

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: 05 January 1976

3. Country:

UK (England)

4. Name of the Ramsar site:

North Norfolk Coast

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):

52 58 13 N 00 35 55 E

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: King's Lynn

The North Norfolk coast Ramsar site covers a 40 km length of coast between Hunstanton and Weybourne, and lies c. 45 km north-west of Norwich

Administrative region: Norfolk

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 7862.39

Min.	-2
Max.	5
Mean	2

12. General overview of the site:

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

This low-lying barrier coast site extends for 40 km from Holme to Weybourne and encompasses a variety of habitats including intertidal sands and muds, saltmarshes, shingle and sand dunes, together with areas of land-claimed freshwater grazing marsh and reedbed, which is developed in front of rising land. Both freshwater and marine habitats support internationally important numbers of wildfowl in winter and several nationally rare breeding birds. The sandflats, sand dune, saltmarsh, shingle and saline lagoons habitats are of international importance for their fauna, flora and geomorphology.

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, 2, 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 is one of the largest expanses of undeveloped coastal habitat of its type in Europe. It is a particularly good example of a marshland coast with intertidal sand and mud, saltmarshes, shingle

banks and sand dunes. There are a series of brackish-water lagoons and extensive areas of freshwater grazing marsh and reed beds.

Ramsar criterion 2

Supports at least three British Red Data Book and nine nationally scarce vascular plants, one British Red Data Book lichen and 38 British Red Data Book invertebrates.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

98462 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 regularly supported during the breeding season:

Sandwich tern , <i>Sterna</i> (<i>Thalasseus</i>) <i>sandvicensis sandvicensis</i> , W Europe	4275 apparently occupied nests, representing an average of 7.7% of the breeding population (Seabird 2000 Census)
Common tern , <i>Sterna hirundo hirundo</i> , N & E Europe	408 apparently occupied nests, representing an average of 4% of the GB population (Seabird 2000 Census)
Little tern , <i>Sterna albifrons albifrons</i> , W Europe	291 apparently occupied nests, representing an average of 2.5% of the breeding population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Red knot , <i>Calidris canutus islandica</i> , W & Southern Africa (wintering)	30781 individuals, representing an average of 6.8% of the population (5 year peak mean 1998/9-2002/3)
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Species with peak counts in winter:

Pink-footed goose , <i>Anser brachyrhynchus</i> , Greenland, Iceland/UK	16787 individuals, representing an average of 6.9% of the population (5 year peak mean 1998/9-2002/3)
Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ,	8690 individuals, representing an average of 4% of the population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , <i>Anas penelope</i> , NW Europe	17940 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3)
Northern pintail , <i>Anas acuta</i> , NW Europe	1148 individuals, representing an average of 1.9% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in spring/autumn:

Ringed plover , *Charadrius hiaticula*, Europe/Northwest Africa 1740 individuals, representing an average of 2.3% of the population (5 year peak mean 1998/9-2002/3)

Sanderling , *Calidris alba*, Eastern Atlantic 1303 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)

Bar-tailed godwit , *Limosa lapponica lapponica*, W Palearctic 3933 individuals, representing an average of 3.2% 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. 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	sedimentary, metamorphic, sandstone/mudstone, limestone/chalk, clay, mud, sand, shingle, boulder
Geomorphology and landscape	coastal, intertidal sediments (including sandflat/mudflat), open coast (including bay)
Nutrient status	mesotrophic
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Marham, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/marham.html) Max. daily temperature: 13.8° C Min. daily temperature: 5.7° C Days of air frost: 51.9 Rainfall: 621.3 mm Hrs. of sunshine: 1536.6

General description of the Physical Features:

The North Norfolk Coast is a low-lying barrier coast that extends for 40 km from Holme to Weybourne and includes a great variety of coastal habitats. The main habitats – found along the whole coastline – include extensive intertidal sand- and mud-flats, saltmarshes, shingle and sand dunes, together with areas of freshwater grazing marsh and reedbed.

To the west, the coastal habitats of North Norfolk Coast are continuous with The Wash, with the ecology of thie two sites intimately linked.

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 North Norfolk Coast is a low-lying barrier coast that extends for 40 km from Holme to Weybourne and includes a great variety of coastal habitats. The main habitats – found along the whole coastline – include extensive intertidal sand- and mud-flats, saltmarshes, shingle and sand dunes, together with areas of freshwater grazing marsh and reedbed.

