Bat Literature Review Project – Specifications



Background to Natural England

Our vision is of Thriving nature for people and planet. Our ambition is not just to improve nature, but to see it thriving everywhere. This is because we recognise that a healthy natural environment is fundamental to everyone’s wealth, health and happiness.

Assessing migration of bat species and interactions with Offshore Wind Farms in English Waters

SGA-CAPERM008-13

Background to the specific work area relevant to this purchase

Natural England's Strategy and Government Advice Team are seeking bat specialists to undertake a literature and evidence review and provide a report in relation to impacts of Offshore Wind on migrating bat species. Project is to run from October and be completed by March 2024.

Requirement

Offshore wind projects in English waters are developing at pace as we move towards Net Zero Targets and ambitions to deliver 50 GW by 2030. It is Natural England duty to provide evidence-based advice as the government's statutory advisers. Potential impacts of Offshore wind farms on migrating species is moving up the international agenda.

Understanding the evidence base for the effect of offshore wind development and operation upon different environmental receptors is an integral component which underpins Natural England’s offshore wind work. Focal receptors are currently seabirds, marine mammals, benthic receptors (seafloor habitats and species) and designated fish. However, there is a current lack of evidence as to the effects of offshore wind farm development upon bat populations in English waters. This represents an evidence gap which needs to be addressed.

 Bats are a relatively poorly understood receptor for marine offshore developments in English waters. Evidence gaps remain on the occurrence of bats in the offshore environment, including migration, and their potential interactions with renewable developments. Little is known about bat migration ecology, the number of individuals migrating over sea, and the risk of mortality from interactions with offshore wind turbines (Lagerveld et al. 2017).

Migration periods are understood to be between late March to June, and from late August until October. For offshore regions, such as the North Sea, the most frequently recorded bats are Nathusius’ pipistrelle (Pipistrellus nathusii). However, other bat species have also been recorded, including common pipistrelle (P. pipistrellus), common noctule (Nyctalus noctula), Leisler’s bat (N. leisleri), particolored bat (Vespertilio murinus), Northern bat (Eptesicus nilssonii), and Serotine bat (E. serotinus) (Boshamer et al. 2008, Lagerveld et al. 2012, Hüppop et al. 2016, Hüppop et al. 2019).

Through engagement with international projects, such as WOZEP and the national Nathusisus Pipistrelle project and academics, the study aims to identify cutting edge international best practice and lessons learnt to inform Natural England's approach.

Improving our understanding of bat ecology, migration and the interaction of bats with offshore wind farms would help to improve the advice Natural England provides to offshore wind developers and regulators regarding environmental impact assessments and monitoring and the development of industry best practice.

Task 1: Literature review (desk-based)

 The contractor will undertake an evidence review of the available reports, scientific publications and other relevant literature.

The literature / evidence review will include an assessment of:

Bat migration to the UK from Europe, and from England to Ireland, Wales and Ilse of Mann;

Collision risk for bat spp. from offshore wind infrastructure (including consideration of flight heights and avoidance behaviour);

Barrier effects or other possible impacts upon bat populations and migration;

Lessons learnt from terrestrial evidence, reports and case studies – consideration of applicability to offshore environments.

Task 2: Evidence Review

A number of bird observatories on headlands record bats as well as birds. Explore whether existing data sets for bats could be collated and used to inform an assessment of bat migration (species and locations).

A number of ringing and tracking studies in relation to bat migration have been completed. Explore whether existing data sets for bats could be collated and used to inform an assessment of bat migration (species and locations).

Task 3: Engagement with projects

Engage with WOZEP, [National Nathusius' Pipistrelle Project](https://www.bats.org.uk/our-work/national-bat-monitoring-programme/surveys/national-nathusius-pipistrelle-survey) and other relevant projects identified during the literature review to identify and present data that is currently available, and present examples of international lessons learnt and best practice in relation to bats and Offshore Wind Farm development. Engage with relevant academics, such as Professor Fiona Matthews (Exeter University).

The review should explore the applicability of whether offshore wind farm ‘curtailment’ (temporary shut-downs) would be appropriate for English offshore wind farms.

Task 4: Production of a report

The contractor will produce a report detailing the outcome of the evidence and literature review, including engagement with projects. The findings will be presented in a final report. The report should address each of the evidence gaps identified above, identify species of concern, impact pressure pathways and possible mitigation measures, with recommendations for next steps.

 Sustainability

Natural England protects and improves the environment and is committed to reducing the sustainability impacts of its activities directly and through its supply chains. We expect the Contractor to share this commitment and adopt a sound, proactive sustainable approach in keeping with the 25 yr environmental plan/our commitments compliant with all applicable legislation. This includes understanding and reducing direct and indirect sustainability impacts and realising opportunities, including but not restricted to; resilience to climate change, reducing greenhouse gas emissions, water use and quality, biosecurity, resource efficiency and waste, reducing the risk of pollution, biodiversity, modern slavery and equality, diversity & inclusion, negative community impacts.

As a delivery partner, the successful contractor is expected to pursue sustainability in their operations, thereby ensuring the Contracting Authority is not contracting with a supplier whose operational outputs run contrary to the Contracting Authority’s objectives. The successful contractor will need to approach the project with a focus on the entire life cycle of the project

Outputs and Contract Management

|  |  |  |  |
| --- | --- | --- | --- |
| Reference | Deliverable | Responsible Party | Date of completion |
|  | Project Tender publication | Natural England | 14/08/23 |
|  | Project Start |  | 02/10/23 |
|  | Kick off meeting |  | 02/10/23 |
|  | Monthly updates |  |  |
|  | Project complete |  | 04/03/24 |
|  |  |  |  |

W/C 2nd October 2023– Start up meeting between project officer and supplier.

Monthly teleconferences thereafter

* W/C 5th February 2023 – Draft report due in digital format (word) via e-mail
* W/C 4th March 2023 – Final report due digital format via e-mail
* Contract to be completed by 4th March 2023

Report to be provided within Natural England template document and must adhere to publishing requirements.

Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England’s traditional landscapes are safeguarded for future generations.

Natural England publications are available as accessible pdfs from

[www.gov.uk/natural-england](http://www.gov.uk/natural-england).

Should an alternative format of this publication be required, please contact our enquiries line for more information: 0300 060 3900 or email enquiries@naturalengland.org.uk.

ISBN 978-1-84754-xxx-x

Catalogue code: NExx

This publication is published by Natural England under the Open Government Licence v3.0 for public sector information. You are encouraged to use, and reuse, information subject to certain conditions. For details of the licence visit [www.nationalarchives.gov.uk/doc/open-government-licence/version/3](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3).

Please note: Natural England photographs are only available for non-commercial purposes. For information regarding the use of maps or data visit [www.gov.uk/how-to-access-natural-englands-maps-and-data](http://www.gov.uk/how-to-access-natural-englands-maps-and-data).

© Natural England 2020