

Where Have All the Birds Gone?

According to the 2014 “State of the Birds” report, populations of birds living on prairies, deserts, and at sea have declined between 30 and 40%, in the last 40 years; nearly one-third of U.S. birds are endangered, threatened, or in significant decline (North American Bird Conservation Initiative, 2014). And according to the 2010 “State of the World” report published by the Worldwatch Institute, “More than 6.8 billion human beings are now demanding ever greater quantities of material resources, decimating the world’s richest ecosystems, and dumping billions of tons of heat-trapping gases into the atmosphere each year.” Conservationists and government agencies continue to blame outdoor cats as a major cause for the decline in bird and wildlife populations, despite these **national and world reports that clearly conclude human activity as the true culprit.**

As we approach the planet’s sixth mass extinction event, scientists warn that human activity is the driving force behind this current state. Birds (and other wildlife) are in decline due to:

- Habitat loss, climate change, pollution, and pesticides;
- Collisions with windows, communication towers, power lines, and wind turbines;
- Government animal management practices (i.e. killing birds and other animals to protect powerful agricultural, livestock, and special interests);
- Oil spills and mountain coal mining;
- Longline fishing (results in high numbers of bird bycatch);
- Hunting and pet trade.

And although some songbird populations are declining, **other bird populations such as blackbirds, greenfinches, blue jays, and brown-headed cowbirds are exploding.** Many birds have been faring well in the U.S., especially birds living in urban environments. The 2009 “State of the Birds” report states, “The urban/suburban indicator, based on data for 114 native bird species, shows a steady, strong increase during the past 40 years” (North American Bird Conservation Initiative, 2009).

So while reports indicate a decline in some bird populations (mostly songbirds who migrate and depend on forestland), those species who take up residence in urban and city landscapes are increasing in numbers. Ironically, the highest concentration of feral cats can also be found in these same landscapes. **If bird populations are rising in our cities and urban areas, while living alongside feral cats, it makes no sense for conservationists to blame cats for the demise of birds.**

Habitat Loss, Climate Change, Pollution, and Pesticides

The 2013 “State of the Birds” report says the primary cause of declining bird populations is due to habitat loss, agricultural expansion, climate change, and pollution (North American Bird Conservation Initiative, 2013). The survival of migrating birds highly depends on the planet’s forests. Without available tracts of forestland, countless bird populations lose their nesting sites and food sources. Songbirds use these forests to fly back and forth with the changing seasons, returning every year to the same areas to lay their eggs and raise their young; however, more and more of these birds find themselves returning to sites where forestland has been bulldozed, leaving them with little to no available resources for survival.

The Council on Hemispheric Affairs says, “experts estimate that each minute, 11 football fields of forest are cleared.” What is truly frightening about this figure is how world governments continue to support such actions.

With all the environmental and ecological consequences, one must question the motives of not only the Brazilian government [referring to clearing the Amazon rainforest], which has tolerated such a destructive development model, but also its endorsement by the international community which has jeopardized the future of mankind. (COHA, 2009)

With this tragic rate of clear cutting of forestland and the rapidly growing sprawl of cityscapes, habitat destruction is obviously the number one reason for declining bird populations, as well as other wildlife.

Professor of biology at Stanford University, Rodolfo Dirzo says, “We tend to think about extinction as loss of a species from the face of Earth, and that’s very important, but there’s a loss of critical ecosystem functioning in which animals play a central role that we need to pay attention to as well” (Carey, 2014). All animal and plant species on this planet are connected; the loss of any one species can affect an entire ecosystem, sending out a ripple effect to surrounding environments.

One of the major driving factors behind deforestation, besides the reliance on paper products, is the increased consumption of animal products. According to a 2006 U.N. report, “Livestock now use 30 per cent of the earth’s entire land surface.” Animal agriculture has been turning lush forests and grassy prairies into barren deserts since the beginning of human history, but thanks to the advent of factory farming in the 1950s, this pace has exploded dramatically.

