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POSTER ABSTRACT

Birds and wave and tidal stream energy: an ecological review

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The RSPB has reviewed the potential effects on birds of wave and tidal stream renewable energy generation. This review is a response to the lack of knowledge on how these emerging technologies will impact on seabirds, as well as some other potentially affected species, and it uses an ecological approach to understand the potential nature of these impacts.

Currently, there is very limited experience of operational wave and tidal stream devices at sea, and hence very little information about their impacts on marine birds. It was therefore necessary to make inferences about potential impacts from a theoretical background, based on review of current technological and ecological knowledge.

While the risks to seabirds from wave and tidal stream devices are largely undefined, this review took the approach of examining the component parts of such devices and of drawing structural parallels with existing human activities, including, for example, vessel movements. In addition, ecological aspects of the receptors, marine birds, were also examined. Here we give examples, of Guillemots *Uria aalge*, Razorbill *Alca torda*, Gannets *Morus bassanus*, Cormorants *Phalacrocorax carbo* and Shags *Phalacrocorax aristotelis*, to demonstrate how this approach can be a solution to a poor knowledge base; however, while it can inform answers it cannot always fully answer questions.