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.

1. Name and address of the compiler of this form:
   Joint Nature Conservation Committee
   Monkstone House
   City Road
   Peterborough
   Cambridgeshire  PE1 1JY
   UK
   Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
   Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:
   9 March 2006

3. Country:
   UK (Scotland)

4. Name of the Ramsar site:
   Moray and Nairn Coast

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

6. Geographical coordinates (latitude/longitude):
   57 38 54 N 03 43 48 W

7. 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: Elgin
   Situated between Nairn, east of Inverness and Spey Bay, east of Elgin. It is an integral part of the Moray Firth on the coast of north-east Scotland.
   Administrative region: Grampian; Highland

8. Elevation (average and/or max. & min.) (metres):
   Min.  -1
   Max.  19
   Mean  2

9. Area (hectares): 2412.27
   (no boundary change, new calculation 2005)
10. Overview:
Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Moray and Nairn Coast site is comprised of two areas: the intertidal flats, saltmarsh and sand dunes of Findhorn Bay and Culbin Bar, and the alluvial deposits and associated woodland of the lower River Spey and Spey Bay. It is of outstanding nature conservation and scientific importance for coastal and riverine habitats, and for migrating geese and over-wintering waders.

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, 5, 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 supports a variety of important wetland features, including particularly good examples of intertidal flats, saltmarsh and floodplain alder Alnus glutinosa woodland.

Ramsar criterion 2
At least six nationally scarce aquatic and coastal plants are present, sea centaury Centaurium littorale, Baltic rush Juncus balticus, oysterplant Mertensia maritima and the eelgrasses Zostera noltei, Z. angustifolia and Z. marina. The British Red Data Book invertebrates, Ochthebius lenensis (a small water beetle) and Tetanocera freyi (a snail-killing fly) are also found.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

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

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:
Greylag goose, Anser anser anser, Iceland/UK, Ireland (w) 3023 individuals, representing an average of 3.0% of the population (Source period not collated)

Species/populations identified subsequent to designation
Species with peak counts in winter:
Long-tailed duck, Clangula hyemalis, W Siberia/N Europe (non-br) 1366 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)

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.
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):

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.

<table>
<thead>
<tr>
<th>Soil &amp; geology</th>
<th>acidic, shingle, alluvium, mud, sand, gravel, pebble, cobble, boulder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geomorphology and landscape</td>
<td>coastal, floodplain, shingle bar, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), open coast (including bay), estuary</td>
</tr>
<tr>
<td>Nutrient status</td>
<td>mesotrophic, oligotrophic</td>
</tr>
<tr>
<td>pH</td>
<td>acidic</td>
</tr>
<tr>
<td>Salinity</td>
<td>brackish / mixosaline, fresh, saline / euhaline</td>
</tr>
<tr>
<td>Soil</td>
<td>mainly mineral</td>
</tr>
<tr>
<td>Water permanence</td>
<td>usually permanent</td>
</tr>
<tr>
<td>Summary of main climatic features</td>
<td>Annual averages (Kinloss, 1971–2000)</td>
</tr>
<tr>
<td></td>
<td>(<a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/kinloss.html">www.metoffice.com/climate/uk/averages/19712000/sites/kinloss.html</a>)</td>
</tr>
<tr>
<td></td>
<td>Max. daily temperature: 12.2° C</td>
</tr>
<tr>
<td></td>
<td>Min. daily temperature: 5.1° C</td>
</tr>
<tr>
<td></td>
<td>Days of air frost: 53.5</td>
</tr>
<tr>
<td></td>
<td>Rainfall: 624.4 mm</td>
</tr>
<tr>
<td></td>
<td>Hrs. of sunshine: 1261.4</td>
</tr>
</tbody>
</table>

**General description of the Physical Features:**

The site comprises the intertidal flats, saltmarsh and sand dunes of Findhorn Bay and Culbin Bar, and the alluvial deposits and associated woodland of the Lower River Spey and Spey Bay.

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 site comprises the intertidal flats, saltmarsh and sand dunes of Findhorn Bay and Culbin Bar, and the alluvial deposits and associated woodland of the Lower River Spey and Spey Bay.

16. **Hydrological values:**

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

No special values known

17. **Wetland types**

Marine/coastal wetland
### 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 Spey Bay/Lower River Spey supports a large range of shingle-related habitats reflecting the succession from presently mobile, unstable conditions to those which have been stable for considerably longer. Areas of recently deposited shingle and sand support a diverse flora of plant species including those associated with coastal habitats and those associated with upland or montane habitats. More stable shingle supports a mosaic of scrub/heath/dry grassland. River channels and adjacent areas of shingle support valley alder woodland and willow scrub. Some of the older channels also support aquatic and fen communities.

