

# Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

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**1. Name and address of the compiler of this form:****Joint Nature Conservation Committee**

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Designation date

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Site Reference Number

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**2. Date this sheet was completed/updated:**

9 March 2006

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**3. Country:**

UK (Scotland)

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**4. Name of the Ramsar site:**

Lewis Peatlands

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**5. Map of site included:**Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps.**a) hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no***b) digital (electronic) format** (optional): Yes

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**6. Geographical coordinates (latitude/longitude):**

58 15 00 N

06 35 00 W

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**7. General location:**

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

The site is located 5 km west of Stornoway.

The Lewis Peatlands site is situated on the Isle of Lewis at the north-western limit of the British Isles.

**Administrative region:** Western Isles / Na h-Eileanan an Iar

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**8. Elevation** (average and/or max. & min.) (metres): **9. Area** (hectares): 58984.23

Min. 9

Max. 240

Mean 86

## 10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Lewis Peatlands site is predominantly made up of a near-continuous mantle of blanket bog liberally dotted with small pools and lochans. In the southern part of the site the peatland is more broken with outcrops of rocks (Lewisian gneiss) and lochans forming a distinctive 'knock and lochan' landscape and including the larger freshwater nutrient-poor lochs of south central Lewis. The vast expanse of this relatively undisturbed peatland landscape supports a diverse range of associated flora and fauna. With their north-westerly and island location, the Lewis Peatlands are probably the most extremely 'Atlantic' of all the blanket mires in Great Britain. In terms of the bioclimatic zones represented, the hyper-oceanic, extremely humid upper boreal zone predominates to an extent found nowhere else in Scotland.

## 11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

**1, 2, 6**

**Secretariat comment: The RIS provides information requiring the application of Criterion 4. This needs to be included in the next update.**

## 12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

### Ramsar Criterion 1

The site qualifies under Criterion 1 by supporting one of the largest and most intact known areas of blanket bog in the world. It includes extensive areas of ombrotrophic or rain-fed bog together with numerous, smaller areas where the peatland lies in depressions and is subject to a flow of water carrying nutrients dissolved from rock and mineral soil. The area of qualifying blanket bog is coincident with that of Lewis Peatlands SAC.

### Ramsar Criterion 2

The site qualifies under Criterion 2 by supporting a number of rare species of wetland birds. There is a diverse population of breeding waterfowl including nationally important populations of red-throated diver *Gavia stellata*, black-throated diver *Gavia arctica*, golden plover *Pluvialis apricaria* and greenshank *Tringa nebularia*.

### Ramsar criterion 6 – species/populations occurring at levels of international importance.

#### Qualifying Species/populations (as identified at designation):

#### Species regularly supported during the breeding season:

Dunlin , <i>Calidris alpina schinzii</i> , Baltic/UK/Ireland	4386 pairs, representing an average of 17.5% of the biogeographic breeding population (2004)
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Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See [www.bto.org/survey/webs/webs-alerts-index.htm](http://www.bto.org/survey/webs/webs-alerts-index.htm).

**13. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

**a) biogeographic region:**

Atlantic

**b) biogeographic regionalisation scheme** (include reference citation):

Council Directive 92/43/EEC

**14. Physical features of the site:**

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, peat, nutrient-poor, metamorphic
Geomorphology and landscape	upland, slope
Nutrient status	oligotrophic
pH	strongly acidic
Salinity	fresh
Soil	mainly organic
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Stornoway, 1971–2000) ( <a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/stornoway.html">www.metoffice.com/climate/uk/averages/19712000/sites/stornoway.html</a> ) Max. daily temperature: 11.0° C Min. daily temperature: 5.6° C Days of air frost: 30.7 Rainfall: 1231.7 mm Hrs. of sunshine: 1216.8

**General description of the Physical Features:**

The Lewis Peatlands comprise an extensive area of deep blanket bog, interspersed with bog-pool complexes and freshwater lochs, covering the main part of Lewis. Grazed, poor-quality grassland also occurs, with heather *Calluna vulgaris* dominant on the coast. In the south, the blanket bog becomes increasingly fragmented by rocky outcrops and larger lochs.

**15. Physical features of the catchment area:**

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Lewis Peatlands comprise an extensive area of deep blanket bog, interspersed with bog-pool complexes and freshwater lochs, covering the main part of Lewis. Grazed, poor-quality grassland also occurs, with heather *Calluna vulgaris* dominant on the coast. In the south, the blanket bog becomes increasingly fragmented by rocky outcrops and larger lochs.

**16. Hydrological values:**

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Sediment trapping, No special values known, Other, Recharge and discharge of groundwater, Maintenance of water quality (removal of nutrients), Modification of local climate, Water supply

**17. Wetland types**

Inland wetland

Code	Name	% Area
O	Freshwater lakes: permanent	10

U	Peatlands (including peat bogs swamps, fens)	79
Other	Other	11

### 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The Lewis Peatlands site is predominantly made up of blanket bog habitat consisting of mainly but not exclusively M17 *Scirpus cespitosus-Eriophorum vaginatum* blanket mire including the *Drosera rotundifolia - Sphagnum* and *Cladonia* sub-communities. Drier ground and slopes also contain M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire. Wet heath habitat M15 *Scirpus cespitosus-Erica tetralix* also occurs on slopes, hills and in the knock and lochan landscape of central and south Lewis. Freshwater lochs and lochans are also an important habitat feature of the peatlands consisting mainly of the European habitat features Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (NVC community A22 *Littorella uniflora-Lobelia dortmanna*), and dystrophic lochs (containing NVC communities M1 *Sphagnum auriculatum* bog pool community, M2 *Sphagnum cuspidatum/recurvum* bog pool community and M3 *Eriophorum angustifolium* bog pool community).

