



Colorado Birds and Climate Change

National Audubon Society scientists found that nearly half of North American bird species are severely threatened by global warming. This includes fifty of Colorado's iconic bird species.

Audubon scientists drew from decades of data from the Audubon Christmas Bird Count and the North American Breeding Bird Survey to define the "climatic suitability" for each bird species — the range of temperatures, precipitation, and seasonal changes each species needs to survive. They then they mapped each bird's ideal climatic range as the climate changes. These maps serve as a guide to how each bird's current range could expand, contract, or shift.

For the species most at risk, shifts in climate ranges changes could mean they leave Colorado. It is critical that we work together, on behalf of birds and our communities, to reduce carbon emissions and protect their important habitats.

Species Spotlight *Colorado Birds Threatened by Climate Change*

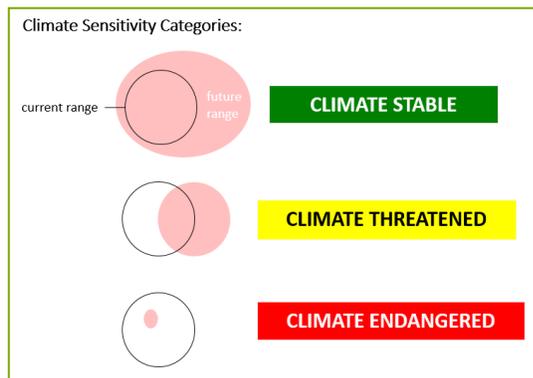


Mountain Bluebird • *Climate Threatened*

LOCATION & HABITAT • This spectacular bluebird resides year round in Colorado, feasting on our abundant insects and berries and occurring in diverse habitats from lowland prairies and sagebrush flats to high elevation meadows and tundra.

RANGE CHANGE FROM 2000 TO 2080 • Models predict that during these years, there will be severe overall summer range loss of 73%, with only 23% remaining stable, and key breeding habitats shifting northward and to higher latitudes. 78% of winter range will remain stable, with a 32% increase in areas that have projected suitable climate.

WHAT YOU CAN DO • Plant native species and provide populations the resilience to shift their ranges by helping to build, maintain, and protect mountain bluebird nest boxes in a range of breeding habitats. Check out our *Habitat Hero* program for more information on ways you can help!



Golden Eagle • *Climate Endangered*

LOCATION & HABITAT • A regal and magnificent hunter of the open country, golden eagles require large, undisturbed areas that support small mammal and bird prey and sufficient nest locations. They generally avoid areas where humans frequent.

RANGE CHANGE FROM 2000 TO 2080 • Models predict that during these years, 21% of the species' current overall summer range would remain by 2080, but 41% of current summer range would be lost. Winter range would remain 78% stable with a 12% loss. The effects of climate change on vegetation and the resulting prey base is not accounted for, adding greater uncertainty about their future.

WHAT YOU CAN DO • Protecting this species requires managing our large open areas responsibly – making sure they have healthy undisturbed native vegetation that supports their prey and viable nesting territories. Man-made threats to the species, such as electrocution and wind turbine collision, must also be reduced. Our *Sagebrush Ecosystem Initiative* provides ways to stay informed about proposed energy development that could harm this species, and ways to make your voices heard!

Learn more about the Audubon Climate Report

<http://climate.audubon.org/>



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American Dipper • *Climate Threatened*

LOCATION & HABITAT • They are America's only truly aquatic songbirds, and are rarely sighted even a few feet away from rushing water, occurring in winter as far upstream as there is open water and in summer as far downstream as there is cool water. Most of us have admired them at creeks during our mountain hikes, but their future in these parts depends on healthy flowing streams and rivers.

RANGE CHANGE FROM 2000 TO 2080 • Models predict that during these years, there will be a large increase in summer range of 352%. However, the models do not incorporate the earlier seasonal water flows that would leave this species high and dry during breeding season. Also unclear is how the prey base of this species will fare; great weather is of little use when there's nothing to eat.

WHAT YOU CAN DO • The public's voice is key in when it comes to protecting our rivers, especially as it relates to climate change. Healthy flowing water and the aquatic insects that live in it are key to this bird's future. Western water issues are often complex and intimidating though, and that's why Audubon initiated the *Western Rivers Action Network*. Joining WRAN enables you to become informed about water issues and weigh in on timely water management decisions that shape the future of the birds we love and the places they depend on. We've already shown our influence here in CO and hope you'll also lend your weight and join WRAN today!



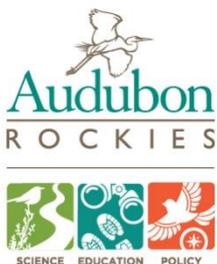
© Dave Showalter

Green-Tailed Towhee • *Climate Endangered*

LOCATION & HABITAT • A resident of dense brushy thickets in a range of vegetation types throughout the Intermountain West, these secretive birds forage for insects, seeds, and berries in Colorado's sagebrush and mountain shrub steppe. They mostly avoid human contact and make their presence known through their catlike, mewing calls.

RANGE CHANGE FROM 2000 TO 2080 • Models predict that during these years, 82% of current summer range for this species will be gone by 2080, with only 11% of existing summer areas remaining. The predicted northward expansion of summer habitat may make the persistence of Colorado's breeding habitat especially important.

WHAT YOU CAN DO • In Colorado, over half of this species' essential habitat is within the "sagebrush sea," and broad-scale responsible management of this and other shrubland ecosystems is the key to providing for the needs of the green-tailed towhee. Consider checking out one of our free traveling education trunks, full of resources, to help kids learn about the sagebrush ecosystem. In addition, Our *Sagebrush Ecosystem Initiative* provides ways to engage in the important work to restore and preserve sagebrush and shrublands, as well as learn about ways to make your voices heard.



Audubon Rockies is a regional office of the National Audubon Society. Our staff strives to inspire, engage and work with people to conserve, restore and enjoy natural habitats in Colorado and Wyoming.

We are privileged to work for birds on behalf of 10,000 members and 17 independent chapters in Wyoming and Colorado. Through workshops, social media, and our action alert system, our supporters are a growing force of grassroots activists involved in conservation at every level. As temperatures rise and birds' ranges shift, more species will become reliant on the various habitats the Rockies offers - including the mountains, deserts, prairies, river systems and wetlands for millions of migrating, breeding, and resident birds.

Birds are not only important indicators of environmental quality, but are also readily embraced by a broad spectrum of American society. We engage people in learning about and protecting birds and their habitat through the following free local programs: Habitat Hero, Western Rivers Initiative/Western Rivers Action Network, Community Naturalist (award-winning educators), Conservation Ranching, and Sagebrush Ecosystem Initiative. **Learn more about us at <http://rockies.audubon.org>.**