

Information Sheet on Ramsar Wetlands (RIS)

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 26 June 1997 / Updated: May 2005

3. Country:

UK (England)

4. Name of the Ramsar site:

Somerset Levels and Moors

5. Map of site included:**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):

51° 10' 14'' N

02° 52' 00'' W

7. General location:

Nearest town/city: Weston-super-Mare

The Somerset Levels and Moors Ramsar site is bounded by Bridgwater Bay in the west and the higher ground of the Mendips, Dorset Hills, Blackdown Hills, Brendons and Quantocks

Administrative region: North Somerset; Somerset

8. Elevation (average and/or max. & min.) (metres): **9. Area** (hectares): 6388

Min. No information available

Max. No information available

Mean No information available

10. Overview:

The Ramsar site consists of a series of Sites of Special Scientific Interest (SSSI) within the largest area of lowland wet grassland and associated wetland habitat remaining in Britain. It covers about 35,000 ha in the flood plains of the Rivers Axe, Brue, Parrett, Tone and their tributaries. The majority of the site is only a few metres above mean sea level and drains through a large network of ditches, rhyes, drains and rivers. Flooding may affect large areas in winter depending on rainfall and tidal conditions. Parts of the site in the Brue Valley include areas of former raised peat bog which have now been substantially modified by agricultural improvement and peat extraction which has created areas of open water, fen and reedbed.

The site attracts internationally important numbers of wildfowl in winter and is one of the most important sites in southern Britain for breeding waders. The network of rhynes and ditches support an outstanding assemblage of aquatic invertebrates, particularly beetles.

11. Ramsar Criteria:

2, 5, 6

12. Justification for the application of each Criterion listed in 11. above:

Ramsar criterion 2

Supports 17 species of Red Data Book invertebrates.

The vascular plants *Wolffia arrhiza*, *Hydrocharis morsus-ranae* and *Peucedanum palustre* are considered vulnerable by the GB Red Book.

Secretariat Comment: Criterion 2 requires to specify the scientific names of those mentioned species considered vulnerable, endangered or critically endangered. This need to be included in the next update.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

97,155 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:

Eurasian teal , <i>Anas crecca</i> , NW Europe	21,231 individuals, representing an average of 4.2% of the population (5 year peak mean 1998/9-2002/3)
Northern lapwing , <i>Vanellus vanellus</i> , Europe - breeding	36,580 individuals, representing an average of 1.8% 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 winter:

Eurasian wigeon , <i>Anas penelope</i> , NW Europe	25,759 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
Mute swan , <i>Cygnus olor</i> , Britain	842 individuals, representing an average of 2.6% of the population (5 year peak mean 1998/9-2002/3)
Northern pintail , <i>Anas acuta</i> , NW Europe	927 individuals, representing an average of 1.5% of the population (5 year peak mean 1998/9-2002/3)
Northern shoveler , <i>Anas clypeata</i> , NW & C Europe	1,094 individuals, representing an average of 2.7% of the population (5 year peak mean 1998/9-2002/3)

More 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 Alerts report, which is updated annually. See <http://www.bto.org/survey/webs/webs-alerts-index.htm>.

13. Biogeography:**a) biogeographic region:**

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

14. Physical features of the site:

Soil & geology	acidic, basic, neutral, clay, alluvium, peat
Geomorphology and landscape	lowland, floodplain
Nutrient status	eutrophic
pH	acidic, circumneutral
Salinity	fresh
Soil	mainly organic
Water permanence	usually seasonal / intermittent
Summary of main climatic features	Annual averages (Cardiff, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/cardiff.html) Max. daily temperature: 14.3° C Min. daily temperature: 6.8° C Days of air frost: 33.0 Rainfall: 1111.7 mm Hrs. of sunshine: 1518.0

General description of the Physical Features:

No information available

15. Physical features of the catchment area:

No information available

16. Hydrological values:

Flood water storage / desynchronisation of flood peaks, Maintenance of water quality (removal of nutrients)

17. Wetland types

Inland wetland

Code	Name	% Area
O	Freshwater lakes: permanent	3
U	Peatlands (including peat bogs swamps, fens)	5
Xp	Forested peatland	2
4	Seasonally flooded agricultural land	85.1
9	Canals and drainage channels	2
Other	Other	2.9

18. General ecological features:

The majority of the site is dominated by open wet grassland and ditches with a range of plant communities: Species-poor grassland including the semi-improved grassland communities with perennial rye grass and naturally-occurring species-poor floodplain or inundation grassland communities (National Vegetation Classification communities (NVC) include MG13, MG6, MG7, MG10).

Species-rich fen meadows and flood pastures where agricultural improvement has been less intense with MG8 *Cynosurus cristatus*- *Caltha palustris* grassland with *Cirsium dissectum* and *Caltha palustris* and mire communities such as M23, M24 and M25 with more *Juncus* and *Carex* species.

Smaller areas of drier species-rich hay meadows (MG5) with *Centaurea nigra*, *Anacamptis morio* and *Briza media*.

In the rivers, rhynes and ditches the floristic diversity is largely dependent upon sympathetic cleaning practises. The field ditches support the greatest floristic diversity including the species; *Wolffia arrhiza*, *Hottonia palustris* and *Hydrocharis morsus-ranae*.

Other habitats include - withy beds, orchards and pollarded willows.

