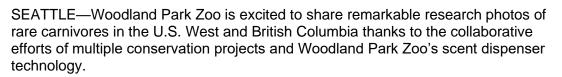
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Media download link for photos:

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NEW WILDLIFE IMAGES: Rare Carnivores Photographed With the Help of New Technology Co-Developed by Woodland Park Zoo

*Images shared thanks to regional conservation partners – See link for more images!



The photos were made possible thanks to the help of Woodland Park Zoo's automated scent dispensers, which were first created in 2015 in partnership with Microsoft Research and Idaho Fish and Game. The innovative scent dispensers are paired with motion-activated cameras (camera traps), allowing researchers to detect and monitor elusive species of conservation focus. Some of the rare animals recently caught on research cameras include grizzly bears and gray wolves in BC; Canada lynx, wolverines, and reintroduced fishers in the Cascades; and Pacific martens on the Olympic Peninsula.

"The scent dispensers have dramatically increased our ability to study rare carnivores in remote places, and throughout winter, which was previously difficult or impossible in many places due to lack of access," said Robert Long, PhD, Living Northwest Program Director, Woodland Park Zoo. "Ultimately these devices, when coupled with camera traps, yield valuable information about animals who inhabit rugged, mountainous, snowy environments, enabling us to better monitor and ultimately conserve them."

The scent dispensers have been a game changer for conservation scientists in the Pacific Northwest and elsewhere—allowing for year-long surveys without the need for field personnel to return to camera stations intermittently to rebait sites to attract animals. The scent dispensers have the added benefit of not providing visiting animals with food rewards, which can lead to habituation and other problems.

"Having watched the development and use of these dispensers from early on, I have been amazed at the innovation of colleagues who took a good idea and turned it into a living, stinking, physical apparatus; one that really makes a difference in how well we can keep track of these rare, endangered, remote, difficult to monitor, and difficult to study species," said Jeffrey C. Lewis, PhD, Mesocarnivore Conservation Biologist, Washington Department of Fish and Wildlife.

The images released today are thanks to multiple Northwest projects and partners, including the Haíłzaqv Wolf and Biodiversity Monitoring Project, BC Parks-funded carnivore surveys around the coastal-interior boundary in southwest British Columbia, South Cascades Fisher Survey, Western States Wolverine Conservation



Project, Woodland Park Zoo's wolverine and lynx monitoring efforts, and Olympic Marten Project.

"It seems like we're just scratching the surface of the potential of these dispensers, though we've already recorded a who's who of coastal carnivores with them," said Kyle Artelle, PhD, Assistant Professor Department of Environmental Biology, and Center for Native Peoples and the Environment, SUNY ESF. "This approach gives insights not only into which species are present, but also into how they are doing. For example, in the springtime we can detect when reproduction has successfully occurred for wolves and bears through detection of pups and cubs, and we can keep track of how these young families do through the season."

Carnivore populations in the Pacific Northwest—as throughout the Lower 48—were decimated in the 19th and 20th centuries. Conserving these iconic species is crucial; apex predators, such as big cats and gray wolves, aid in the regulation of prey populations and have profound effects on ecosystems. Most carnivores also live at naturally low densities and need large, secure areas of connected habitats to survive in sustainable numbers.

Over the last three years, Woodland Park Zoo has been working with approximately two dozen agencies, Tribes, non-profit organizations, and academic affiliates to develop a long-term monitoring program for wolverines and Canada lynx in the Cascades. The Cascades Carnivore Monitoring Program is expected to launch field efforts this summer, with the scent dispenser being a key component enabling overwinter surveys for these threatened species.

Biologists at Woodland Park Zoo are lead authors on a soon-to-be published peerreviewed article detailing field methods for using the scent dispenser with remote camera traps and demonstrating the successful application of these methods for monitoring wolverines and other rare carnivores. Scent dispensers are currently assembled by volunteers at the zoo and sold to conservation researchers, with the proceeds supporting ongoing wildlife conservation work.

Woodland Park Zoo studies and advocates for wildlands carnivores and urban wildlife around the Pacific Northwest through its <u>Living Northwest Program</u>.

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