ARIZONA
Daily Sun
Saturday, April 17, 2010

Prairie dogs on hot seat

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The Utah prairie dog species residing in the southwestern part of the state, near Bryce Canyon, used to number 95,000 before poisoning, plague and land development devastated the population.

Now there are perhaps 8,000 of the animals, which were federally listed as threatened in 1973, and they count for one of the five prairie dog species in North America.

As it turns out, climate change could be a bigger threat to the Utah animal's future than disease, poison and all other factors combined, found one researcher at Northern Arizona University.

And that's possibly a big deal for some of the other animals that eat or otherwise rely on the prairie dog, which are considered a key component of the prairie ecosystem, said Dana Ikeda, a doctoral student at NAU who researched the topic for her dissertation.

"Besides the fact that they're a threatened species, they're considered a keystone species, and an ecosystem engineer," she said.

Ikeda was prompted to forecast their future when she was looking at their populations in Bryce Canyon National Park, which is their only protected area, and a place to which they were reintroduced in the 1970s after being eradicated.

Farmers and ranchers mostly dislike them, thus the removal efforts.

NOT LIKELY TO MOVE

Prairie dogs, which are rodents within the squirrel family, need mostly flat, open terrain, with spring temperatures warm enough to allow for reproduction, and grass for forage.

Also accounting for soil and precipitation, Ikeda mapped out various possible terrains that could be suitable to Utah prairie dogs through the end of the century, under different international projections of climate change.

Her projections moved the suitable habitats to Colorado, New Mexico, Wyoming, Nevada, Oregon and Montana, and raised the possibility they could step into another species' territory if the climate there grows too warm for that species.

The projections varied a lot in estimating how much prime land there could be for the species.

But then there was the bad news, at least for a Utah prairie dog: The farthest any Utah prairie dog is known to have traveled on its own from its birthplace is 6.2 miles, she told an audience of public and researchers in a recent presentation.

MANY DEPENDENT SPECIES

"Basically, this is saying there's no way the species can naturally move into the areas of suitable habitat in the future," she told the crowd.


Utah prairie dog

Or not without human help, such as current efforts to relocate the prairie dogs to better areas.

Some attending the discussion asked about the possible ramifications of doing that: As in, would moving the prairie dogs disadvantage some other species and have unknown consequences?

A couple of points are well-established, said Con Slobodchikoff, NAU biology professor and prairie dog expert: There are nine species directly related to the prairie dogs and 200 other animal species with less-direct connections.

Where the prairie dogs die or are removed, these other species also tend to go extinct, too, he said.