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Do cats and windows kill more birds than wind turbines?

By Sindy Peters

23 Nov 2017

Yes, they do - cats and windows do kill more birds than wind turbines, but that's no reason to disregard the fact that wind turbines also kill birds. This was emphasised by Samantha Ralston, birds and renewable energy manager at Birdlife South Africa, speaking at WindAc Africa 2017. The conservation organisation has produced a report reviewing the impact on bird species of some of the first wind energy farms in the country.

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Monitoring reports provided by specialists from each site allowed the organisation access to information regarding bird passage rates, abundance, and fatality rates. The specialists, explained Ralston, did transect walk, transect drive, focal point surveys and vantage point surveys in collecting a comprehensive set of data before each wind farm was operational, and did the same after but included fatality searches as well, looking for carcasses beneath the wind turbines.

Statistical constraints

Constraints in the Birdlife SA review were that it did not have access to the raw data, making comparative analysis challenging, and the survey methods were only partly standardised, she noted. The study period was also only limited to one year of operational phase monitoring, with a couple of interim monitoring reports thereafter.

Statistical analysis of the data showed that in South Africa, on average, four birds per turbine per year are killed - less than the number killed by cats, yes, but, as Ralston pointed out, species matter.

"We looked at which are the species that are being affected - which are the species being found beneath the turbines - and we found about 36% of those found beneath the turbines were raptors, which is concerning because raptors are apex predators and play really important roles in our ecosystems and many of them are threatened," explained Ralston.

According to Ralston, all the wind farms in the study reported at least one fatality of a bird species threatened with extinction.

The top 20 species assessed as likely to be vulnerable to the impacts of wind energy compared to the observed impacts

Species	Ranking	Fatalities likely?	Comments
Cape Vulture	1	?	Recorded at several wind farms, and two collisions reported. The risk of future collisions cannot be excluded.
Bearded Vulture	2	NA	Wind farms in this study are outside of the species' range.
Verreaux's Eagle	3	✓	Appears to be vulnerable to collisions.
Martial Eagle	4	✓	Recorded at several wind farms, and two collisions reported. The risk of future collisions cannot be excluded.
Wattled Crane	5	NA	Wind farms in this study are outside of the species' range.
Black Harrier	6	✓	An occasional visitor to many of the wind farms. Appears to be vulnerable to collisions
Great White Pelican	7	?	An occasional visitor to a few of the wind farms. No collisions recorded to date, but the risk cannot be excluded.
Southern Bald Ibis	8	NA	Wind farms in this study are outside of the species' range.
Yellow-billed Stork	9	NA	Not recorded at any of the wind farms assessed.
Black Stork	10	?	Uncommon and only recorded at a few of the surveyed wind farms.
Blue Crane	11	✓	Found regularly at most wind farms in this study. Although collisions have occurred, there are indications of possible flight avoidance.
White-headed Vulture	12	NA	Wind farms in this study are outside of the species' range.
Secretarybird	13	?	Occasional visitor to some sites, no collisions reported to date. The risk cannot be excluded.
Ludwig's Bustard	14	?	Limited overlap with wind farms in this study. Collisions with powerlines associated with wind farms likely.
Grey Crowned Crane	15	NA	Not recorded at any of the wind farms in this study.
Taita Falcon	16	NA	Wind farms in this study are outside of the species' range.
Southern Ground-Hornbill	17	NA	Not recorded at any of the wind farms in this study.
Cape Cormorant	18	✓	One fatality recorded, not regularly recorded at wind farms
Lappet-faced Vulture	19	NA	Wind farms in this study are outside of the species' range.
Pink-backed Pelican	20	NA	Wind farms in this study are outside of the species' range.

From *Wind energy's impacts on birds in South Africa*

"The numbers at this stage are relatively low and, certainly compared to other threats, wind energy is a miniscule threat, but something like a Black Harrier - we've had two [kills] during the study period and subsequently three more - there are less than 1000 breeding pairs left. If we are to have wind energy built within their habitat without any controls, it's potentially a major threat within the future."

Operational phase mitigation

While the study remains ongoing, Birdlife SA is using the results obtained so far in strategic environmental assessments and site screenings to ensure wind farms are sited appropriately. In terms of wind farms that are already operational, Birdlife SA aims to engage with stakeholders to promote operational phase mitigation, and to look into technology-based solutions.

"These are issues that are beyond borders - they're not issues that SA faces alone, and to address the issues, we also need to go beyond our silos, we need to work with engineers, we need to work with wind farm developers.

"We also need to remember the big picture - wind energy might threaten some of our species, but so does climate change. In fact, between 24-50% of our bird species are threatened by climate change. There are moves afoot internationally and the Convention of the Conservation of Migratory Species has established a task force to try and facilitate global cooperation to address some of these challenges, so the truth is this is an issue that's getting global recognition," said Ralston.

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