

Conference Programme

Monday 16th June

Registration & Coffee – from 08:30

Session 1

- 09:30 **Welcome and domestic arrangements**
- 09:40 **Introduction to the meeting**
Simon Virley
BERR
- 10:00 **Science and offshore wind developments**
BWEA

Seabed past and present

- 10:20 **Identifying submerged and buried prehistoric landsurfaces of the southern North Sea**
Ingrid Ward¹ & Vince Gaffney².
¹English Heritage, Portsmouth, UK; ²Institute of Archaeology and Antiquity, University of Birmingham, UK.

10:40 Coffee

Session 1 contd.

Seabed past and present

- 11:00 **A review of sediment monitoring data from Round 1 offshore wind sites**
Bill Cooper¹, Tom Coates² & Jon Rees³.
¹ABP Marine Environmental Research Ltd. Southampton, UK; ²HR Wallingford Ltd, Wallingford, UK; ³Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, UK.
- 11:20 **Analysis of field data for scour development at five contrasting wind farm sites with and without scour protection**
Richard Whitehouse¹, John Harris^{1,2}, Jon Rees³ & James Sutherland¹
¹HR Wallingford Ltd, Wallingford, UK; ²Formerly at: ABP Marine Environmental Research Ltd. Southampton, UK; ³Centre for Environment, Fisheries & Aquaculture Science, Lowestoft, UK.
- 11:40 **Assessment of past morphological behaviour and stability of offshore sandbanks to inform wind farm developments**
Alun Williams¹ & Peter Balson²
¹ABP Marine Environmental Research Ltd, Southampton, UK; ²British Geological Survey, Keyworth, UK.
- 12:00 **Q&A**

12:15 Lunch

Session 2 Chaired by Phil Bloor (BERR)

Birds

- 13:15 **Strategic aerial surveys for waterbirds and seabirds in UK inshore waters**
Rebecca Woodward
Wildfowl and Wetlands Trust, Slimbridge, UK.
- 13:35 **Response of little terns *Sterna albibrons* to the Scroby Sands Offshore Wind Farm, UK: overview of a 5-year study**
Martin R. Perrow, Eleanor R. Skeate & Mark L. Tomlinson
ECON Ecological Consultancy Limited, Norwich, UK.

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- 13:55 **How effective is automated radar in monitoring bird movements near offshore windfarms?**
Kate Brookes¹, David Simmons² & Paul M. Thompson¹
¹Lighthouse Field Station, University of Aberdeen, UK; ²Talisman Energy (UK) Ltd., Aberdeen, UK.
- 14:15 **The application of radar technology to monitoring of birds offshore**
Timothy West & T. Adam Kelly
DeTect Inc, Florida, USA.
- 14:35 **Assessing the cumulative impacts of wind farms on birds**
Elizabeth Masden¹, Dan Haydon¹, Tony Fox², Mark Desholm², Rhys Bullman³ & Bob Furness¹
¹Department of Environmental and Evolutionary Biology, University of Glasgow, UK; ²NERI, Department of Wildlife Ecology and Biodiversity, Rønde, Denmark; ³SNH, Stirling, UK.
- 14:55 **Q&A**

15:15 Tea

Session 3 Chaired by Andy Greaves (Defra)

Electromagnetic radiation

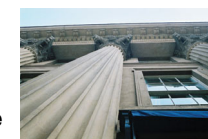
- 15:40 **Determination of the response of electromagnetic sensitive fish to electromagnetic fields (EMF) generated by offshore windfarms: experimental project results.**
Andrew B. Gill¹, Ian Gloyne-Phillips³, Yi Huang⁴, Julian Metcalfe², Victoria Quayle², Joe Spencer⁴ & Victoria Wearnmouth¹
¹Cranfield University, Bedford, UK; ²Centre for Fisheries, Environment and Aquaculture Science, Lowestoft, UK; ³CMACS Ltd, Birkenhead, UK; ⁴Centre for Intelligent Monitoring Systems, University of Liverpool, UK.
- 16:00 **Electromagnetic radiation - a possible means of discouraging bats from approaching wind turbines**
B. Nicholls & P. A. Racey
University of Aberdeen, UK.

Benthic effects and habitat enhancement

- 16:20 **Incorporating 'smart ecological design' into offshore renewable energy developments**
Pippa Moore¹, Andrew Chadwick¹, Antony Jensen², Gustavo Martins^{1,3} & Richard Thompson¹.
¹Peninsula Research Institute for Marine Renewable Energy, University of Plymouth, UK; ²National Oceanography Centre, Southampton, UK; ³Secção Biologia Marinha and CIRN, Departamento Biologia, Universidade dos Açores, Açores, Portugal.
- 16:40 **Prospective offshore wind farm effects on the fauna of the seafloor studied at a research platform in the German Bight**
Alexander Schroeder¹, Lars Gutow¹, Tanja Joschko¹, Roland Krone¹, Covadonga Orejas Saco del Valle^{1,2} and Michael Potthoff¹.
¹Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany; ²Instituto de Ciencias del Mar, Barcelona, Spain.
- 17:00 **Scale of offshore windfarm effects on seabed fauna – evidence and theoretical considerations**
Mike Elliott
University of Hull, UK.
- 17:20 **Q&A**



