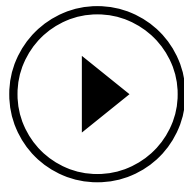


# Hopping Toward a Better Future



## Wrangling Rabbits

A University of Idaho senior finds his career while reintroducing pygmy rabbits to the wild. Their team is monitoring the breeding of the rabbits.

## Wildlife Biology Student Finds Career While Wrangling Rabbits

Jon Dixon's job is literally to chase wascally wabbits.

Dixon didn't immediately dive into wildlife biology after high school. In 2020, he was working in finance but lost his job as COVID-19 rocked the country.

"I spent time gardening, raising chickens and being outside, and I realized I needed to make a change," said Dixon, who was living in Moberly, Missouri. "I found out what a wildlife biologist was and then I found University of Idaho. I knew this was the place I needed to be."

While completing his classes for a wildlife resources major, Dixon attended a lecture by Distinguished Professor Lisette Waits, department head of Fish and Wildlife Sciences, about her field projects, which have ranged from studying

wolves to hellbender salamanders. He immediately volunteered for any project in her research portfolio, starting down a path toward what he calls the “coolest job ever,” a wildlife biologist.

This led to his first meeting with a pygmy rabbit in January 2022.

## **Additional Resources**

Office of Undergraduate Research

Undergraduate Research Grants

Weighing no more than 1 pound, pygmy rabbits are the smallest rabbits in North America and are spread across many western states. The subset of pygmy rabbits that calls Washington's Columbia Basin their home geographically separated from their fellow rabbits upward of 10,000 years ago. Agricultural development fragmented their natural habitat, decimating and greatly decreasing their population numbers.

At one point, the population was down to 16 individuals. Today the population is estimated at 75 individuals and considered endangered.



Although it works, it's only a little easier than herding cats.

— Jon Dixon, CNR senior

“We’re trying to breed these rabbits in outdoor enclosures and reintroduce them into the wild,” Dixon said. “My main goal is to monitor the population through DNA analysis.”

The senior collects scat from wild rabbits and tissue samples from the non-wild rabbits bred in the enclosures, which are set up throughout their native shrub land.

To capture the non-wild rabbits in the enclosures, Dixon can place live traps near burrows, safely nabbing the animals when they emerge to feed. Or the team can herd the rabbits toward net traps.

“Although it works, it’s only a little easier than herding cats,” Dixon said.

While the rabbits are in captivity, the team administers vaccines and a flea treatment, to help them stay healthy.

The team extracts DNA from the fecal and tissue samples, and using a process called PCR or polymerase chain reaction, creates a chemical photocopy the DNA. Dixon analyzes the DNA to learn the rabbit’s sex and species – making sure he is

looking at a pygmy rabbit instead of a cottontail or jackrabbit. The scientists also send the DNA to another laboratory for more precise analysis, which provides the entire genome for each animal — essentially a barcode for each rabbit.

From this data, the team can estimate population growth, sex ratios and survival rates of both the wild and non-wild rabbits, all information needed to resuscitate this population. Knowing where they gathered fecal pellet samples from the wild rabbits allows the scientists to track their movements.

“Our project monitors this population to make sure it is growing in a way that’s genetically diverse,” Dixon said. “This way they can be more resistant to environmental factors or disease so that in the long run, they’ll make it. That’s really the goal — that they make it off to the Endangered Species List.”

Dixon will continue the pygmy rabbit project through graduation. After finishing his undergraduate courses, he hopes to earn a master’s degree and become a state biologist. For him, the dream job means being outside.

“I love fieldwork,” Dixon said. “As hard as it is, even if it’s bad weather or you’re traveling over hard terrain, it’s just fun. It’s fun working up close with the animals. We’re getting to help them and that’s the coolest part.”

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