



Ben Sca Redesign Wind Farm

TA5.2: Protected Mammals Report

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Basis of Report

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1.0 Introduction

1.1 Overview

Ben Sca Wind Farm Limited (the Applicant) is applying to the Highland Council (THC) for planning permission to amend the turbine dimensions and layout of the consented seven turbine Ben Sca Wind Farm (20/00013/FUL) and consented two turbine Ben Sca Wind Farm Extension (21/05767/FUL), now referred to as the Ben Sca Redesign Wind Farm (henceforth referred to as 'the Proposed Development').

The Applicant has appointed SLR Consulting Limited (SLR) to undertake a range of environmental studies on the site of the Proposed Development. This report provides the results of a survey for protected mammals undertaken in January 2024.

1.2 Site Location

The Proposed Development comprises nine turbines and associated wind farm infrastructure, on land approximately 2km to the southwest of Edinbane and 7km to the east of Dunvegan, on the Isle of Skye and within The Highland Council (THC) administrative boundary.

The site of the Proposed Development is mostly characterised by moorland, with extensive coniferous plantation in the north. Several small burns run through the site including the Red Burn, Allt Donachaigh, Allt Cro nan Caorach and Allt a' Choire.

1.3 Survey Area

The mammals survey area is shown on **Figure 5.2.1**. The survey area encompassed all potentially suitable habitat for the target species within 250m of the Proposed Development infrastructure. This included the proposed turbine locations, proposed crane hardstanding, the proposed construction compound areas, the proposed substation compound area, proposed borrow pits, proposed turning heads and the proposed new access track, with the survey buffer extending outwith the application boundary in some areas.

1.4 Scope of Study

The site of the Proposed Development was assessed for the presence of protected and otherwise notable mammals, focussing on species that are likely to occur in the area, ascertained from known species distribution and habitat suitability. The survey focussed on Eurasian otter (*Lutra lutra*), water vole (*Arvicola amphibius*), pine marten (*Martes martes*) and red squirrel (*Sciurus vulgaris*). Badgers (*Meles meles*) are assumed to be absent from the Isle of Skye with no sightings in recent years. As such, badger was excluded from this survey, however any incidental signs of badger activity encountered during the survey would be noted.

The aims of the survey were to:

- provide baseline data to inform the construction of the development and identify the need for any avoidance, mitigation, enhancement and compensation measures (if required);
- confirm the presence or absence of protected or otherwise notable mammals within areas which could be affected by the development; and
- record the location of field signs indicative of their activity should they be present.

This report presents the findings of the survey carried out in January 2024.



2.0 Legislation, Policy and Guidance

2.1 Legislation

Full consideration has been given to the relevant nature conservation legislation when carrying out this assessment. This includes the following:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- The Wildlife and Natural Environment (Scotland) (WANE) Act 2011 (as amended); and
- The Nature Conservation (Scotland) Act 2004 (as amended) which places a statutory duty on all public bodies to further the conservation of biodiversity through the Scottish Biodiversity Strategy, with Scottish priority species and habitats listed on the Scottish Biodiversity List (SBL), itself based on the former UK Biodiversity Action Plan (UKBAP), and regional biodiversity targets defined through the Local Biodiversity Action Plan (LBAP)¹.

2.2 Otter

Full consideration has been given to the relevant nature conservation legislation when carrying out this assessment. This includes the following:

Otter is a European Protected Species (EPS), protected under the Conservation (Natural Habitats, &c.) Regulations 1994. As such, in Scotland 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 den 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 den 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.

¹ The Highland Council (2021). *Highland Nature. Biodiversity Action Plan 2021 – 2026*. Available online: https://www.highland.gov.uk/downloads/download/2260/highland_nature_biodiversity_action_plan_2021_to_2026 [accessed 08/02/2024]



It should be noted that otter shelters are legally protected at all times, whether an otter is present or not.

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

2.3 Water Vole

Water vole receives partial protection through its listing on Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). In Scotland, this legal protection is currently restricted only to the water vole places of shelter or protection; it does not extend to the animal itself. It is an offence to intentionally or recklessly:

- damage, destroy or obstruct access to any structure or place that water voles use for shelter or protection; or
- disturb a water vole while it is using any such place of shelter or protection.

