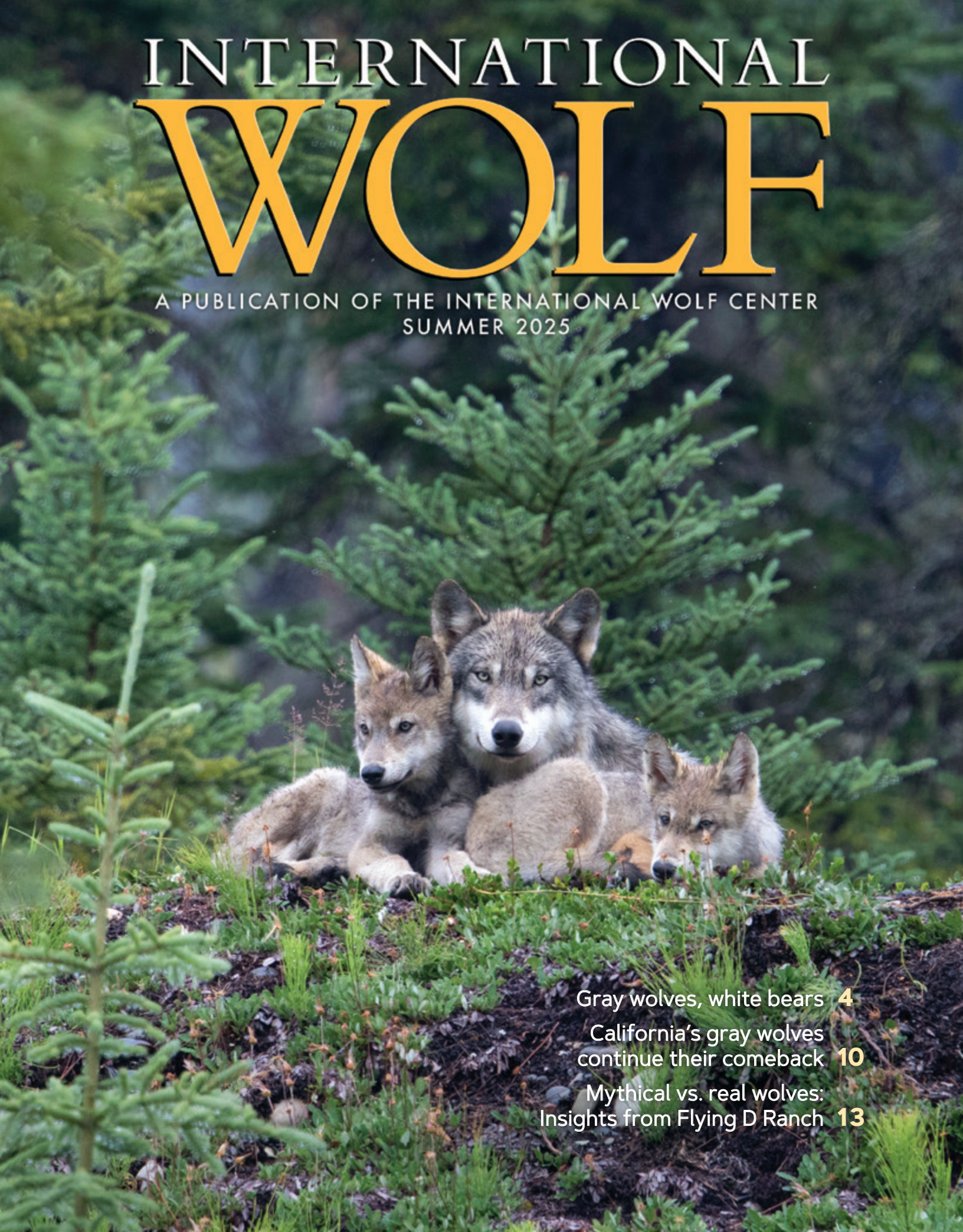
INTERNATIONAL WOLF

A PUBLICATION OF THE INTERNATIONAL WOLF CENTER
SUMMER 2025



AUTUMN ADVENTURES IN ELY

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AUGUST 30-31, 2025

Want to help the Center's wolf care team gain a better understanding of pack dynamics? Enjoy an evening learning how to identify, interpret and record different wolf behaviors before observing the Exhibit Pack's weekly carcass feeding. Then spend the night camped out in the Center's auditorium and see if the pack's behavior changes after nightfall!

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Discover the art of photographing wolves at the International Wolf Center! Participants will learn important information about wolves and what to look for in capturing their unique behaviors. In addition to private wolf observation and photography time at the Center, participants will spend time exploring the surrounding Superior National Forest and photographing the fall scenery.

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OCTOBER 18-19, 2025

Bring the whole family together for a fun-filled, wolf-themed weekend! Enjoy private lessons on wolf ecology and guided hikes through the beautiful Superior National Forest. Participate in wolf-themed activities and observe our ambassador wolves in action. Then, attend our What's for Dinner? program to observe our wolves feeding before you spend the night with a great view of the wolf enclosure!

Check out these events and more at: WOLF.ORG

INTERNATIONAL WOLF

International Wolf Center

VOLUME 35, NO. 2 THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER **SUMMER 2025**

Gray wolves, white bears

A citizen-science study on Manitoba's Kaskattama Coast explores interactions between gray wolves and polar bears. Wolves, known for preying on polar bear cubs, share this unique biome where forest, tundra, and sea meet. Led by Jad Davenport, the research team—comprising guides, guests, and First Nations hunters—tracks wolves, documents encounters, and gathers oral histories. Their efforts reveal a complex coexistence between these apex predators, advancing understanding through non-invasive methods.

By Jad Davenport

California's gray wolves continue their comeback

California's gray wolf population has grown to seven packs with about 50 wolves, including 35 pups born in 2024. Their return, hailed as an ecosystem success, follows protections under the Endangered Species Act. The California Wolf Project aims to balance conservation with ranchers' concerns over livestock predation. Scientists and stakeholders are collaborating to address ecological and social challenges while shaping the future of wolf management in the state.

By Kevin Harter

Mythical vs. real wolves: Insights from Flying D Ranch

Wolf recovery faces challenges rooted in myths portraying wolves as destructive predators. Research led by Val Asher at Flying D Ranch in Montana dispels these myths, showing wolves have minimal impact on livestock and big game. From 2009 to 2024, Asher's studies documented the Beartrap Pack's resilience and coexistence with humans. Her findings affirm that private lands like the Flying D can support wolf conservation while maintaining ecological balance and economic viability.

By Mike Phillips

On the Cover

Photo by John E. Marriott
www.wildernessprints.com
Instagram: @johnemarriott
Facebook @JohnEMarriottPhotography

An adult babysitter with two pups from the Kootenay wolf pack in Kootenay National Park, BC, Canada, featured in John's book, *The Kootenay Wolves: Five Years Following a Wild Wolf Pack,* which can be found on Amazon.com.

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NEWS FROM THE
INTERNATIONAL WOLF CENTER

New board member welcomed; accessibility tool added to wolf.org

The International Wolf Center Board of Directors this year welcomed Kim Wolfgram Salz, a retired development officer and administrator, to the board.

Wolfgram Salz has been a longtime supporter of the Center. She became a member 30 years ago and has participated in numerous educational programs and volunteered with the wolf care team.

Wolfgram Salz said that she has been fascinated by wolves for decades, particularly their independence, strong social and family bonds, and incredible resilience..

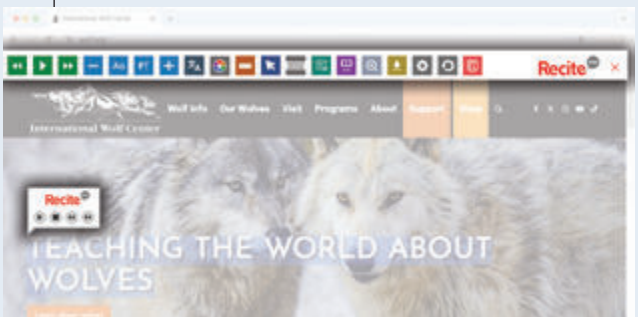
Before retiring in 2018, Wolfgram Salz worked at the Mayo Clinic, where she held roles in development and administration. She now looks forward to contributing her expertise to the Center's initiatives.

The Center is dedicated to teaching and inspiring the world about wolves. As part of its commitment to outreach, it recently launched a new accessibility tool on its website, wolf.org.

The Recite Me toolbar allows users to translate website content into over 100 languages. It also includes 65 text-to-speech voices, six reading aids, customizable fonts and color contrast adjustments for improved readability.

"This enhancement ensures that our educational resources are more inclusive and accessible to a broader audience around the world," said Executive Director Grant Spickelmier. "Whether someone is researching wolves or engaging with our programs, we want to make sure they have the tools they need to interact with our content."

For more information on the International Wolf Center's work and resources, visit wolf.org.



Celebrating 40 years of science-based wolf education

Forty years ago, on June 27, 1985, a group of 11 men and women came together at the request of Dr. L. David Mech and officially incorporated a "Committee for an International Wolf Center." Originally tasked to develop a permanent home for the traveling "Wolves and Humans" museum exhibit (which anchored our fabulous visitor center in Ely, Minnesota), the International Wolf Center has evolved over the last four decades, and has remained committed to science-based education about wolves.

In one sense, the world of wolves has changed dramatically since our organization's founding. In 1985, gray wolves only lived in a few places in the United States and reintroductions into Yellowstone National Park and Idaho were still a decade off. Our understanding of wild wolf behavior was limited to mostly winter observations of radio-collared wolves from airplanes or captive studies. In the rest of the world, wolf populations were even less well understood.

Today, wolves have greatly expanded their range across the United States. Wolves are similarly multiplying their populations across Europe and parts of Asia. Robust scientific efforts to learn about and manage wolf populations are underway across the globe, evidenced by the hundreds of researchers and managers who attend our symposium every four years. Modern technology, such as GPS collars, trail cameras and DNA analysis have opened windows to our understanding of wolves that researchers of the 1980s could only have dreamed.

Of course, other realities haven't changed much for wolves in the last 40 years. They continue to thrive best in places where they interact with people least. They inspire awe in some people and fear in others and are often misunderstood and misrepresented -- especially online. The need for objective information and respectful dialogue about wolves remains as important as ever.

