

# Information Sheet on Ramsar Wetlands (RIS)

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9<sup>th</sup> Conference of the Contracting Parties (2005).*

Notes 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. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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## 1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

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

Designated: 24 July 1981

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## 3. Country:

UK (Scotland)

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## 4. Name of the Ramsar site:

Cairngorm Lochs

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## 5. Designation of new Ramsar site or update of existing site:

**This RIS is for:** Updated information on an existing Ramsar site

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## 6. For RIS updates only, changes to the site since its designation or earlier update:

### a) Site boundary and area:

\*\* Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

### b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

**7. Map of site included:**

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) *Yes*
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* ☐;

b) **Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

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

57 04 08 N                      03 47 27 W

**9. General location:**

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

Nearest town/city: Aviemore

The five lochs are all in the Cairngorm massif in the east-central Highlands of Scotland.

**Administrative region:** Grampian; Highland

**10. Elevation (average and/or max. & min.) (metres):    11. Area (hectares): 172.99**

Min.        727

Max.        727

Mean       727

**12. General overview of the site:**

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

The Cairngorm Lochs Ramsar site consists of Lochs Etchachan, Uaine, Coire an Lochain, Avon and Einich which are amongst the highest standing waters in the UK. The first three lochs are corrie lochans at altitudes of 900-1000 m whilst the other two are much larger and occupy the upper reaches of major glacial troughs at lower altitudes. All five lochs are extremely oligotrophic. The three corrie lochans have shorelines predominately of ice-polished boulders and have continuous ice cover from December to May in most years. Lochs Avon and Einich have more varied shorelines with boulders, glacial drift and storm beaches and much shorter periods of ice-cover. All the lochs have an arctic-alpine nature and support specialised populations of plankton.

**13. 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**

**14. Justification for the application of each Criterion listed in 13 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 Cairngorms Lochs are exceptional examples of high altitude oligotrophic lochs in the United Kingdom.

## Ramsar criterion 3

The lochs are of considerable limnological value and support highly specialised populations of zooplankton and phytoplankton.

**15. 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

**16. 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, nutrient-poor, igneous, granite
Geomorphology and landscape	montane, valley
Nutrient status	oligotrophic
pH	acidic
Salinity	fresh
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Braemar, 1971–2000) ( <a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/braemar.html">www.metoffice.com/climate/uk/averages/19712000/sites/braemar.html</a> ) Max. daily temperature: 10.5° C Min. daily temperature: 2.8° C Days of air frost: 103.3 Rainfall: 912.7 mm Hrs. of sunshine: 1210.3

**General description of the Physical Features:**

No information available

**17. 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 Cairngorms include the greatest area of high land in the UK, and among the Cairngorm Lochs are the highest standing waterbodies in Britain. Fringed with ice-polished boulders, those over 600 m are oligotrophic and arctic/alpine in character, with a very impoverished fauna and flora and have continuous ice cover from December to May in most winters. The corrie and plateau lochs, on rocky substrates above 900 m, suffer the harshest climate and the lowest levels of nutrient. The larger glacial trough lochs in Glens Einich and Avon enjoy more sheltered conditions. The occurrence of finer sediments in Loch Einich allows the limited establishment of higher plants.

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**18. Hydrological values:**

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

Water supply

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**19. Wetland types:**

Inland wetland

Code	Name	% Area
O	Freshwater lakes: permanent	100

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**20. General ecological features:**

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Within the Cairngorms Lochs site three of the smaller lochs only support plankton and have little to no emergent vegetation. The two large lochs support a variety of shoreline plant communities including A22 *Littorella uniflora* - *Lobelia dortmanna* community, A23 *Isoetes lacustris/setacea* community and A24 *Juncus bulbosus* community.

Ecosystem services

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**21. 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:

Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (H3130)

**Nationally important species occurring on the site.****Higher Plants.**

*Elatine hexandra*.

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**22. 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 Information****Assemblage.**

This site supports an important assemblage of phytoplankton and zooplankton.

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**23. Social and cultural values:**

Describe if the site has any general social and/or 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
- Scientific research
- Tourism

**b)** Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

**24. Land tenure/ownership:**

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Private	+	+

**25. Current land (including water) use:**

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation		+
Current scientific research	+	+
Hunting: commercial		+
Domestic water supply	+	

**26. Factors (past, present or potential) 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?
No factors reported	NA				

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

**27. 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
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	+
National Nature Reserve (NNR)	+	+
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	+
Site management statement/plan implemented	+	
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

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

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

No information available

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

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

**Miscellaneous.**

Paleoecological research by London University is continuing (see Battarbee *et al.* 1996).

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**30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

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

None reported

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**31. Current recreation and tourism:**

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

**Activities, Facilities provided and Seasonality.**

None of the lochs are used for water-based recreation or tourism, but several of them have footpaths used for informal recreation along or close to their shorelines. These activities take place year round, though with fewer visitors in winter, and are not thought to be having any significant impact. The lochs are also an important component of the landscape and feature prominently in many views.

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**32. 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

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**33. 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

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**34. Bibliographical references:**

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

**Site-relevant references**

Battarbee RW, Jones, VJ, Flower, RJ, Appleby, PG, Rose, NL & Rippey, B (1996) Palaeolimnological evidence for the atmospheric contamination and acidification of high Cairngorm lochs, with special reference to Lochnagar. *Botanical Journal of Scotland*, **48**(1), 79-88

Bayfield, NG & Conroy, JWH (1996) *The Cairngorms assets: a Cairngorms Partnership Working Paper*. Cairngorms Partnership, Grantown on Spey.

Gordon, JE & Sutherland, DG (eds.) (1993) *Quaternary of Scotland*. Chapman & Hall, London, for Joint Nature Conservation Committee, Peterborough (Geological Conservation Review Series, No. 6)

Love, J [1986] *Research in the Cairngorms. A preliminary appraisal*. Nature Conservancy Council, North East Scotland Region, Aviemore

Nethersole-Thompson, D & Watson, A (1981) *The Cairngorms – their natural history and scenery*. 2nd edn. Melven, Perth

Rao, S (2004) Classic wildlife sites: Mar Lodge Estate, Cairngorms. *British Wildlife*, **16**(2), 86-94

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.)

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