Findhorn Bay/Culbin Bars contain a wide variety of coastal habitats including extensive intertidal flats and saltmarsh, sand and shingle bars, dunes, and dune-slacks. Successional processes associated with coastal processes, such as accretion and development of saltmarsh, are of particular interest.

### 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:

- H1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- H2110 Embryonic shifting dunes
- H1220 Perennial vegetation of stony banks
- H91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)

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

**Higher Plants.**

- *Centaurium littorale*, *Juncus balticus*, *Mertensia maritima*, *Zostera angustifolia*, *Zostera marina*, *Zostera noltii*

**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:**

- Osprey, *Pandion haliaetus*, Europe 14 individuals, representing an average of 11% of the GB population (Count as at early 1990s)

**Species with peak counts in spring/autumn:**

- Red-breasted merganser, *Mergus serrator*, NW & C Europe 104 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:

- **Pink-footed goose**, *Anser brachyrhynchus*, Greenland, Iceland/UK: 1855 individuals, representing an average of 0.7% of the population (5 year peak mean 1996-2000).
- **Greater scaup**, *Aythya marila marila*, W Europe: 81 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3).
- **Black (common) scoter**, *Melanitta nigra nigra*,: 3246 individuals, representing an average of 6.4% of the GB population (5 year peak mean 1998/9-2002/3).
- **Velvet scoter**, *Melanitta fusca fusca*, Baltic/W Europe: 1146 individuals, representing an average of 38.2% of the GB population (5 year peak mean 1998/9-2002/3).
- **Common redshank**, *Tringa totanus totanus*,: 757 individuals, representing an average of 0.6% of the GB population (5 year peak mean 1998/9-2002/3).

Species Information

Nationally important species occurring on the site.

**Invertebrates.**

*Ochthebius lenensis, Tetanocera freyi.*

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
- Forestry production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism

22. **Land tenure/ownership:**

<table>
<thead>
<tr>
<th>Ownership category</th>
<th>On-site</th>
<th>Off-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-governmental organisation (NGO)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Local authority, municipality etc.</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>National/Crown Estate</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Private</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>On-site</th>
<th>Off-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature conservation</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Tourism</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Recreation</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Current scientific research</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Commercial forestry</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fishing: recreational/sport</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Gathering of shellfish</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Bait collection</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Rough or shifting grazing</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Adverse Factor Category</th>
<th>Reporting Category</th>
<th>Description of the problem (Newly reported Factors only)</th>
<th>On-Site</th>
<th>Off-Site</th>
<th>Major Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No factors reported</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Conservation measure</th>
<th>On-site</th>
<th>Off-site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site/ Area of Special Scientific Interest (SSSI/ASSI)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Special Protection Area (SPA)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Site management statement/plan implemented</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Special Area of Conservation (SAC)</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

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.

Fauna.
Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

**Environment.**
The Culbin Bars part of the site is used by Aberdeen University for research into intertidal ecology. The Lower River Spey/Spey Bay section is used by Glasgow University for research into coastal and fluvial geomorphological processes.

**28. Current conservation education:**
e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.
Interpretative panels have been installed at Findhorn Bay and Spey Bay with support from Scottish Natural Heritage (SNH). SNH has recently produced an education pack for school users to promote the educational use of Findhorn Bay; the potential educational value of this site is considered to be high.
There is an ice house at Spey Bay used as a museum run by the Moray Authority focusing on the salmon-fishing industry. At Findhorn Bay there is a small museum run by the local community funded by Scottish Natural Heritage which provides information on the history and conservation interest of the village and Bay. Both are only open during the summer.

**29. 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.**
The site is of importance for recreational angling, wildfowling, walking (the Speyside Way Long Distance footpath runs adjacent to part of the site), watersports (concentrated in Findhorn Bay) and birdwatching. No figures for tourism are available but a very rough estimate would be in the order of 50,000-100,000 visitors per annum.

**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**


Marshall, S (1998) Culbin Sands, Culbin Forest and Findhorn Bay SSSI Phase 1 habitat survey. Scottish Natural Heritage


Scottish Natural Heritage (1991) Culbin Sands, Culbin Forest and Findhorn Bay SSSI site management statement. Scottish Natural Heritage

Scottish Natural Heritage (1995) Lower River Spey SSSI site management statement. Scottish Natural Heritage

Scottish Natural Heritage (1996) Spey Bay SSSI site management statement. Scottish Natural Heritage


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