As the International Wolf Center considers its next 40 years, we look back with gratitude on those 11 men and women who founded our organization at a time when the survival of wolves was a lot more uncertain. We are also deeply aware that we could not have made it this far without a broad community of supporters -– our pack — which includes people like you! As we look to the future, we are driven by our curiosity about this fascinating predator, by our respect for its resilience and by our vision for a future where wolves and humans can coexist with less conflict. Thank you for learning and dreaming with us for 40 years! ■

Grant Spickelmier
Executive Director

MISSION

The International Wolf Center uses science-based education to teach and inspire the world about wolves, their ecology and the wolf-human relationship.

Educational services and informational resources are available at:

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Gray Wolves, White

Bears

A citizen-science field study on interactions between wolves and polar bears on Hudson Bay's west coast

Photos and story by JAD DAVENPORT

Butch Saunders, an elder with the York Landing First Nations, climbs off his snowmobile and crouches beside the fresh polar bear tracks. Saunders slips off a moose-hide mitt and uses his fingers to brush spindrift from paw prints the size of dinner plates. Then he points out two sets of parallel tracks, smaller than tea saucers. Three-month-old cubs.

It is early March on the Kaskattama Coast of northern Manitoba, but the country is still locked in winter. The white and black spruce trees are blobbed with snow, and drifts taller than surfing waves stagger out to the frozen Hudson Bay.

Saunders and I are leading a small group of guests from Nanuk Polar Bear Lodge on an expedition to photograph mother polar bears and newborn cubs. Every February and March mother bears emerge from their earthen maternity dens dozens of miles back in the boreal forest. These are the southernmost polar bears in the world and spend six months of year on land when the Hudson Bay thaws. After eight months of fasting onshore, birthing in early January and nursing cubs for a few months, the sows are eager to reach the sea ice. The ice is home to their primary prey, ringed seals.

Normally it's a straight-shot journey of a week or less for mom and cubs. They make a beeline north for the bay. But something is wrong with these tracks. Less than a quarter mile from the ice and seals, the bears make an abrupt turn that becomes a frantic scramble back into the forest.

"She's trying to hide," Saunders says.

"From us?"

"Five times a year, guests join me in the field for a week as we track wolves on foot, by snow machine and with drones, count wolf numbers, identify packs, outline territories, investigate kill sites, set up trail cameras and review their videos, and observe wolves as they hunt, play and go about their lives on this remote coast."

—Jad Davenport

He shakes his head.

Adult polar bears can weigh more than a ton and, when standing, can look down through a 10-foot-tall regulation basketball hoop. So, what is spooking the largest predator walking the planet today?

Saunders stands up, scans the shoreline and spots them. "Wolves." At the edge of the jumbled ice, nine gray wolves trot single file, pausing now and then to sniff the snow. "Wolves and polar bears don't like each other," Saunders explains. "If (wolves) can separate a cub from a mother, they will kill the cub and eat it." The north wind keeps the scent of the mother bear and her cubs safely hidden from the wolves. For now, at least.

As Saunders and I climb on our snow machines to head to the lodge, we watch as the wolves disappear behind a jumble of sea ice.

"They'll be back," he says. "They like the cubs."

When Saunders and I had this encounter in 2017 it spurred my interest in this little-understood relationship between wolves and polar bears. Curious to know more, I came up with an idea. The guides, staff and guests at the lodge, together with First Nations seasonal hunters, are the only humans on the land. We're there from July until December and again from February through March. Would it be possible, I asked wolf biologists, including Kira Cassidy at the Yellowstone Wolf Project, for nonscientists to contribute to wolf science through a non-invasive, observation-based field study?

With generous advice and mentoring from Cassidy and other researchers, I developed a proposal. In 2020 I approached Churchill Wild, the owners of Nanuk Polar Bear Lodge, for support and partnership. In the fall of 2021 we launched our first wolf expedition. Now, five times a year, guests join me in the field for a week as we track wolves on foot, by snow machine and with drones, count wolf numbers, identify packs, outline territories, investigate kill sites, set up trail cameras and review their videos, and observe wolves as they hunt, play and go about their lives on this remote coast.

Wolves and polar bear interactions are difficult to document. Polar bear researchers, including Dr. Ian Stirling, and wolf biologists, including Dr. David Mech, noted that wolves and polar bears rarely share ranges. Wolves are hunters of the boreal forest and tundra while polar bears prefer to stay far out on the frozen sea.

There is something unique about the Kaskattama Coast, however. Despite having the same latitude as Scotland, the lower reaches of the bay are home to the planet's southernmost polar bear population. Unlike more northerly polar bears, which spend their lives mostly on the frozen Arctic Ocean, the bears here have adapted to half the year on land—from July to December the Hudson Bay is open water. Sows dig their maternity dens not in snow drifts but in riverside peat banks.

The coast is also unusual in that three biomes which normally transition from one to the other over dozens and dozens of miles—the boreal forest to the arctic tundra to the marine environment—here change in quick succession in under half a mile.

From a wildlife standpoint this means arctic animals like polar bears live alongside boreal creatures like black bears. Moose graze willow thickets at estuary mouths crowded with beluga whales. Red fox hunting the forest often chase and kill arctic foxes on the narrow band of coastal tundra. And crossing all

biomes with ease (including the sea ice in winter) are the packs of gray wolves.

Until the early 1980s, no documented reports noted wolves hunting and eating polar bears. Then, in 1983, just 40 miles west of where the lodge is today, polar bear researchers Dr. Ian Stirling and Malcom Ramsay made the first scientifically documented report. In his 2011 book, *Polar Bears: The Natural History of a Threatened Species,* Stirling wrote that he and Ramsay "…found evidence of a pack of wolves in the Churchill denning area that had learned to kill polar bear cubs when they were on their way to the sea ice from their maternity dens. Tracks in the snow revealed that some wolves would worry and distract the mother while another seized a cub and apparently escaped with it." The cub, Stirling recounted, had been completely devoured. Stirling noted several other wolf-bear encounters, but no further mortality.

The second documented report happened in April 2004, 1,300 miles north on the sea ice off Banks Island, a high-arctic island in Canada's Northwest Territories. In the September 2006 issue of *Arctic*, a journal published by the Arctic Institute of North America, Canadian researchers on an aerial polar bear survey—Dr. Evan Richardson and Dennis Andriashek—wrote about following tracks of a mother polar bear with two cubs. Wolf tracks intercepted the trio. A half mile later, "it appeared that the wolves had caught up with the bears…separated one cub from the mother and killed it. The carcass of the cub was found covered in snow… both the head and right forelimb were missing, as well as most of the rib cage. The body cavity was empty, and the entrails had presumably been consumed." The researchers later spotted a pack of 11 wolves a mile south of the kill site.

One of the most fascinating aspects of our study has been collecting oral histories from native people. I began by interviewing members of the York Landing First Nation. These Swampy Cree had once lived just 20 miles west of where the Nanuk lodge is today and have a deep knowledge of the land and wildlife. Despite having been relocated 160 miles south of their original settlement by the Canadian government when York Factory closed in 1957, community members maintain a seasonal goose- and moose-hunting camp three miles from the ruins of the trading post, in the heart of the country where wolves and polar bears meet.

Despite being a people with a strong tradition of hunting and trapping, few of the Cree I interviewed had any interest in harvesting wolves. "They are too smart to trap," one told me. "It's a lot more work to skin out a wolf than a marten, and the skins are less valuable," said another. But the most common answer on why the Swampy Cree don't hunt or trap wolves here is simply, "they are our brother hunters."

Among the local First Nations and the indigenous Metis, wolves were well-known for their seeming dislike of polar bears. A woman told me about her great-grandfather, who was a First Nations hunter at York Factory. He spent time hunting the area in the early 1900s. "One day he found four abandoned wolf pups, and he didn't know where the mother was," Donna Munro says when I ask her if she has any stories about wolves and polar bears. "So he raised them, they were part of the family. They would follow him while he hunted moose. He liked having them around. Polar bears were a big problem, they would smell the moose meat and come into camp. His wolves would sleep around the outskirts of camp. When they smelled or saw a bear they would howl and chase it away."

Former lodge manager, Nolan Booth, had the most detailed account of wolves hunting polar bear cubs. Booth, who grew up in the town of Churchill, which is 146 miles northwest of Nanuk Polar Bear Lodge, remembers a September day in 2019.

"We were having lunch one day near the Opoyastin River right near the lodge and we spotted a mother polar bear and two cubs sleeping on a sandbar," Booth said. "Suddenly, sixteen wolves came trotting in from the east, across the flats. You could tell by their behavior the instant they scented the bears. The hunt was on. Ten wolves circled the bears and started attacking the sow. The rest of the wolves sat back, just watching what was unfolding."

The mother bear fought hard, Booth remembers, sometimes sitting on her cubs to keep them from running. "We thought she was going to drown them. All the time she was trying to move toward the sea where she and the cubs could escape in the water. The wolves were constantly trying to separate a cub from mom. Some of the wolves were latching on to the mother bear's throat. She would swat at them, and when they grabbed onto her she would stand up and spin and send them flying through the air. Wolves were literally airborne."

The attack lasted 20 minutes before the mother and cubs escaped into the sea. "We saw them a few days later and, other than some blood on mom, they were fine. The cubs were untouched," Booth said. The wolves fared worse. Many were bloodied. "One of the black wolves had a severe injury to his left shoulder and leg (which) was crushed up. He curled up in a hollow in the willows and laid there for two weeks. The pack would sometimes bring food back for him, but he never came out of the hole. I didn't think he was going to make it. Then one day, a month after the attack, he got up and walked away as if nothing had happened."

Over the past four years, guests and guides at Nanuk have recorded other encounters. In one, a pack of seven wolves surrounded a full-grown male polar bear that was walking across the tidal flats. The wolves had been feeding on the remains of either a seal or beluga whale carcass. As the bear approached, the wolves engaged it, circling and nipping and darting away. Initially looking annoyed, the bear soon seemed fearful, and it left at a full run with the wolves chasing it.

Most of our observations revolve around the Opoyastin "Big Wind" Pack, the same wolves Booth watched attacking the sow and her two cubs. Based on reports from bush pilots, lodge staff, guides, guests and conservation officers we believe the pack defends a 600-square-mile territory which includes 60 miles of coastline. With the help of local Churchill bush pilot Jason Francouer, who keeps meticulous notes on his aerial wolf sightings, we

have identified four more wolf packs and outlined their territories in the surrounding areas. All these packs inhabit dense polar bear denning areas.

