

Information Sheet on Ramsar Wetlands (RIS)

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

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

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 22 March 1999

3. Country:

UK (Scotland)

4. Name of the Ramsar site:

Cromarty Firth

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

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

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 41 00 N 04 12 00 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: Inverness

Cromarty Firth lies on the east coast of Scotland, 20 km north of Inverness, in Easter Ross.

Administrative region: Highland

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 3746.95

Min.	-3
Max.	2
Mean	0

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 Cromarty Firth Ramsar site contains extensive intertidal mudflats and shingle bordered locally by areas of saltmarsh. The mouth of the River Conon also supports these ecological features.

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, 5, 6

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 site contains extensive, undisturbed intertidal flats with eelgrass *Zostera* spp. beds.

Ramsar criterion 5

Assemblages of international importance:**Species with peak counts in winter:**

30200 waterfowl (5 year peak mean 1998/99-2002/2003)

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, 1508 individuals, representing an average of 1.6% of the population (5 year peak mean for 1995/6-1999/2000)
Ireland

Bar-tailed godwit , *Limosa lapponica lapponica*, 1753 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)
W Palearctic

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.

Details of bird species occurring at levels of National importance are given in Section 22

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	shingle, sand, mud, alluvium, sandstone, gravel
Geomorphology and landscape	lowland, shingle bar, intertidal sediments (including sandflat/mudflat), enclosed coast (including embayment), estuary, intertidal rock
Nutrient status	no information
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Kinloss, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/kinloss.html) Max. daily temperature: 12.2° C Min. daily temperature: 5.1° C Days of air frost: 53.5 Rainfall: 624.4 mm Hrs. of sunshine: 1261.4

General description of the Physical Features:

Cromarty Firth is one of the major firths on the Moray Firth. It contains a range of high-quality coastal habitats including extensive intertidal mudflats and shingle bordered locally by areas of saltmarsh, as well as reedbeds around Dingwall.

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).

Cromarty Firth is one of the major firths on the Moray Firth. It contains a range of high-quality coastal habitats including extensive intertidal mudflats and shingle bordered locally by areas of saltmarsh, as well as reedbeds around Dingwall.

18. Hydrological values:

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

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping, Other

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
B	Marine beds (e.g. sea grass beds)	46.2
G	Tidal flats	46.1
H	Salt marshes	5.5
Other	Other	0.8
F	Estuarine waters	0.6
U	Peatlands (including peat bogs swamps, fens)	0.3
Xf	Freshwater, tree-dominated wetlands	0.2
E	Sand / shingle shores (including dune systems)	0.2
J	Coastal brackish / saline lagoons	0.1

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.

The Cromarty Firth supports the full range of estuarine habitats. Of particular importance are the extensive intertidal mudflats which support sizeable beds of eelgrass *Zostera* spp. The tidal flats are bordered locally by saltmarsh which grades into alluvial woodland at the mouth of the River Conon.

Ecosystem services

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.*

Nationally important species occurring on the site.

Zostera angustifolia, *Z. noltei*.

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 currently occurring at levels of national importance:****Species regularly supported during the breeding season:**

Osprey , <i>Pandion haliaetus</i> , Europe	>2 pairs, representing an average of 1.5% of the GB population (5 year mean 1992-1996)
Common tern , <i>Sterna hirundo hirundo</i> , N & E Europe	413 apparently occupied nests, representing an average of 4% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Eurasian wigeon , <i>Anas penelope</i> , NW Europe	10662 individuals, representing an average of 2.6% of the GB population (5 year peak mean 1998/9-2002/3)
Common redshank , <i>Tringa totanus totanus</i> ,	1643 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Slavonian grebe , <i>Podiceps auritus</i> , Northwest Europe	20 individuals, representing an average of 2.7% of the GB population (5 year peak mean 1998/9-2002/3)
Greater scaup , <i>Aythya marila marila</i> , W Europe	225 individuals, representing an average of 2.9% of the GB population (5 year peak mean 1998/9-2002/3)
Red knot , <i>Calidris canutus islandica</i> , W & Southern Africa (wintering)	3327 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

None reported

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
- Archaeological/historical site
- Environmental education/ interpretation
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- Traditional cultural
- Transportation/navigation

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)	+	
National/Crown Estate	+	
Private	+	
Other	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	
Recreation	+	
Current scientific research	+	
Fishing: recreational/sport		+
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	
Bait collection	+	
Arable agriculture (unspecified)		+
Grazing (unspecified)	+	+
Permanent pastoral agriculture		+
Hunting: recreational/sport	+	
Hydro-electricity/ water-power		+
Industry		+
Sewage treatment/disposal	+	+
Harbour/port		+
Transport route		+
Urban development		+
Non-urbanised settlements		+
Military activities		+
Other		+

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)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	
Other	+	
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.

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.

There have been a large number of surveys undertaken in the Cromarty Firth area covering a number of topics including:

Intertidal invertebrates in Nigg and Udale Bays (Anderson 1971)

Habitat.

Habitat survey undertaken by Currie (1978).

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.

The RSPB have a public hide at both Udale and Nigg Bays which are open all year. A number of fixed interpretation panels are located around the firth.

31. Current recreation and tourism:

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

Terrestrial & intertidal based recreation:

Walking is concentrated on Alness Point. Birdwatchers go to places where there is easy public access to the shore. All year activity. Local cruises operate from Cromarty to view the population of bottlenose dolphins resident in the Sutors area with occasional trips to the wider Moray Firth. These trips operate except during the winter months in contrast to terrestrial forms of recreation which are all year round

Water-based recreation:

Power-boating, water-skiing and wind-surfing are undertaken occasionally. There is a sailing club in the Firth. These operate mainly from April to September and in deep water.

Wildfowling:

Most of this activity occurs in Nigg and Udale Bays.

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

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

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

Anderson, SS (1971) *Nigg and Udale Bays: a survey of intertidal invertebrates*. (Contractor: Coastal Ecology Research Station, Norwich.) Unpublished report to Nature Conservancy Council, North-West (Scotland) Region, Inverness (Internal report)

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- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 4. North and east Scotland*. Joint Nature Conservation Committee, Peterborough
- Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)
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- 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

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