

# Information Sheet on Ramsar Wetlands (RIS)

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

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

### Joint Nature Conservation Committee

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Designation date

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Site Reference Number

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## 2. Date this sheet was completed/updated:

Designated: 14 July 1992

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## 3. Country:

UK (Wales)

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## 4. Name of the Ramsar site:

Burry Inlet

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

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

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## 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):**

51 38 55 N                      04 10 37 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: Swansea

The site is located between the Gower Peninsula and Llanelli in south Wales, approximately 15 km north-west of Swansea.

**Administrative region:** Abertawe/ Swansea; Caerfyrddin/ Carmarthenshire

**10. Elevation** (average and/or max. & min.) (metres):    **11. Area** (hectares): 6627.99

Min.	-2
Max.	6
Mean	1

**12. General overview of the site:**

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

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand and mud flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The Burry Inlet regularly supports large numbers of wildfowl and waders.

**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).

**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 5

**Assemblages of international importance:**

**Species with peak counts in winter:**

41655 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 spring/autumn:**

Common redshank , *Tringa totanus totanus*, 857 individuals, representing an average of 0.7% of the GB population (5 year peak mean 1998/9-2002/3)

**Species with peak counts in winter:**

Northern pintail , *Anas acuta*, NW Europe 2687 individuals, representing an average of 4.4% of the population (5 year peak mean 1998/9-2002/3)

Eurasian oystercatcher , *Haematopus ostralegus ostralegus*, Europe & NW Africa -wintering 14861 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)

Red knot , *Calidris canutus islandica*, W & Southern Africa 3618 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)

(wintering)

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

**Species with peak counts in winter:**

Northern shoveler , *Anas clypeata*, NW & C Europe 467 individuals, representing an average of 1.1% 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](http://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	acidic, shingle, sand, mud, clay, nutrient-rich, sedimentary, quartzite, limestone, sandstone, slate/shale, sandstone/mudstone, peat, gravel, pebble, cobble, boulder
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Geomorphology and landscape	lowland, coastal, intertidal sediments (including sandflat/mudflat), open coast (including bay), enclosed coast (including embayment), estuary, ria, intertidal rock
Nutrient status	eutrophic
pH	alkaline
Salinity	saline / euhaline
Soil	mainly organic
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Tenby, 1971–2000) ( <a href="http://www.metoffice.com/climate/uk/averages/19712000/sites/tenby.html">www.metoffice.com/climate/uk/averages/19712000/sites/tenby.html</a> ) Max. daily temperature: 13.4° C Min. daily temperature: 7.0° C Days of air frost: 9.5 Rainfall: 1106.5 mm Hrs. of sunshine: 1654.0

**General description of the Physical Features:**

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand- and mud-flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The estuary experiences wide tidal fluctuations (about 8 m) which has the consequence of exposing a large extent of intertidal sediments on a regular basis. These are mostly sandy, but muddy substrates are to be found in more sheltered areas.

**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).

Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes extensive areas of intertidal sand- and mud-flats, together with large sand dune systems at the mouth of the estuary. The site contains the largest continuous area of saltmarsh in Wales (2,200 ha). The estuary experiences wide tidal fluctuations (about 8 m) which has the consequence of exposing a large extent of intertidal sediments on a regular basis. These are mostly sandy, but muddy substrates are to be found in more sheltered areas.

**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, Maintenance of water quality (removal of nutrients)

**19. Wetland types:**

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	59.4
H	Salt marshes	30.3
F	Estuarine waters	8
E	Sand / shingle shores (including dune systems)	2.2
D	Rocky shores	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 Burry Inlet is a large estuarine complex located between the Gower Peninsula and Llanelli in South Wales. It includes a mixture of estuarine habitats, river channel, extensive intertidal sand and mud flats, intertidal and rocky shore habitats, and a large sand-dune system at the mouth of the estuary. A range of intertidal communities support populations of important animals like piddocks, and rockpool communities.

The estuary supports typical saltmarsh communities, and is the largest continuous saltmarsh in Wales, supporting nationally scarce plants such as marsh-mallow *Althaea officinalis*.

The river channel and estuarine water is known to support important fish, namely shad and lamprey. Otters use the channel to feed.

The importance of the sand dunes at the western end of the Ramsar site are recognised at a European level through designation as SAC, supporting dune-slack communities where three British Red Data Book plants grow – fen orchid *Liparis loeselii*, dune gentian *Gentianella uliginosa* and early sand-grass *Mibora minima*.

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.*

Petalwort *Petalophyllum ralfsii* Status: Habitats Directive Annex II feature (S1395), Nationally Scarce

Variiegated horsetail *Equisetum variegatum* Status: Nationally Scarce

Long-stalked orache *Atriplex longipes* Status: Nationally Scarce

One-flowered glasswort *Salicornia pusilla* Status: Nationally Scarce

Marsh-mallow *Althaea officinalis* Status: Nationally Scarce

Hutchinsia *Hornungia petraea* Status: Nationally Scarce

Round-leaved wintergreen *Pyrola rotundifolia* ssp. *maritima* Status: Nationally Scarce

Portland spurge *Euphorbia portlandica* Status: Nationally Scarce

Musk stork's-bill *Erodium moschatum* Status: Nationally Scarce

Dune gentian *Gentianella uliginosa* Status: Red Data Book

White horehound *Marrubium vulgare* Status: Nationally Scarce

Eelgrass *Zostera angustifolia* Status: Nationally Scarce

Sharp rush *Juncus acutus* Status: Nationally Scarce

Early sand-grass *Mibora minima* Status: Red Data Book

Dune fescue *Vulpia fasciculata* Status: Nationally Scarce

Green-flowered helleborine *Epipactis phyllanthes* Status: Nationally Scarce

Fen orchid *Liparis loeselii* Status: Habitats Directive Annex II feature (S1903); Red Data Book species; Wildlife & Countryside Act Schedule 8