Trail cameras have given us insight into the wolf population and their travel habits in the area. Locating and documenting moose kills has given us insight into the winter diet of the wolves. Our field notes include stories of wolves hunting and killing willow and rock ptarmigan, snow geese, Richardson's collared lemmings, red foxes and river otters, along with spending hours feeding on blueberries and cloud berries.

While we have documented no fatal encounters between wolves and polar bears so far, in late October of 2024, a bush pilot reported spotting eight or nine wolves of the Kaskattama Pack to the east of the lodge feeding on a polar bear carcass. "It was big, it looked like an adult bear. We couldn't tell what happened to the bear, why it died, but about 100 yards south of the carcass there had been a big commotion in the snow. It could have been that the wolves attacked and killed the bear. It's also possible another bear killed the bear and was feeding on the carcass when the wolves chased it off. It's a mystery."

Although the exact nature of the relationship between polar bears and wolves may continue to remain a mystery, it's one that we, as citizen-scientists, hope to help unravel. With every oral history recorded, every wolf expedition completed and every wolf and polar bear sighting documented throughout the year by local pilots, First Nations hunters, lodge staff, guides and guests, we are filling in gaps, trying to understand how these two apex predators coexist in one of the only places on the planet where geography and climate force them together for long periods. Our plans include getting permission to conduct scat surveys and DNA analysis using non-invasive methods.

Recently I expanded my work into the summer months searching for wolf dens and rendezvous sites. Last July I was sitting behind a spotting scope on a gravel beach ridge, scanning the coastline for wildlife. A mother polar bear and a cub-of-the-year came trundling along the beach. The insects were biting, and now and then the bear cub would shake its head and rub its face into the sand, seemingly exhausted by the flies.

Suddenly the mom stopped. She stood up and sniffed the air. The cub alerted and huddled beside mom. In an instant mother and cub turned and whirled. Within seconds they were bounding into the coffee-tinted waves of Hudson Bay. For a moment I wondered if she had been spooked by a male bear. Male bears sometimes attack and kill cubs. I scanned the green and brown tundra for the familiar butter-color of a polar bear. There was none.

But then my eyes caught a flicker, and the bears' hasty departure made sense. A lone wolf, looking lean in its summer coat, emerged from the willows and trotted down the beach. It reached the spot where the bears had plunged into the sea and stood and gazed out. Through my scope I watched the mother and cub still swimming. The wolf sat down facing the sea. Within fifteen minutes, the bears had vanished from sight. The wolf stood and stretched and with one last glance out at the dancing waves, trotted away. ■

Jad Davenport is the director of wolf programs for Churchill Wild and a photographer for National Geographic.

Despite being a people with a strong tradition of hunting and trapping, few of the Cree I interviewed had any interest in harvesting wolves. "They are too smart to trap," one told me. "It's a lot more work to skin out a wolf than a marten, and the skins are less valuable," said another. But the most common answer on why the Swampy Cree don't hunt or trap wolves here is simply, "they are our brother hunters."

A newly collared wolf from the Beyem Seyo pack released close to where she was captured by a CDFW helicopter team in January of 2025

The return of California's wolves

By KEVIN HARTER

Photos by Malia Byrtus for California Wolf Project

BEY09M (a male born in the 2024 litter of the Beyem Seyo pack) collared by CDFW in January of 2025

Nearly 90 years after the last California gray wolf was shot, a lone wolf arrived from neighboring Oregon in 2011. Today, in the Golden State, more gray wolves have returned, marking a major comeback.

California wildlife officials reported at the end of 2024 the state is now home to approximately seven packs, comprised of about 50 wolves, which is up from 44 in 2023. Officials believe at least 35 wolf pups were born in 2024. Most wolves inhabit the northeast, east of Interstate 5 and north of Lake Tahoe, but one pack lives about 200 miles north of Los Angeles.

"We didn't reintroduce wolves. They returned on their own to California," said Axel Hunnicutt, California Department of Fish and Wildlife Gray Wolf coordinator. The California Department of Fish and Wildlife and the University of California's Rausser College of Natural Resources have formed a long-term partnership to advance the scientific study and management of California gray wolves. The National Geographic Society is also providing support for the California Wolf Project.

The return of wolves -- which were once found in abundance in California

and across North America -- to their ancestral grounds is being hailed as a natural ecosystem success story.

"Wolves were one of the most prevalent and widespread predators," said Hunnicutt, who holds a master's degree in wildlife management from South Africa's University of Pretoria. Some two million wolves once roamed North America, according to the Center for Biological Diversity, although that number probably included coyotes, which were also known historically as brush wolves. Wolf numbers declined rapidly as the United States was settled.

With the ongoing western expansion, farmers and ranchers were concerned about their safety and their livestock. Bounties on killing wolves became the rule, and in 1915 Congress passed legislation requiring the eradication of wolves from federal land. Widespread poison was the most effective method used.

Faced with expansive habitat loss and harassed to near extinction, the survival and return of wolves is largely the result of the 1973 Endangered Species Act passed during the Nixon administration. Wolves were also protected in 1970 by the California Endangered Species Act.

As wolf numbers rebuilt, the animals began dispersing from Canada and Minnesota to adjacent states. Wolves were also reintroduced to Wyoming's Yellowstone National Park and Idaho's Frank Church River of No Return Wilderness. They then spread into Oregon and Washington.

After the first wolf, a male named OR7, arrived in California from Oregon in December of 2011, others followed from Idaho and Oregon, forming the first pack in 2015. OR7 quickly became a California celebrity. Media stories flourished along with a documentary, and children's books, including the award-winning, "*Journey: Based on the True Story of OR7, the Most Famous Wolf in the West.*"

"The California population has grown as wolves hunt, find mates, have pups and establish new packs. When you take the human element out, the system goes back to being a natural system," Hunnicutt said.

Wolves have, however, returned to a drastically different state. California had three million people in 1924 compared to nearly 40 million today, Hunnicutt said, which has brought concern, conflict and controversy.

Above: Dr. Kaggie Orrick inspects the skull of a predated elk during a kill site investigation in Siskiyou County

Left: Members of the California Wolf Project analyze the jawbone of an elk during a kill site investigation to determine the approximate age of the animal

Below: The skull of a predated elk is found during a cluster investigation site in the Whaleback pack territory in Siskiyou County

The concern is understandable and must be managed and addressed, said Kaggie Orrick, who earned a PhD. from Yale University's School of the Environment and will become acting director of the

"We didn't reintroduce wolves. They returned on their own to California."

– Axel Hunnicutt, California Department of Fish and Wildlife

"Most Californians will never see or hear a wolf. But ranchers will. We are trying to be empathetic to ranchers."

– Axel Hunnicutt

Top: Members of the California Wolf Project plan their approach to investigate a winter cluster site

Center: Christina Winters, field team lead, and seasonal technician, Michael Jenson, from the California Wolf Project stop to measure a wolf track found during a winter cluster search

Bottom: Veterinarians and biologists from CDFW and the California Wolf Project examine a captured gray wolf to be fitted with a radio tracking collar in January of 2025

California Wolf Project in the summer of 2025.

"This is a huge management challenge. … It has sociological and ecological dimensions," cautioned Orrick.

Several attempts have been made to remove wolves from the federal endangered species list since 2008, and by states, to delist them, but currently only three states – Idaho, Montana and Wyoming – allow some wolf hunting.

More wolves mean more interactions with livestock, which is a concern. A compensation program was established in California and preventive measures taken.

"Most Californians will never see or hear a wolf," stated Hunnicutt. "But ranchers will. We are trying to be empathetic to ranchers."

The California Wolf Project brings scientists, wildlife managers, conservationists, tribal leaders, ranchers, community leaders, federal, state and private landowners and others together to discuss their diverse interests and policies and solutions.

"There are so many important management questions relating to the ecological, economic and social effects of wolf recolonization in the state that already impact California's ecosystems and its people. The California Wolf Project will help address these questions," Hunnicut said.

The goal of the project is to develop a model for bringing universities, government agencies, local communities and impacted groups together using fact-based practices to improve human-wildlife interactions on shared landscapes.

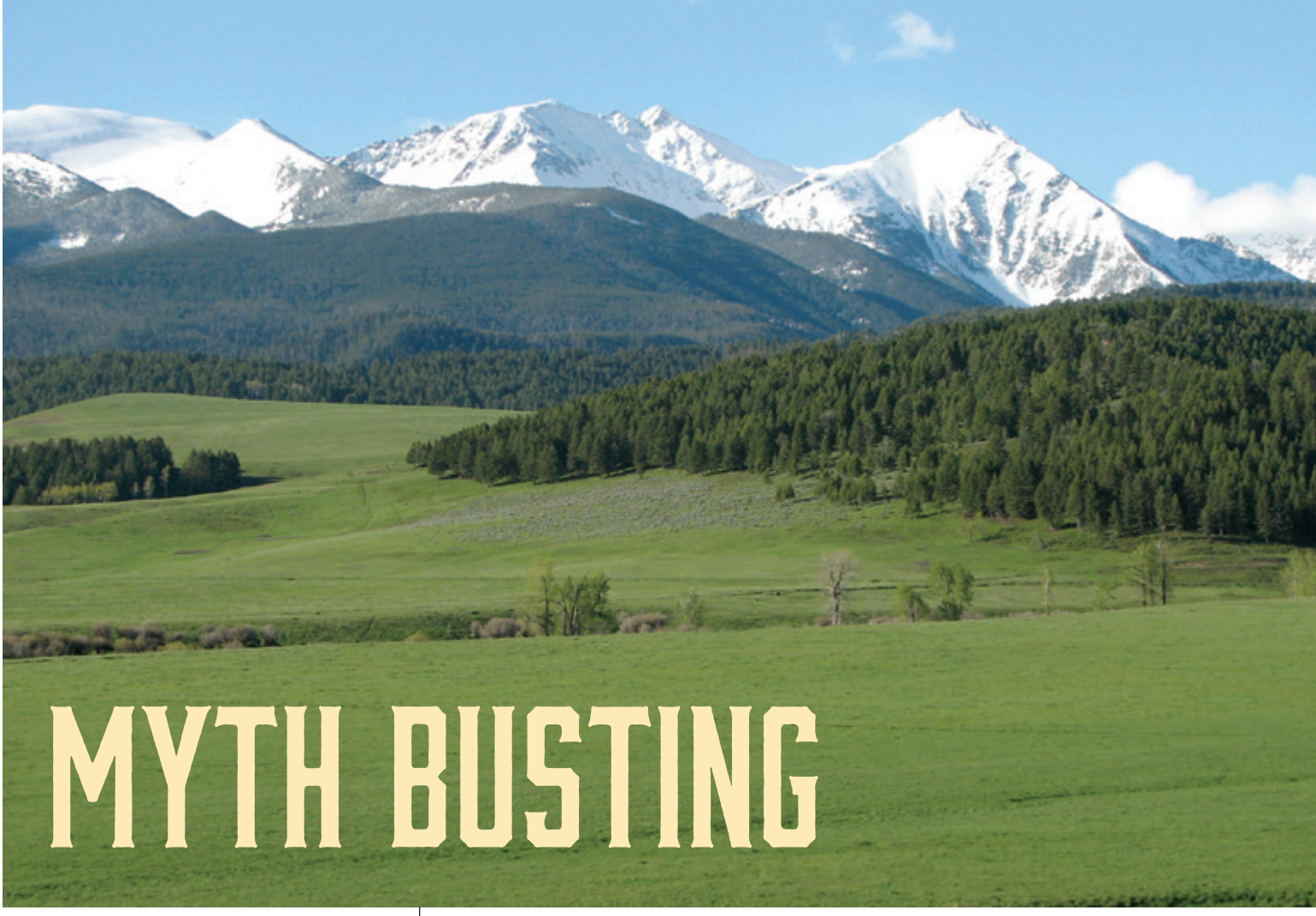
"What does the future hold? I don't know. It is for the people of the state to answer," said Hunnicutt.