Raising animals for food also contributes substantially to global warming and is responsible for more water pollution, topsoil depletion, and wildlife destruction than any other human activity. Senior U.N. Food and Agriculture Organization official Henning Steinfeld reported that “Livestock are one of the most significant contributors to today’s most serious environmental problems. Urgent action is required to remedy the situation” (United Nations, 2014). Raising animals for food is one of the largest sources of carbon dioxide and the single largest source of both methane and nitrous oxide emissions (EPA, accessed 2015). “Livestock and their byproducts account for at least 32,000 million tons of carbon dioxide (CO₂) per year, or 51% of all worldwide greenhouse gas emissions” (Goodland and Anhang, 2009).

Along with deforestation and global warming, birds are also in decline due to increased air, water, and soil pollution and the use of toxic chemicals. Again, the major contributor to both of these problems is animal agriculture. In 1997, the USDA estimated that animals raised for food produced 1.4 billion tons of waste, which is 130 times the nation’s volume of human waste, or five tons of animal waste for every U.S. citizen (Horrigan et al., 2002). The waste, containing vast amounts of nitrates, pathogens, and hormones, winds up in the air, the water, and the soil. Air pollution causes respiratory problems, and water pollution kills large portions of marine life either directly or through formations of algal blooms; decreased marine life is bad news for birds, especially seabirds who rely on fish and other aquatic life for food.

The use of toxic chemicals such as pesticides, herbicides, fungicides, and fertilizers poses a severe risk to birds, killing them directly or by causing decreased breeding success, physical malformations, or impaired ability to migrate or to avoid predators. Globally, the U.S. uses one-fifth of the five billion pounds of pesticides used each year, with the agricultural sector accounting for the majority of that use (Grube et. al, 2011). The application of pesticides and fertilizers on the estimated 14,136 golf courses worldwide, adds to the problem. On average, each golf course uses around 150 acres of land, with each acre being treated with 18 pounds of pesticides annually (Cox, 1991).

A 2013 study led by Canadian toxicologist Dr. Pierre Mineau identifies acutely toxic pesticides as the most likely leading cause of the widespread decline in grassland bird numbers in the U.S. (Mineau and Whiteside, 2013). The indirect effects of pesticides mediated through a loss of insects as a food resource also takes a toll on birds, while eagles, owls and hawks accumulate high chemical concentrations in their bodies from ingesting poisoned prey; farmers poison any animal viewed as a threat to their operation, including rodents, rabbits, and foxes. Unfortunately, it is almost impossible to find any place on the planet where chemical residues are not detectable.

Windows, Communication Towers, Power lines, and Wind Turbines

Millions of birds, worldwide, die each year when they collide with man-made structures, like glass windows and buildings, communication towers, power lines, and wind turbines. Ornithologists estimate that between 100 million and 1 billion birds are killed each year from building strikes, particularly with windows (Loss et. al, 2014). Birds simply cannot differentiate a reflection from reality. Even if a bird flies away after striking a window, she may die later as a result of internal injuries.

Communication towers (radio, television, cellular) are very tall structures usually located on elevated land, and their supporting guy wires are extremely dangerous for migratory birds. Fast flying birds do not see these loose

wires and birds who are not very agile have difficulties avoiding them. Scientists estimate that 6.8 million birds are killed every year in the U.S. and Canada due to flying into communication towers (Longcore et. al, 2012). Collisions with power lines are estimated to kill up to 175 million birds annually, with tens to hundreds of thousands more birds being electrocuted (Manville, 2005).

Although wind turbines are an important form of clean technology for renewable energy production and an important tool in combating climate change, they can be dangerous for migratory birds. Their blades rotate at speeds of up to 200 kilometers per hour and, when placed along the major migratory routes of birds, like coastlines and mountaintops, wind turbines can become obstacles for birds causing both injuries and fatalities. It is estimated that 573,000 birds are killed every year in the U.S. from collisions with wind turbines (Smallwood, 2013).

