



Report: 50 bird species in New Mexico may lose habitat due to climate change

By Staci Matlock, *The New Mexican*

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A decade ago, clouds of little rosy finches would swoop down to feed at the top of the Sandia Crest overlooking Albuquerque. Birders would come from all over to see the rare birds that thrived in the high-mountain air and seldom ventured below 10,000 feet.

But the birds, with their plumage of black, brown, gray and rose-colored feathers, have been appearing in fewer numbers in recent years. And as climate change brings warmer temperatures and more persistent drought, the finches are among 50 species of birds in New Mexico — from the Bullock's oriole to the prairie falcon — that will see their summer and winter ranges decline or shift in the coming decades, according to a new report from the National Audubon Society.

“As many as 1,000 finches would come at once like a school of fish,” said Albuquerque biologist Raymond VanBuskirk, who has been studying the rosy finches since he was 13. “They would feed frantically and then fly off.”

Audubon bird scientists analyzed four decades of North American climate data and millions of bird records from the U.S. Geological Survey's North American Breeding Bird Survey and the Audubon Christmas Bird Count to come up with their findings in the new report. The seven-year study looked at data for 588 bird species that live in or migrate across North America. Of those, 126 species face severe population declines by 2050, and 188 more species will be impacted by 2080.

“The report is very significant because it represents new science and new modeling,” said Carol Beidleman, director of bird conservation for Audubon New Mexico. “In terms of findings, this study really brings to the fore that climate change is the number one threat facing birds.”

In New Mexico, it isn't just pretty songbirds and important pollinators like hummingbirds that will be hurt by climate change.

The bright blue pinyon jays around Northern New Mexico will have a tough time finding a new place to live as the pi-on forests they depend on for food and nesting disappear. The golden-eyed burrowing owl already disappearing around Santa Fe County will lose more than 75 percent of its breeding range across North America.

Game birds are also among those that stand to lose a big chunk of their current habitat, according to the Audubon report.

Ornithologists think the wild turkey will lose almost half its summer range and more than 85 percent of its winter range.

Mallard ducks will lose 75 percent of their summer habitat, and ring-necked ducks will lose 93 percent.

VanBuskirk is already seeing the decline of the finches at Sandia Crest and songbirds at other locations.

He figures that lately, less than a couple of hundred finches have been coming to the Sandia feeders. "What we've been noticing is the populations are getting smaller and smaller and smaller," said VanBuskirk, 24, who is president of the Central New Mexico Audubon Society.

"I don't think it is representative of a decline in successful breeding or decline in numbers generally," He said. "It is that our winters are much warmer, we don't get as much snow as we used to or as much precipitation as before."

VanBuskirk noted that the Audubon report only looks at the changes in climate space — temperature, precipitation and similar factors that create the most hospitable conditions for each bird species. The study doesn't account for other factors that further threaten a bird species' survival, such as oil and grass drilling, overgrazing and wildfires.

VanBuskirk is already seeing a decline in migrant bird and wintering birds at another site he's monitored for more than a decade in the Rio Grande bosque.

"We do see this downward trend, mostly in songbirds like warblers, flycatchers, some sparrows, Bewick's wrens, and bluebirds," he said. "It is not just climate change and global warming. It may also be tied to drought, energy development, feral cat attacks and habitat loss here and in the wintering grounds in Central and South America."

Declines in bird populations could eventually affect New Mexico's bottom line and rural businesses. Bird watchers and game-bird hunting sportsmen bring in millions of dollars to the state's economy based on surveys conducted by the U.S. Fish and Wildlife Service. Bird watchers contribute more than \$30 billion to the nation's economy a year through travel and equipment purchases.

Some habitats and bird species could be benefiting from the shift in precipitation patterns, at least temporarily.

A report issued by U.S. Committee of the North American Bird Conservation Initiative this month shows that some bird species dependent on wetlands are at historic high levels including mallards, gadwalls, blue-winged teals and northern shovelers. The population estimates are based on annual breeding-bird surveys in the United States and Canada.

Ducks Unlimited chief scientist Dr. Scott Yaich said some of the gains can be attributed to wetland conservation efforts.

Still, he said, there's cause for concern over the long haul.

"Two decades of unprecedented above-average rainfall in many key breeding areas are in large part responsible for duck population increases that are masking the loss of wetland habitats documented by other studies," Yaich said in a statement. "We continue to be very concerned about the accelerating

loss of wetlands in important areas for birds and what that will mean when we inevitably enter another dry period.”

The North American Bird Conservation report says seasonal wetlands in the U.S. Prairie Pothole Region in the North Central United States declined by 74,340 acres between 1997 and 2009. The region is a critical breeding area for waterfowl.

VanBuskirk said many people still are confused about the difference between climate change and weather. Weather is the existing conditions of storms, temperature, precipitation, wind and other phenomena in a given day or week. Climate change involves weather patterns over long periods of time. New Mexico, for example, emerged from severe drought conditions with a strong monsoon pattern in August. But the state is still suffering a water deficit in its forests and aquifers that’s resulted from several consecutive dry years.

Many scientists believe it is too late to stop climate change. But it is possible to slow the rate of climate change and give wildlife species more time to adapt.

“It is sort of like a car crash. Would you rather get in a car crash at 100 miles per hour or slow it down to 50 miles per hour?” VanBuskirk asked. “By slowing climate change, we give birds more time to move to areas they can thrive.”

Beidleman said climate change causes the timing of life cycle events to shift for birds, such as feeding, breeding, nesting and migrating. “If you have a bird species like hummingbirds that depends on nectar and there are changes in when those plants flower, what does that mean for the birds?” she asked. “Those things get disconnected, and everything the bird needs to survive will be there.”

Audubon scientists are now working with the data modeled in the report to identify “strongholds,” places where the most threatened bird species have the best chance for survival with a bit of help from humans.

“If we get the message out to the millions of people who love birds, then as a nation we can slow these warming rates and have a very, very different end result at the end of this century,” he said.

VanBuskirk said people can do simple things at home to protect birds, such as using fewer pesticides, keeping cats indoors, planting native vegetation and providing water, food and nest boxes.

“I would love not to have to say to my kids, ‘When I was your age, I was running this amazing project with rosy finches, but unfortunately we couldn’t come together to save that wonderful species.’ “

The Santa Fe New Mexican is a sister paper of The Taos News.