And Orrick offered that the California Wolf Project will provide the information needed to help make sound decisions, not only in California, but possibly across the U.S. and beyond.

"We are gathering baseline information, monitoring and conducting research to provide evidence-based information," Orrick said. ■

Kevin Harter is a retired journalist and former employee of the Wisconsin Department of Natural Resources.

A newly collared wolf from the Beyem Seyo pack in January of 2025



MYTH BUSTING

Wolf population at Flying D Ranch busts common myths, thanks to the research of Val Asher and others

Commentary by MIKE PHILLIPS

Photos courtesy of Turner Enterprises

Wolf recovery has been difficult for many reasons. One reason dwarfs all others: the mythical wolf.

The mythical wolf is rooted deeply in the minds of many. They hold the notion that a wolf has almost supernatural abilities to exercise its predatory will on a whim. They hold the notion that a wolf creates a wake of destruction and desolation everywhere it goes.

Nothing could be further from the truth.

The real wolf is not even a shadow of its mythical self. For the real wolf, life can be a daily struggle. Hunting is a dangerous and typically unsuccessful endeavor. Most attempts fail. Hunger is frequent. Starvation is known.

Notwithstanding these facts, the myth persists. It is as strong as it is wrong, and the species remains restricted to less than 20 percent of its historical range in the contiguous United States and, except in national parks and where legally protected, is intensively persecuted.

For decades, biologists have chipped away at the myth. They have diligently conducted reliable studies to reveal the real wolf and a simple truth: coexisting with the species is a straightforward affair that requires only a modicum of accommodation. Valpa (Val) Asher is one such biologist who has done more than her fair share to bust the myth and affirm this truth. More on this in a moment.

In January 1974 the gray wolf was relisted as endangered under the federal Endangered Species Act. This led to restoration of the species to the

The real wolf is not even a shadow of its mythical self. For the real wolf, life can be a daily struggle.

Greater Yellowstone Ecosystem through reintroductions to Yellowstone National Park in 1995 and 1996.

Within five years descendants from the Yellowstone founders began using the Flying D Ranch in the northwestern portion of the ecosystem about 50 miles by air northwest of the park. By 2003 they had become a fixed feature of the area and came to be known as the Beartrap Pack, in recognition of the Beartrap Canyon of the Madison River on the ranch's western flank.

It is unsurprising that wolves settled the ranch, which is managed as a wild, working landscape for economic viability based on ecologically mindful management and restoration and conservation of at-risk species.

The ranch, owned by conservationist Ted Turner, is in southwestern Montana and includes 113,593 acres of montane (on the slopes of mountains) rangelands, spruce-fir forests and willow-aspen stands. The ranch supports an active bison livestock operation that includes about 4,800 adults and about 1,300 calves. The ranch also hosts an estimated 2,500 elk, 450 white-tailed deer, 150 mule deer, 20 moose and several species of large carnivores, including cougars, bobcats, coyotes, black bears and grizzly bears. It is ideal for wolves because of its size, abundant prey and the owner's determination to conserve native species.

Asher began her career with the Turner Endangered Species Fund (TESF) on May 15, 2000. Ted Turner and I co-founded TESF and Turner Biodiversity Divisions (TBD) in 1997. Since inception, they have collectively stood as the most significant private effort in the world to redress the extinction crisis through reintroduction efforts to restore secure populations of at-risk species. From a policy perspective, TESF and TBD aim to illustrate that the Endangered Species Act and similar state laws do not undermine private ownership of working lands.

One of TESF's early efforts was a study of the Beartrap Pack and its influence on

the operations of the Flying D. During 2000 and 2001, Asher was stationed at the ranch and led novel studies of the potential for aversive conditioning and short-term confinement of wild wolves to promote their long-term survival upon release. Several of the wolves involved were successfully re-released and contributed to the species' recovery in the Northern Rocky Mountains.

From 2002 until 2009, Asher operated under the direction of the U.S. Fish and Wildlife Service and later Montana Fish, Wildlife and Parks as a senior wolf specialist advancing conservation of the species throughout southwestern Montana. During these eight years, she focused on the daily grind of coexistence: assisting with wolf captures and radio tracking, responding to wolf-livestock conflicts, deploying non-lethal methods, educating landowners on wolf behavior and laws relating to killing wolves, training landowners in less-than-lethal munitions and contributing to annual reports and technical publications.

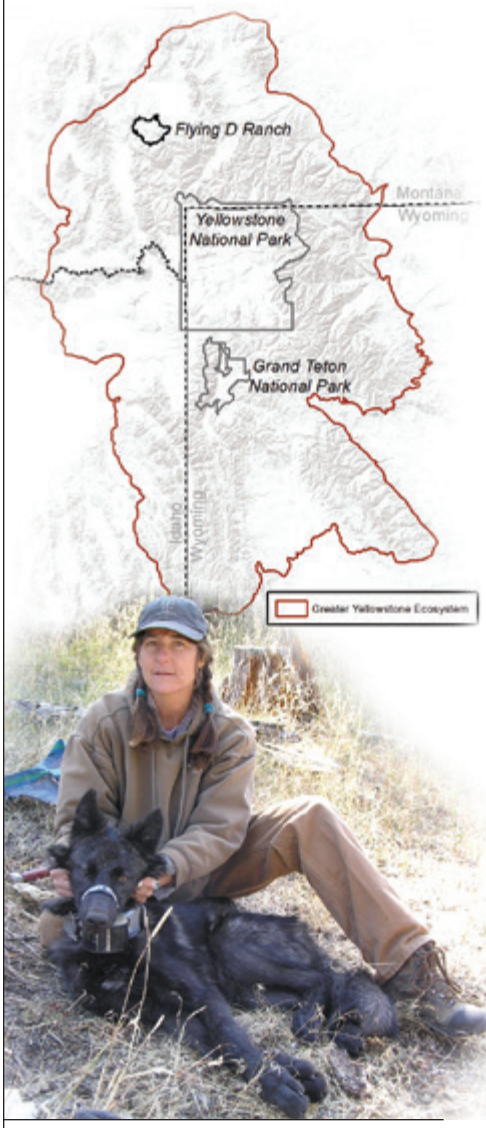
In 2009 Asher returned to the Flying D and focused her considerable talent and work ethic on the wolves there until retiring in August 2024. In her characteristically quiet and unassuming style, she singlehandedly conducted the most significant study of wolves ever on private land.

Over the course of these 14 years, she spent more than 3,500 days in the field and logged 75,695 miles (on foot and in vehicles) monitoring wolves telemetrically, observing them and ungulates directly, collecting and analyzing scats and examining ungulate carcasses to assess cause of death, general health of the prey animal, extenuating circumstances and scavenger use.

Asher established contact with wolves (observed wolves, detected radio signals, or detected fresh tracks and scats) during 75 percent of the more than 3,500 days that she was in the field.

While Asher was almost always alone in the field, much of her work, especially

International Wolf



By hiring Val Asher, TESF gave her an inch to do good. She took a mile.

capturing wolves and outfitting them with radio-collars, required close collaboration with Montana Fish, Wildlife, and Parks. She oversaw the capture of 23 wolves on 24 occasions and deployment of 20 radio-collars without incident. This allowed her to maintain telemetric contact (via traditional and global positioning transmitters) with wolves nearly continuously from 2008 through June of 2024, and that resulted in the collection of more than 7,000 locations. These data revealed that the pack's territory mostly aligned with the ranch's boundaries.

The Beartrap Pack probably denned on the Gallatin National Forest south of the ranch from 2002 through 2005. While Asher believed that pups were whelped on the ranch from 2006 through 2008, she did not confirm the first den until 2009. After that, she documented at least one litter of pups on the ranch every year through 2024. She counted 119 pups from 22 litters from 2009-2024. Litter size ranged from two to 16. The Beartrap Pack produced two litters during four of 16 years from 2009–2024 (25 percent of the time).

Asher located nine den sites on the ranch, including three that were used during several years. She located 18 rendezvous sites that were distributed across the ranch and typically used year after year.

Coexisting with wolves is a straightforward affair that requires only a modicum of accommodation.

Documenting wolf predation and food habits was central to her work, given the importance of predation on influencing the ranch's livestock and big game hunting programs. Beyond directly observing wolves, she analyzed 938 wolf scats and examined 1,568 carcasses, including 380 animals killed by wolves.

Elk were the primary prey for wolves although they did prey on deer and infrequently on bison. Most use of bison was in the form of carrion. Notably, nearly 75 percent of the ungulates killed by wolves were malnourished or starving.

During Asher's study, the Beartrap Pack included an average of 16 wolves at year's end. Notably, during fall 2019 the pack included 26 wolves.

Members of the Beartrap Pack mostly restricted movements to the Flying D Ranch. The entire ranch was used by wolves. When wolves traveled beyond the ranch's borders, the distances typically were modest (about two to three miles). Wolves traveling off the ranch have good opportunities to interact with wolves from other packs.