Governmental Animal Management Practices

According to newly released data, **the federal Wildlife Services, a branch of the U.S. Department of Agriculture (USDA), killed more than 2.7 million animals during fiscal year 2014; nearly 60% of animals killed were birds**, including bald and golden eagles, blackbirds, bluebirds, cardinals, cormorants, cranes, doves, ducks, egrets, falcons, finches, geese, hawks, herons, ibises, meadowlarks, ospreys, owls, pelicans, ravens, robins, sparrows, swallows, wild turkeys, vultures, and woodpeckers, just to name a few (USDA, 2015). Along with birds, numerous other animals (including 300+ mountain lions and nearly 800 bobcats; 700+ feral cats; 16 pet dogs), are killed intentionally or unintentionally every year by the government to protect powerful agricultural, livestock, and other special interests.

Since 1996, our country's Wildlife Services has shot, poisoned, and snared more than 27 million animals. "It's sickening to see these staggering numbers and to know that so many of these animals were cut down by aerial snipers, deadly poisons and traps," said Amy Atwood, a senior attorney at the Center for Biological Diversity in a press release (Center for Biological Diversity, 2015).

Oil Spills, Mining, Longline Fishing, Hunting, Pet Trade

The 2014 "State of the Birds" report says that one of the main causes of declining sea birds is oil spills, while some populations of birds are in decline because of oil and natural gas extractions. The report also cites mountaintop coal mining as a contributing factor, for entire mountain peaks of forestland are cleared to extract mineral resources (North American Bird Conservation Initiative, 2014).

Longline fishing is another danger to birds, which claims hundreds of thousands of seabird lives every year, when birds are inadvertently hooked on baited lines and drowned. Sadly, at least 23 species face extinction from this industry. The Worldwatch Institute reports, "more than 30 countries have longline fleets, yet little has been done to address the problem despite findings that simple mitigation measures can drastically cut bird bycatch" (Youth, 2003).

Humans also exploit birds through hunting and the pet trade industry. Poorly regulated or illegal hunting and capture contributes to the killing of millions of birds. In nations such as Malta and China, "deep-forest birds such as Neotropical curassows and Asian pheasants quickly disappear when hunters invade pristine areas" (Youth, 2003). If birds are not being hunted, then they are being captured and sold into the exotic pet trade. "A third of the world's 330 parrot species are threatened with extinction due to pressures from collecting for the pet trade, combined with habitat loss" (Youth, 2003).

Conclusion

At this time in history, when the burgeoning human population is causing so much destruction to the Earth, we need to remind ourselves of our species' responsibility and consider our double standards. We often excuse or ignore the devastation done to the environment by humans and the results of this destruction to the wildlife we share this planet with. Roger Tabor, one of the world's leading experts on cats and one of the few biologists who has studied feral cats for over 30 years, had this to say to Estelle Munro in her 2003 article, "Living in the

Gray Zone,” “The clear leading animal that’s really putting wildlife at risk is the human population. We just don’t like to acknowledge that it is our fault. It’s not a case of the cat being the worst offender. It isn’t even remotely the worst offender. It’s us.”

Unfortunately, not until politics, money, and personal agenda are set aside will the devastation on the planet halt. Blaming cats for songbird decline is a facile and simplistic “solution” to a complex problem. Alley Cat Rescue invites conservation groups to work *with* us and the many other cat rescue groups across the country to implement humane, nonlethal management programs for feral cats. That is how we will get a handle on reducing the number of outdoor cats, so that cats, birds, and other wildlife will all benefit.

References

Carey, Bjorn. “Stanford Biologist Warns of Early Stages of Earth’s 6th Mass Extinction Event.” Stanford University. N.p., 24 July 2014. Web. 2 Mar. 2015.

Center for Biological Diversity. *New Data: 2.7 Million Animals Killed by Rogue Federal Wildlife Program in 2014*. Center for Biological Diversity, 13 April 2015. Web. 17 April 2015.