### 19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

#### Assemblage.

The site is internationally important because it contains the following Habitats Directive Annex I features:

- H3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*
- H3160 Natural dystrophic lakes and ponds
- H4010 Northern Atlantic wet heaths with *Erica tetralix*
- H7130 Blanket bogs
- H7150 Depressions on peat substrates of the *Rhynchosporion*

### Nationally important species occurring on the site.

#### Higher Plants.

*Hammarbya paludosa*

Lower Plants.

*Campylopus shawii*

*Sphagnum imbricatum* ssp. *austinii*

### 20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

#### Birds

##### Species currently occurring at levels of national importance:

##### Species regularly supported during the breeding season:

Arctic skua, *Stercorarius parasiticus*, NE 70 apparently occupied territories, representing an average of 3.2% of the GB population (Seabird 2000 Census)

#### Species Information

Internationally important species occurring on the site

Mammals  
S1355 *Lutra lutra* Otter (Habitats Directive Annex II species)

### 21. Social and cultural values:

e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc.  
Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic  
Environmental education/ interpretation  
Livestock grazing  
Non-consumptive recreation  
Peat cutting (small-scale/subsistence)  
Sport fishing  
Sport hunting  
Traditional cultural

### 22. Land tenure/ownership:

Ownership category	On-site	Off-site
Private	+	+
Public/communal	+	

### 23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Recreation	+	+
Current scientific research	+	+
Fishing: recreational/sport	+	+
Freshwater aquaculture	+	+
Rough or shifting grazing	+	+
Hunting: recreational/sport	+	+
Domestic water supply	+	+

### 24. Factors adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

*Explanation of reporting category:*

1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Habitat burning	1	Infrequent but occasionally extensive fires occur either deliberately as part of grazings management or accidentally from recreational users. (Not a new factor, though appears not to have been reported before).	+		+

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

**25. Conservation measures taken:**

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Special Protection Area (SPA)	+	
Management agreement	+	
Site management statement/plan implemented	+	
Special Area of Conservation (SAC)	+	

**26. Conservation measures proposed but not yet implemented:**

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

**27. Current scientific research and facilities:**

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Scottish Blanket Bog Inventory: Lewis and Harris - characterisation of blanket bogs using Landsat Thematic Mapper (Quarmby, Everingham & Reid 1997)

A preliminary investigation into the significance of climate and land management history on the prevalence of *Racomitrium lanuginosum* on the blanket bogs of Lewis. Department of Geography, University-upon-Tyne (Moores & Stevenson 1998).

**28. Current conservation education:**

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Information booklet (Taylor 2004).

**29. Current recreation and tourism:**

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Sport hunting for grouse and deer occurs on the site between 12 August to 10 December for grouse, 1 July to 20 October for red deer stags and 21 October to 15 February for red deer hinds. Angling also occurs on the site between 5 February to 31 October for salmon and 15 March to 7 October for sea trout and brown trout. These activities at their present level are considered compatible with the interest of the site.

**30. Jurisdiction:**

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Scottish Executive, Environment and Rural Affairs Department

**31. Management authority:**

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Scottish Natural Heritage, 2 Anderson Place, Edinburgh, EH6 5NP

### 32. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

#### Site-relevant references

- Bates, MA, Shepherd, KB, Whitfield, P & Arnott, DA (1994) A breeding wader and upland survey of selected sites in Lewis and Harris. *Scottish Natural Heritage Commissioned Research Report*, No. \*\*
- Boyd, JM (ed.) (1979) *The natural environment of the Outer Hebrides. Proceedings of the Royal Society of Edinburgh. Series B: Biological Sciences*, 77
- Everingham, F & Mayer, P (1991) *A peatland survey of Lewis 1987–1989*. Nature Conservancy Council, Peterborough (Contract Survey, No. 132)
- Hulme, PD (1985) The peatland vegetation of the Isle of Lewis and Harris and the Shetland Islands, Scotland. *Aquilo, Series Botanica*, 21, 81-88
- McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. [www.jncc.gov.uk/SACselection](http://www.jncc.gov.uk/SACselection)
- Moores, AJ & Stevenson, AC (1998) *A preliminary investigation into the significance of climate and land management history on the prevalence of *Racomitrium lanuginosum* on the blanket bogs of Lewis*. University-upon-Tyne, Department of Geography
- Quarmby, NA, Everingham, F & Reid, E (1997) Scottish Blanket Bog Inventory: Lewis and Harris – characterisation of blanket bogs using Landsat thematic mapper *Scottish Natural Heritage Research Survey and Monitoring Report*, 85
- Ratcliffe, DA (ed.) (1977) *A Nature Conservation Review. The selection of biological sites of national importance to nature conservation in Britain*. Cambridge University Press (for the Natural Environment Research Council and the Nature Conservancy Council), Cambridge (2 vols.)
- Shepherd, KB & Whitfield, DP (1996) *A survey of moorland breeding birds on the Isle of Lewis, Outer Hebrides, Scotland in 1996*. Scottish Natural Heritage, Edinburgh
- Shepherd, KB, Batchelor, PK, Hulka, S, Stirling, JP, Watson, D & Whitfield, DP (1995) *A survey of moorland breeding birds on the Isle of Lewis, Outer Hebrides, Scotland in 1995*. Scottish Natural Heritage, Edinburgh
- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) [www.jncc.gov.uk/UKSPA/default.htm](http://www.jncc.gov.uk/UKSPA/default.htm)
- Taylor, K (2004) *The Lewis Peatlands: the island's growing heart*. Scottish Natural Heritage, Stornoway
- Whitfield, P, Vigano, P & Renwick, L (1998) *Birds of the peatlands of Lewis and Harris: species distributions and recommendations for the boundary of the Lewis Peatlands Special Protection Area*.

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