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:

- 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.
- 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 an	d, where possible, digital copies of maps.
1. Name and address of the compiler of this form:	FOR OFFICE USE ONLY.
Joint Nature Conservation Committee Monkstone House City Road Peterborough Cambridgeshire PE1 1JY UK Telephone/Fax: +44 (0)1733 - 562 626 / +44 (0)173 Email: RIS@JNCC.gov.uk	Designation date Site Reference Number 33 - 555 948
2. Date this sheet was completed/updated: 9 March 2006	
3. Country: UK (Scotland)	
4. Name of the Ramsar site: Montrose Basin	
5. Map of site included: Refer to Annex III of the <i>Explanatory Notes and Guidelines</i> , for detailed gu	uidance on provision of suitable maps.
a) hard copy (required for inclusion of site in the Ramsar Lis	st): yes ✓ -or- no
b) digital (electronic) format (optional): Yes	
6. Geographical coordinates (latitude/longitude): 56 42 40 N 02 30 20 W	
 7. General location: Include in which part of the country and which large administrative region() Nearest town/city: Montrose Situated on the east coast of Scotland, on the western side of the predominantly agricultural catchment. Administrative region: Angus 8. Elevation (average and/or max. & min.) (metres): 9. 	-
Min1 Max. 74 Mean 9	(

Ramsar Information Sheet: UK13046 Page 1 of 9 Montrose Basin
--

10. Overview:

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

Enclosed estuary of the South Esk containing areas of mudflat, marsh and agricultural land, and Dun's Dish, a small eutrophic freshwater loch. It is a good natural example of an estuary, relatively unimpacted by development, a high species diversity in the intertidal zone and supporting a large population of wintering waterfowl. The site is also important internationally for wintering populations of pink-footed goose *Anser brachyrhynchus*, greylag goose *Anser anser* and common redshank *Tringa totanus*.

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, 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

A particularly good example of an estuary, being relatively unaffected by land-claim, industrial development or pollution.

Montrose Basin has a remarkably high species diversity in the intertidal zone when compared with other sites. The site hydrology is unusual, although the main mudflat is exposed for a long period during each tidal cycle, it remains wet, and therefore supports this high diversity. The complete exchange of water in the Basin with each tide gives the site a high overall water quality.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

29116 waterfowl (5 year peak mean 1998/99-2002/2003)

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

$\label{thm:qualifying Species populations} \textbf{Qualifying Species populations (as identified at designation):}$

Species with peak counts in winter:

Pink-footed goose, *Anser brachyrhynchus*, 7198 individuals, representing an average of Greenland, Iceland/UK 2.9% of the population (5 year peak mean

1998/9-2002/3)

Greylag goose, Anser anser anser, Iceland/UK,

Ireland

1080 individuals, representing an average of 1.2% of the population (5 year peak mean

1987/88-1991/92)

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 occuring at levels of National importance are given in Section 20

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	igneous, sandstone, peat, mud, sand
Geomorphology and landscape	lowland, coastal, intertidal sediments (including
	sandflat/mudflat), estuary, pools
Nutrient status	eutrophic, mesotrophic
pH	no information
Salinity	brackish / mixosaline, fresh
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Leuchars, 1971–2000)
	(www.metoffice.com/climate/uk/averages/19712000/sites
	/leuchars.html)
	Max. daily temperature: 12.2° C
	Min. daily temperature: 4.9° C
	Days of air frost: 59.7
	Rainfall: 653.9 mm
	Hrs. of sunshine: 1523.2

General description of the Physical Features:

Montrose Basin is is an enclosed tidal basin fed by the River South Esk, and contains areas of mudflat, marsh and agricultural land; Dun's Dish is a small eutrophic loch.

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).

Montrose Basin is is an enclosed tidal basin fed by the River South Esk, and contains areas of mudflat, marsh and agricultural land; Dun's Dish is a small eutrophic loch.

