



Luggie's Knowe

Otter Survey Report

Client: Shetland Aero
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1. Introduction

1.1 Overview

ITP Energised was appointed by Shetland Aero to undertake an otter (*Lutra lutra*) survey at the proposed Luggie's Knowe Wind Farm site, north of Lerwick, Shetland (hereafter referred to as the 'Site') (Figure 1).

The purpose of the survey was to investigate all suitable habitat within the Site and a 500 m survey buffer (collectively referred to as the 'Study Area') for any evidence of use by otter. The survey results are intended to facilitate the identification of potential constraints to development and where mitigation and/or further survey work may be required.

1.2 Site Description

The Site is positioned on the Gremista peninsula and is surrounded by coastline that makes up part of the East Mainland Coast SPA with cliff heights of approximate heights of 20 m. The base for decommissioning offshore installations and Doos' Cove both lie to the northwest of the Site, and to the southeast is the Energy recovery Plant. The surrounding area is made up of a mix of wet and dry peat bog interspersed with burns and a few small areas of grassland. The Loch of Kebister can be found at the southwest corner of the Site, and to the north the Site is bound by an access road beyond which lies Kebister Ness, with Dales Voe to the west and the Bight of Vastland to the east.

The Site is dominated by peatland habitats and includes an operational turbine.

2. Legislation and Guidelines

2.1 Legislation

Otter is protected as a European Protected Species under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). As such, it is an offence to deliberately or recklessly:

- Capture, injure or kill an otter;
- Harass an otter or group of otters;
- Disturb an otter in a holt or any other structure or place it uses for shelter or protection;
- Disturb an otter while it is rearing or otherwise caring for its young;
- Obstruct access to a holt or other structure or place otters use for shelter or protection, or otherwise deny the animal use of that place;
- Disturb an otter in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and
- Disturb an otter in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young.

It is also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (whether or not deliberately or recklessly); and
- Keep, transport, sell or exchange, or offer for sale or exchange any wild otter (or any part or derivative of one) obtained after 10 June 1994.



It should be noted that otter shelters are legally protected whether an otter is present or not. Actions that are prohibited can be made lawful by licence issued by the appropriate Statutory Nature Conservation Organisation, which in this case is NatureScot.

Otter is also included on the Scottish Biodiversity List (SBL), where it is listed for avoidance of negative impacts only (Scottish Government, 2013).

2.2 Local Biodiversity Plan

The Shetland Islands Council published 'Living Shetland', the Local Biodiversity Action Plan, in 2004, which identifies locally important habitats and species. Otter is not currently listed as a priority species on Shetland. However, two habitats commonly occupied by otter have Biodiversity Action Plans; the strandline and freshwater habitats.

2.3 Best Practice Ecological Guidance

As part of the survey, cognisance has been taken of the following best practice guidelines and survey method publications:

- Competencies for Species Survey: Otter (CIEEM, 2013); and
- Monitoring the Otter *Lutra lutra* (Chanin, 2003).

3. Methods

3.1 Desk Study

The ecological desk study was carried out using a range of publicly available information sources, as well as data provided by The Shetland Biological Records Centre (SBRC), to provide an understanding of the ecological context of the Study Area.

Existing records for protected or otherwise notable species (e.g. SBL/LBAP priority species) were identified with a 2 km distance of the Site boundary. Only records from the last 10 years were considered relevant to the study.

Data sources included the following organisations and online databases:

- The Shetland Biological Records Centre (SBRC, 2021); and
- NBN Atlas (NBN Atlas, 2021).

3.2 Field Survey

The otter survey was undertaken on 10 August 2021 by Newton Harper, a suitably qualified ecologist, and a search was undertaken of the Site's watercourses, coastal zone and up to 20 m away from the water's edge (where suitable habitat was found to be present). Throughout the survey, overhanging banks, cavities, bankside vegetation and coastal features, such as boulders and mud, were searched for the following signs of otter use:

- Spraints – otter dung, which is used for marking territories, is often located on prominent features within the channel or on the bank (including weirs, bridges, rocks, tree roots, watercourse confluences, etc.); and
- Footprints – located in soft mud, silt or sand banks.

Other potential evidence of otter presence was also searched for in the survey. The following signs, when interpreted in conjunction with spraints and footprints, can provide data to support an assessment of otter activity on a site. They cannot, however, be used in isolation to definitively indicate otter presence/absence:



- Resting-up places – comprising couches (areas of flattened vegetation) or hovers (lay-up areas, including ledges under rocks or hollows under fallen trees or roots);
- Potential holt sites – holes or dens;
- Runs and trails – pathways from the water into dense cover or around bankside trees;
- Slides – down banks as an entry to waterbodies; and
- Feeding remains – e.g., remains of fish and amphibians.

