INTERNATIONAL

A PUBLICATION OF THE INTERNATIONAL WOLF CENTER WINTER 2018



Lobo: A Wolf's Story PAGE 4

New Wolves Head to Isle Royale PAGE 8

Immersive New Exhibit Planned for International Wolf Center in Ely PAGE 12

INTERNATIONAL



VOLUME 28, NO. 4

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER

WINTER 2018



Lobo: A Wolf's Story

America's 19th century ranchers saw wolves as outlaws that needed to be removed. One of the most notorious was named Lobo by his frustrated pursuers, and as tales of his elusiveness spread, the bounty on Lobo's head grew larger. This is the story of one wolf doing his best to survive with all the odds against him.

By Debra Mitts-Smith



New Wolves Head to Isle Royale

Scientists have studied the interactions of wolves and moose on Michigan's Isle Royale for about 60 years. Now, after determining and analyzing the possible outcomes, The National Park Service is about to introduce new wolves—and new bloodlines—into the mix there. This is the background on a carefully considered intervention.

By Tracy O'Connell



Immersive New Exhibit Planned for International Wolf Center in Ely

International Wolf Center lovers, take note! By Memorial Day, a brand new experience will await you there. "Wolves and Humans," having served since 1993, will be replaced by a dynamic new exhibit that tells the story of wolves today. Reflecting a modern understanding of wolves and the environment, it will delight and inform guests in a whole new way.

By Chad Richardson

On the Cover

Adobe Stock/hkuchera

Did you know?

One easy way for you to help us conserve natural resources is to make sure we have your email address. Simply email your address to membership@wolf.org.

Departments

- 3 From the Executive Director
- 14 Tracking the Pack
- 22 Wild Kids
- 24 Wolves of the World
- 27 Book Review
- 28 Personal Encounter
- 30 A Look Beyond

Kelly Godfrey

New Wolves Head to Isle Royale

Intervention Begins as 60-Year Study Continues

By TRACY O'CONNELL





The reintroduction of 20 to 30 wolves to Michigan's Isle Royale over the next three years has begun.

The first four wolves were captured at the end of September on tribal lands in northern Minnesota. A 4-year-old female, a 5-year-old male, and two additional females had GPS tracking collars attached before they were released in the park, where they have found the moose carcasses left there for them.

A third wolf died in the holding process and is being necropsied for cause of death. In response, park service officials adjusted their procedures, allowing animals more time to recover from sedation before being taken to a holding facility, and altering the sedative dosage. Other wolves were captured and released back on the mainland due to health, age or gender-balance requirements. Captures were made jointly by the Grand Portage Band of Lake Superior Chippewa and USDA Wildlife Services, according to media accounts.

Background

Four reintroduction plans were proposed in a 2016 environmental impact statement released by the Park Service in response to the concern that an increasing moose population was threatening the island's flora and all the animals that depend on it. They ranged from no action at all, to an "as-needed" infusion of wolves, to a short- and long-term infusion of 20 to 30 wolves. In the final decision, which followed hearings and other opportunities to weigh alternatives, a three-year timeline was chosen, during which wolves will be captured in Minnesota, Michigan and possibly Ontario, and translocated to the island, with more following in the event of a setback (such as a disease outbreak) for up to two additional years.

The animals are being caught by foot-hold traps or possibly darted from helicopters to maximize genetic variation, sedated and transported by boat or air to their new home, according to Park Service personnel. The costs may total \$660,000 for the three-year effort. Including follow-up monitoring, the total could go to \$2 million.

Isle Royale: Remote, Unique

The island lies 55 miles from Michigan's Upper Peninsula in Lake Superior, the largest of the five Great Lakes that lie between Canada and the United States. It is just 15 miles from both Minnesota and Ontario. Isle Royale, together with 450 smaller, surrounding islands and the adjacent waters, is the least visited national park in the contiguous United States. Yet it is the most revisited park, according to *The Greatest American Road Trip*, an Internet-based "tour" of 59 national parks produced in 2016 in honor of the 100th anniversary of the park system.

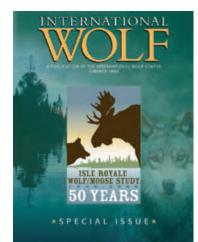
Isle Royale was formed a billion years ago by the world's largest known lava flow and sculpted by glaciers for millennia. Accessible only by boat or sea plane, it is 45 miles (72 km) long and 9 miles (14 km) across at its widest point, with only wilderness between Windigo and Rock Harbor, the two points from which visitors typically access the park. Hiking

the length of the island, which takes up to six days, is a typical visitor activity, along with viewing the northern lights under the starriest of skies. Wolves and moose, the most renowned animals on the island, are subjects of a unique interplay that is now taking a new turn. Others are common as well, notably beavers, red foxes, red squirrels, otters, snakes, tortoises, frogs and avian species including songbirds, ospreys, eagles, ducks and loons.

