

Wildlife and Windpower

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Researchers routinely find that wind energy has one of the lowest impacts on wildlife and their habitats of any utility-scale way to generate electricity. Wind turbines have a limited footprint, leaving 98 percent of the land undisturbed and available for wildlife habitat, farming, ranching, or recreation. Wind power reduces air pollution, including nitrogen oxides, sulfur oxides, and mercury, which harm both humans and wildlife. Wind energy does not require water and has no impacts on water quality. And wind power requires no fuel extraction, a leading source of habitat disruption

That's why many wildlife groups support responsibly sited wind farms. Still, the wind industry is committed to reducing its comparatively small impact. For example, while wind energy is responsible for less than 0.01 percent of human-caused bird fatalities, the industry is taking active steps to push that figure even lower.

Background

Climate change is one of the greatest threats to all kinds of wildlife, as well as the largest threat to birds in North America, according to the National Audubon Society. Research shows that climate change already affects the breeding, distribution, abundance, and survival rates of half the world's species. A review of more than 130 scientific studies found that one in six species worldwide could face extinction, if climate change continues unabated.

The wind industry has partnered extensively with conservation groups and the U.S. Fish and Wildlife Service to create a set of comprehensive [Wind Energy Guidelines](#) to minimize impacts on wildlife. These guidelines allow wind energy companies to include wildlife issues as a key part of their holistic development process.

The National Wildlife Federation has found that "wind power is a key solution to addressing the threat of climate change" and that significantly more wind power will be needed in the future to keep warming levels safe for wildlife. A typical wind turbine repays its carbon footprint in six months or less and provides carbon-free electricity for the remainder of its 20-30 year lifespan, reducing the emissions leading to climate change. In 2019 alone, U.S. wind energy cut over 42 million cars' worth of carbon emissions.

CAUSES OF BIRD MORTALITY

Cause of Mortality	Number of Birds (thousands)	Reference
Cats	1,400,000 - 3,700,000	Loss et al. 2013
Buildings and Windows	365,000 - 988,000	Loss et al. 2014a
Vehicles/Roads	89,000 - 340,000	Loss et al. 2014
Pesticides	17,000 - 91,000	Mineau 2004, 2005
Overhead Lines	12,000 - 64,000	Loss et al. 2014c
Communication Towers	6,500	Longcore et al. 2012
Lead ingestion	1,000 - 2,000	Scheuhammer and Norris 1995, Kendall et al. 1996
Mowing, agricultural cultivation	1,000 - 2,000	Tews et al. 2013
Commercial fishing	750 - 2,000	Manville 2005, Brothers et al. 2010
Oil pits	500 - 1,000	Trail 2006
Forestry	300 - 1,000	Hobson et al. 2013
Wind Energy	200- 350	Erickson et al. 2014

The wind industry also continues to fund research to improve its interactions with wildlife. The industry, partnering with the American Wind Wildlife Institute, has pooled resources to create the Wind Wildlife Research Fund. The Fund supports independent research projects that produce scientifically robust solutions to enable the continued expansion of wind energy, while also increasing our understanding of wildlife protection.



Click on the image above to see the American Wind Wildlife Institute's Anniversary documentary reflecting on 10 years of progress in making wind energy safer for wildlife with industry, conservation, and agency leaders.

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