

**Forth & Tay Regional Advisory Group  
Ornithology Subgroup  
Thursday 3 September 2015, 10:30 – 14:30  
SNH – Battleby, Perth**

**Minutes – issued as Final on 2 November 2015.**

**Present:**

- Ian Davies (Chair) *ID* (MSS)
- Jared Wilson *JW* (MSS)
- Catriona Gall *CG* (SNH)
- Erica Knott *EK* (SNH)
- Alex Robbins *AR* (SNH)
- Sue O'Brien *SO'B* (JNCC)
- Aly McCluskie *AM* (RSPB)
- Sue King *SK* (King Consulting- Seagreen)
- Esther Villoria *EV* (ICOL – Inch Cape)
- Sarah Arthur *SA* (ICOL – Inch Cape)
- Murray Grant *MG* (Royal Haskoning – Inch Cape)
- Ewan Walker *EW* (Mainstream – NnG)
- Colin Barton *CB* (Cork Ecology – NnG)
- Phil Bloor *PB* (Pelagica - NnG)

**Phone:**

- Robert Main *RM* (MSS)

**Apologies:** Nick Brockie (Seagreen)

**Introductions and Aims**

*ID* (Chair) welcomed everyone to the Second Forth & Tay Regional Advisory Group – Ornithology Subgroup (FTRAG-O) meeting held at SNH offices, Battleby.

A draft Agenda had been circulated on 1 September. The aim of the meeting was to progress discussions on identifying possible monitoring studies to determine the potential impacts the proposed Forth and Tay offshore wind farms may have on birds.

## Minutes from previous meeting

The final Minutes from the previous meeting had been issued to the FTRAG-O group on 28 July 2015.

There were no corrections or amendments tabled at the meeting.

## Actions from previous meeting

The progress on the Actions from the previous meeting were reviewed.

Action	Response
1 ALL – to provide Chair key points of contact and technical specialist.	<b>Complete</b>
2 ID – To advise whether ToR for FTRAG have been approved.	Yes they have been approved – <b>Complete</b> .
3 ID/JW – to provide clarification on how FTRAG-O will work with SpORRAN.	Where projects are not directly related to the wind farm consents and are research related then they will be forwarded on for consideration by SpORRAN - <b>Complete</b> . Invitation letters to join SpORRAN are to be sent out. List of organisations to be invited to join SpORRAN is to be circulated to the group.
4 ALL – to provide final comments on the ToR to ID by 3 July 2015.	<b>Complete</b> .
5 JW – to provide clarification on why razorbill is of high priority and guillemot is of medium priority.	SNCB's have previously identified razorbill as a species of concern but not guillemot. - <b>Complete</b> .
6 JW – to add a 'placeholder' for the Firth of Forth and Tay Bay Complex dSPA. To be discussed at next meeting.	The Monitoring discussion document prepared by JW and circulated at the last meeting has been updated to include the dSPA. – <b>Complete</b> . JW to circulate the revised document.
7 EK/CG – to advise group of colony count data commissioned by SNH,	There will be a complete colony count at the St Abb's to Fast Castle SPA in 2016. The North Caithness and East Caithness cliffs SPAs were surveyed in 2015. – <b>Complete</b> .
8 AM – to advise group of colony count data from Fowlsheugh,	An internal review of all colony counts is being updated by the RSPB and there are more seabird data from Fowlsheugh, which may become available – <b>Complete</b> .
9 ID/JW – to contact CEH for latest tagging studies.	JW circulated on 2 September the latest CEH tracking studies. – <b>Complete</b> .
10 AM – to advise on FAME data.	Data can be obtained on request. - <b>Complete</b>
11 ID/JW - to contact Keith Hamer for gannet tagging data.	JW circulated on 2 September the latest information on gannet tagging studies being undertaken on the Bass Rock. - <b>Complete</b>
12 EW/PB to identify sources of existing tagging data.	PB received from Sue King a comprehensive spreadsheet of all tagging studies and will incorporate the latest information received from JW and any other sources. A draft spread-sheet to be circulated with the draft minutes from this meeting - <b>Ongoing</b>
13 ID – to determine availability of CRM sensitivity analysis report.	The report is not yet published. ID to contact Liz Masden to request a copy on behalf of the group. <b>Ongoing</b>

