Perrow, M. 2013. *BOU Proceedings – Marine Renewables and Birds*
http://www.bou.org.uk/bouproc-net/marine-renewables/poster/perrow.pdf

This paper forms part of the proceedings from the BOU conference ***Marine Renewables and Birds***
Other papers from these proceedings can be viewed at www.BOUPROC.net.

POSTER ABSTRACT

Preliminary insights into the avoidance behaviour of Sandwich Terns at Sheringham Shoal offshore wind farm as illustrated by visual tracking

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The licence conditions of Sheringham Shoal require validation of collision risk for Sandwich Terns *Sterna sandvicensis*. Visual tracking of individuals en-route across the site was selected to detail the response of the birds before, during and after construction. Prior to and during construction of the site (2009–2011), the tracks of $n = 898$ individuals showed a predominant northeast to southwest flight path in accordance with direct movement of the breeding colony some 20 km distant. Some avoidance of turbine bases was noted at an early stage of construction in 2011. In 2012, when the first turbines came into operation, a high proportion of the $n = 378$ individuals tracked showed avoidance of the entire site, with others selecting routes amongst non-operational and incomplete turbines. Further details of changing behaviour are presented and the implications for collision risk are discussed.

POSTER ABSTRACT

Comparison of two different collision risk models used in the offshore environment: Band vs. Folkerts

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Collision risk modelling is a critical tool for the assessment of the impact of wind turbines upon birds. Unlike onshore, in the offshore situation, data are typically gathered on a moving platform in which only a small area is continually surveyed. Collision risk models developed for use onshore in which the entire or a known fixed proportion of the site is surveyed are not suitable. Two models are currently available for the offshore situation in which density data are converted to a passage rate to allow collision risk to be assessed. In this exercise, we compared the performance of the 'Folkerts' and 'Band' models with a dummy data set broadly based on a real situation. We selected four species, Gannet *Morus bassanus*, Kittiwake *Rissa tridactyla*, Herring Gull *Larus argentatus* and Arctic Tern *Sterna paradisaea*, with different patterns of occurrence, peak density and flight characteristics. Although the models produced different results the differences amongst species were small at between 10 and 15%. We concluded that although the models differed in their basic principles, either could be used with reasonable confidence.