

10.7 SWAMPS, REEDBEDS AND TALL-HERB FENS

Swamp and reedbeds are generally dominated by bulky grasses and sedges and are often quite species-poor. They are characteristic of extensively flooded but stable sites around (typically) freshwater. They often form transitional vegetation communities between open water and grassland, moorland or various types of woodland habitat. They are fed mainly from groundwater sources and occur on the margins of both standing waters in natural lakes and pools and around artificial water bodies including ponds, canals, stagnant dykes and some reservoirs, and also alongside moving waters in the wetter parts of flood-plain as well as valley bottoms and flushes and in the shallows along rivers and streams. Of the 21 communities identified in the NVC many have a scattered but widespread distribution throughout lowland England and Wales and at least 13 (possibly more) are thought to occur in Derbyshire. The communities that occur in Derbyshire are typically scattered, often quite small and generally poorly recorded.

Tall-herb fen vegetation communities tend to be more diverse and together with the bulky grass and sedge species there are often bulky herbaceous plants and an understorey of smaller herbaceous species. They occur in seasonally or periodically flooded topogeneous mires adjacent to fresh waters especially in the shallows of open-water transitions and flood plain mires but also in some basin mires. They are predominantly lowland in distribution. In Derbyshire 3 (possibly 4) of the 5 communities identified by the NVC are thought to occur. Though again they are typically small scattered and poorly recorded.

Reedbeds are botanically species poor fens dominated by large dense stands of common reed, *Phragmites australis*, but can have areas of open water, ditches, wet grassland and wet woodland. The water table has to be at or above ground level most of the year for this vegetation community to be maintained. Reedbeds are one of the most important habitats for breeding birds in the UK.

Derbyshire has no large reedbeds but has smaller localised patches in the Trent valley and in the Coal Measures that are valuable for local bird and invertebrate populations and birds migrating along river valleys.



Common Reedmace

Swamps, reedbeds and tall-herb fens Selection Guidelines

Sites that meet one or more of the following guidelines will be eligible for designation as a Wildlife Site.

Wel Swamps, reedbeds and tall-herb fens occurring either as single stands > 1 ha or mosaics > 1 ha referable to any NVC community listed below: -

S4 Common Reed (*Phragmites australis*) swamp and reedbeds Widespread

S5 Reed Sweet Grass (*Glyceria maxima*) swamp

S6 Greater Pond Sedge (*Carex riparia*) swamp

S7 Lesser Pond Sedge (*Carex acutiformis*) swamp

S8 Common Club-rush (*Scirpus lacustris* ssp. *lacustris*) swamp

S9 Bottle Sedge (*Carex rostrata*) swamp

S10 Water Horsetail (*Equisetum fluviatile*) swamp

S12 Common Reedmace (*Typha latifolia*) swamp

S14 Branched Bur-reed (*Sparganium erectum*) swamp

S16 Arrowhead (*Sagittaria sagittifolia*) swamp

S17 Cyperus Sedge (*Carex pseudocyperus*) swamp

S19 Common Spike-rush (*Eleocharis palustris*) swamp

S20 Grey Club-rush (*Scirpus tabernaemontani*) swamp

S22 Floating Sweet Grass (*Glyceria fluitans*) swamp

S23 Other water-margin vegetation

S25 Common Reed (*Phragmites australis*) – Hemp-agrimony (*Eupatorium cannabinum*) tall-herb fen

S26 Common Reed (*Phragmites australis*) – Common Nettle (*Urtica dioica*) tall herb fen

S28 Reed Canary Grass (*Phalaris arundinacea*) tall herb fen

UKBAP Habitat Action Plans – Fens, Reedbeds

LBAP Habitat Action Plans – Lowland Fen Meadows (LD), Reedbeds (LD), River Corridor Habitats (PD),

Application

This guideline should be applied to all swamp, reedbed and tall-herb fen sites that are over 1ha in size and either consist of a single vegetation community type (as listed above) or a combination of community types from the list above.