The Isle Royale Study

Wolves are believed to have come to Isle Royale in the late 1940s by crossing an ice bridge from the mainland. In 1958, scientists began studying the interaction between the wolves and their chief prey, the moose, in an environment mostly free of human intervention. Wolf numbers once peaked at 50, but over time, the island wolf population averaged in the 20s before falling sharply in recent years. Moose numbers, meanwhile, peaked at 2,400 in 1995 and collapsed a year later when the most severe winter on record was followed by an unexpected outbreak of winter ticks. It dropped to just 385 in 2007. A decade later, as wolf numbers continued to decline, the moose population was reported to be about 1,600 individuals.

For 60 years, researchers have tracked the rise and fall of wolf and moose numbers in this closed, offshore setting, in what has become the world's longest continuous study of this type. Begun at a time when wolves were being eradicated throughout the nation and the world, the study has presented wolves in a positive light, revealing their role in maintaining equilibrium in the wolf moose system. The ongoing research has fostered a more favorable attitude toward the wolf, according to Dr. Rolf Peterson, wolf biologist and now-retired professor at Michigan Technological University, who has led the study since the 1970s.



The Summer 2008 issue of *International Wolf* was dedicated to the 50th anniversary of this research. Stories featured the early participants, from scientists on the ground to the pilots who flew researchers across the land-scape for aerial population surveys. One might wonder, after 60 years, what could possibly remain to be discovered about wolf and moose interaction—but new questions and opportunities to learn continue to arise.

Peterson and his colleague Dr. John Vucetich maintain a website, *isleroyale-wolf.org*, which discusses their work. The website illustrates that in the 22 years



Dr. Rolf Peterson



Dr. John Vucetich



climate and forage abundance were similarly important. For the next two decades, following the crash of the unusually high wolf population in 1979, the annual variation in winter severity replaced wolves as the

between 1959 and

1980. wolves had

the greatest influ-

ence on moose

abundance, while

greatest influence on moose population. What explains this shift? Peterson and Vucetich note that after observing the interactions between wolves, moose and their forage for 20 years, "You might think you'd have a reasonably good idea about how those populations worked, especially after getting such a clear

answer as we did about the

With only two aged wolves remaining on the island and rapidly increasing numbers of moose destroying vegetation...the choice was made to intervene. importance of wolves. But after watching for another 20 years, we got an entirely different answer."

Overarching these issues for many decades was wolf inbreeding, the result of which was not initially clear to the scientists, because they had no way to observe the skeletal abnormalities that resulted until they studied the bodies of wolves that died on the island over the years. It was then revealed that one in three wolves suffered from a skeletal deformity called lumbosacral transitional vertebrae (LSTV), which in mainland populations affected only one animal in 100.

In the late 1990s a wolf that researchers dubbed 93 came to the island from Minnesota or Canada, bringing a new genetic line that offset, to some extent, what had been intense inbreeding. As a result, the wolf population increased despite declining moose numbers to support it. That single genetic infusion, however, did not entirely correct the inbreeding problem. He began mating with his own daughter in 2002, and within a decade of his arrival on the island, his genes were found in seven of the eight breeding wolves.

Intervention by the National Park Service wasn't an easy decision.

With only two aged wolves remaining on the island and rapidly increasing numbers of moose destroying vegetation—in turn threatening the island's ecology and the success of other wildlife—the choice was made to intervene. That decision, however, was announced only after a number of organizations and wolf biologists weighed in with divergent views on how to proceed.

As the wolf population began to drop, wildlife managers followed the Park Service's "Let's wait and see what happens" principle of letting nature progress unimpeded. Biologists in that camp considered the opportunity to see how the saga played out as more valuable, in terms of research results, than rescuing the dying population. It was suggested that additional wolves might come to the island of their own accord in a winter cold enough to freeze the water between the island and the mainland—an increasingly unlikely outcome as warmer winters are being recorded.

A differing view, called genetic rescue, involved bringing diverse bloodlines in the form of new wolves that would mate with the existing population. But with wolves on the island aging, that became a questionable option, and the more aggressive introduction of a new population was seen as the only choice to offset burgeoning moose numbers. The increase in moose, it was feared, would over-stress the island vegetation-and the wildlife that relied on it- before coming into better balance. Spreading the introduction of new wolves over 20 years was also discussed, but rejected in favor of a speeded-up timeframe.

The ongoing story of Isle Royale comprises many issues, some of which remain unresolved. For instance, when is it appropriate to intervene in the natural progression of things, and for what purpose? Variables are still being discovered that may potentially affect the outcome (for example, the introduction of Wolf 93, a new breeder that dominated the gene pool, unexpectedly increased inbreeding rather than adding genetic diversity). Could actions taken now have unintended consequences later for wolves and the other species that share Isle Royale? Stay tuned to find out. This very exciting program is entering a new chapter.

