

Title: Eskom Sere Wind Energy Facility – the impact of a small wind farm on local biodiversity.

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The Sere Wind Energy Facility (WEF) is Eskom's flagship 100 MW WEF, near Koekenaap in the Western Cape, South Africa. The facility has been fully operational since April 2015, and is comprised of 46 turbines with a hub height of 115m and blade length of approximately 55m, resulting in a 110m diameter rotor swept area (RSA). Over the last three operational years, there has been a total of at least 83 avian fatalities on the turbines and 19 bat fatalities. Some of the more notable fatalities recorded include a Secretarybird (*Sagittarius serpentarius*) and a Ludwig's Bustard (*Neotis ludwigii*), both fatalities unique to South African WEF fatality records. In South Africa, fatalities are detected during field surveys carried out by human observers, normally with low accuracy and efficiency. A research project was carried out assessing the efficency of detection dogs versus human carcass searchers on site. Further, the impact of the associated infrastructure has influenced mortalitiy rates on Sere WEF. This infrastructure includes the power line linking Sere WEF to the electrical sub-station, the office building, workshop and sub-station buildings, the two meteorological masts, water tower, road network and any other infrastructure associated with the development. Overall, the impact caused by Sere WEF is low in comparison to other South African WEF's and further data collection suggests the larger impact of the associated infrastructure rather than the turbines themselves.

Biography

Megan Murison completed her MSc in Zoology from Rhodes University and is currently working at an NGO based in South Africa. She is a Senior Field Officer for the Wildlife & Energy Programme of the Endnagered Wildlife Trust.

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Category: (Oral presentation/ Poster presentation): Oral presentation