Given the relatively high mortality rate for other wolves in Montana (due to social intolerance for the species and very liberal opportunities for legally killing wolves), the Beartrap Pack probably is a source of wolves that promotes the persistence of the regional population.

As Asher noted repeatedly, the size, productivity, persistence of the pack and its fidelity to the ranch is owed to the ranch's large size, the presence of robust ungulate populations and lack of human persecution.

Asher's most important findings?

- Wolf predation had a negligible impact on the ranch's big game hunting program. Indeed, since wolves have occupied the Flying D, the number of bull elk has remained steady or increased slightly.
- Wolf predation had a negligible impact on the ranch's bison livestock operation. For a 13-year period (2010 through 2022) confirmed wolf-killed bison were worth $7,263 annually as calculated per Montana's livestock loss compensation program. This number is reduced to about $5,000 by excluding data from two years when the bison herd experienced significant disease.
- Beyond contributing to the Flying D's ecological integrity, wolves added to the ranch's wilderness character and provided lasting memories for people who observed them or heard them howl. The wolves did not represent a threat to human safety, either through direct encounter or disease transmission.

The persistent presence of wolves on the Flying D is irrefutable evidence that at least some private land can contribute to the sustained well-being of even the most contentious at-risk species. Collecting such evidence through efforts to restore imperiled species was the inceptive aim of the Turner Endangered Species Fund. Studying and celebrating wolves was a central component of Ted Turner's intent to manage his properties as wild, working landscapes with a focus on improving the prospects for select at-risk species.

The overall success of the Beartrap Pack makes it clear to me that the Flying D Ranch is the most consequential private land for wolves in the world and serves as a model for recovering wolves to other tracts of working wildlands.

By hiring Val Asher, TESF gave her an inch to do good. She took a mile. By doing so, she did more than her fair share to slay the mythical wolf and reveal an important truth: coexisting with wolves is a straightforward affair that requires only a modicum of accommodation. ■

Mike Phillips is the director of the Turner Endangered Species Fund. He's a former wildlife biologist with the National Park Service, serving as the project leader for the reintroduction of wolves to Yellowstone National Park from 1994 until 1997.

Photos: International Wolf Center

summer 2025

specialty programs

(small additional fee for after-hours programs)

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There is limited capacity for this program.
Pre-registration is required.
Saturdays at 7 p.m. – 8 p.m.

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Behind the Scenes

Pre-registration is required.
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Get ready for our exclusive, up-close experience, Behind the Scenes program! Dive into the secretive world of ambassador wolves. This is your golden ticket to uncover the mysteries of these majestic creatures and the dedicated team behind their care. Don't miss out—secure your spot now at wolf.org.

PROGRAM SCHEDULE

(May 23 — Mid-Aug)

TIME	DAILY SCHEDULE
9:00 a.m.	Open
9 :15 a.m.	Ambassadors to the Wild
9:45 a.m.	**Pup Viewing Opportunity**
10:15 a.m.	Growing Up Wolf Pups
10:45 a.m.	**Pup Viewing Opportunity**
11:15 a.m.	Gray Wolf 101
12:00 p.m.	Enrichment
12:45 p.m.	**Pup Viewing Opportunity**
1:15 p.m.	Ambassadors to the Wild
1:45 p.m.	**Pup Viewing Opportunity**
2:15 p.m.	Growing Up Wolf Pups
2:45 p.m.	**Pup Viewing Opportunity**
3:15 p.m.	Gray Wolf 101
3:45 p.m.	**Pup Viewing Opportunity**
4:00 p.m.	Enrichment
5:00 p.m.	Close

VISIT WOLF.ORG TO LEARN MORE!

summer Hours

May 23 – October 19
9 a.m. to 5 p.m. daily.

Seasonal Fluctuations

by Giselle Narváez Rivera

One of the most common questions asked by visitors to the International Wolf Center is "what is the weight of the ambassador wolves?" We reply with the most current weight of each wolf ambassador, and that is usually enough to satisfy their curiosity. While this seems like a simple question with a straightforward answer, it is more complicated than it seems.

A wolf's weight can fluctuate. On a smaller scale, it may fluctuate daily. Our ambassadors' weights will be slightly higher after a carcass feeding. On a larger scale, we also know that body mass can fluctuate seasonally. Research conducted in Minnesotan free-ranging wolves (Mech and Buhl 2020) and under human care (Seal and Mech 1983) revealed a seasonal cycle on body mass. Both studies found that wolves' body mass peaks in winter and is lowest in summer.

Our three youngest wolf ambassadors are weighed daily, and this data suggests a cyclic pattern as well, but they peak in slightly different seasons from wolves in the wild. Their weights peak in the fall, between September and November, and are lowest in March and April in the spring. Even though we tend to increase feedings in the colder months, we still see this slight decrease in average weight starting around February. This trend seems to be more established for Rieka, and future data will help us see if the young males follow a similar cycle. While we do not have a definitive explanation, the weight decrease could be due to the increased levels of activity in the winter, the physiological requirements of the season, hormonal changes, stress due to heightened pack dynamics, or any combination of the above.

Weighing animals daily is not a requirement, but these measurements are useful markers that in the long term can help us identify individual or pack patterns. If a wolf is significantly losing or gaining weight quickly, we can respond appropriately. Perhaps we may catch a potential health issue sooner. Further, accurate weight measurements are also important for calculating drug dosages for chemical immobilization, parasite preventives, or medications. However, an animal's weight is only one piece of the puzzle when it comes to assessing physical condition and overall wellbeing. Weights should be paired with other data such as bloodwork, body condition scores, and behavioral observations to complete the picture and make informed management decisions to maintain the highest quality of life for our ambassador wolves. ■

Photos: International Wolf Center

	Blackstone	Caz	Rieka
Winter (Dec-Feb)	111.6	104.0	82.6
Spring (March-May)	106.1	97.5	79.0
Summer (Jun-Aug)	111.5	105.0	83.2
Fall (Sept-Nov)	115.5	106.9	86.5

Average weight (lbs) by season for Blackstone, Caz and Rieka.

Body weight also differs by sex and age. Caz and Blackstone (males) were yearlings still growing in 2023, while Rieka was already a 2-year-old female. We must see if a similar cyclic pattern arises for the males in future years.

INTERNATIONAL WOLF CENTER

Quarterly Donations

Gifts between December 2024-February 2025

We make every effort to ensure the accuracy of our donor list each quarter. If we have omitted your name in error, please accept our apologies and contact Manisha Nordine at 763-233-7137 or membership@wolf.org.

Honorariums

In honor of Zev Katz
Aliana Katz

In honor of Connie Wilson
Amanda Ellwood

In honor of Zev Ryan Bleich's Bar Mitzvah
Sharon Benheim

In honor of David Martin
Andrea Fletcher

In honor of Coach Jamie Rauch, Wolfpack Aquatic Club
Anne Day

In honor of Coach Justin Fernandez, Wolfpack Aquatic Club
Anne Day

In honor of Barbara Beddow
David Basham

In honor of Linda Daniel
Barbara Antonik

In honor of Theo Carrus
Betty Reba

In honor of Frank Coorsen
Bob and Louise Coorsen

In honor of his wife, Gon Smiet
Bob Smiet

In honor of Bunny Boy
Catherine Briggs

In honor of David Binder
Daniel Binder

In honor of Wolf Care Staff and Rieka
Donna and Bob Stark

In honor of Donna Mccullough
Eva Fales

In honor of Lori Schmidt
Lynn and Ken Kaveney

In honor of the Wolf Care Program
Donna and Bob Stark

In honor of Joy Bandel
Robert Lawser

In honor of Kim Gustafson
Laurie Forsberg

In honor of L David Mech
Alice and Ronald Silkey

In honor of Lisa Radtke
Patricia and William Mitchell

In honor of all of the IWC wolves and wolf lovers - keep howling!
Lisa Nivens

In honor of Mark and Jo Johnson
Kristoffer Johnson

In honor of Natalie Hannemann
Mark Strohschein

In honor of Mateo Fischer
Andrea Eschen

In honor of Matt Weeks
Timothy Leslie

In honor of Alison Smith
Pam Philbrick

In honor of Sharon Howard
Russell Howard

In honor of Dr. Shirley Russman
Rebeca Zimmermann and Donn Friedman

In honor of Grandma who always supports wildlife
Colleen Martinez

In honor of Holly the Golden Retriever
Edward and Linda Morton

In honor of William Stevenson
Susan Keilholz

Memorials

In memory of Murray S. Weber
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In memory of Barbara Zolotorow
Michael Balsai

In memory of Debra
Benjamin Miller

In memory of Robert E Hansen
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In memory of Dana Pond
Caitlin Phillips

In memory of Debra Harrison
The Woolston Family
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Sarah Jaycocks
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Sherilyn Olesen
Sue Barden
Wade Harrison

In memory of Rev. Diantha Baker Brown
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In memory of Isabeau
Linda Hoeckel

In memory of Mrs. Loretta Stolarz
Bernard Stolarz

In memory of Smokey, the amazing Wolf-dog!
Lynda MacNeil

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In memory of Edward "Uncle Terry" McGovern
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Ronald Ziemba

In memory of Denny
Shannon Olenick

In memory of Dakota
Shondi Nelson

In memory of Robert
Siv Modler

In memory of Stewart Dilly
Jason Dilly

Thank You!

WOLVES OF THE WORLD

By Denise Hughett

2025 marks the 30th anniversary of the reintroduction of wolves to Yellowstone National Park. Since reintroduction, we have learned much about this fascinating species through the research conducted and observations made of wolves. Wolves continue to capture our interest in the United States and worldwide. Take a look at these wolf updates from other locations around the world.

TEXAS

Colossal Biosciences, a Texas-based biotechnology company, has announced the birth of four cloned Red "ghost" wolves, aiming to bolster the genetic diversity of the American red wolf, a critically endangered species. With fewer than 20 red wolves remaining in the wild, primarily in North Carolina, the species faces an uncertain future. Red "ghost" wolves carry substantial red wolf genetic ancestry, with these clones carrying approximately 70% of red wolf ancestry. Colossal and their collaborative researchers of the Gulf Coast Canine Project are investigating ways in which these "ghost alleles," genetic traits from historical and extinct wild red wolf populations, could enhance the genetic resilience of the American red wolf.

