discussed how and why gray wolf populations declined in the U.S. and the value of reintroducing them to ecosystems in the West. Below are some highlights from the discussion. Answers have been edited for brevity and clarity.

How can protecting gray wolf populations affect ecosystems?

Joanna Lambert: Apex predators, and predators in general, are disappearing from landscapes around the planet.

Without apex predators, their prey species can become overly abundant. But when apex predators are reintroduced, prey populations decrease and vegetation can rebound. So in certain habitats of Yellowstone National Park, plant species such as willow and aspen are now in greater abundance since wolves were reintroduced in the 1990s. This denser vegetation can provide nesting areas for certain bird species and ideal conditions for beavers to set up dams, which can shift the hydrology of rivers and streams

In Yellowstone, these effects are localized. Keep in mind that the reintroduction of wolves into Colorado covers a huge area, around 22 million acres of public lands, and there aren't going to be that many wolves introduced probably 30 or 50 over the next three to five years. So in Colorado, too, effects on vegetation and total numbers of prey species like elk are likely to be localized, diffuse and only within certain microhabitats.

What is special about the reintroduction in **Colorado?**

Joanna Lambert: This is the first time an endangered

species will be managed and reintroduced into a former range by an entity other than the U.S. Fish and Wildlife. Instead, this reintroduction will be handled by Colorado Parks and Wildlife. This in itself is truly historical and groundbreaking. Instead of being a federal level initiative, this was the result of a citizen-led ballot initiative – Proposition 114 – that was voted into law as of November 2020.

How were the wolves reintroduced to the area?

Joanna Lambert: Those wolves were darted and immobilized in Oregon by expert marksmen and biologists working from a helicopter. They were netted and then brought onto small planes and eventually transported to vehicles, which took them to the regions where they were released. Those animals are radio collared and will be monitored carefully over months and years. The Colorado Parks and Wildlife aim to release 10-15 wolves this winter.

How have gray wolf populations changed in the U.S. over time?

Joanna Lambert: Before the arrival of Western settlers over 400-plus years ago, scientists estimate the total number of gray wolves roaming the North American continent was maybe between 500,000 to 2 million. By the time we get to the mid-1960s, only roughly 200

to 400 breeding pairs of gray wolves lived in the lower 48. This is largely a consequence of a concerted effort on the part of multiple legislative entities – local, regional, state and federal – to remove predators. Reducing the number of wolves through hunting, shooting, trapping and poisoning was extremely effective. The numbers of gray wolves plummeted throughout the 20th century so that we only have a handful around by the time the Endangered Species Act was signed into law in 1973. Grav wolves were one of the very first mammal species to be put onto the endangered species list in 1974. The number of gray wolves has increased throughout the United States but are concentrated in two populations. One is in the upper Midwest region, in Minnesota, Wisconsin and Michigan, where there are probably about 4,500 wolves.

In the Northern Rockies, and that includes the states of Idaho, Wyoming, Montana, eastern Oregon and eastern Washington, we probably have somewhere around 2,500 to 3,000 wolves. These wolves are largely a consequence of the reintroductions that took place in Idaho and in Yellowstone in the mid-1990s.

How can humans coexist with gray wolves?

Joanna Lambert: Up until around 100 years ago. humans had been coexisting and living alongside gray wolves for thousands of years, so we do have the

- knowledge on how to coexist with predators. We are now at a point where that information and that knowledge has to be relearned.
- That can include any number of scare devices or hazing tactics that can be used with both livestock and predators. It can include range riders working to make sure that they know where the wolves are. Ranchers can make changes in how animals are herded up and moved. Making these changes will take time, but Colorado Parks and Wildlife will be involved in those conversations and in the training of ranchers on how to keep their livestock safe. A number of nonprofits will also be involved in educating the public.

How does this reintroduction fit into the global extinction crisis?

Joanna Lambert: We are living in what many experts describe as the sixth extinction and are on the verge of losing upwards of a million species in the next couple of decades. Conservation biologists and practitioners around the world are working to offset this massive extinction. Reintroduction of important keystone species like gray wolves is one tool that can help.

Scientists find about a quarter million invisible nanoplastic particles in a liter of bottled water

Seth Borenstein | AP News | January 8, 2024



FILE - Tourists fill plastic bottles with water from a public fountain at the Sforzesco Castle, in Milan, Italy, June 25, 2022. A new study found the average liter of bottled water has nearly a guarter million invisible pieces of nanoplastics, microscopic plastic pieces, detected and categorized for the first time by a microscope. (AP Photo/Luca Bruno, File)

The average liter of bottled water has nearly a guarter million invisible pieces of ever so tiny nanoplastics, detected and categorized for the first time by a microscope using dual lasers.

