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STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

In the Matter of:

APPLICATION FOR CERTIFICATION) DOCKET NO. 09-AFC-7C
FOR THE PALEN SOLAR ELECTRIC)
GENERATING SYSTEM)
_____)

BASIN AND RANGE WATCH EXHIBIT 4008

July 18th, 2014

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4 Reasons Why it's a Bad Argument to Say Cats Kill More Birds Than Wind Turbines

by [Chris Clarke](#)

January 31, 2013

A recent Nature article offered up some shocking statistics about the number of wild animals likely killed by outdoor domestic cats each year, and it's gotten a lot of buzz. According to the [research](#), outdoor cats -- most of them ferals -- kill as many as 20 billion wild animals in the U.S. each year, including at least 1.4 billion birds. Some people, prominent environmentalists among them, are citing these truly shocking numbers to argue that the threat wind turbines pose to birds and bats is numerically far smaller, and thus not a big deal.

But that's a really bad argument, fatally flawed both logically and ecologically. Here are four reasons why.

Among the people recently downplaying wind turbines' literal impact on wildlife by comparing the raw numbers to cat kills is high-ranking Sierra Club staff member Paul Rauber. Rauber, who works as a senior editor of the Club's Sierra Magazine, responded to news of the Nature study on Twitter:

In defense of the Sierra Club, Rauber's Twitter feed contains the usual "my tweets are my own" disclaimer. And Rauber isn't the only windpower advocate using the argument. Some have gone so far as to use cat kill stats to call wind turbine bird mortality a "[myth](#)." But Rauber's tweet appeared fairly recently, so it got our attention here. Given his duties communicating with Sierra Club members, he's a distressing source for this argument, which is misleading for a number of reasons.

Reason 1: Not all birds are the same.

There are more than 10,000 species of birds known on the planet. That's about twice as many species than there are of mammals, and more than there are of either reptiles or amphibians.

Those more than 10,000 species of birds vary widely in their size, their ecological function, and their rarity. A California condor and a house sparrow may both be birds, but they share almost nothing in their lifestyle, their ecological function, or their conservation status.

Outdoor cats kill a very wide variety of birds, but there are a few things the birds cats commonly kill have in common: They tend to be significantly smaller than cats. They tend to spend time on the ground, or near the ground, where cats can get at them. And they tend to spend time in places that aren't very far from human settlement, which is where most of the cats are. Some birds killed by outdoor cats are hardly in danger of extinction: some, like starlings, are even invasive exotics. Others, like San Francisco's population of California quail, may well be in danger of extinction. Cat predation is indeed a huge problem for birds and other animals, and I've written about it [here at KCET](#).

By contrast, wind turbines aren't limited to the cities, suburbs, or populated rural areas. Unlike cats, turbines can injure birds that are soaring hundreds of feet off the ground. And with blades weighing several tons each whose tips travel at speeds upwards of 100 miles per hour, wind turbines can inflict injury on birds far out of cats' weight class. Here's a reminder of the relative size of one species commonly injured by wind turbines and a domestic cat:

A [recently released study](#) of avian fatalities at the Altamont Pass wind area lists 74 identified species killed by Altamont Pass turbines between 2005 and 2010. 40 of these species are also victims of cat predation, some of them frequent victims. These species include larks, sparrows, swallows, warblers, jays, mockingbirds, woodpeckers, and similar small birds.

But some of the species found dead at Altamont Pass are well out of the range of even the most overconfident cat, including common ravens, red-tailed hawks, great blue herons, and great horned owls -- which last are likelier to eat cats than the other way around.

And of these Altamont-killed birds who are unlikely victims of cats due either to being larger than cats or too aggressive to be easy prey, the majority are top predators, whose removal has entirely different consequences for an ecosystem than the removal of small seed- and insect-eating birds through cat predation.

In fact, though the environmental effect of cat predation is serious indeed, wind turbine mortalities are more weighted toward [species of conservation concern](#).

If the Sierra Club's Paul Rauber had downplayed concerns over trophy hunting of Siberian tigers or fatally inept trapping of Sonoran desert jaguars in the Arizona desert because domestic cats kill far more mammals, he would have been laughed off of Twitter. But that's essentially the same argument as he made with regard to birds, cats, and wind turbines. If anything, his argument is *less* reality based, as bird diversity is much greater than mammal diversity.

Reason 2: a greater harm does not excuse a lesser harm.

It turns out the numbers quoted in the Climate Desk infographic Rauber quoted that claim 400,000 birds killed annually by wind turbines are either obsolete, or soon will be. According to a [Fish and Wildlife Service briefing](#) obtained by the American Bird Conservancy, FWS estimates that 900,000 to 1.8 million birds will die in collisions with turbines every year by 2030.