While the company also unveiled genetically engineered wolf pups resembling the extinct dire wolf, this endeavor has drawn criticism. Some scientists argue that such projects may divert attention and resources from pressing conservation needs, like those of the red wolf. Critics caution that focusing on de-extinction could undermine efforts to protect existing endangered species.

Colossal maintains that its technological advancements can aid conservation efforts. However, experts emphasize the importance of traditional conservation strategies, including habitat protection and legal safeguards, to ensure the survival of species like the red wolf. The debate continues over the role of biotechnology in conservation and the ethical implications of de-extinction initiatives.

International Wolf plans a full story about this development in an upcoming issue.

All photos this page: Colossal Biosciences

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BELGIUM

The population of wolves in Belgium is estimated to be approximately 20 individuals. In 2024, no wolves were born in Flanders, and in Wallonia, only 11 pups were born. A wildlife organization (Welkom Wolf) states that the region is suitable for wolves, and the low population levels are cause to implement protection measures. A request to build a traffic mitigant (for example, a wildlife corridor) is being met with resistance. The local government, while sympathetic, states that its priorities lie elsewhere.

Another factor impacting population numbers is illegal hunting. The government has not enforced laws in place to protect wolves. In addition, in December 2024, protection for wolves throughout western Europe was downgraded from "strictly protected" to "protected" by the members of the Bern Convention.

Welkom Wolf requests those seeing a wolf to let the organization know.

CANADA

Measures to protect the rare eastern wolf were recently put into place. The taxonomic status of the eastern wolf is still controversial, with some scientists considering it a subspecies of the gray wolf. In July 2024, the federal government upgraded the status of the eastern wolf from "a species of special concern" to "threatened." Furthermore, the federal government has stated that work on a recovery strategy is underway. However, the implementation of protection measures is presenting a challenge across the provinces of Canada. For example, Quebec's Environmental Department does not believe the eastern wolf is a separate and distinct species from the gray wolf. This view results in the Quebec government believing that the eastern wolf does not need protection. In October, Quebec launched an effort to gain insight into to the populations of large canids in the area. However, this effort has proved to be difficult due to the small population and the level of hybridization occurring in wild canids. This stance contradicts the federal government's view which is premised on genetic analyses that suggest that the eastern wolf is a distinct species.

It is estimated that the population includes fewer than 1,000 adults. The eastern wolf, also known as the Algonquin wolf, is medium-sized with reddish tawny fur. In Canada, it is mainly found in protected areas such as Algonquin Park in Ontario.

Biologists caution that whether or not the eastern wolf is a distinct species from the gray wolf, it should be protected. Wolves perform important roles in the ecosystem such as killing weak and sick prey, which in turn helps ensure healthy prey.

A further challenge to wolf populations in Canada is the ongoing efforts to protect dwindling caribou populations. Culls of wolves have occurred in the belief that a reduction in wolf populations will help caribou numbers. Opponents of the cull believe that intense logging and the resultant habitat loss is the main cause of caribou decline.

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GREECE

Wolves have returned to Mount Taygetus, which is near ancient Sparta. Camera traps captured images of nine wolves. This is the first scientific evidence of wolves in the region since the 1930s. While wolves have been observed in areas of mainland Greece, their appearance in the Peloponnese (a peninsula off the mainland), is an important step in wolf recovery. It is believed that around 700 wolves populate Greece. They are usually found in the remote mountainous areas of the country.

Local efforts will be needed to help educate the communities in the area on non-lethal deterrence methods to help minimize livestock depredations.

PORTUGAL

The Portugese government is requiring a plan to preserve the country's population of Iberian wolves. This action is based on concerns that the population is decreasing. Past censuses (2019 and 2021) reflect a 20% decrease in wolf range in Portugal. Furthermore, the number of packs has also decreased to 58, an 8% drop. The main causes for the decreases are hunting of wolves, roadkills, and responses to livestock depredations. A lower tolerance to wolves, low prey populations, and the construction of infrastructure to support energy and communication needs are all impacting wolf conservation.

The Iberian wolf (*Canis lupus signatus*) weighs between 25 and 50 kilograms (55 to 110 pounds). Its fur is grayish and can sometimes include a mix of blonde and brown colors. A characteristic detail is the presence of dark markings on the snout and in front of the ears.

A new preservation plan would be integral to updating legislation that passed in 2016. Areas of focus in the plan will be to continue to compensate for livestock depredations, and to support ongoing conservation efforts to minimize conflict.

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EUROPE

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The Council of Europe's Bern Convention Committee, an international group for nature conservation, voted in December 2024 in favor of the European Union proposal to modify the listing of the wolf from Appendix II of "strictly protected" to Appendix III of "protected" fauna species. For wolves, the "strictly protected" status prohibits all forms of disturbance, capture and keeping and the deliberate killing of the species, particularly during its breeding and pup rearing season. It also prohibits any kind of damage or destruction to their breeding and resting sites. Lowering the degree of protection relaxes these prohibitions and allows for a certain level of "exploitation." Yet, as "protected" species under Appendix III any "exploitation" needs to be carefully regulated, because this may open the way for European countries in the Convention to establish wolf hunting seasons. Under their previous status, culling was acceptable as a last resort only under certain circumstances, such as preventing serious damage to livestock or the health and safety of the public.

Wolf populations have been growing throughout most of Europe, and so have public concerns. The change in protection status comes after several years of public protests, particularly from farmers and hunters. Switzerland had proposed to downgrade its protection status in 2022, but it was rejected by the Standing Committee. Now it is a matter of waiting to see what the new protection status will bring for the management of wolf populations across Europe.

SWEDEN

In January, Sweden began its annual wolf hunt with a quota of 30 wolves to be culled. Wolves were extirpated from the Swedish landscape in the 1960s but dispersed from neighboring countries and slowly recolonized it in the 1980s. The current wolf population is estimated at 375 individuals, a 20% decrease from 2022-2023. This sharp decrease is largely due to hunting and government efforts to reach a "favorable conservation status" with a new minimum of 170 wolves.

Yearly licensed quota hunts have been allowed since 2010 in Sweden. However, these have been controversial given the "strictly protected" status that wolves had according to the Bern Convention. Similar to other European countries, farmers have faced challenges in Sweden with the loss of livestock from wolf depredation.

POLAND

A rare sighting of black wolves was recently documented in Poland. A camera trap set up by SAVE Wildlife Conservation Fund to monitor beavers, captured footage of wolves crossing a stream in a Polish forest. Two of those individuals, likely related, had black coats . Most wolves in Poland exhibit a typical gray coat color with reddish and black tones. Gray wolves (*Canis lupus*) across the world exhibit a variety of color combinations including gray, white, brown, black, and reddish tones.

The occurrence of this physical variation in a wolf population varies by region. Among North American wolves in Minnesota, approximately 2% of the population are black wolves. On the other hand, approximately half of the Yellowstone National Park wolves are black. Scientists have linked the melanistic trait to a genetic mutation that is believed to have originated in domestic dogs, suggesting that its occurrence in wolves is likely from hybridization between dogs and wolves within the last 7,000 years in North America.

Wolves in Poland were extirpated by the 1950s, but they slowly repopulated the country by the early 2000s after protections were established in 1995. The current population is estimated to be around 2,500 wolves. The next steps for researchers monitoring these wolves is to collect scats and conduct genetic testing to learn more about the melanistic trait in this population. ■

Denise Hughett is a board member at the International Wolf Center.

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Living for That Moment

Douglas W. Smith

Unless noted otherwise, photos by Rolf Peterson

I can't remember why I became interested in wolves. I grew up in nature, on a camp in Ohio that my dad owned and operated, but that was certainly a long way from any wolf. Nature isn't necessarily wild, especially Ohio, but to my thinking wolves were wild, quintessentially so, and in my moments alone in the woods and fields of my dad's camp, I conjured the image that I was in the wilds like the wolves. Oh, how unlimited the imagination of youth can be!

These boyhood thoughts fired my enthusiasm, and I started writing to wolf biologists at 15. No typing, but pen and paper to the likes of Lloyd Keith, Lu Carbyn, L. David Mech, Rolf O. Peterson and Erich Klinghammer. Some wrote back. Nothing much came of it. I wrote again at 18. Most wrote back. Klinghammer invited me over to Indiana to check out his captive wolves.

After saying, "I wanted to see if you knew enough to get out of the rain," he offered me a volunteer job as a wolf mother. My task was to hand-rear and bottle-feed four wolf pups: Sasha, Sergei, Mephisto, and Faust – two black, two gray. I slept with them on a mattress in a trailer. I had two bottles that I used to feed them, and I wiped the nipples in my armpit so my smell would assure them it was mom (me); then they kneaded me with their paws, catlike, one paw on my chest the other on my spread-out hand. The two other pups clamored around waiting their turn. My partner, Alice Evans, and I switched off nights. We didn't get much sleep rolling around with wolf

Mark Cramer

Mark Cramer, a technician for the Isle Royale wolf-moose project, celebrates finding an articulated moose skeleton, a rarity as most bones are scattered by wolves.

pups on a mattress and then waking to give them a bottle every few hours.

That job led to Isle Royale. One morning in the shack where I stayed, Dr. Klinghammer (as I called him) phoned and said, "After I hang up Rolf Peterson is going to call you." I was a senior in high school and Rolf Peterson was the closest thing to a god I could think of. I sat down and waited and the phone rang. "Hi Doug, this is Rolf Peterson." I can't remember most of the rest of the call – I am sure after speaking with me, he had doubts, but I do remember I had to attend my high school graduation, and the date for this was after he wanted me to show up on the island. I said I would skip graduation. In that mild manner that I would learn is characteristic of Dr. Peterson, he said it would be okay to attend the ceremony. I shipped out to Isle Royale June 12, 1979.

Wide-eyed and trying to keep up with two other field assistants who were both in college, I found my pack was crushingly heavy for our first trip. Rolf lifted it off the boat and said, "What do you have in there?" Everything. The summer before I had attended a National Outdoor Leadership School (NOLS) course in the Wind River Mountains of Wyoming, and it taught me to be prepared. I had three wool sweaters that day in my pack – at 11,000 feet they would come in handy. Isle Royale was at 600 feet.

Quickly I learned there was much more to Dr. Peterson's wolf research than wolves. In fact, that first week-long trip from the west to the east end of the island would mainly be a bone-hunting excursion. Moose killed the previous winter by wolves had been discovered by Dr. Peterson from the research plane. Mark Cramer, my hiking partner, and I were to hike back picking up samples for study from each "kill." Of course, young and idealistic, I hoped that we would see a wolf. Quickly I learned that wolf sightings were not common on Isle Royale.