Scientists long figured there were lots of these microscopic plastic pieces, but until researchers at Columbia and Rutgers universities did their calculations they never knew how many or what kind. Looking at five samples each of three common bottled water brands, researchers found particle levels ranged from 110,000 to 400,000 per liter, averaging at around 240,000 according to a study in Monday's Proceedings of the National Academy of Sciences.

These are particles that are less than a micron in size. There are 25,400 microns – also called micrometers because it is a millionth of a meter - in an inch. A

human hair is about 83 microns wide.

Previous studies have looked at slightly bigger microplastics that range from the visible 5 millimeters, less than a guarter of an inch, to one micron. About 10 to 100 times more nanoplastics than microplastics were discovered in bottled water, the study found

Much of the plastic seems to be coming from the bottle itself and the reverse osmosis membrane filter used to keep out other contaminants, said study lead author Naixin Qian, a Columbia physical chemist. She wouldn't reveal the three brands because researchers want more samples before they single out a brand and want to study more brands. Still, she said they were common and bought at a WalMart.

Researchers still can't answer the big question: Are

those nanoplastic pieces harmful to health?

"That's currently under review. We don't know if it's dangerous or how dangerous," said study co-author Phoebe Stapleton, a toxicologist at Rutgers. "We do know that they are getting into the tissues (of mammals, including people) ... and the current research is looking at what they're doing in the cells."

The International Bottled Water Association said evolutionary biologist Zoie Diana, is that "small particles can appear in different organs and may cross in a statement: "There currently is both a lack of standardized (measuring) methods and no scientific consensus on the potential health impacts of nano- and blood-brain barrier." microplastic particles. Therefore, media reports about Diana, who was not part of the study, said the new tool these particles in drinking water do nothing more than researchers used makes this an exciting development unnecessarily scare consumers." in the study of plastics in the environment and body.

The American Chemistry Council, which represents plastics manufacturers, declined to immediately comment.

The world "is drowning under the weight of plastic pollution, with more than 430 million tonnes of plastic produced annually" and microplastics found in the world's oceans, food and drinking water with some of them coming from clothing and cigarette filters, according to the United Nations Environment Programme. Efforts for a global plastics treaty continue after talks bogged down in November.

All four co-authors interviewed said they were cutting back on their bottled water use after they conduced the study.

Wei Min, the Columbia physical chemist who pioneered the dual laser microscope technology, said he has reduced his bottled water use by half. Stapleton said she now relies more on filtered water at home in New Jersey.

But study co-author Beizhan Yan, a Columbia environmental chemist who increased his tap water usage, pointed out that filters themselves can be a problem by introducing plastics.

"There's just no win," Stapleton said.

Outside experts, who praised the study, agreed that there's a general unease about perils of fine plastics particles, but it's too early to say for sure.

"The danger of the plastics themselves is still an unanswered question. For me, the additives are the most concerning," said Duke University professor of medicine and comparative oncology group director Jason Somarelli, who wasn't part of the research. "We and others have shown that these nanoplastics can be internalized into cells and we know that nanoplastics

carry all kinds of chemical additives that could cause cell stress, DNA damage and change metabolism or cell function."

Somarelli said his own not yet published work has found more than 100 "known cancer-causing chemicals in these plastics."

What's disturbing, said University of Toronto membranes that they aren't meant to cross, such as the

About 15 years ago, Min invented dual laser microscope technology that identifies specific compounds by their chemical properties and how they resonate when exposed to the lasers. Yan and Qian talked to him about using that technique to find and identify plastics that had been too small for researchers using established methods.

Kara Lavender Law, an oceanographer at the Sea Education Association, said "the work can be an important advance in the detection of nanoplastics" but she said she'd like to see other analytical chemists replicate the technique and results.

Denise Hardesty, an Australian government oceanographer who studies plastic waste, said context is needed. The total weight of the nanoplastic found is "roughly equivalent to the weight of a single penny in the volume of two Olympic-sized swimming pools."

Hardesty is less concerned than others about nanoplastics in bottled water, noting that "I'm privileged to live in a place where I have access to 'clean' tap water and I don't have to buy drinking water in single use containers."

Yan said he is starting to study other municipal water supplies in Boston, St. Louis, Los Angeles and elsewhere to see how much plastics are in their tap water. Previous studies looking for microplastics and some early tests indicate there may be less nanoplastic in tap water than bottled.

Even with unknowns about human health, Yan said he does have one recommendation for people who are worried: Use reusable bottles instead of single-use plastics.

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