

Ramsar Information Sheet for Wetlands of International Importance

Site reference number	7UK064
1. Compilation date:	March 1998
2. Country:	UK, Wales
3. Name of wetland:	Crymlyn Bog
4. Geographical coordinates:	55°38'00"N 03°52'30"W
5. Altitude (m):	7
6. Area (ha):	267.2

7. Overview:

- Crymlyn Bog is part of a large inter-estuarine complex and comprises a large floodplain mire located within a lowland coastal context.
- It is the most extensive wetland of its type in Wales
- The more features a complex mosaic of vegetation types, supporting examples of swamp, tall herb fen, fen meadow and carr communities.
- The site supports an exceptionally wide range of rich and poor fen communities, some of which bear close floristic affinity to certain floodplain mires in East Anglia.
- Notable is the occurrence of *Cladium mariscus* swamp which occurs in extensive stands at the only three other Welsh sites and is uncommon in Britain.

8. Wetland type: U (212 ha), W (26.5 ha), Acid grassland (25 ha), 9 (2.2 ha), Tp (1.5 ha)

9. Ramsar criteria: 1b, 2a, 2b

10. Map of the site: Yes

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12. Justification of criteria:

1b. Largest example of valley floodplain topogenous mire in South Wales, and one of the largest surviving fens in the west of Britain. Very few other sites are known to support a comparable complexity and diversity of vegetation.

2a. The site supports a substantial population of the nationally rare slender cotton-grass *Eriophorum gracile*, and a rich invertebrate fauna including many rare and highly localised species.

2b. The site supports 199 vascular plant species including 17 regionally uncommon and one nationally rare species

2b. The site supports substantial breeding populations of *Acrocephalus scirpaceus* and *A. schoenobaenus*.

13. General location:

Crymlyn Bog lies within a South Wales industrial and urban landscape between Swansea and Neath, 1 km inland from the coast. Administrative region: West Glamorgan

14. Physical features:

<i>Soil & Geology</i>	Nutrient-poor Clays / Muds / Peat
<i>Geomorphology & Landscape</i>	Lowland floodplain Pools
<i>Aquatic features</i>	highly eutrophic / eutrophic / mesotrophic / oligotrophic Strongly acidic / acidic / alkaline (3.9-7.7) Fresh water Soil mainly organic Water usually permanent
<i>Summary main climatic features</i>	Warm temperature, humid with only occasional frost. Annual rainfall is neither reliably high or frequently low; with a winter maximum. Mean annual rainfall 1150 mm Mean annual temperature range 7.9 - 13.9 °C

15. Hydrological values:

Carbon sink

16. Ecological features:

General site account

This site embraces the more acid range of variation of the Calcareous fens with *Cladium mariscus* habitat type and is relatively species-poor. It is one of the largest sites for *Cladium* in South Wales. There are large stands of *Cladium*, with transitions to a highly distinctive suite of tall-herb fen communities, often dominated to varying degrees by *Phragmites australis*. The area is also important for the occurrence of a substantial population of the nationally rare cotton-grass *Eriophorum gracile*.

Main habitat types

A complex mosaic of rich fen, poor fen, swamp, wet heath, fen woodland and acid grassland.

Main plant communities

[Plant community types are prefixed by the National Vegetation Classification (NVC) code (e.g. M18). Community name and code are sourced from the series *British Plant Communities* edited by Rodwell.]

Communities grade from *Sphagnum* dominated poor fen with *Nathecium ossifragum* and *Utricularia vulgaris* to more eutrophic associations with *Typha angustifolia*, *Typha latifolia*, *Cladium mariscus* and *Carex elata*. *Molinia caerulea* is dominant in drier areas, with stands of pure *Phragmites australis* reedswamp where conditions are wettest. Willow-birch and alder carr woodland with *Carex paniculata* occur on the eastern margins.

The site supports an exceptionally wide range of rich and poor fen communities, some of which bear a close floristic resemblance to certain floodplain mires in East Anglia, including S2 *Cladium mariscus* swamp and sedge-beds, and *Cladio-miolinietum* communities which are in the central part of the bog. A key feature concerns the presence of tall herb fen communities transitional between swamp and fen, with sedge beds dominated by *Cladium mariscus* being of particular importance.