Water vole is a Priority Species on the Scottish Biodiversity List (SBL) (Scottish Government, 2013), where it is listed for both conservation action and for avoidance of negative impacts. This species has suffered significant declines in recent decades, mainly due to habitat loss and degradation, population fragmentation and predation by American mink (*Mustela vison*).

Water vole is listed as a priority species for conservation within the Highland Nature LBAP¹.

2.4 Pine Marten

Pine marten receive full protection under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended). In short, it is an offence to intentionally or recklessly:

- kill, injure or take a pine marten;
- damage, destroy or obstruct access to any structure or place a pine marten uses for shelter or protection;
- disturb a pine marten when it is occupying a nest or den for shelter or protection (except when this is inside a dwelling house);
- possess or control, sell, offer for sale or possess or transport for the purpose of sale any living or dead pine marten or any derivative of such an animal; or
- knowingly cause or permit any of the above acts to be carried out.

Pine marten is also included on the Scottish Biodiversity List (SBL), where it is listed for avoidance of negative impacts (The Scottish Government, 2013) and is a UK BAP priority species, included on the revised list in 2007.

Pine marten is listed as a priority species for conservation within the Highland Nature LBAP¹.

2.5 Red Squirrel

Red squirrels and their dreys receive full protection under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended). In short, it is an offence to intentionally or recklessly:

- kill, injure or take a red squirrel;
- damage, destroy or obstruct access to a drey or any other structure or place which a red squirrel uses for shelter or protection;
- disturb a red squirrel when it is occupying a structure or place for shelter or protection;



- possess or control, sell or offer for sale, or possess or transport for the purpose of sale any living or dead red squirrel or any derivative of such an animal; or
- knowingly causing or permitting any of the above acts to be carried out.

Red squirrel is also included on the Scottish Biodiversity List (SBL), where it is listed for conservation action needed and avoidance of negative impacts (The Scottish Government, 2013), and is a UK BAP priority species.

Red squirrel is listed as a priority species for conservation within the Highland Nature LBAP¹.

3.0 Methodology

3.1 Otter

A systematic search for otter field signs was undertaken for all suitable habitat within the survey area by an experienced ecologist with appropriate knowledge of otter ecology and practical experience of otter survey work.

Otter field signs that were searched for, as described in Bang & Dahlstrøm (2006)², Sargent & Morris (2003)³ and Chanin (2003a & b)^{4,5}, included:

- holts – these are underground shelters where otters live. They can be tunnels within bank sides, underneath root plates or boulder piles and even man-made structures such as disused drains. They can also be excavated from pre-existing badger setts, rabbit burrows and fox earths as well as above ground shelters in dense scrubby vegetation. Holts are used by otters to rest during the day and may be used as natal or breeding sites. Otters may use holts permanently or temporarily;
- couches/hovers – these are above ground resting-up sites. They may be partially sheltered or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. They may be used as natal and breeding sites. Couches can be very difficult to identify and may comprise an area of flattened grass or earth. Where rocks or rock armour are used as couches, these can be almost impossible to identify without observing the otter in-situ;
- prints and tracks – otters have characteristic footprints that can be found in soft ground and muddy areas;
- spraints – otter faeces are often used to mark territories, usually deposited on in-stream boulders or similarly prominent features such as raised ground close to water, under tree roots, beneath bridges and at crossing points of fences or walls. They can also be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often contain fish remains;
- feeding signs – the remains of prey items may be found at preferred feeding stations. Remains of fish, crabs or skinned amphibians can indicate the presence of otter;
- paths – these are terrestrial routes that otters take when moving between resting-up sites and watercourses, or during high flow conditions when otters travel along bank sides in preference to swimming; and

² Bang, P. & Dahlstrøm, P. (2006). *Animal Tracks and Signs*. Oxford University Press, Oxford.

³ Sargent, G. & Morris, P. (2003) *How to find & Identify Mammals*. The Mammal Society, London.

⁴ Chanin P (2003a) Ecology of the European Otter. *Conserving Natura 2000 Rivers*, Ecology Series No. 10. English Nature, Peterborough

⁵ Chanin P (2003b) Monitoring the Otter *Lutra lutra*. *Conserving Natura 2000 Rivers Monitoring Series* No 10. English Nature, Peterborough



- slides and play areas – slides are typically worn areas on steep slopes where otters slide on their bellies; slides are often found between holts/couches and watercourses. Play areas are used by juvenile otters in play and are usually evident as trampled vegetation and the presence of slides. These are often positioned in sheltered areas adjacent to the natal holt.