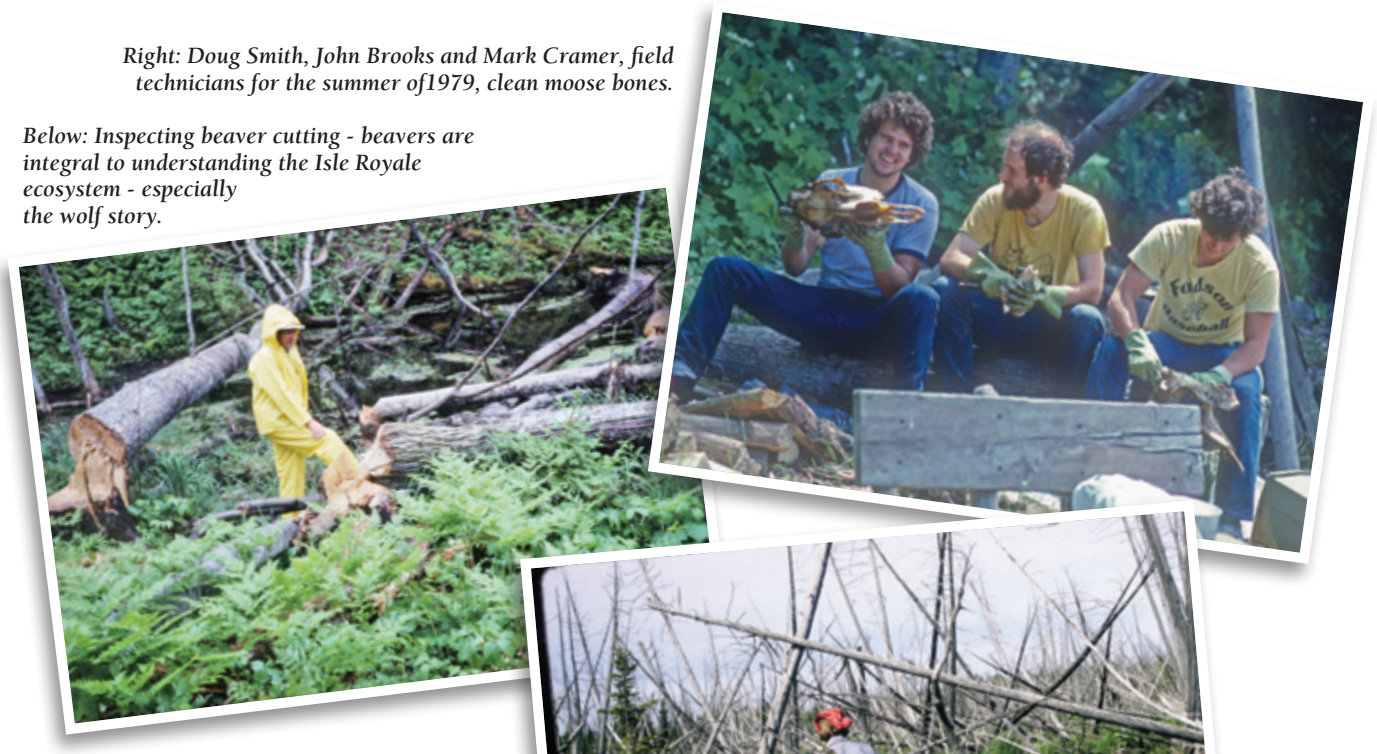
As the summer progressed, and we chipped away at the kills we had to pick up, our summer chores progressed into trying to find the wolves. This was not like most wolf studies at the time – like across the lake in Minnesota where Dave Mech was radio-collaring wolves. No, this was tracking *uncollared* wolves. How do you do that? Rule number one with Rolf (by now I had dropped "Dr. Peterson") was to hike *off trail*. His motto was, "You never find anything on trail."

When off trail, look for tracks and scat (and sometimes pick them up) to home in on the wolves. Then at night,

Wolf-moose researchers relied on hiking to access the interior of remote Isle Royale.

Right: Doug Smith, John Brooks and Mark Cramer, field technicians for the summer of1979, clean moose bones.

Below: Inspecting beaver cutting - beavers are integral to understanding the Isle Royale ecosystem - especially the wolf story.



Above: Doing research on Isle Royale primarily consisted of hiking off trail.

Left: Candy Peterson conducts bone inventory at Bangsund cabin.

Above: Not all off-trail navigation is easy.

camp at a high point and howl at 10 p.m., 2 a.m. and 5 a.m., and hope they respond so that we would have their location – or rendezvous site. He assumed we could tell a pup from an adult howl, and that would be information on reproduction. We took our jobs seriously and rotated every night in the sequence of who would howl at what times. It could be tough, standing outside our tent at 2 a.m. in our underpants, mosquitos biting, howling for wolves, especially when they didn't respond. I'd pile back into the tent and kill mosquitos with the flashlight before falling back asleep. Maybe Mark would wake up; probably he would if a mosquito bit him.

Despite the awful hours, I loved this. Motivation to get up from a tent

in the middle of a buggy night is low, but if it's your job, you do it. Once out there in the dark, the north woods in the middle of the night is a beautiful place. Hearing a wolf respond in the dark is worth all the trouble. At times when they didn't respond, I'd howl for a while anyway just because it felt good.

Once in August 1981 we were camped at the west end of the island. I liked it here better than the east end as it was the roughest part of the island and harder to find your way around off trail, so it seemed wilder. We were camped near a place called "Big Dam." It was a beaver dam so long the water backed up far enough to be recognizable on the air photos we carried. We had a nice campsite to the north amidst some meadows and white spruce trees. My shift that night was 2 a.m.

Mark got one wolf far off at 9:30 p.m. I thought nothing of it. I struggled out at 1:40 a.m. Beautiful moonlit night. First journal entry: "Calm." The spruce tree shadows were drooping in the moonlight into the meadow. I expected nothing, but then after howling, heard a wolf whimpering in the direction of Big Dam. The wolf continued to move toward us whimpering the whole time. Matter-of-factly I wrote, "Came in close to our camp, could hear him/her moving in the grass 30 yards away. Still whimpering. Wolf circles camp and howls when in position 150 yards away. Finds another wolf and begins to howl. For 15-20 minutes we howled with these two wolves." Then they left crossing Big Dam (we found tracks the next day) and the pups howled, three of them, bearing 336 degrees, time 2:50 a.m.

I had been standing there in the dark with the wolves for over an hour. Can't remember if I had more on than my underpants – not noted in journal entry. Then we were in the tent and heard them "howling some more." However, I was exhausted and falling asleep "I heard moving in the grass and sticks breaking, I was so tired I just went to sleep." Then, in my journal is a sketch put together from what we thought happened in the night combined with hiking the next day and tracking and discovering scat and wolf trails in the grass through the meadows. We altered our hike back, due to finding the pups and a rendezvous site. We did not want to disturb them.

Reading this story now, I am struck by my nonchalance. I dug out my journal to write this article, so this was my first reading since August 18, 1981. I can't tell you how many times I have thought of that night. This was the kind of thing I lived for, set my life on. And I was lucky this happened when I was 20, so I had it as a milepost, a rudder in my life and a powerful memory for the next 44 years. Shimmering howls from a wolf in the night that chose to come to us in the heart of the Isle Royale wilderness. Yes, something to anchor one's life on. This more than anything has led

Researchers study a moose in an effort to determine its cause of death.

The extent of aspen growth in Yellowstone is part of the big debate about the impact of wolves and other carnivores on plants.

Rolf Peterson and Doug Smith inspect a wolf-killed elk in Yellowstone National Park, a skill Smith learned well under Peterson on Isle Royale.

to my mostly-sound mental health. A connection with nature – wolves in the dark in the wilds that you can think about the rest of your life.

One other story is worth mentioning – and it's all from memory, as I can't find any journal entry about it. Some staff turnover led to me being the only field assistant around for a few days. Rolf hated technicians hanging around the cabin: Go hiking on trail, you're not going to learn anything at the cabin. He sent me off for a solo overnight close by to try to find some wolves. I had been to the area many times, knew of good camping spots, and viewed the assignment routinely. Another hiking partner, Noel Hanson, earlier in the summer had introduced me to cigars, and Candy, Rolf's wife, didn't like smoking around the cabin, so a night alone would give me a chance to smoke a cigar in peace.

Rolf buzzed me to the end of the bay in the skiff and told me to have a nice night. I took off to the spot I envisioned, wanting to quickly make camp and smoke my cigar. It never dawned on me that if there were wolves close by it might impact their responsiveness to howling. I smoked the cigar, I think, partly in the tent. I remember that because Candy used the tent next and mentioned the smell.

Dark came, and I howled. Hard. Long. Why not? Alone in the dark in the north woods. Nothing. I crawled in the cigar-smelling tent and went to bed.

I can't remember how much later, and I can't remember if they howled first or I heard them first – but what I do remember is that I was in the tent, pressed up against the bug screen looking out trying to see wolves in the inky black darkness (no moon this time). I heard them walking between my pack, which was leaning against a tree, and the tent. I strained to see them, several, not sure of the count, but they walked right through my camp. Then, once through and not very far away, they started howling – vibrating my senses and body. Then without hesitation, pups let loose howling, not too far away. Why hadn't they howled nearby? Too close? No adults howled with them so I figured this was the answer – the pups were alone while the adults were out on a hunt – so I should stay quiet. The adults had heard my howls, came to check it out, then went to the pups.

I fell back onto my sleeping bag. What just happened? Did a pack of wolves walk several feet from my tent? Nothing, nothing can come close to an experience like that. Alone in the night in the north woods with a pack of wolves. Like the Big Dam encounter -- no one will ever forget experiences like that. During the toughest times, in the oddest of places, I think of those wolves– and they get me through. Just a brief mental whiff of wolves that came to me in the night. That changes your life forever.

From Isle Royale I went to Minnesota with Dave Mech and Mike Nelson, then I went to Yellowstone for 28 years. There I saw wolves all the time; from the plane, from the road, from horseback, from the canoe, from hiking all over the backcountry. I chased them in helicopters and handled hundreds. Every time it was special and magical. Not once did I take it for granted or consider it routine. But I will never forget my time alone with the wolves in the night on Isle Royale. They gave me the most meaningful memory I have ever received: The gift and power to carry on through everyday life. Perhaps the most precious gift anyone can receive. And to think it came from a pack of wolves in the middle of the night in the heart of the wild. Maybe those youthful times dreaming at my dad's camp in Ohio led me to this: We practice patience in nature to *live for that moment* when the wolves will come. ■

Doug Smith was the project leader for the Yellowstone Wolf Project. He retired from the National Park Service in 2023.

