

Prairie dog research promotes caring, conservation

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The Northern Arizona University biology professor states the case for protecting the species in *Prairie Dogs: Communication and Community in an Animal Society*, recently published by Harvard University Press.

The book, featuring the research of Slobodchikoff and co-authors Bianca Perla, a University of Washington ecologist, and Jennifer L. Verdolin, a researcher from the State University at New York in Stony Brook, shows that animals are smarter and matter more to the environment than most people think.

"I wrote the book to bring attention to the fact that [prairie dogs](#) are lapsing into extinction," Slobodchikoff says. "Since they essentially hold the food and energy web of the grassland ecosystem together, if they decline, lots of other species are going to go, too."

Although they only grow to about 15 inches high, prairie dogs are a keystone genus that 200 other plains species depend upon, including insects, hawks, burrowing owls and snakes.

Slobodchikoff also argues that the prairie dog's barks, yips and chirping sounds are really a sophisticated form of communication that contains a vocabulary of at least 100 words.

"The little yips prairie dogs make contain a lot of information," he explains. "They can describe details of predators such as their size, shape, color and how fast they are going. They also can discriminate whether an approaching animal is a coyote or a dog, and they can decipher different types of birds."

The scientist, who has been studying the species for more than 15 years, says these animals matter because they "open the door for understanding how other species communicate."

Climate control issues also are stake. Prairie dog burrows act as aquifers that prevent water from eroding land while helping to cool it.

Biology undergraduate Patricia Dennis is getting research experience working with Slobodchikoff. She is helping him take his inquiry to the next level by working to understand the meaning and "grammar" behind prairie dog talk.

"It's hard to believe how smart these animals really are," she said. "We imagine that we still have a lot to learn."

The human-like social behaviors of prairie dogs also are featured in the book. The rodents "kiss" upon greeting and live in colonies with other prairie dogs that are not related to them. "We hope to one day determine why they choose certain friends," Slobodchikoff says.

Incidents of bubonic plague, poisoning, shooting, landowners not wanting holes in their ground and land development have driven to the dogs to the brink of extinction.

In the past 100 years, prairie dog numbers have decreased by 98 percent. Slobodchikoff also cites the work of NAU biology assistant professor Dave Wagner, whose research reveals that in the past 10 years, the northern Arizona population of prairie dogs has dwindled by 85 percent.

Both scientists are hopeful landowners and policy makers will learn to respect and protect the future of prairie dogs.

In addition to the book, Slobodchikoff's prairie dog research was featured on the History Channel and will be central to an upcoming British Broadcasting Company documentary.

Source: Northern Arizona University

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