

11.8 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 15 are thought to occur in Derbyshire but these are typically scattered, often quite small in size and generally 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 Washlands and 'Coalfield' National Character Areas that are valuable for local bird and invertebrate populations and birds migrating along river valleys.

An important community often associated with swamps and reedbeds is the NVC S23 other water-margin vegetation community. This is typically formed by a heterogeneous assemblage of water margin plants and therefore not easily defined but with a highly distinctive structure. Away from running waters this vegetation is often present fringing, and sometimes intergrading with, stands of swamp and reedbed.

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, like the swamps and reedbeds, they are typically small scattered and poorly recorded.

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 Local Wildlife Site.

We1 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

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 (*Schoenoplectus lacustris*) swamp

S9 Bottle Sedge (*Carex rostrata*) swamp

S10 Water Horsetail (*Equisetum fluviatile*) swamp

S12 Common Reedmace (*Typha latifolia*) swamp

S13 Lesser Bulrush (*Typha angustifolia*) 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 (*Schoenoplectus 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

S27 Bottle Sedge (*Carex rostrata*) – Marsh Cinquefoil (*Potentilla palustris*) tall-herb fen

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

UKBAP Habitat Action Plans – Lowland Fens, Reedbeds

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 Local Wildlife Site selection.

We2 Swamps and tall-herb fens smaller than 1 ha will be considered where they score at least 8 from Table 3 AND 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**
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UKBAP Habitat Action Plans – Fens, Reedbeds

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 Vegetation communities characteristic of open wetland habitats will be considered where they score at least 8 from Table 3 AND 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**
-

UKBAP Habitat Action Plans – Lowland Fens, Reedbeds

Application

The guideline should be applied to sites that are dominated by vegetation characteristic of open, disturbed habitats in wetland situations, like periodically inundated ground, ephemeral ponds and drawdown zones by standing water, 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

Vegetation communities of open wetland habitats 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 vegetation communities of open wetland habitats

Scoring

All species score 1 with the exception of those species in **bold** (Derbyshire Vascular Plant Red Data List Species - 2009) which score 2

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>	Cuckooflower
<i>Carex spp.</i>	any sedge
<i>Cirsium dissectum</i>	Meadow Thistle
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Dactylorhiza incarnata</i>	Early Marsh-orchid
<i>Eleocharis spp.</i>	Spike-rushes
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Epilobium palustre</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 spp.</i>	any other Cotton Grass
<i>Eupatorium cannabinum</i>	Hemp-agrimony
<i>Filipendula ulmaria</i>	Meadowsweet

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Scientific Name	Common Name
<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>Hydrocotyle vulgaris</i>	Marsh Pennywort
<i>Hypericum tetrapterum</i>	Square-stalked St John's-wort
<i>Iris pseudacorus</i>	Yellow Flag
<i>Isolepis setacea</i>	Bristle Club-rush
<i>Juncus compressus</i>	Round-fruited Rush
<i>Juncus subnodulosus</i>	Blunt-flowered 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 europeus</i>	Gipsywort
<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 sp. (inc. hybrids)</i>	Any 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>Nasturtium officinale</i>	Water-cress
<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 amphibia</i> <i>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>Pulicaria dysenterica</i>	Common Fleabane
<i>Ranunculus flammula</i>	Lesser Spearwort

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Scientific Name	Common Name
<i>Rorippa amphibia</i>	Great Yellow-cress
<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>Silene flos-cuculi</i>	Ragged Robin
<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 europeus</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**