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

Inland wetland, Marine/coastal wetland

Code	Name	% Area
В	Marine beds (e.g. sea grass beds)	5.3
Е	Sand / shingle shores (including dune systems)	0.5
F	Estuarine waters	10.3
G	Tidal flats	40.1
Н	Salt marshes	5.3

M	Rivers / streams / creeks: permanent	7.2
О	Freshwater lakes: permanent	7.2
Q	Saline / brackish lakes: permanent	2.3
Sp	Saline / brackish marshes: permanent	1.3
Тр	Freshwater marshes / pools: permanent	7.2
Other	Other	13.3

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 major habitats of the site are the mudflats, which provide rich feeding grounds for the birds of the estuary, with a flora dominated by *Zostera*, *Cladophora*, *Enteromorpha* and *Fucus* spp.

The marshes around the Basin contain a rich variety of plant communities. These contain the locally rare plants saltmarsh flat-sedge *Blysmus rufus*, beaked tasselweed *Ruppia maritima*, grey club-rush *Schoenoplectus tabernaemontani*, long-bracted sedge *Carex extensa* and annual sea-blite *Suaeda maritima*. The area called the Lurgies contains the best example of saline standing waters in Tayside region. The grass ley and arable crops adjacent to the Montrose Basin are important feeding areas for wintering wildfowl.

The loch and fen at Dun's Dish is surrounded by agricultural land. The eutrophic loch has extensive open-water transition mires supporting rich fen and carr communities that contain locally rare plants.

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.*

Nationally important species occurring on the site.

Higher plants.

Zostera noltei, Zostera marina, Zostera angustifolia.

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	with	peak	counts	in s	pring/	autumn:

Ruff, *Philomachus pugnax*, Europe/W Africa 19 individuals, representing an average of 2.7% of

the GB population (5 year peak mean 1998/9-

2002/3)

Common redshank, *Tringa totanus totanus*, 2407 individuals, representing an average of 2%

of the GB population (5 year peak mean 1998/9-

2002/3)

Spotted redshank, Tringa erythropus, Europe/W

Africa

3 individuals, representing an average of 2.2% of

the GB population (5 year peak mean 1998/9-

2002/3)

Common greenshank, Tringa nebularia,

Europe/W Africa

30 individuals, representing an average of 5% of the GB population (5 year peak mean 1998/9-

2002/3)

Species with peak counts in winter:

Common shelduck, Tadorna tadorna, NW

Europe

984 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-

2002/3)

Information Sheet on Ramsar Wetlands (RIS), page 5

Eurasian wigeon, Anas penelope, NW Europe

4063 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)

. . .

Common eider, Somateria mollissima mollissima, NW Europe

2466 individuals, representing an average of 3.3% of the GB population (5 year peak mean 1998/9-2002/3)

Red knot , $\it Calidris\ canutus\ islandica, W\ \&\ Southern\ Africa$

3581 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)

Southern Ann

(wintering)

Species Information

None reported

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

Archaeological/historical site

Environmental education/interpretation

Fisheries production

Livestock grazing

Non-consumptive recreation

Scientific research

Sport fishing

Sport hunting

Subsistence fishing

Tourism

22. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation	+	+
(NGO)		
Local authority, municipality etc.	+	+
National/Crown Estate	+	+
Private	+	+

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	
Current scientific research	+	
Fishing: commercial	+	
Fishing: recreational/sport	+	
Gathering of shellfish	+	
Shell collection	+	
Bait collection	+	
Arable agriculture (unspecified)	+	+
Permanent arable agriculture		+
Grazing (unspecified)	+	+
Permanent pastoral agriculture	+	+
Hunting: recreational/sport	+	+
Industry		+

Sewage treatment/disposal		+
Harbour/port		+
Flood control	+	
Transport route		+
Urban development		+
Military activities		+

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.
- 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 1	2 factors on	ly.
----------------	--------------	-----

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
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	+	
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.

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.

Angus Council Ranger Service undertake detailed monitoring of geese and wigeon.

28. Current conservation education:

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

The Scottish Wildlife Trust have a Visitor Centre at the site, and provide several bird-watching hides.

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.

Water-based recreation:

Wind-surfing and canoeing are only occasional uses but recently pressure has increased from these activities. Angling is mainly by estates and has remained constant historically. Duns Dish is fished most intensively during August & September.

Shooting of wildfowl is controlled by a permit system and is restricted to certain parts of the site.

Other activities such as sailing, angling and bait-digging are also controlled by permits.