Justification

Though widespread, swamps and tall-herb fens are typically small and fragmented in Derbyshire, whilst reedbeds are relatively uncommon. Many sites supporting these vegetation communities have disappeared due to drainage and agricultural improvements to land. Any sites meeting the guideline are therefore of significant nature conservation value. The excluded NVC types are generally of less nature conservation interest and in some cases can be more easily re-created. Some sites will be of greater interest and will be considered on the full range of ecological attributes, but in general they should not automatically be considered for Wildlife Site selection.

We2 Swamps and tall-herb fens smaller than 1 ha will be considered where they meet one or more of the following: -

- **The site is part of a series of swamp, reed-bed or tall herb habitats along a watercourse**
 - **the site is part of a hydrosere of vegetation types**
 - **the site makes a significant contribution to the total resource of the community type in any Natural Area**
 - **AND where the site scores at least 8 from Table 3**
-

UKBAP Habitat Action Plans – Fens, Reedbeds

LBAP Habitat Action Plans – Lowland Fen Meadows (LD), Reedbeds (LD), River Corridor Habitats (PD)

Application

This guideline can be applied to any site that is smaller than 1 ha.

Justification

The extent of most of these community types is not known and most sites are now isolated and small. Consideration will therefore be given to any site supporting these habitats and selection based on the factors outlined above.

We3 Open vegetation communities characteristic of wetland situations will be considered where they meet one or more of the following: -

- **the site is part of a series of wetland vegetation types or habitats along a watercourse**
 - **the site is part of a hydrosere of vegetation types**
 - **the site makes a significant contribution to the total resource of the community type in any Natural Area**
 - **AND where the site supports at least 8 species from Table 3**
-

UKBAP Habitat Action Plans – Fens, Reedbeds

LBAP Habitat Action Plans – Lowland Fen Meadows (LD), Reedbeds (LD), River Corridor Habitats (PD)

Application

The guideline should be applied to sites that are dominated by open vegetation characteristic of wetlands rather than other wetland vegetation types. Sites under 0.5 ha should be assessed by the selection panel in relation to their wider role in the locality.

Justification

Wetland open vegetation communities are widespread and often occur in mosaics or ecotone with swamps, fens and wet grassland. They can form distinctive and important wetland communities in Derbyshire and support a diversity of faunal groups most notably invertebrates.

Table 3. Plants of mires, swamps, reedbeds and tall-herb fens and wetland open vegetation communitiesScoring

All species score 1 with the exception of those species in **bold** (Derbyshire Red Data Book Plant Species; provisional March 2002) which score 2

Species marked with * have not been recorded in Derbyshire since 1986.

| Scientific Name | Common Name |
|--------------------------------------|----------------------------------|
| <i>Achillea ptarmica</i> | Sneezewort |
| <i>Ajuga reptans</i> | Bugle |
| <i>Anagallis tenella</i> | Bog Pimpernel |
| <i>Angelica sylvestris</i> | Wild Angelica |
| <i>Athyrium filix-femina</i> | Lady Fern |
| <i>Berula erecta</i> | Lesser Water-parsnip |
| <i>Blysmus compressus</i> | Flat Sedge |
| <i>Caltha palustris</i> | Marsh Marigold |
| <i>Cardamine pratensis</i> | Cuckoo Flower |
| <i>Carex</i> spp. | any sedge |
| <i>Cirsium dissectum</i> | Meadow Thistle |
| <i>Dactylorhiza incarnata</i> | Early Marsh Orchid |
| <i>Eleocharis</i> spp. | Spike-rushes |
| <i>Epilobium hirsutum</i> | Great Willowherb |
| <i>Epilobium palustris</i> | Marsh Willowherb |
| <i>Epilobium parviflorum</i> | Hoary Willowherb |
| <i>Epipactis palustris</i> | Marsh Helleborine |
| <i>Equisetum fluviatile</i> | Water Horsetail |
| <i>Equisetum palustre</i> | Marsh Horsetail |
| <i>Equisetum telmateia</i> | Giant Horsetail |
| <i>Eriophorum latifolium</i> | Broad-leaved Cotton Grass |
| <i>Eriophorum</i> spp. | any other Cotton Grass |
| <i>Eupatoria cannabinum</i> | Hemp Agrimony |
| <i>Filipendula ulmaria</i> | Meadowsweet |
| <i>Galium palustre</i> | Common Marsh Bedstraw |
| <i>Galium uliginosum</i> | Fen Bedstraw |
| <i>Geranium pratense</i> | Meadow Crane's-bill |
| <i>Geum rivale</i> | Water Avens |
| <i>Hypericum tetrapterum</i> | Square-stalked St John's-wort |
| <i>Hydrocotyle vulgaris</i> | Marsh Pennywort |
| <i>Iris pseudacorus</i> | Yellow Flag |
| <i>Isolepis setacea</i> | Bristle Club-rush |
| <i>Juncus subnodulosus</i> | Blunt-flowered Rush |
| <i>Juncus compressus</i> | Round-fruited Rush |
| <i>Lathyrus montanus</i> | Bitter Vetch |