For More Information

- Mech, L. D. 1966. The Wolves of Isle Royale. National Parks Fauna Series No. 7. U.S. Government Printing Office. 210 pp. (Reprinted 2002. University of the Pacific, Honolulu Hawaii).
- Peterson, R. O. 1977. Wolf Ecology and Prey Relationships on Isle Royale. National Park Service Scientific Monograph Series No. 11. 210 pp.

Tracy O'Connell is professor emeritus at the University of Wisconsin-River Falls in marketing communications, and serves on the Center's magazine and communications committees.



A USFWS seaplane is used to transport wolves to Isle Royale.



NPS staff carried a crated wolf to the release site on the island.



A female wolf emerged from her crate to her new wild home.

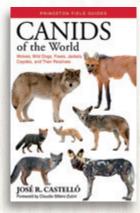
GPS tracking data shows movements of the first female wolf relocated to Isle Royale. She visited a provisioning site within two hours of release and stayed through the following morning, then moved northeastward.

WOLF GIFTS & GEAR from the Wolf Den Store Holiday 2018

Tyson \$24.95 (7209)

Atka \$21.95 *(7203)*

> Lil' Gray \$4.95 (1784)



Canids of the World \$21.95 (2704)





Wild Wolves We Have Known \$18.95 (6668)

Your purchases help support the mission

Nantucket Pullover

Sizes S - 2XL Ash Grey, Oatmeal \$36.95 *(2593p)* Buffalo Plaid Hooded Fleece Jacket with Logo

Sizes S - 2XL Mens – \$54.95 *(2179p)* Womens – \$54.95 *(2784p)*



Northern Lights Candle Holders

3.5" Candelabra • \$24.95 (2715)
3.5" Morning Light • \$24.95 (2713)
2.5" Rainbow Tealight • \$16.95 (2714)
3" Wolf Wrap • \$16.95 (2712)

Wine Holder \$25.95 (2848)

Dark Wolf Wood Mug \$18.95 (2847)



TO ORDER: ONLINE **shop.wolf.org** PHONE **1.800.ELY.WOLF**



Brown Plaid Flannel Shirt with Logo

Sizes S - 3XL Mens – \$39.95 *(2684p)* Womens – \$39.95 *(2722p)*

national Wol

Buffalo Plaid Flannel Shirt with Logo

Sizes S - 3XL Mens – \$39.95 *(2663p)* Womens – \$39.95 *(2716p)*

> Wolf Scene Flap Hat \$11.95 (2796)



Wolf Scene Beanie Hat \$9.95 (2795)



Wolf Crescent Jewelry Pendant (2757), Earrings (2758) \$19.95



Leather Bracelet with Silver Wolf \$5.95 (2852) Beaded Bracelet with Gold Wolf Charm \$5.95 (2851)

3D Black Pawprint Hat \$14.95 (2403)

TO ORDER: Online shop.wolf.org Phone 1.800.ELY.WOLF

> Aidan and Boltz Sizes S - 3XL

T-Shirt • \$15.95 Black (*2355p*) Maroon (*2335p*) Military Green (*2349p*)

Hoodie • \$34.95 Black *(2705p)* Exposure T-Shirt Sizes S - 3XL Gravel, Indigo, Tan \$15.95 (2739p)

Wolf Bottle Opener \$5.95 (2863)

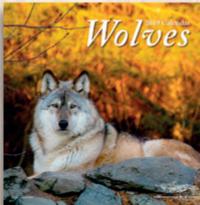
Wolf Bobblehead \$9.95 (2864)



Highlights of the Ambassador Wolves 2018 DVD \$19.95 (9024)

> 2019 Calendar \$14.95 (2377)

International Wolf Center Exclusives





International Wolf Center Ornament \$9.95 (1955)



- Card stock foldersummer/winter images
- Certificate of Adoption
- Adopt-A-Wolf card
- 5" x 7" Matted wolf photo
- Two-sided Wolf Behavioral Guide
- Wolf Care Program postcards
- 4" x 3" Post-It Notes

The Kit includes:

- 6" x 9" Padfolio with note paper
- Stylus ballpoint pen with an LED light
- Paw print stickers
- Four temporary tattoos

Adoption Kit

\$24.95 (9816)

- Coloring sheets featuring each ambassador wolf
- Two 4 x 6" prints featuring our Exhibit Pack and **Retired** Pack



7100 Northland Circle N, Ste. 205, Minneapolis, MN 55428

> Order online at WOLF.ORG or call 763-560-7374, ext. 227

Give a Gift Membership!

Your gift recipient will receive:

2019 Ambassador Wolves Calendar

A one-year subscription to International Wolf magazine

Free admission to the International Wolf Center in Ely, MN

Discounts on adventure programs and Wolf Den Store merchandise



To ensure holiday delivery, orders must be received by December 12, 2018. Holiday delivery is not guaranteed for international orders.

Wolves