

The stinky smell of science: Woodland Park Zoo volunteers construct scent-dispersing devices to aid wildlife conservation research in the Pacific Northwest and beyond

SEATTLE— This weekend marks World Environmental Health Day, and community volunteers are getting in the spirit with some smelly science to help save species! Volunteers at Woodland Park Zoo are helping to construct scent-dispersing and camera devices that attract wolverines and other carnivores. These devices will aid researchers in eight states and British Columbia study the movements of carnivores in remote areas, providing concrete data that can be used by policymakers, agencies, and conservationists to develop protections and management plans for wildlife.



Manufacturing the devices has been a zoo and community-wide effort. The scent-dispersing devices were invented through a collaboration between Microsoft Research and the zoo's Wildlife Conservation Division. The zoo's Exhibits Team plays a critical role by manufacturing casings for the devices in the zoo's machine shop. Even the zoo's grizzly bear Keema played a role by stress-testing the device in his enclosure.

"The liquid scent itself smells pretty skunky, it's really stinky – which is great for getting the attention of an animal searching for its next meal," said Dr. Robert Long, Woodland Park Zoo Senior Conservation Scientist and Director of the Living Northwest Program.

During the summer and fall, prior to winter snows when the terrain becomes dangerous and impassable, scientists including Long trek through backcountry mountain ranges and deploy the devices by climbing trees and affixing the device about a dozen feet up, where they — and the motion-sensing camera with which they're paired — are unlikely to be buried in snow or tampered with by bears. Once installed, the device emits a powerful liquid odor that smells like animal musk, anise, and skunk, which attracts carnivores. When a carnivore gets close enough, the camera takes a snapshot. Once the snowpack recedes during the spring, scientists return and collect the cameras, including the photos contained within. Those photos create a record of the number and type of carnivores who are present in different areas being studied, giving scientists a level of precision that has been tough to efficiently achieve in such rugged locales.

"We are building scent dispensers which will attract animals – all sorts of species – and take pictures," said Stacy Nowak, a retired zoologist and Woodland Park Zoo volunteer. "I am excited we're using technology to help conservation."

Zoo volunteers have been helping build the devices since demand for these new conservation tools has skyrocketed. What started as a small pilot project based in the Cascade Mountain Range now has interest from zoos and conservation organizations around the world. Woodland Park Zoo has begun selling the devices to other zoos and researchers around the country. Funds raised from this effort come back around to support more wildlife conservation efforts at Woodland Park Zoo.

“Most every little piece of these devices had to be made here at the zoo,” said zoo volunteer Sue Porter, a retiree and grandmother. “We have to drill the tiny little hole in the cap that goes on the scent lure pouch, which dispenses the scent. It takes about an hour to construct each unit. Having all those tiny pieces assembled into the end product is brilliant! It’s awesome!”

“Sue is my wingman with the wingnuts,” said Carol Proesel, a retired financier in her eighth summer volunteering for Woodland Park Zoo. “We glued, we screwed, we touched every piece that goes into these scent dispenser units. The zoo is definitely my happy place. I loved the zoo before, but this project opened my eyes to how important zoos are to conservation.”

Proesel puts a Woodland Park Zoo sticker on every unit. “That tells everyone in the world using these devices that Woodland Park Zoo is doing this work,” she said. “We’re determined to see this project through to the end,” she continued.

“There’s no end in sight,” Long chimed in.

“That’s ok too,” Proesel responded.

Any media interested in attending a volunteer assembly session may contact WoodlandParkZooPR@zoo.org to schedule an upcoming late September or early October date.

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