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

Little egret , <i>Egretta garzetta</i> , West Mediterranean	63 individuals, representing an average of 3.8% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , <i>Numenius phaeopus</i> , Europe/Western Africa	241 individuals, representing an average of 8% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. <i>arquata</i> Europe (breeding)	2231 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	47 individuals, representing an average of 7.8% of the GB population (5 year peak mean 1998/9-2002/3)
<b>Species with peak counts in winter:</b>	
Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ,	1097 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	1093 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa -wintering	530 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	6758 individuals, representing an average of 1.2% 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)

### Species Information

Polychaete worm <i>Ophelia bicornis</i>	Status: Nationally Rare
Narrow-mouthed whorl snail <i>Vertigo angustior</i>	Status: Habitats Directive Annex II feature (S1014); British Red Data Book
Sea lamprey <i>Petromyzon marinus</i>	Status: Habitats Directive Annex II feature (S1095)
River lamprey <i>Lampetra fluviatilis</i>	Status: Habitats Directive Annex II feature (S1099)
Allis shad <i>Alosa alosa</i>	Status: Habitats Directive Annex II feature (S1102)
Twaite shad <i>Alosa fallax</i>	Status: Habitats Directive Annex II feature (S1103)
Otter <i>Lutra lutra</i>	Status: Habitats Directive Annex II feature (S1355)

### 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
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Subsistence fishing
- Tourism

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	+	+
Fishing: commercial	+	
Fishing: recreational/sport	+	
Gathering of shellfish	+	
Bait collection	+	
Rough or shifting grazing	+	
Hunting: recreational/sport	+	
Industry	+	
Sewage treatment/disposal		+
Harbour/port	+	
Flood control	+	

**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?
Erosion	1	Sea-level rise and/or changes in the frequency of storms, natural sediment transition as a result of the natural breach of the old ‘training wall’ and channel realignment causes changing patterns of sediment deposition and erosion. Studies suggest that overall erosion rates are more or less matched by sediment accretion. Erosion of /loss of <i>Salicornia</i> zone is occurring – loss of this early successional vegetation is changing the overall saltmarsh habitat distribution on the site.	+	+	

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	+	
Other	+	
Area of Outstanding National Beauty (AONB)	+	+
Special Area of Conservation (SAC)	+	
Management plan in preparation	+	



**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.

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**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

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**29. Current scientific research and facilities:**

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

**Contemporary.**

**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.

Wintering wildfowl and waders are monitored annually on North Shore only, by Wildfowl and Wetlands Trust (Penclacwydd Reserve, Llandelli).

The Catchment Research Group (Cardiff University) annually ring oystercatchers (since 1990). Current research into relationship between oystercatchers and shellfish populations in Burry Inlet ongoing since 2000 (CEFAS 2001; Mercer 2002; McGroarty & West 2001; Stewart 2001; West *et al.* 2001).

**Completed.**

**Flora.**

Sand dune NVC survey by Dargie (1989); saltmarsh vegetation surveyed by Burd (1987), with follow-up saltmarsh NVC survey 1998-99.

Marine.

CCW Phase I Survey of the marine intertidal biotopes of the Burry estuary in 2000 (CCW 2004).

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**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.

North shore: Wildfowl and Wetlands Trust have education centre at Penclacwydd, Llanelli with a full-time education officer. School parties form major element of the conservation education programme.

South shore: Guided walks and a bird hide are available at Whiteford NNR.

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**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.**

Principally walking, birdwatching, sport angling and and wildfowling. All these activities are at sustainable levels.

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**32. Jurisdiction:**

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

Head, Countryside Division, Welsh Assembly Government, Cathays Park, Cardiff, CF1 3NQ

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**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 Safeguard Officer, International Designations, Countryside Council for Wales, Maes-y-Ffynnon, Penrhosgarnedd, Bangor, Gwynedd, LL57 2DW

**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**

- Atkins, J (ed.) (1995) *The Burry Inlet & Loughor Estuary Symposium, March 1995. State of the Estuary Report*. Burry Inlet and Loughor Estuary Liaison Group, Swansea
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- Bristow, C & Pile, J (2003) South Wales estuaries Carmarthen Bay: evolution of estuarine morphology and consequences for SAC management. *CCW Contract Science*, No. 528
- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 2. South-west Britain*. Joint Nature Conservation Committee, Peterborough
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- CEFAS (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 1b, Section 3 – a report on the cockle stocks in the Burry Inlet, south Wales, outside the standard CEFAS survey area. *CCW Contract Science*, No. 431
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- McGrorty, S & West AD (2001) The relationship between mussel and oystercatcher populations in the Burry Inlet, Part 1b, Section 4 – a survey of mussel beds and mussel crumble. *CCW Contract Science*, No. 432
- 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](http://www.jncc.gov.uk/SACselection)
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- 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)
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- West, AD & McGrorty, S (2003) *Modelling oystercatchers and their food on the Dee estuary, Traeth Lafan and Burry Inlet SPA to inform target setting and site management – Phase 1*. Countryside Council for Wales, Bangor (Marine Monitoring Project, No. **3**)
- Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

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