**Networking and poster event at the RIGB
Drinks Reception and Food
Monday 16th June: 18:00 to 21:00
Speech by the Defra Minister
And an Update on R3 from The Crown Estate**



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Tuesday 17th June

Registration & Coffee - from 08:15

Session 4 Chaired by Mark Tasker (JNCC)

Marine mammals

08:30 **Welcome** to second day

08:35 **Passive acoustic assessment of cetacean occurrence around potential sites for marine renewable energy**

Paul Thompson, Helen Bailey, David Lusseau, Barbara Cheney & Ana Candido.
University of Aberdeen, Lighthouse Field Station, Cromarty, UK.

08:55 **Active sonar as an environmental monitoring and mitigation tool around renewable devices**

Tom Malloys¹ and Gordon Hastie^{1,2}

¹SMRU Ltd, St Andrews, UK; ²Sea Mammal Research Unit, University of St Andrews, UK.

09:15 **Assessing the impacts of offshore wind farms on seals – experiences from Scroby Sands**

Eleanor Skeate & Martin Perrow¹.

¹ECON Ecological Consultancy, Norwich, UK.

09:35 **Requirements and practicability of mitigation measures to protect marine mammals from pile driving noise emissions**

Georg Nehls¹, Klaus Betke², Martin Ros³

¹BioConsult SH, Husum, Germany; ²Institute of Applied Physics ITAP, Oldenburg, Germany; ³MENCK, Kaltenkirchen, Germany.

09:55 **Acute risks to marine mammals from pile driving: an assessment of mitigation procedures, knowledge gaps and research requirements**

Jonathan Gordon^{1,2}; David Thompson²; Douglas Gillespie²; Mike Lonergan²; Susannah Calderan¹, Ben Jaffey³, Victoria Todd⁴, Gordon Hastie⁵

¹Ecologic UK Ltd., Newport on Tay, UK; ²Sea Mammal Research Unit, University of St Andrews, UK; ³Blackstone Chambers, London UK; ⁴Appin Scientific Ltd. Dunbar, UK; ⁵SMRU Ltd., St Andrews, UK.

10:15 **Q&A**

10:30 Coffee

Session 5 Chaired by Sue Gubbay (CCW)

Noise

10:55 **Assessing the potential effects of offshore wind farm noise on four species of marine fish**

Frank Thomsen¹, Karin Lüdemann², Rudolf Kafemann², Adrian Judd³ and Werner Piper⁴.

¹Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, UK; ²Institut fuer angewandte Fischbiologie, Hamburg, Germany; ³Centre for Environment, Fisheries and Aquaculture Science, Burnham on Crouch, UK; ⁴Biologisch-landschaftsökologische Arbeitsgemeinschaft, Hamburg, Germany.

11:15 **Characterizing underwater ambient noise fields for offshore renewables: are we making the right measurements?**

Edward Harland
Chickereil BioAcoustics, Dorset, UK.

Future research

11:35 **Challenges facing the wave and tidal energy industries: EMEC as a microcosm for testing solutions**

Jennifer Norris EMEC, Stromness, Orkney, UK.

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11:55 **Assessment of WaveHub impacts on the water column and seabed, both locally and remotely**

Daniel C. Conley, Phil Hosegood, Deborah Greaves
Marine Institute, University of Plymouth, UK

12:15 **Q&A**

12:30 Lunch

Session 6 Chaired by Carolyn Heeps (The Crown Estate)

Marine spatial planning

13:30 **Marine Spatial Planning in the UK**

Karen Morgan

Defra.

13:40 **Nature conservation and marine renewable energy developments**

Mark Tasker

Joint Nature Conservation Committee, Aberdeen, UK.

14:00 **The role of spatial planning in the development of offshore wind farms**

Stephen Jay

Urban and Regional Studies, Sheffield Hallam University, Sheffield, UK

14:20 **Planning for marine renewable energy in European Sites at the regional level**

Orlando Venn¹ & Jo Hughes²

¹Treweek Environmental Consultants, Devon, England; ²Scott Wilson, Basingstoke, Hampshire, England.

OSPAR and offshore windfarms

14:40 **Offshore wind farms – an international perspective on approaches to marine environmental impact assessment**

Adrian Judd¹ and Hanne-Grete Nilsen²

¹Centre for Environment Fisheries and Aquaculture Science, Lowestoft UK, ²OSPAR Commission Secretariat, London, UK.

15:00 **Q&A**

15:15 Tea

Plenary Session Facilitated by Bob Earle (CMS)

15:30 **"Where are the gaps?"**

Perspectives from:

Industry
Consultant practitioner
Scientific community

Regulator BERR & MFA
The Crown Estate /COWRIE
Abroad

Followed by plenary discussion

17:20 **Round-up**

17:30 **Meeting close**

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