Mexican Wolf Recovery Sees Success with Foster Effort

By Aislinn Maestas

Photos: Mexican Wolf Interagency Field Team

In 2024, the U.S. Fish and Wildlife Service (USFWS) and its partners fostered a record 27 Mexican wolf pups into wild dens. Now entering its 10th year, the effort is helping to improve the genetic diversity of the wild population of Mexican wolves and, in turn, bringing the subspecies closer to recovery.

Fostering is a method used by the Mexican Wolf Recovery Program to place more genetically diverse wolves in the wild to address the threat facing the subspecies. It begins with selective breeding by the Saving Animals From Extinction (SAFE) Mexican Wolf program to produce genetically diverse pups.

The SAFE Mexican Wolf program is a cooperative effort between the U.S. Fish and Wildlife Service and the Association of Zoos and Aquariums (AZA), as well as non-AZA facilities. SAFE zoos and wolf facilities house more than 300 Mexican wolves under human care at 60 SAFE facilities across the United States and Mexico. Wolves are bred each year at a handful of SAFE facilities with the explicit intent of producing pups for foster efforts.

Within 14 days of whelping (being born), SAFE-born foster pups are transported from their facility to a site in New Mexico or Arizona. This often happens with the help of LightHawk, a non-profit group with a network of 300 volunteer pilots who donate their expertise, time, aircraft, and fuel to support conservation work. Foster pups have been flown from as far away as New York, Illinois and Missouri.

Once the foster pups arrive in the Mexican wolf recovery area, they are hiked to a wild Mexican wolf den. Both wild-born and foster pups, who are similar in age and size, are placed together in the den. The entire process takes place over a single day and requires dozens of people to develop plans, find dens, provide transportation and care for pups.

Once humans have left the area, the breeding female usually moves all the pups to a new den a few hundred yards away and spends the next several months caring for her new foster charges alongside her own. With the help of her packmates, the pups will be raised with the skills and knowledge needed for a life in the wild.

Left: These feet belong to Allison Greenleaf, a biologist with the Mexican Wolf Recovery Program. She has crawled into a Mexican wolf den as part of pup fostering efforts.

Below: Allison Greenleaf and other biologists with the Mexican Wolf Interagency Field Team mix together captive-born and wild-born pups as part of annual foster events.

A litter of Mexican wolf pups are piled inside a den in New Mexico.

A Mexican wolf pup born at the Living Desert Zoo in Carlsbad, NM is given a health check before being placed into a wild den as part of annual foster efforts.

"The process of fostering is complex, requiring intense coordination between state and federal agencies, LightHawk and our SAFE partners," said Allison Greenleaf, senior biologist with the U.S. Fish and Wildlife Service. "But the science of fostering is quite simple. Wolves are family-oriented animals, and the female wolves have extremely strong mothering instincts. Those instincts are what allow us to add pups to wolf dens and know the breeding female will take care of them."

Why genetics matter

All wild and captive Mexican wolves in the U.S. and Mexico are descended from only seven founding individuals. As a result, genetic issues, including inbreeding, remain a threat to the subspecies. Improving the genetic diversity of the population remains a top priority for the recovery program.

The SAFE population of Mexican wolves has more genetic diversity than is currently represented in the wild. While the wild population has shown a healthy growth trajectory for more than a decade, continued releases from captivity are necessary to address genetic threats.

The Mexican Wolf Recovery Plan establishes genetic criteria to ensure that gene diversity available from the captive population has been incorporated into the wild population. This is accomplished through the release of a sufficient number of wolves to ensure that 22 released wolves survive to breeding age (i.e., a pup that lives to age 2 or an adult that lives for a year following its release).

To date, a minimum of 20 fostered pups have been documented surviving to breeding age. This minimum number represents fosters that have been captured or documented surviving through DNA analysis.

Maggie Dwire gives a Mexican wolf pup less than 14 days old a health check before being placed into a wild den in Arizona.

Other indicators of success include the fact that at least 13 fostered wolves have successfully bred and produced litters in the wild. Fostered Mexican wolves have produced at least 30 litters, and several of those offspring have gone on to produce pups of their own.

"It has taken time, but we are seeing fostering yield results as genetic indicators in the wild stabilize and improve," said Maggie Dwire, deputy Mexican Wolf Recovery coordinator for the U.S. Fish and Wildlife Service. "Studies have shown that the wild population continues to produce large litters, has demonstrated rapid population growth and has weak evidence of inbreeding depression. This indicates our efforts, including fostering, are working to mitigate the threat of inbreeding in the wild population."

Climbing toward recovery

In 2024 the wild population of Mexican wolves saw its eighth year of consecutive growth, with a minimum of 286 wild wolves in the United States. One major driver of success for the

recovery program is having the flexibility to choose the right management tool for each goal, adapting as necessary.

For example, "When we were focused on reintroduction, we needed to release entire packs," said Dwire. "However, once we established a population of Mexican wolves that was reproducing and growing on its own, we embraced the opportunity to switch tactics to achieve recovery."

Fostering has been found to be a less controversial technique for accomplishing genetic goals compared to releasing adults from captivity. It does not require putting wolves into new areas but rather adds numbers to existing packs within an established home range. Also, the pups are raised as wild wolves, with all the skills and knowledge needed to survive, including a natural fear of humans. Finally, fostering allows for a wider geographical distribution of releases from the SAFE program, with fosters having been placed into 48 wild dens across Arizona and New Mexico.

The USFWS and its partners are prepared for the 2025 foster season.

"Our foster program is a model for how to address conservation challenges through innovation," said Greenleaf. "I was here when we did the first foster 10 years ago, and last year was lucky enough to put the 100th foster pup into a den. I marvel at how much we have learned and the knowledge we are now passing to others. This work is hard, but the rewards make it worth it. Plus, the pups are really cute." ■

Aislinn Maestas is a public affairs specialist with the U.S. Fish and Wildlife Service.

A collared Mexican wolf stares forward standing in a field of grass.

Above: Maggie Dwire carries a sedated Mexican wolf during the annual Mexican wolf count.

Right: This Mexican wolf was captured, given a radio collar and released back into the wild during the annual population count.

Thinking Like a Wolf

Book review by Norm Bishop

Only a master story teller like Rick McIntyre would begin his fifth Yellowstone wolf book with a quote by a superb biologist like John A, Vucetich, who wrote this in his 2021 book, *Restoring the Balance:* "A wolf is a living creature, with a perspective, memories of yesterday, an interest in how tomorrow turns out, joys and fears of its own, and a story to be told. Those realities create obligations for us to be concerned for their lives."

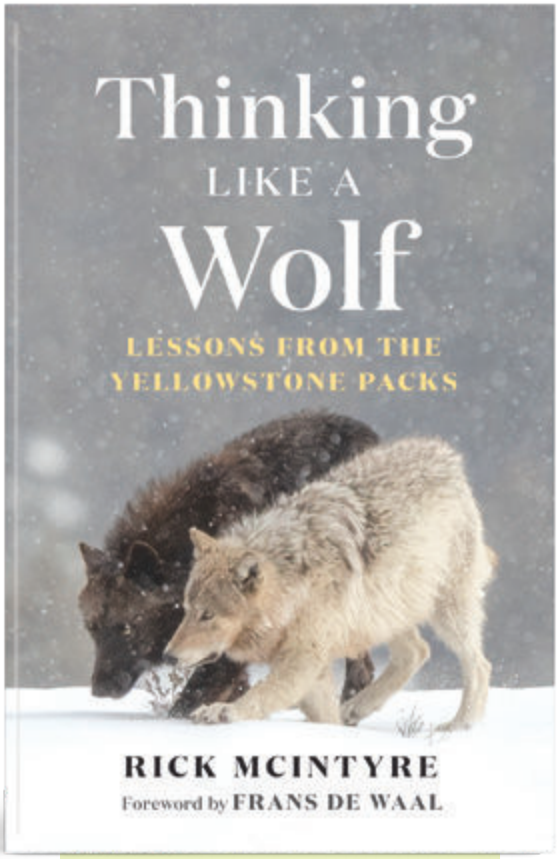
Rick follows that profound observation by illustrating it in 14 chapters starring outstanding wolves he studied daily for a decade in Yellowstone. He introduces us to his book, writing: "This book is about what it is like to be a wild wolf and how a wolf society works, based on my 29 years of studying wolves in Yellowstone National Park."

He takes us through four life strategies: one, dispersing, striking out into unknown lands in search of a mate; two, spending time as a bider in his or her natal pack, supporting the breeders in caring for their pups, and waiting for an opportunity to accede to a lead position; three, rebelling by challenging the breeders for that status. Finally, a fourth strategy is being a maverick, for those who may go solo or just do their own thing while staying with a pack. Each of these strategies adds variety to the dynamics within packs that contributes to pack health, and make rich reading.

This book traces the complex daily lives of dozens of individual wolves, including a male wolf known as 755.

Rick writes, "(A)ll the wolves I have studied over the course of my career share one defining characteristic: extraordinary resilience." He allows 755 to make that point in the chapter "True Grit." Disperser 755 returned to the Lamar Canyon pack after his brother, 754 and female 06 were both shot. Due to having no unrelated females, he left the Lamar Canyon pack, and then took up with Mollies pack female 759, who was soon killed by other wolves. Then he paired with another Mollies disperser. She, too, was shot, so 755 lost litters in two years. Of four pups in his next litter, only one survived. Then invaders took over his territory, so he left and joined the Beartooth pack. Over the nine years of his life, he belonged to four packs and sired six litters in three of them. "There was no quit in him."

Wolves are always unpredictable and keep surprising us. From A to Z--adaptability to zest for life--they demonstrate a continuum of behaviors; of responses to tragedies and triumphs that Rick shares in his extraordinary series of books on Yellowstone's wolves, topped off by *Thinking Like a Wolf.* If you can't spend your next 30 years observing wolves in the wild, reading the entire series is your next best option. ■



Thinking Like a Wolf:
Lessons From the Yellowstone Packs

By Rick McIntyre

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