Action	Response
14 ID/JW – To contact CEH about identifying whether they consider the determination of population effects to be a feasible objective and, if so, the possible approaches to addressing this	JW has contacted CEH and will circulate possible approaches on how to determine population level effects – <b>Complete</b>
15 Inch Cape and NnG - to provide copies of previously sent comments on the ToR.	<b>Complete.</b>
16 Developers – to agree on how the FTRAG-O should operate before next meeting.	<b>Complete.</b>
17 EW to circulate Doodle Poll for meeting in early September.	<b>Complete.</b>

### **Seabird Monitoring for Forth and Tay Offshore Wind Farms – Discussion Document.**

The document titled *Key Post Consent Monitoring Questions in the Forth & Tay* had been circulated to the Group on 1 September 2015.

CB talked through the five bullets introducing the background of the document. There was discussion relating to the fifth bullet '*effects on species not covered under HRA also require consideration (i.e. individuals breeding outwith SPAs and non-breeding individuals)*' and on whether this related to non HRA species, species breeding outwith designated sites or non-breeding season impacts.

Previous advice from SNH has been that non-breeding season impacts should be considered in the development of post consent monitoring. The JNCC agreed that the text should be clarified to reflect the consideration of EIA/non-priority HRA species. However, it was raised that during the non-breeding period many of the birds present will not be from the adjacent SPAs. There were no agreed Actions on whether or how this could be progressed.

### **Key species and impacts**

Working through the discussion document the key species, potential impacts and relevant SPAs were reviewed.

*Gannet* – It was agreed that gannet was a key species, particularly due to the risk of collision. SNH highlighted that most monitoring on avoidance behaviour had been undertaken outwith the breeding period and that this could be different during the breeding period.

*Kittiwake* – It was agreed that kittiwake was a key species due to both potential collision risk and displacement/barrier effects. There was general discussion on the differences between macro-avoidance behaviour and displacement and whether possible monitoring methods may be similar to measure both. SNH and JNCC identified potential seasonal differences in flight height and subsequent risk of collision could be important as well as noting the density of turbines may also influence collision risk.

*Guillemot* – It was agreed that guillemot was a lower priority species and the potential impacts identified within the discussion document were accurate, i.e. very little risk of collision but potential displacement/barrier effects.

*Razorbill* – There was discussion on whether razorbill should be a high priority species but it was generally agreed that it was a species of high priority due to impacts from potential displacement/barrier effects. It was recognised that there were some key unknowns relating to the potential level of displacement and, if displaced, where birds might relocate to. This was particularly relevant when considering the assumptions made in the CEH displacement model.

*Puffin* – Recognised to be a high priority species due to the risk of displacement/barrier effects. There are very little data on what the potential levels of displacement might be for puffin. The point was also raised that as there is no systematic annual monitoring of puffins on the Isle of May any changes in the population level would be difficult to detect. JW was to speak with CEH to find out what monitoring on puffins is being undertaken.

The relevant SPAs identified in the discussion document were agreed and it was recognised that the main SPAs of concern were the Forth Islands and to a lesser extent Fowlsheugh.

Before discussing potential monitoring methods it was felt that it was important to identify the questions that were required to be answered from future monitoring before proceeding with identifying possible monitoring methods.

It was felt that although the main questions on what impacts needed to be monitored had been identified that these were too broad and that fine detailed questions would help ensure that future monitoring was undertaken in a way that would help answer the main questions.

There was no conclusion on what the detailed questions would be but it was noted that JW had previously prepared detailed questions in his *PRIMER - Key Post Consent Monitoring Ornithology Questions in the F&T* document in June.

#### *dSPA*

Brief discussion on dSPA issues. EK indicated there may still be change to some conservation objectives. PB/ID suggested that currently too much uncertainty over dSPA and associated conservation objectives to influence current discussions.