Any of the above signs are diagnostic evidence of the presence of otter; however, it is often not possible to identify couches with confidence unless other field signs are also present. Spraint is the most reliable identifiable evidence of the presence of this species.

3.2 Water Vole

Water vole surveys were undertaken in areas of suitable habitat within the survey area by an experienced surveyor. Water vole field signs that were searched for, as described in Strachan & Moorhouse (2006)⁶ and Dean et al (2016)⁷, included:

- sightings of water vole;
- faeces – these are recognisable by their size, shape and content. When reasonably fresh, water vole faeces are also distinguishable from rat droppings by their smell;
- latrines – faeces are often deposited at discrete locations known as latrines;
- feeding stations – food items are often brought along pathways and hauled onto platforms which are used as feeding stations. These are recognisable as neat piles of chewed vegetation up to 10cm long. There can be crossover in size with field vole feeding signs, and therefore other signs may be required to provide diagnostic evidence of the presence of water vole;
- burrows – these appear as a series of holes along the water's edge; they are distinguishable from rat or field vole burrows by their size, position and characteristics;
- lawns – these may appear as grazed areas around burrows;
- nests – woven nests may be found above ground in areas where the water table is high;
- footprints – water vole tracks may occur at the water's edge and lead into bankside vegetation. Clear prints are distinguishable from rat and field vole footprints by their characteristics and size; and
- runways in vegetation – low tunnels pushed through vegetation near the water's edge may be visible; these are less obvious than rat runs and are only diagnostic of water vole in the presence of other signs.

Any of the above signs (other than the exceptions noted) can be taken as diagnostic evidence of the presence of water vole.

⁶ Strachan, R., Moorhouse, T. & Gelling, M. (2011) *The Water Vole Conservation Handbook*. Third Edition, Wildlife Conservation Research Unit, University of Oxford, Abingdon.

⁷ Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) *The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series)*. Eds Fiona Mathews and Paul Chanin. Mammal Society, London.



3.3 Pine Marten

Pine marten surveys were undertaken in areas of suitable habitat within the survey area by an experienced surveyor. The field signs searched for, as described in Bang & Dahlstrøm (2001)², Velandar (1983)⁸ and Balharry et al (2008)⁹, included:

- scats – these are typically dark in colour and 4-12cm long x 0.8-1.8cm in diameter. They often have a coiled twisted appearance, typical of many mustelid scats. Scats will often contain food remains including fur, feathers, bone, plant content and seeds. Scats vary tremendously in size, shape and colour, and establishing a positive identification can be challenging. Where scat identification is in doubt, DNA analysis may be used to confirm pine marten. Scats are placed in latrines at well-used dens (e.g., on lids of den boxes), as well as at sites elsewhere in an individual's home range, where they probably fulfil a social communication role;
- footprints – the five-toed but slightly cat-like forefoot imprints measure approximately 40 x 45mm for females and 55 x 65mm for males; fur on the underside of feet in winter may blur prints and make them look larger, especially in soft snow. Indistinct trails of bounding martens (stride length 60-100cm) may resemble those of hares, with prints in groups of two or three where one or both hind feet have registered over prints of forefeet; and
- den sites – dens are usually not distinctive unless revealed by visible concentration of scats. Elevated den sites are preferred to keep martens safe from predators and provide insulation and shelter from the elements, and so hollow trees, owl boxes and the roofs of dwelling houses are often used, as well as purpose-built pine marten den boxes. Where such elevated dens are absent, they may den on the ground in rabbit burrows, rocky outcrops or under tree root plates.

Any of the above signs are diagnostic evidence of the presence of pine marten; however, it is often not possible to identify den sites with confidence unless other field signs are also present. Scats are the most reliable identifiable evidence of the presence of this species.

3.4 Red Squirrel

All suitable habitat within the original survey area was surveyed for red squirrel by an experienced surveyor. The field signs searched for, as described in Gurnell et al. (2009)¹⁰, included:

- dreys – these can be found in trees, usually built close to the main stem from 3m above ground upwards, often much higher. These typically look like a cluster of sticks, 50cm diameter and 30cm deep;
- feeding signs – squirrels leave distinctive feeding signs in conifer forests, leaving pine cones that have been stripped from the broad end, leaving a small number of pine kernels still intact at the narrow end of the cone; and
- sightings.