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

- Ahmad, WA (1990) Assessment of some remote sensing techniques for recognition of sediment distributions in Montrose Basin and the Eden estuary, Scotland. Unpublished PhD thesis, University of Dundee
- Angus District Council (1982) Byelaws for the regulation of Montrose Basin Local Nature Reserve. Angus District Council, Forfar
- Atkins, SM, Caudwell, CM & Herbert, RA (1992) *Montrose Basin tidal flats: environmental survey, September 1991*. (Contractor: University of Dundee, Environmental Advisory Unit) Unpublished report to Scottish Wildlife Trust, Edinburgh
- Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP Davidson, NC & Buck, AL (eds.) (1997) *Coasts and Seas of the United Kingdom. Region 4. South-east Scotland: Montrose to Eyemouth.* Joint Nature Conservation Committee, Peterborough (Coastal Directories Series)
- Bayne, DM (1981) Montrose Basin Local Nature Reserve. An assessment of the floristic interest. Nature Conservancy Council, South East (Scotland) Region (unpublished internal file note)
- Bennett, TL & McLeod, CR (1998) Chapter 4. East Scotland (Duncansby Head to Dunbar) (MNCR Sector 4). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 123-154. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)
- Boase, H (1970) Bird records of the Tay area, 1961/1967. Unpublished typescript [Includes the first comprehensive account of the larger birds of Montrose Basin]
- 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)

- Caudwell, C (1997) Montrose Basin tidal flats: annual monitoring programme: September 1997. (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- Caudwell, C & Jones, AM (1993) Montrose Basin Aerial Multi-Spectral Imaging Project ground truth survey (November 1992). (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- Caudwell, C & Jones, AM (1994) *Montrose Basin tidal flats: annual monitoring programme: September 1993*. (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- Cobb, JLS (1973) Interim report to the Nature Conservancy on the fauna of the Montrose Basin. (Contractor: University of St Andrews, Gatty Marine Laboratory). Unpublished report to Nature Conservancy, South-east (Scotland) Region, Edinburgh
- Coffin, H (2000) Assessing the ecological health of Montrose Basin. Unpublished MSc Biology of Water Resource Management Project Report, Napier University, Edinburgh
- Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge
- Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough
- Duncan, UK (1981) Species recorded from Montrose Basin and surroundings by Ursula K. Duncan. Nature Conservancy Council, South East (Scotland) Region (unpublished internal file note)
- Fisher, J (2001) Montrose Basin. A retrospective. Scottish Wildlife, 42 (pages unnumbered)
- Forth River Purification Board (1982) A biological and sedimentological study of the northern shore of the South Esk estuary, Montrose. Unpublished, Forth River Purification Board, Edinburgh (Estuary Survey Section Report, No. ES4/82)
- Goater, R (1986) The mute swans of Montrose. Scottish Wildlife, 22(3), 16-18
- Goater, R (1992) Wildlife thrives on the fertile 'lands of sands'. Heritage Scotland, 9(4), 12-13
- Gordon, JE & Sutherland, DG (eds.) (1993) *Quaternary of Scotland*. Chapman & Hall, London, for Joint Nature Conservation Committee, Peterborough (Geological Conservation Review Series, No. 6)
- Ingram, R & Noltie, HJ (1981) The flora of Angus. Dundee Museums and Art Galleries, Dundee
- Johnston, R, Topping, G, McIntyre, AD & Gamble, JC (1973) Studies on Montrose Channel and its effluents. Unpublished, Department of Agriculture and Fisheries for Scotland. (Marine Laboratory Internal Report, No. IR73-9)
- Jones, AM & Caudwell, CM (1995) *Montrose Basin tidal flats: annual monitoring programme, September October, 1994*. (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- Jones, AM & Caudwell, CM (1996) *Montrose Basin tidal flats: annual monitoring programme, September October, 1995.* (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- Jones, AM & Caudwell, CM (1997) *Montrose Basin tidal flats: annual monitoring programme, September October, 1996.* (Contractor: University of Dundee, Environmental Advisory Unit). Unpublished report to Scottish Natural Heritage
- King, G, King, M & Adams, D (1993) The Basin: threats and safeguards. In: *The Port of Montrose. A history of its harbour, trade and shipping*, ed. by G Jackson & SGE Lythe, 11-15. Hutton Press, Tayport/Georgica Press, Wainscott, NY
- Loizou, T (2000) The salt marshes of Montrose Basin. Scottish Natural Heritage Commissioned Report, No. F99LH17C
- MacTaggart, F (1997) *Montrose Basin SSSI (incorporating Maryton GCR site)*. Scottish Natural Heritage, Perth (Earth Science Site Documentation Series)
- 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
- McLusky, D & Roddie, K (1982) *Montrose Basin Survey 1982*. (Contractor: University of Stirling, Department of Biological Sciences) Unpublished report to Nature Conservancy Council (Internal Report, No. NC 199L)
- Milligan, J (1984) *Quantitative study of the intertidal invertebrate communities of the Montrose Basin, September 1983*. Unpublished BSc dissertation, University of Stirling, Department of Biological Sciences
- Montrose Basin Heritage Society (2004) *Ebb and flow: aspects of the history of Montrose Basin.* Pinkfoot Press, Forfar Morrison, J (1992) Wild nature presided over by House of Dun. *Heritage Scotland*, **9**(4), 11
- Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)
- Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts.* British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14
- Osborne, MC and PA Davies (1993) An airborne remote sensing study of tidally-forced flow in Montrose Basin. In: Proceedings of the NERC Symposium on Airborne Remote Sensing 1993, West Park Centre, University of Dundee, UK, **_**. Natural Environment Research Council, Swindon
- Peck, D (1990) An investigation of the major influences on distribution of flora and fauna in the South Esk estuary, Montrose. Unpublished MSc dissertation, Heriot-Watt University, International Centre for Island Technology, Stromness