4. Results

4.1 Desk Study

Data obtained from SBRC (SBRC, 2021) and NBN Atlas (NBN Atlas, 2021) included 47 records of otter within 2 km of the Site Boundary. None relates to a location within the Site boundary.

Of the 47 records, one identified an active holt c.1.15 km east of the Site in 2016. The closest record was c.800 m southeast of the Site; this dated from 2018 and concerns a female otter with three cubs. In 2017 a female with two cubs was recorded c.1.14 km west of the Site boundary, and in 2020 a female with a single cub was recorded c.1.42 km to the west.

4.2 Field Survey

Evidence of otter was identified along the shoreline north and northeast of the Site, as shown in Figure 2 and detailed in target notes (TN) in Appendix A.

Otter evidence was found only on the Vatsland side of the Site during the survey. Along the north-eastern coast there were four spraints and feeding remains recorded (TN1-4). Along the north-western coast, a continuous series of spraint and feed remains were recorded between T5 and T6. The spraints varied in age from very fresh (12hrs+) to weeks/months old. The food remains consisted of a mix of crab, mussels, urchin and some butterfish. No holts or resting places were identified during the survey.

Overall the habitats are considered suitable for otter, particularly the coastal Vatsland outcrop strip and Kebister loch. There is limited connectivity to the loch.; however, anecdotal evidence suggests it is possible for otters to travel up there from the cliffs.

5. Discussion

Otters are present at Luggie's Knowe; however, no holts or resting places have been identified. Given the presence of otters in close proximity to the Proposed Development, the following best practice guidelines, endorsed by NatureScot, are recommended (NatureScot, 2020).

- Avoid damage or disturbance to otters or otter habitat, including avoiding any obstructions to established otter access to open water;
- Avoid working in the vicinity (30m) of otter habitat during the hours of darkness and within two hours after sunrise and two hours before sunset. This can be reduced to one hour between November and February (inclusive) because of the limited daylight;
- Cap exposed pipe systems when contractors are off site, and cover or provide exit ramps from exposed trenches or holes, to prevent otters becoming trapped; and
- Restore or improve habitat to replace lost habitat or habitat connectivity.

Additionally, a pre-construction survey should be timetabled into project plans to enable checks for any holts or resting places that may have emerged after the original survey, and to ensure the measures proposed to minimise impacts on otters remain appropriate.



If any holts or resting places are identified, the following is also recommended:

- Mark work exclusion zones around any holts and shelters. If otters are breeding, the zone should be at least 200 m. However, it could be reduced to 100 m depending on the nature of the works, topography and natural screening. This will require judgement from an experienced ecologist. For holts and shelters where otters are not breeding, the exclusion zone should be 30 m. Where exclusion zones of the required size are not possible, works will require a licence from NatureScot before they can proceed.

5.1 Repeat Surveys

The data in the present report is valid for 18 months. Therefore, if construction of the Proposed Development not commence before March 2023, it is recommended that an updated survey is undertaken, as per the methods section of this report, to ensure there has been no significant change to the baseline outlined within this report.



6. References

Chanin, P. (2003). Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10. Peterborough: English Nature.

CIEEM, (2013). Competencies for Species Survey: Eurasian Otter. Available online at: <https://cieem.net/wp-content/uploads/2019/02/CSSEURASIAN-> (Accessed November 2021).

NatureScot, (2020). Standing Advice for Planning Consultations. Protected Species: Otter. Available online at: <https://www.nature.scot/species-planning-advice-otter> (Accessed November 2021).

NBN Atlas, (2021). NBN Atlas. Explore Your Area. Available online at: <https://nbnatlas.org/> (Accessed November 2021).

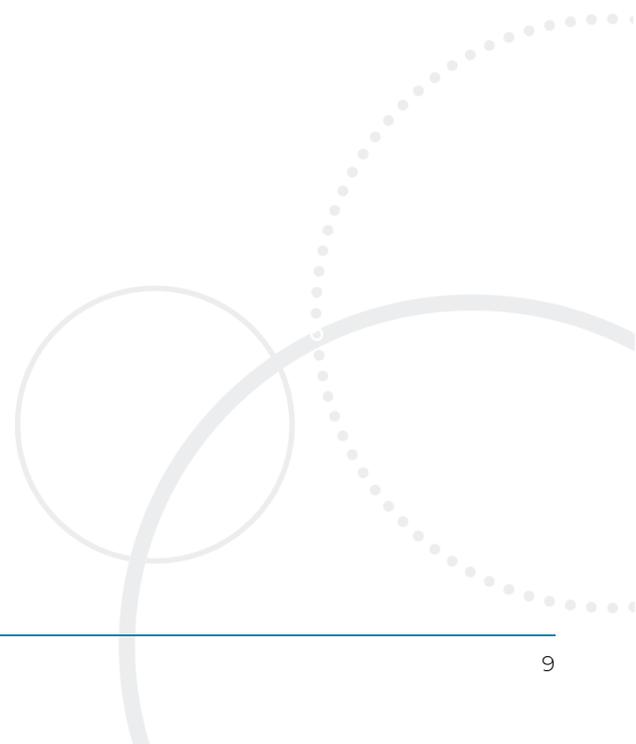
SBRC, (2021). Data Request November 2021.