17. Noteworthy flora:

Higher plants

<i>Eriophorum gracile</i>	unfavourable conservation status in Europe vulnerable in Britain and Europe nationally rare in Britain
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18. Noteworthy fauna:

Invertebrates - nationally important assemblages

The site supports a rich assemblage of invertebrates, including nationally-rare Coleoptera (2 species), Diptera (5 species) and Araneae (1 species)

19. Social and cultural values

aesthetic	non-consumptive recreation
archaeological / historical	sport fishing
conservation education	livestock grazing
current scientific research	

20. Land tenure / ownership

at the site:	partly privately owned, partly owned by a local authority, partly owned publicly
in the catchment area:	partly privately owned, partly owned by a local authority

21. Current land use and human activities

at the site:

nature conservation	large-scale	rough or shifting grazing	large-scale
tourism	small-scale	industrial water supply	large-scale
recreation	small-scale	industry	large-scale
scientific research	large-scale	flood control	small-scale
recreational / sport fishing	small-scale	oil/gas production	large-scale
subsistence fishing	small-scale	transport route	small-scale
small-scale cutting of vegetation	small-scale	urban development	small-scale
livestock watering hole / pond	small-scale	grazing	small-scale

in the immediate catchment area:

nature conservation	large-scale	rough or shifting grazing	large-scale
tourism	small-scale	industrial water supply	large-scale
recreation	small-scale	industry	large-scale
scientific research	large-scale	flood control	large-scale
recreational / sport fishing	small-scale	transport route	large-scale
subsistence fishing	small-scale	oil/gas production	large-scale
livestock watering hole / pond	small-scale	urbanised development	large-scale
grazing	small-scale		

22. Significant factors adversely affecting the ecological character of the site:

at the site:

vegetational succession
eutrophication
introduction / invasion of exotic plant species
introduction / invasion of exotic animal species
pollution - mining residues

in the immediate catchment area:

habitat burning
eutrophication
introduction / invasion of exotic plant species
introduction / invasion of exotic animal species
pollution - mining residues, industrial waste, fertilisers, oil
urban use (unspecified development)
industry

23. Conservation measures taken:

at the site:

Site of Special Scientific Interest (SSSI), Crymlyn Bog SSSI and Pant-y-Sais SSSI

National Nature Reserve (NNR), Crymlyn Bog NNR

Candidate Special Area of Conservation (cSAC), Cors Crymlyn / Crymlyn Bog

Site management plan approved in 1995

in the immediate catchment area:

Site of Special Scientific Interest (SSSI)

Management agreement

Site vulnerability & management statement

In recent years scrub has been encroached on the fen vegetation, due to a lack of appropriate management. In 1996, the UK National Ramsar report indicated that scrub was affecting 50% of the site. This is now being addressed by scrub cutting and stump treatment, as set out in the National Nature Reserve management plan.

The fen flora and fauna is susceptible to changes in the nutrient status of water caused by industrial effluent sources from the surrounding area, including oil, pulverised fuel ash and iron-rich leachate from former coal mine workings. However, these sources are currently being monitored in order to evaluate the likely detrimental impacts on the special interests of the site. A hydrological evaluation is currently underway which will inform future maintenance and monitoring requirements. There are two species of invasive, alien plant species (*Rhododendron ponticum* and *Fallopia japonica*) and a species of alien mammal (*Mustela vison*) on the site. These are currently, or will be, subject to control measures.

24. Conservation measures proposed but not yet implemented:

not supplied

25. Current scientific research / survey / monitoring and facilities:

Hydrological, hydrochemical and topographic assessment

Annual census of slender cotton-grass *Eriophorum gracile*

Seasonal monitoring of moth and caddis-fly populations

Bird ringing

Peat core analysis of vegetational changes

Postgraduate study of the biology of the water rail *Rallus aquaticus* in 1997 / 1998

Facilities: Crymlyn Visitor Centre is used for school groups and courses. It is not equipped for scientific studies.

26. Current conservation education:

Used by visiting university groups for studies on entomology, peat stratigraphy and fenland communities.

Used by local schools for studies relevant to the National Curriculum.

Crymlyn Visitor Centre houses a permanent exhibition and is a focal point for field study groups.

Meeting and guided walks, focused on the visitor centre, and annual open days.

Research topics at Swansea and Cardiff Universities include site development by peat core analysis; vegetational changes since the industrial revolution; and the biology of the water rail *Rallus aquaticus*.

27. Current recreation and tourism activities:

Activities are low-key: walking, dog walking, bird watching, sport / recreational fishing in relict canal.

Facilities provided are car parking, nature trails and interpretative leaflets. There are themed open days, guided walks, on-site interpretative information, and disabled access at Pant-y-Sais.

Seasonality: year-round access and use. There is summer wardening from April to September.

28. Functional jurisdiction:

Welsh Office

29. Management authority:

Countryside Council for Wales

30. Bibliographical references:

A list with 8 bibliographical references is available on the original copy.