



*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

Sensitivity maps for interactions between seabirds and marine renewable energy developments

IAN DAVIES¹, ROB WATRET¹ & BOB FURNESS²

¹Marine Scotland Science, Marine Laboratory, 375 Victoria Road, Aberdeen AB11 9DB, UK

²MacArthur Green Ltd, 95 South Woodside Road, Glasgow G20 6NT, UK

* Email: ian.davies@scotland.gsi.gov.uk

Marine wind, wave and tidal energy will play an increasingly important role in the UK power generation capacity. The UK has excellent wind resources, and a significant proportion of the European wave and tidal power resource is located in Scottish waters. The development of large-scale marine renewables power industries is a key element of the Scottish Government economic strategy. The successful establishment of these new industries needs to encompass environmental sustainability. There is potential for interactions of marine renewables developments with seabirds, primarily through collision of birds with rotating blades or static elements of the energy capture devices, or through disturbance of natural use of the sea by seabirds in and around the farms

The representation of seabird sensitivities is an important element of marine planning for offshore renewables. This normally requires the development of spatial representation of the risks, in formats that can then be used in GIS-based spatial modelling. The vulnerability of seabirds in Scotland to offshore wind, wave and tidal stream farms has been assessed using expressions of conservation status and behavioural factors relevant to collision and displacement risks. The outputs have been combined with broad-scale information on the distribution of seabirds at sea to derive sensitivity maps for Scottish waters. It is anticipated that these maps will subsequently be used in marine planning for offshore renewables developments.