

From: Sherri Lange [<mailto:kodaisl@rogers.com>]

Sent: Tuesday, November 7, 2017 9:56 AM

To: Puco ContactOPSB <contactopsb@puco.ohio.gov>; Krawczyk Joseph W CIV USARMY CELRB (US) <joseph.w.krawczyk@usace.army.mil>

Subject: additional comment re butterflies migration lake Erie impacts from turbine rotor sweep: File number: 16-1871-EL-BGN and 2010-00223

Dear Matt and Joe,

This comment by Dr Petrie is extremely important to the information on butterfly migration that you kindly added to the docket for LEEDCo yesterday. Please also add this comment? Mr. Krawczyk, it is a new comment, but relates to former information provided, and many thanks if you can also add to your file number: 2010-00223, Icebreaker Windpower, Inc.

Please again note: butterflies do choose to cross Lake Erie, in large numbers, and one of the staging or resting points is Cleveland itself.

Best wishes,

Sherri

Hello Sherri

Thanks for this information! Birds also generally migrate at heights above rotor sweep but they still get killed regularly. This can be attributed to birds (and I'm sure butterflies) being killed during the period when gaining and losing altitude, as well as during foraging flights.

*Most if not all offshore turbines would be placed fairly close to shore as they must be affixed to the substrate. Based on this and at least one observation of butterfly lake crossing in the document you attached, I suspect **most if not all butterflies crossing Lake Erie would be within rotor sweep height while gaining and/or losing altitude.***

Have a great day!

Scott

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Patterns of migrating soaring migrants indicate attraction to marine wind farms

Henrik Skov, Mark Desholm, Stefan Heinänen, Johnny A. Kahlert, Bjarke Laubek, Niels Einar Jensen, Ramūnas Žydelis, Bo Præstegaard Jensen

Published 21 December 2016. DOI: 10.1098/rsbl.2016.0804

Abstract

Monitoring of bird migration at marine wind farms has a short history, and unsurprisingly most studies have focused on the potential for collisions. Risk for population impacts may exist to soaring migrants such as raptors with *K*-strategic life-history characteristics. Soaring migrants display strong dependence on thermals and updrafts and an affinity to land areas and islands during their migration, a behaviour that creates corridors where raptors move across narrow straits and sounds and are attracted to islands. Several migration corridors for soaring birds overlap with the development regions for marine wind farms in NW Europe. However, no empirical data have yet been available on avoidance or attraction rates and behavioural reactions of soaring migrants to marine wind farms. Based on a post-construction monitoring study, we show that all raptor species displayed a significant attraction behaviour towards a wind farm. The modified migratory behaviour was also significantly different from the behaviour at nearby reference sites. The attraction was inversely related to distance to the wind farm and was primarily recorded during periods of adverse wind conditions. The attraction behaviour suggests that migrating raptor species are far more at risk of colliding with wind turbines at sea than hitherto assessed.

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- Accepted November 29, 2016.
- © 2016 The Author(s)

Bird and bat species' global vulnerability to collision mortality at wind farms revealed through a trait-based assessment

Chris B. Thaxter, Graeme M. Buchanan, Jamie Carr, Stuart H. M. Butchart, Tim Newbold, Rhys E. Green, Joseph A. Tobias, Wendy B. Foden, Sue O'Brien, James W. Pearce-Higgins

Published 13 September 2017. DOI: 10.1098/rspb.2017.0829

Abstract

Mitigation of anthropogenic climate change involves deployments of renewable energy worldwide, including wind farms, which can pose a significant collision risk to volant animals. Most studies into the collision risk between species and wind turbines, however, have taken place in industrialized countries. Potential effects for many locations and species therefore remain unclear. To redress this gap, we conducted a systematic literature review of recorded collisions between birds and bats and wind turbines within developed countries. We related collision rate to species-level traits and turbine characteristics to quantify the potential vulnerability of 9538 bird and 888 bat species globally. Avian collision rate was affected by migratory strategy, dispersal distance and habitat associations, and bat collision rates were influenced by dispersal distance. For birds and bats, larger turbine capacity (megawatts) increased collision rates; however, deploying a smaller number of large turbines with greater energy output reduced total collision risk per unit energy output, although bat mortality increased again with the largest turbines. Areas with high concentrations of vulnerable species were also identified, including migration corridors. Our results can therefore guide wind farm design and location to reduce the risk of large-scale animal mortality. This is the first quantitative global assessment of the relative collision vulnerability of species groups with wind turbines, providing valuable guidance for minimizing potentially serious negative impacts on biodiversity.

From: Sherri Lange [<mailto:kodaisl@rogers.com>]
Sent: Tuesday, November 7, 2017 12:34 PM
To: Puco ContactOPSB <contactopsb@puco.ohio.gov>
Subject: Birds and bats are attracted to offshore wind turbines: Royal Society

Dear Matt

One more for today please? File number: 16-1871-EL-BGN

This references Royal Society research outlining the paucity of evidence of bird and bat kills for obvious reasons in turbines offshore, and the ATTRACTION OF various species to offshore turbines. It is doubtful that the environmental study engagement done by the developer, would include such important damaging information to their cause.

http://rsbl.royalsocietypublishing.org/content/12/12/20160804?utm_source=TrendMD&utm_medium=cpc&utm_campaign=Biology_Letters_TrendMD_0

Patterns of migrating soaring migrants indicate attraction to marine wind farms

Henrik Skov, Mark Desholm, Stefan Heinänen, Johnny A. Kahlert, Bjarke Laubek, Niels Einar Jensen, Ramūnas Žydelis, Bo Præstegaard Jensen

Published 21 December 2016.DOI: [10.1098/rsbl.2016.0804](https://doi.org/10.1098/rsbl.2016.0804)

Also the article here:

[Behavior of bats at wind turbines](#)



Behavior of bats at wind turbines

Significance

Bats are dying in unprecedented numbers at wind turbines, but causes of their susceptibility are unknown. Fatalities peak during low-wind conditions in late summer and autumn and primarily involve species that evolved to roost in trees. Common behaviors of “tree bats” might put them at risk, yet the difficulty of observing high-flying nocturnal animals has limited our understanding of their behaviors around tall structures. We used thermal surveillance cameras for, to our knowledge, the first time to observe behaviors of bats at experimentally manipulated wind turbines over several months. We discovered previously undescribed patterns in the ways bats approach and interact with turbines, suggesting behaviors that evolved at tall trees might be the reason why many bats die at wind turbines.

Thank you and kind regards,

Sherri

Sherri Lange

CEO, NA-PAW, North American Platform Against Wind Power

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From: Dorothy Faller [<mailto:dorothyfaller@sbcglobal.net>]

Sent: Tuesday, November 7, 2017 12:41 PM

To: Puco ContactOPSB <contactopsb@puco.ohio.gov>

Cc: Linda New <newlinn09@gmail.com>

Subject: 16-1871-EL-BGN

This is express my support for the Icebreaker Windpower project in Lake Erie. We need to move as quickly as possible to get off of fossil fuels to protect the people from the health damage from the injection wells, fracking, etc.

Dorothy A. Faller

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Case No(s). 16-1871-EL-BGN

Summary: Public Comment electronically filed by Docketing Staff on behalf of Docketing