| | |
|-------------------------------------|----------------------------|
| <i>Leontodon saxatilis</i> | Lesser Hawkbit |
| <i>Lotus corniculatus</i> | Common Bird's-foot-trefoil |
| <i>Lotus pedunculatus</i> | Large Bird's-foot-trefoil |
| <i>Lycopus europeaus</i> | Gipsywort |
| <i>Lynchis flos-cuculi</i> | Ragged Robin |
| <i>Lysimachia nemorum</i> | Yellow Pimpernel |
| <i>Lysimachia nummularia</i> | Creeping Jenny |
| <i>Lysimachia vulgaris</i> | Yellow Loosestrife |
| <i>Lythrum portula</i> | Water Purslane |
| <i>Lythrum salicaria</i> | Purple Loosestrife |
| <i>Mentha aquatica</i> | Water Mint |
| <i>Menyanthes trifoliata</i> | Bog Bean |
| <i>Molinia caerulea</i> | Purple Moor-grass |
| <i>Montia fontana</i> | Blinks |
| <i>Myosotis spp.</i> | any Water Forget-me-not |
| <i>Ophioglossum vulgatum</i> | Adder's-tongue |
| <i>Parnassia palustris</i> | Grass-of-Parnassus |
| <i>Pedicularis palustris</i> | Marsh Lousewort* |
| <i>Pedicularis sylvatica</i> | Lousewort |
| <i>Persicaria bistorta</i> | Amphibious Bistort |
| <i>Persicaria hydropiper</i> | Water-pepper |
| <i>Phragmites australis</i> | Common Reed |
| <i>Pinguicula vulgaris</i> | Common Butterwort |
| <i>Potentilla anserina</i> | Silverweed |
| <i>Potentilla palustris</i> | Marsh Cinquefoil |
| <i>Pulicaria dysenterica</i> | Common Fleabane |
| <i>Ranunculus flammula</i> | Lesser Spearwort |
| <i>Rorippa palustris</i> | Marsh Yellow-cress |
| <i>Rorippa sylvestris</i> | Creeping Yellow-cress |
| <i>Sanguisorba officinalis</i> | Great Burnet |
| <i>Scirpus sylvaticus</i> | Wood Club-rush |
| <i>Scutellaria galericulata</i> | Skullcap |
| <i>Scutellaria minor</i> | Lesser Skullcap |
| <i>Sparganium emersum</i> | Unbranched Bur-reed |
| <i>Sparganium erectum</i> | Branched Bur-reed |
| <i>Stachys palustris</i> | Marsh Woundwort |
| <i>Stellaria palustris</i> | Marsh Stitchwort |
| <i>Thalictrum flavum</i> | Common Meadow-rue |
| <i>Triglochin palustris</i> | Marsh Arrowgrass |
| <i>Trollius europeaus</i> | Globeflower |
| <i>Valeriana dioica</i> | Marsh Valerian |
| <i>Valeriana officinalis</i> | Common Valerian |
| <i>Veronica beccabunga</i> | Brooklime |

| | |
|-----------------------------|-------------------------------|
| <i>Veronica scutellaria</i> | Marsh Speedwell |
| <i>Viola palustris</i> | Marsh Violet |
| Any other orchid | count each species separately |



Common Club-rush and Branched Bur-reed