Scottish Government, (2013). Scottish Biodiversity List. Available online at: <https://www.gov.scot/Topics/Environment/Wildlife-Habitats/16118/Biodiversitylist/SBL> (Accessed November 2021).

Shetland Islands Council, (2004). Living Shetland Biodiversity Action Plan. Available online at: <https://www.shetland.gov.uk/natural-historic-environment/natural-heritage> (Accessed November 2021).



Figure 1: Site Location





KEY

- Site Boundary
- 500m Buffer



Scale 1:10,806 @ A3



Luggie's Knowe
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Figure 1

Site Location

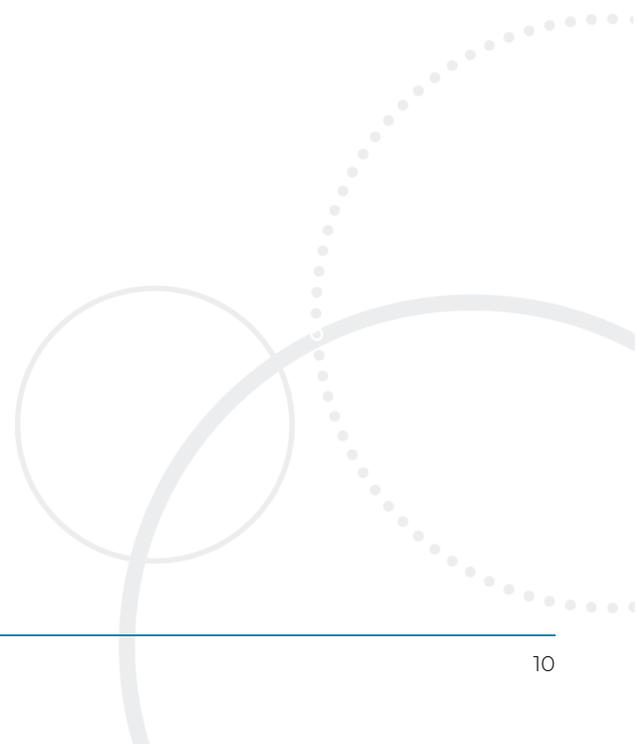
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Contains OS data © Crown Copyright and database right 2020

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Project Number: XXXX



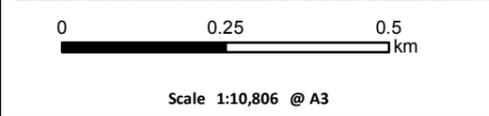
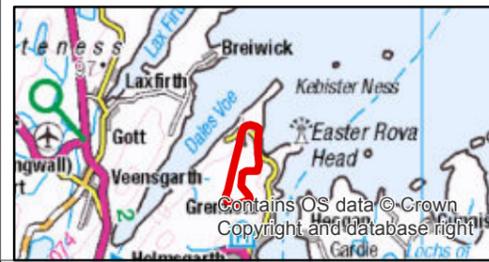
Figure 2: Target Notes





KEY

- Site Boundary
- 500m Buffer
- Target Notes: Spraints and Feed Remains
- - - - - Continuous Spraints and Feed Remains



Luggie's Knowe
Otter Survey Report

Figure 2

Target Notes

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Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Contains OS data © Crown Copyright and database right 2020

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Appendix A: Target Notes

Target Note (TN)	Grid Reference	Details
1	HU46681 45698	Otter spraint and feeding remains
2	HU46745 45783	Otter spraint and feeding remains
3	HU46761 45918	 <p>Otter spraint and feeding remains</p>

Target Note (TN)	Grid Reference	Details
4	HU46745 46130	 <p data-bbox="831 981 1212 1010">Otter spraint and feeding remains.</p>
5		 <p data-bbox="831 1738 1366 1805">Start of a continuous trail of spraints and feeding remains.</p>
6	HU46295 46115	<p data-bbox="831 1825 1366 1892">End of a continuous trail of spraints and feeding remains.</p>



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