To the west, the coastal habitats of North Norfolk Coast are continuous with The Wash, with the ecology of thie two sites intimately linked.

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

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	50.3
H	Salt marshes	27.5
Tp	Freshwater marshes / pools: permanent	13
E	Sand / shingle shores (including dune systems)	9
J	Coastal brackish / saline lagoons	0.2

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 area consists primarily of intertidal sands and muds, saltmarshes, saline lagoons, shingle banks, and sand dunes. There are also extensive areas of freshwater grazing marsh and reedbed. The coast is of great physiographic interest and the shingle spit of Blakeney Point and the barrier island of Scolt Head Island are of special importance. The salt marshes are mostly developed behind barrier beaches or on sheltered parts of the coast and show zonation from scarcely vegetated sand and mud at the seaward edge to maritime grassland and tidal reedbed at the landward margin. The middle salt marsh is dominated in particular by *Limonium vulgare*, *Armeria maritima*, *Aster tripolium* and *Puccinellia* species. A nationally rare distinct community dominated by *Suaeda vera* occurs at the boundary between saltmarsh and sand dunes and includes a number of nationally rare plants. Dune systems occur in various places and range from moderately calcareous to moderately acid. There is a full development from foredunes to grey mature dunes though slacks are relatively small. The dunes are covered with dune grassland, in places lichen heath whilst at Holkham, mature plantations of the introduced Corsican pine *Pinus nigra* var. *maritima* occur. The vegetation of the shingle ranges from disturbed almost unvegetated through to lichen heath. Natural brackish lagoons occur in places and are dominated mostly by *Ruppia*. The reclaimed grazing marshes are mostly semi-improved but have dyke florals which may be brackish or fresh. There are extensive freshwater reedbeds in places.

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.**Higher Plants.**

Limonium bellidifolium (RDB Nationally Threatened), *Gnaphalium luteoalbum* (RDB Critical), *Dryopteris cristata* (RDB Nationally Threatened), *Juncus acutus* (Nationally Scarce), *Parapholis incurva* (Nationally Scarce), *Poa bulbosa*, *Ruppia cirrhosa* (Nationally Scarce), *Vulpia fasciculata*, *Vulpia ciliata* var. *ambigua* (Nationally Scarce), *Suaeda vera* (Nationally Scarce).

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:**

Eurasian marsh harrier , <i>Circus aeruginosus</i> , Europe	10 pairs, representing an average of 6.6% of the GB population (6 year mean 1992-1997)
Mediterranean gull , <i>Larus melanocephalus</i> , Europe	2 apparently occupied nests, representing an average of 1.8% of the GB population (Seabird 2000 Census)
Black-headed gull , <i>Larus ridibundus</i> , N & C Europe	4270 apparently occupied nests, representing an average of 3.3% of the GB population (Seabird 2000 Census)
Roseate tern , <i>Sterna dougallii dougallii</i> , W Europe	1 apparently occupied nests, representing an average of 1.9% of the GB population (Seabird 2000 Census)
Species with peak counts in spring/autumn:	
Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	366 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Little egret , <i>Egretta garzetta</i> , West Mediterranean	29 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Gadwall , <i>Anas strepera strepera</i> , NW Europe	218 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa -wintering	2154 individuals, representing an average of 4% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	135 individuals, representing an average of 19.2% of the GB population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , <i>Limosa limosa islandica</i> , Iceland/W Europe	246 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Whimbrel , <i>Numenius phaeopus</i> , Europe/Western Africa	143 individuals, representing an average of 4.7% of the GB population (5 year peak mean 1998/9-2002/3)

Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. <i>arquata</i> Europe (breeding)	2123 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	15 individuals, representing an average of 11% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	163 individuals, representing an average of 27.3% of the GB population (5 year peak mean 1998/9-2002/3)
Ruddy turnstone , <i>Arenaria interpres interpres</i> , NE Canada, Greenland/W Europe & NW Africa	620 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Great bittern , <i>Botaurus stellaris stellaris</i> , W Europe, NW Africa	2 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Greater white-fronted goose , <i>Anser albifrons albifrons</i> , NW Europe	349 individuals, representing an average of 6% of the GB population (5 year peak mean for 1996/7-2000/01)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	1123 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian teal , <i>Anas crecca</i> , NW Europe	3984 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , <i>Anas clypeata</i> , NW & C Europe	181 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Black (common) scoter , <i>Melanitta nigra nigra</i> ,	3480 individuals, representing an average of 6.9% of the GB population (5 year peak mean 1998/9-2002/3)
Velvet scoter , <i>Melanitta fusca fusca</i> , Baltic/W Europe	30 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , <i>Mergus serrator</i> , NW & C Europe	108 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , <i>Rallus aquaticus</i> , Europe	15 individuals, representing an average of 3.3% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian oystercatcher , <i>Haematopus ostralegus ostralegus</i> , Europe & NW Africa -wintering	3707 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover , <i>Pluvialis apricaria apricaria</i> , P. a. <i>altifrons</i> Iceland & Faroes/E Atlantic	3788 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Common redshank , <i>Tringa totanus totanus</i> ,	1586 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Species occurring at levels of international importance.

Mammals.

Phoca vitulina

Nationally important species occurring on the site.

Amphibians.

Bufo calamita

Assemblage.

This site supports a diverse assemblage of invertebrates.

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
- Aquatic vegetation (e.g. reeds, willows, seaweed)
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- 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)	+	
Local authority, municipality etc.	+	
National/Crown Estate	+	
Private	+	+
Other	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Collection of non-timber natural products: (unspecified)	+	
Collection of non-timber natural products: commercial	+	
Fishing: commercial	+	+
Fishing: recreational/sport	+	
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	
Bait collection	+	
Permanent arable agriculture	+	+
Livestock watering hole/pond	+	
Grazing (unspecified)	+	
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	+
Harbour/port	+	+
Irrigation (incl. agricultural water supply)	+	+
Oil/gas exploration		+
Oil/gas production		+
Transport route	+	+
Domestic water supply		+
Urban development		+
Non-urbanised settlements		+
Military activities	+	+

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	+	
Other	+	+
Area of Outstanding National Beauty (AONB)	+	+
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.

Environment.

This coast has been and continues be subject to a wide variety of research and monitoring projects including the following:

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.

Breeding bird surveys.

Various invertebrate studies, both freshwater and marine.

Flora.

NVC of sand dunes, shingle and saltmarsh completed late 1980s.

Survey of saline lagoons 1996.

Recent saltmarsh survey (2002)

An important area for research on various coastal processes both on macro scale and within salt marshes.

Completed.

Habitat.

Study of historical evolution of the coast (Loeps) finished 1997

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 site is used extensively by schools and universities for ecological and geomorphological studies. There are some interpretation facilities on the coast, principally at Cley and Blakeney Point. Other activities include guided walks, and leaflets are available.

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.

Large numbers of tourists visit the area especially during the period April to September, but increasingly throughout the year. The nature reserves at Holme, Titchwell, Holkham, Blakeney and Cley all provide facilities for birdwatching through the provision of hides. Most visitors are concentrated on the beaches and their approaches and there is generally only low levels of pressure on saltmarshes and grazing marshes. A visitor management plan has been written with the objective of encouraging sustainable tourism.

32. Jurisdiction:

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

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

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.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

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

- Allison, H & Morley, J (eds.) (1989) *Blakeney Point and Scolt Head Island*. 5th edn. National Trust, Norfolk
- Anon. (2002) *North Norfolk Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project) www.english-nature.org.uk/livingwiththesea/project_details/good_practice_guide/HabitatCRR/ENRestore/champs/NorthNorfolk/NNorfolkCHaMP.pdf
- Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP & Davidson, NC (eds.) (1995) *Coasts and seas of the United Kingdom. Region 6 Eastern England: Flamborough Head to Great Yarmouth*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)
- Bratton, JH (ed.) (1991) *British Red Data Books: 3. Invertebrates other than insects*. Joint Nature Conservation Committee, Peterborough
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- 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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- 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
- Dipper, F (2003) The Lincolnshire and North Norfolk maritime area: a review of the past and present status of its species and habitats. *English Nature Research Reports*, No. **542**
- Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough
- Environment Agency (1997) *North Norfolk action plan. Local Environment Agency Plan*. Environment Agency, Angliabn Region, Ipswich
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