- Pounder, B (1976) Waterfowl at effluent discharges in Scottish coastal waters. Scottish Birds, 9(1) 5-36
- Pritchard, DE, Housden, SD, Mudge, GP, Galbraith, CA & Pienkowski, MW (eds.) (1992) *Important Bird Areas in the United Kingdom including the Channel Islands and the Isle of Man.* Royal Society for the Protection of Birds, Sandy.
- 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.)
- Sankey, S & Shedden, C (1998) *Geese and local economies in Scotland*. RSPB / BASC, report to National Goose Forum. www.rspb.org.uk/pdfstore/goose.pdf
- Scottish Natural Heritage (1993) *Montrose Basin proposed Special Protection Area and Ramsar site (403A). Departmental brief.* Scottish Natural Heritage, Research and Advisory Services Directorate, Edinburgh (International Sites Series)
- Scottish Natural Heritage (1993) Montrose Basin Site of Special Scientific Interest. SSSI citation, April 1993
- Scottish Wildlife Trust (1991) Montrose Basin Local Nature Reserve management plan 1991 1996. Scottish Wildlife Trust, Edinburgh
- Scottish Wildlife Trust (1996) Montrose Basin Wildlife Centre. Scottish Wildlife Trust (Leaflet)
- Scottish Wildlife Trust (2001) *Montrose Basin*. Scottish Wildlife Trust, Edinburgh (information sheet) www.swt.org.uk/documents/reserves/Reserve%20East%20Montrose%20Basin.pdf
- Scottish Wildlife Trust (n.d.) *Montrose Basin Wildlife Centre, Angus, Scotland.* Scottish Wildlife Trust, Edinburgh (Leaflet) Somerville, A (1988) The mud of Montrose. *Scottish Wildlife*, **5**, 16-18
- Stace, H (1984) Saltmarshes of Montrose Basin. October 1984. Unpublished report to Nature Conservancy Council, Chief Scientist's Team, Edinburgh
- Steers, JA (1973) The coastline of Scotland. Cambridge University Press, Cambridge
- Stewart, M (1990) A new centre of attraction for Montrose. Scottish Wildlife, 11, 7
- 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. Volume 3: Site accounts.* Joint Nature Conservation Committee, Peterborough www.jncc.gov.uk/UKSPA/default.htm
- Stroud, DA, Mudge, GP & Pienkowski, MW (eds.) (1990) Protecting internationally important bird sites: a review of the EEC Special Protection Area Network in Great Britain. Nature Conservancy Council, Peterborough
- Walker, CN (1968) A preliminary investigation into the distribution of the polychaete Arenicola marina (L.), on Rossie Island, Montrose. Unpublished BSc dissertation, University of Aberdeen, Department of Zoology

Please return to: Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • email: ramsar@ramsar.org