Council on Hemispheric Affairs. “Shooting Itself in the Foot, Brazil Spreads Concrete Through the Rainforest.” N.p., 12 Nov. 2009. Web. 2 Mar. 2015.

EPA, Climate Change Division. “Methane Emissions.” Overviews & Factsheets. EPA.gov, N.p., 2, July 2014. Web. 2 March 2015.

Food and Agriculture Organization of the United Nations. “Agriculture’s Greenhouse Gas Emissions on the Rise.” FAO.org, 11 April 2014. Web. 6 August 2015.

Goodland, Robert, and Jeff Anhang. *Livestock and Climate Change: What If the Key Actors in Climate Change Were Pigs, Chickens and Cows?*. Washington, D.C.: WorldWatch Institute, 2009. Web. 2 Mar. 2015.

Grube, Arthur et al. *Pesticides Industry Sales and Usage: 2006 and 2007 Market Estimates*. Washington, D.C.: U.S. Environmental Protection Agency, 2011. Web. 2 Mar. 2015.

Horrigan, Leo, Robert S. Lawrence, and Polly Walker. “How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture.” *Environmental Health Perspectives* 110, no. 5 (May 2002): 448–49. Web. 5 Jan. 2014.

Longcore, Travis et al. “An Estimate of Avian Mortality at Communication Towers in the United States and Canada.” *PLOS ONE* 7.4 (2012): n. pag. *PLoS Journals*. Web. 2 Mar. 2015.

Loss, Scott R. et al. “Bird–building Collisions in the United States: Estimates of Annual Mortality and Species Vulnerability.” *The Condor* 116.1 (2014): 8–23. *Aoucospubs.org (Atypon)*. Web. 2 Mar. 2015.

Manville II, Albert M. “Bird Strike and Electrocutions at Power Lines, Communication Towers, and Wind Turbines: State of the Art and State of the Science - next Steps toward Mitigation.” *Bird Conservation Implementation and Integration in the Americas: Proceedings of the Third International Partners in Flight Conference*. Ed. C. John Ralph and Terrell D. Rich. Vol. 2. Albany, California: U.S. Dept. of Agriculture, Forest Service, Pacific Southwest Research Station, 2005. 20–24, 1051–64. *Treeseach*. Web. 2 Mar. 2015.

Mineau, Pierre, and Melanie Whiteside. “Pesticide Acute Toxicity Is a Better Correlate of U.S. Grassland Bird Declines than Agricultural Intensification.” *PLOS One* 8.2 (2013): n. pag. Web. 2 Mar. 2015.

Munro, Estelle. “Living in the Gray Zone.” *Bestfriends.org*. N.p., Oct. 2003. Web. 5 Nov. 2003.

North American Bird Conservation Initiative. *The State of the Birds 2009 Report*. Washington, D.C.: U.S. Department of Interior, 2009. Print.

North American Bird Conservation Initiative. *The State of the Birds 2013 Report on Private Lands*. Washington, D.C.: U.S. Department of Interior, 2013. Print

North American Bird Conservation Initiative. *The State of the Birds 2014 Report*. Washington, D.C.: U.S. Department of Interior, 2014. Print.

Smallwood, K. Shawn. "Comparing Bird and Bat Fatality-Rate Estimates among North American Wind-Energy Projects." *Wildlife Society Bulletin* 37.1 (2013): 19–33. *Wiley Online Library*. Web. 2 Mar. 2015.

U.S. Department of Agriculture: Animal and Plant Health Inspection Service. "2014 Program Data Reports." *Aphis.usda.gov*, 10 April 2015. Web. 17 April 2015.

Worldwatch Institute. *2010 State of the World*. New York, New York: W. W. Norton & Company, 2010. Print.

Youth, Howard. *Winged Messengers: The Decline of Birds*. Worldwatch Institute, 2003. Print.