

Wildlife Signal a Changing World  
By Mary Jo Forman Miller

Everyone who owns pets knows how sensitive they are to the weather. Dogs and cats fidget and fuss before a big storm. Canaries flutter in their cages while their wild cousins flit nervously through the trees looking for cover. We accept that our friends in the Wild Kingdom sense changes in the air well before we mere mortals know what's coming.

So perhaps we shouldn't be surprised by the news coming out of the world of conservation: wildlife species are beginning to respond to global warming. The Wildlife Society released a report recently confirming that many species of North American wildlife are shifting northward in range and upward in slope in response to slight but persistent temperature increases that are the early harbingers of global warming.

The report, *Global Climate Change and Wildlife in North America*, documents a disturbing change in the forecast for wildlife. It marshals scientific evidence validating what some of us already have witnessed in our own back yards: songbirds are arriving earlier in the springtime; the first fall frost is arriving a few days later; spring flowers are blooming a little bit earlier. Lyme disease, West Nile Virus and even dengue fever are spreading into new territory as ticks, mosquitoes and other pests enjoy longer breeding seasons.

Scientific projections show that by the end of this century temperatures in Arizona could increase by a range of 1-6 degrees Fahrenheit in fall and spring and 2-9 degrees Fahrenheit in winter and summer. This general warming trend means Arizonans can expect more extreme hot days in summer, and more extreme wet or snowy days in winter.

People and wildlife in Arizona depend on spring runoff from the mountains to supply much-needed drinking and irrigation water and wildlife habitat. Increased temperatures may mean less snow pack and lower stream flows, forcing people and wildlife to search elsewhere for water. Hotter, drier weather could also increase the frequency and intensity of wildfires, threatening both property and forests throughout the state.

This forecast should give us pause. The overall movement northward and upward of many species in North America to accommodate a warmer climate means we face the prospect that – unless we solve this problem - the world of wildlife that we now know and many of the places we've invested decades of work in conserving as refuges and habitats for wildlife will cease to exist as we know them.

From deserts to mountain tops, Arizona is home to an incredible 787 wildlife species, including 461 birds, 150 mammals, 110 reptiles, 30 amphibians and 36 fishes. In 2001 alone, nearly 1.5 million wildlife watchers spent \$820 million in Arizona, which in turn supported 17,939 jobs. Add that to the nearly \$548 million that hunting and fishing bring to the state, and Arizona has quite a bit invested in our rich biological diversity.

It is not insignificant that The Wildlife Society is calling on its 9,000-plus members to recognize global warming as a factor in wildlife conservation. The Wildlife Society is the gold standard among wildlife professionals for providing comprehensive analyses of today's most pressing wildlife issues.

Our state leaders must conserve Arizona's natural assets as they would gold bars, stocks or bonds so that our children and our children's children may experience the beauty and the bounty our great state has to offer.

We cannot afford to let global warming change the fabric of our natural world, and we cannot ignore our own responsibility to address the problem head-on. While we develop solutions that cut our emissions of greenhouse gases and reduce our dependence on the fossil fuels responsible for much of this problem, let's be good stewards of the land and waters and find ways to help wildlife survive an era we have made ever more formidable. What on Earth is our alternative?

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For a copy of The Wildlife Society report, contact Douglas Inkley, one of its authors, at [inkley@nwf.org](mailto:inkley@nwf.org).