The remaining habitats are largely restricted to the SSSIs within the Bure Valley where areas of former raised bog have been modified by peat extraction and agricultural improvement.

Small areas of tall herb fen (S24) with *Lathyrus palustris*, *Peucedanum palustre* and *Thelypteris palustris* and small remnants of raised bogs which are very degraded and support vegetation more akin to wet heath with *Erica tetralix* and *Molinia caerulea*.

Open water, reed swamp and reedbed with a range of species from submerged plants to tall stands of *Phragmites australis* and *Typha latifolia* are found in the flooded peat workings.

Wet woodland where peat has been cut many years ago and dominated by *Salix* spp., *Betula* spp. and *Alnus glutinosa*.

19. Noteworthy flora:

Nationally important species occurring on the site.

Higher Plants.

Althaea officinalis, *Persicaria laxiflora*, *Lathyrus palustris*, *Peucedanum palustre*, *Potamogeton coloratus*, *Potamogeton trichoides*, *Sium latifolium*, *Wolffia arrhiza*

20. Noteworthy fauna:

Birds

Species currently occurring at levels of national importance:

Species with peak counts in winter:

Common snipe , <i>Gallinago gallinago gallinago</i> , Europe -breeding	1633 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover , <i>Pluvialis apricaria apricaria</i> , P. a. altifrons Iceland & Faroes/E Atlantic	3857 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Gadwall , <i>Anas strepera strepera</i> , NW Europe	522 individuals, representing an average of 3% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	16 individuals, representing an average of 2.2% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , <i>Rallus aquaticus</i> , Europe	36 individuals, representing an average of 8% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Hydrochara caraboides, *Bagous nodulosus*, *Odontomyia angulata*, *Oulema erichsoni*, *Valvata macrostoma*, *Odontomyia ornata*, *Stethophyma grossum*, *Pteromicra leucopeza*, *Lejops vittata*, *Cantharis fusca*, *Paederus caligatus*, *Hydaticus transversalis*, *Dytiscus dimidiatus*, *Hydrophilus piceus*, *Limnebus aluta*, *Laccornis oblongus*

21. Social and cultural values:

Aesthetic
 Aquatic vegetation (e.g. reeds, willows, seaweed)
 Archaeological/historical site
 Conservation education
 Current scientific research
 Livestock grazing
 Non-consumptive recreation
 Sport fishing
 Tourism
 Traditional cultural

22. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation	+	
Local authority, municipality etc.	+	
National/Crown estate	+	
Private	+	
Public/communal	+	

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	+
Research	+	+
Collection of non-timber natural products: commercial	+	+
Commercial forestry	+	+
Cutting of vegetation (small scale/subsistence)	+	+
Fishing: recreational/sport	+	+
Arable agriculture (unspecified)	+	+
Livestock watering hole/pond	+	+
Grazing (unspecified)	+	+
Permanent pastoral agriculture	+	+
Hay meadows	+	+
Hunting: recreational/sport	+	+
Industrial water supply		+
Flood control	+	+
Irrigation (inc agricultural water supply)	+	+
Mining	+	+
Transport route		+
Urban development		+
Non-urbanised settlements	+	

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.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA	(Irrigation, mining and urban settlements on the site could have a (potential) adverse impact)			

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:

Conservation measure	On-site	Off-site
SSSI / ASSI	+	
NNR	+	
SPA	+	
Land owned by a NGO for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	
Other	+	+

26. Conservation measures proposed but not yet implemented:

No information available

27. Current scientific research and facilities:

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.

Separate surveys to assess bird populations in relation to the restoration of disused peat workings on Shapwick Heath SSSI.

Ditch fauna: repeat Levels and Moors wide surveys undertaken approximately every five years by EN.

Flora.

Ditch flora: repeat Levels and Moors wide surveys undertaken approximately every five years by EN.

Meadow flora: repeat surveys 4-5 year repeat surveys by EN.

Completed.

Fauna.

Analysis of most recent trends undertaken by RSPB 2002.

Breeding waders: Four most recent major collaborative surveys on Levels and Moors, 1992, 1995, 1997, 2004.

28. Current conservation education:

Existing programmes: Guided walks and school group visits are available to Shapwick National Nature Reserves. Somerset Wildlife Trust run their own programme of events on Westhay Moor SSSI and likewise the RSPB on West Sedgemoor SSSI. English Nature's team newsletter for farmers and landowners runs regular features about the site.

Interpretation facilities: Are available at the Peat Moors visitor centre adjacent to the Shapwick National Nature Reserve. Interpretation panels have been located around the Reserve where appropriate. SWT have provided interpretation boards on Westhay Moor SSSI.

29. Current recreation and tourism:

Activities.

Controlled microlighting with few reported incidences of disturbance.

Wildfowling on a number of moors across the area although the affects of disturbance on the Ramsar is largely unknown and requires further work. Further work on disturbance to waterfowl has been undertaken for EN. Closer working between Wildfowling Clubs, BASC is ongoing.

Facilities provided.

Limited facilities for visitors to use the site except at NNRs in Brue Valley. General visitors and bird watchers at Shapwick National Nature Reserve, Westhay Moor and West Sedgemoor. Walking, including dog walking on droves, cycling, bird watching, coarse angling on the Main Drains may cause some limited disturbance to sites.

Seasonality.

All year.

30. Jurisdiction:

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

31. Management authority:

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

32. Bibliographical references:

Site-relevant references

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