#### *Collision risk*

There was a general, ranging discussion on collision risk with the main focus on the data required to populate a collision risk model, e.g. rate of avoidance and throughput. It was noted that Liz Masden's paper of CRM Sensitivity analysis was due to be published shortly and this could inform future monitoring requirements. It was recognised that in an ideal world, developers would only need to record the number collisions and the throughput of birds to determine collision rates. However, this would assume that all collisions were recorded and an accurate figure on the number of birds passing through the wind farm obtained, This would be very challenging and unlikely to be feasible. Therefore, a measurement on the level of avoidance was also required.

There is technology available that can record collisions and power analysis could help in estimating the number of turbines that would require monitoring in order to get a statistically robust sample.

A review of existing technologies to detect bird strikes was undertaken by SOSS in 2012 and this could be used to identify possible suitable technologies. However, it is unknown how much existing technologies had developed since the report was published and a review updating the SOSS report might be useful. It was agreed that companies developing this technology should be contacted in order to obtain a better understanding of what is currently available. ID was to contact the companies to get the latest information and CB to prepare a brief summary of each of the technologies that may be available.

SK advised that when considering monitoring collision impacts that there are important lessons to be learned from existing projects and the group should ensure that they are aware of them should similar projects proceed.

Once the Group has the latest information on the collision detection technologies then a possible workshop on the subject might be useful, or at least some process by which the different available options can be assessed for their suitability.

#### *Displacement*

The Group recognised that it was important to attempt to monitor levels of possible displacement from constructed offshore wind farms.

JW advised that it would be useful to test whether the behaviour is as predicted by the CEH displacement model and that as the population level effects from displacement are unknown that monitoring data should be collected in order to support the CEH model parameters, particularly those that the sensitivity analysis indicated had most effect on the modelling results e.g. adult body mass below which adult leaves chick unattended, chick body mass below which chick dies, adult priority of resourcing between self and chick, and interspecific competition.

Two distinct aspects to monitoring displacement identified – i.e. proportion of birds affected (displaced) and consequences of being displaced in terms of population impacts.

Also, agreed that displacement and barrier effects needed to be considered as separate questions when identifying the questions to be addressed by the monitoring programme.

Doubt was expressed that useful data for any of these parameters could realistically be obtained and whether collecting these data was the responsibility of the developers or should be considered by SPoRRaN.

SO'B suggested that it would be useful to know exactly what data have already been obtained by Developers for each of their sites as this would help inform future monitoring requirements. SK informed the Group that Seagreen had data from both boat and aerial surveys and that the data were not comparable. EW to pull together a summary of Developers' existing data.

**Next Meeting.** The next meeting is planned for end of October/beginning of November. EW to send out a Doodle poll.

## **Actions**

1. *RM* – To circulate to FTRAG-O members a list of organisations that will be invited to join SpORRAn.
2. *JW* – To circulate the revised Seabird Monitoring discussion document.
3. *PB* – To circulate draft tracking studies spreadsheet with the draft minutes of this meeting.
4. *ID* – To contact Liz Masden and request a copy of the forthcoming CRM sensitivity study.
5. *JW* – To circulate response from CEH on how population level effects may be determined.
6. *CB* – To clarify text in Discussion document on whether species not covered by HRA also require attention.
7. *JW* was to speak with CEH to find out what monitoring on puffins is being undertaken
8. *ID* – To contact collision detection technology companies to obtain better understanding of what methods to detect collisions are available.
9. *CB* – To prepare short report on existing collision detection technologies based on SOSS 2012 paper and responses from industry.
10. *SK* – collate spreadsheet setting out parameters used in the displacement/barrier effect model, and identify ways in which might progress or refine these parameters.
11. *EW* – To prepare brief summary of existing data collected by Developers.
12. *EW* – To send out Doodle poll for date of next meeting.

## **Additional Actions received from draft Minutes**

*CB/EW* – To update the *Key Post Consent Monitoring Questions* document.

*RM* – To incorporate any changes and circulate the revised ToR

*JW* – To add text to the document to explain why the dSPA is not being considered at this stage.

*AM* - to advise when colony count data from Fowlsheugh will be made available.

*ID/JW* – to provide on-going updates to the group on any further gannet tagging being undertaken.