⁸ Velandar, KA (1983) *Pine Marten Survey of Scotland, England and Wales 1982 - 1983*. The Vincent Wildlife Trust, London.

⁹ Balharry E, Jefferies DJ and Birks JDS (2008) *Pine marten in: Mammals of the British Isles: Handbook 4th Edition*, 447-455. The Mammal Society, Southampton.

¹⁰ Gurnell, J., Lurz, P., McDonald, R., Pepper, H. (2009). *Practical Techniques for Surveying and Monitoring Squirrels*. Forestry Commission Scotland, Edinburgh.



There is no distinguishable difference between the dreys or feeding signs of a red squirrel and a grey squirrel therefore all dreys and feeding signs are counted as potential red squirrel presence unless accompanied by a live sighting.

3.5 Survey Dates, Weather Conditions and Personnel

The survey was undertaken on 13 January 2024, during a period of light rainfall with dry spells in the afternoon.

The survey was conducted on SLR's behalf by Oliver Allan, a freelance environmental consultant with over 6 years' ecological survey and consultancy experience.

This protected mammal report was written by Euan MacRae. Euan is a Project Ecologist at SLR with over one years' professional ecological consultancy experience. He has undertaken protected mammals surveying and reporting work for wind farm sites throughout the Scottish Highlands and Islands including the Isle of Lewis, Aberdeenshire, and Caithness and Sutherland.

This report was reviewed and QA'd by Sara Toule ACIEEM, a Principal Ecologist with over a decade of professional ecological consultancy experience.

3.6 Limitations

The site's watercourses were in spate at the time of survey due to rainfall and snow melt. As a result, some field signs such as otter spraint may have been washed away or obscured at the time of survey. However, it is considered unlikely that this will have significantly impacted the results of the survey as there were no periods of heavy rainfall during the survey, nor over the preceding days.

An ecological study provides only a 'snapshot' of the conditions prevailing at the time of survey. Lack of evidence of any one protected species does not necessarily preclude them from being present on site at a later date. Whilst it is considered unlikely that any significant evidence of protected or otherwise notable mammal species has been overlooked, due to the nature of the subjects of ecological surveys it is feasible that species that use the site may not have been recorded by virtue of their seasonality, cryptic behaviour, habit or random chance. It is considered unlikely, however, that additional surveys of the site at this time would materially alter the conclusions of this report.

4.0 Results

No mammal signs, as described in Section 3.0, were identified within the survey area.

Otter anal jelly was identified beneath a bridge crossing the Allt a' Choire. The anal jelly was located 124m outside of the application boundary (**Figure 5.2.1**), confirming otter presence within the wider area.

No watercourses within the survey area were noted as having suitability for otter holts. Of the site's watercourses, the Allt Donachaigh was assessed as having the greatest potential for commuting and resting otter during the summer.

5.0 Discussion

Habitat quality for protected mammals (namely otter, water vole, pine marten and red squirrel) within the Proposed Development site is mostly poor.

Watercourses within the Proposed Development site are limited to small tributaries with low potential to support otter holts due to their size, lack of reliable food sources and limited bankside cover.



The identification of anal jelly in the Allt a' Choire confirms the presence of otter in the wider area. While the presence of holts is unlikely, the site's watercourses, most notably the Allt Donachaigh, do have some potential for occasional otter commuting. The Allt Donachaidh and Allt a' Choire are hydrologically connected to the sea at Loch Greshornish via the Red Burn and have increased potential for inland commuting and short-term resting-up of this highly mobile species during the summer months. However, to date, no otter field signs have been reported within the Proposed Development site.

Similarly, the site's watercourses provide poor habitat quality for water vole. The more minor burns within the Proposed Development site are likely to be seasonally dry. Additionally, overhanging banks and wet blanket bog have low suitability for burrowing.

Non-native coniferous plantation of Sitka spruce (*Picea sitchensis*), which covers the majority of land in the north of the survey area, has the potential to support red squirrel and pine marten. However, no field signs nor incidental records of either species has been reported within the Proposed Development site to date.