But let's assume for the sake of argument the Climate Desk numbers are accurate. Would the billions of birds killed by cats each year make hundreds of thousands killed by wind turbines a non-problem?

In 2012, [reports the U.S. Census](#), 616,067 people in the United States died of heart disease. The same document reports that 4,324 people age 5-24 took their own lives. Would Rauber -- or anyone -- respond to a plea for aid in combatting teen suicide by saying "say goodbye first to heart disease?" Homicide doesn't even make the top ten causes of death. "Only" 16,245 people died at someone else's hand in the U.S. in 2012, compared to 46,448 deaths last year from kidney disease and 74,632 from Alzheimer's. Do we de-emphasize attempts to reduce homicides until we come up with a cure for diabetes (with 71,382 U.S. deaths in 2012)?

Okay, so the margin of difference may be a lot smaller for those examples. Would anyone have taken O.J. Simpson's defense team seriously if they'd argued that the deaths of Nicole Brown Simpson and Ronald Goldman paled by comparison to the deaths of perhaps a million people in the Rwandan Genocide, which was happening in the same month Simpson and Goldman were killed?

We don't criticize people for choosing to work to correct smaller wrongs in society just because there are larger wrongs they could be working on. (Or at least those who do are widely considered jerks.) A

wildlife protection activist can recoil in horror at the carnage caused by outdoor cats and still have straightforward, grave concerns about deaths of wildlife caused by wind turbines.

Reason 3: It's about the cumulative damage.

None of these threats to wildlife happen in isolation. Neither cats nor wind turbines are the only threats birds face. A surprising number of birds die in collisions with stationary manmade objects, especially lighted urban buildings, but also communications towers, [which kill millions of migratory birds a year all on their own](#). Each year [many thousands of seabirds are killed as bycatch by commercial fishing operations](#). Birds are killed by hunters, by invasive exotic species other than cats, and by pesticides. Birds die from the energy extraction industry that wind turbines purport to replace, in oil spills or in toxic coal slurry ponds. Habitat destruction kills more birds than any other threat.

And each of these causes makes the others worse. A population of warblers already heavily depleted by urban or suburban cats becomes even more vulnerable to losses from collisions with turbine blades. An eagle population whittled down by turbine collisions is more vulnerable to [toxicity from rat poisons](#). And both the presence of cats and the building of turbines are aspects of the habitat loss that threatens not just birds, but about a fifth of all wildlife species. Each threat to a species' population augments the effects of the others.

And treating any threat to wildlife as an isolated issue ignores this ecological reality.

Reason 4: we might actually be able to do something about wind turbines' damage to bird populations.

As we reported [earlier this week](#), it looks as though some management measures -- including modernizing turbines and avoiding certain corridors -- may have cut bird fatalities at the notorious Altamont Pass wind farm by 50 percent for some target species. The Altamont facility is still widely considered a death trap for birds, but the improvements there suggest that improvements are possible elsewhere.

[Suggestions for reducing bird mortality from wind turbines](#) include more careful siting, monitoring approach of large birds through radar warning systems, making the blades more visible through redesign or stripy paint jobs, redesigning the turbines themselves to use smaller, vertical-axis rotors that pose almost no risk to flying animals, or for that matter deemphasizing wind in favor of other renewable energy sources that pose less risk to wildlife. (Though [some solar designs have their own bird-related problems](#).)

Even if we don't take drastic measures to stop bird losses to wind turbines, we at least know who's responsible for those turbines. Turbine developers and owners can be made to restore habitat, or perform mitigation by preserving unimpeded habitat. There are a lot of people who dismiss mitigation as compensation for such projects, and they have compelling arguments, but at least it's an avenue available to us. Turbine owners could conceivably be penalized for wildlife deaths with actual investigation and enforcement, an incentive to making sure they clean up their act as much as possible.

By 2030, there may be as many as 100,000 wind turbines in the U.S., each with an owner of record. At least in theory, each turbine will provide its owner with an income stream that can be used to address the environmental impact of the turbine's operation. Meanwhile there may be more than 60 million

feral cats in the U.S., without owners of record willing to compensate for the damage they cause, and even the most sensible and straightforward means of control provoke intense controversy.

Citing damage from cats to dismiss damage done to wildlife by wind turbines, in short, is a misleading and deceptive tactic. Even steadfast wind advocates should shy away from such arguments.

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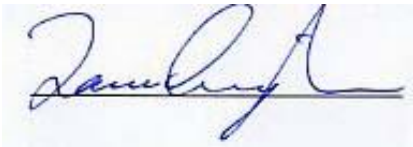
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<http://www.kcet.org/news/rewire/wildlife/4-reasons-cats-bird-kills-dont-excuse-wind-turbine-bird-kills.html>

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