

# CUMBRIA COUNTY WILDLIFE SITES

<b>SITE NAME:</b>	<b>Cinderdale Beck Mires and Wet Woodland</b>	<b>SITE REF:</b>	<b>L-NY10-59</b>
<b>Planning Authority</b>	Lake District National Park Authority	<b>District</b>	Copeland
<b>Review Status</b>	Confirmed	<b>Review Date</b>	18/03/2010
<b>Survey Status</b>	Surveyed	<b>Survey Date</b>	18/03/2010 Jun - Aug 2009
<b>Grid Reference</b>	NY 139 051	<b>Area (ha)</b>	33.70

## Site Description

Cinderdale Beck Mires are situated approximately 1km west of the southwestern tip of Wast Water, 1.5km north east of Wasdale Head, 5.5km west of Wasdale Head and 7km east of Gosforth, at an altitude of 60m above sea level.

This is a continuous valley mire system either side of Cinderdale Beck, heavily modified by drainage and soil improvement, with some grazed wet heath and more extensive ungrazed areas with purple moor-grass, reed swamp and wet willow and birch woodland, including a nationally scarce habitat: National Vegetation Classification (NVC) W2 grey willow-downy birch-common reed (*Salix cinerea-Betula pubescens-Phragmites australis*) woodland. Slender sedge (*Carex lasiocarpa*), scarce in Cumbria, is occasionally frequent in the northern half of the valley mire. Also included are most of two neighbouring fields on the lowlying areas of undulating, gently sloping terrain rising above Cinderdale Bog and up towards High Birkhow to the south. These contain the modified remnants of a series of interconnected flushes and a small valley mire, all draining into the valley mire. They are set amongst typical unimproved acid grassland and semi-improved purple moor-grass and rush pastures. These fields are grazed by cattle and sheep. The southern field was apparently more heavily grazed and the wetlands there have clearly been altered by agricultural drains.

North of the beck at the eastern end is good NVC M15a deergrass-cross-leaved heath (*Tricophorum cespitosum-Erica tetralix*) flushed wet heath, sensitively grazed, with species including slender sedge, cross-leaved heath, deergrass, bog moss (*Sphagnum*) species, ling (*Calluna vulgaris*), bog myrtle (*Myrica gale*), white beak sedge (*Rhynchospora alba*), carnation sedge (*Carex panicea*), bog asphodel (*Narthecium ossifragum*), sundew (*Drosera rotundifolia*). The northern and eastern margins have been ditched, and are consequently drier, with NVC M25a purple-moor-grass-tormentil (*Molinia caerulea-Potentilla erecta*) mire.

Across the beck is a large expanse of ungrazed purple moor-grass, growing in tall, rank tussocks that are smothering the few small patches of wet heath species found. This is NVC M25a, common in drained mires in Cumbria, but alongside the beck is a thin strip approaching the scarce M25c sub-community, growing where flooding brings moisture and nutrients. From here, common reed is slowly spreading across the field. The main interest, slender sedge, is almost completely restricted to the drainage channels, one of which also has abundant bogbean (*Menyanthes trifoliata*) and grass-of-Parnassus (*Parnassia palustris*).

To the south west is a wetter area of the valley mire, also ungrazed, with a taller mosaic of NVC S4 common reed swamp and NVC W2 wet woodland (these habitats are both very scarce in Cumbria). The NVC S4 has common reed dominant but also other species such as slender sedge, purple moor-grass, bog moss (*Sphagnum palustre*) and patchily some cranberry (*Vaccinium oxycoccus*), cross-leaved heath, ling heather, round-leaved sundew (*Drosera rotundifolia*), and bog myrtle, particularly in a small patch (area 7. on NVC map). Scattered bushes of grey willow and downy birch are invading the swamp, and form patches of NVC W2 woodland with a similar (but sparser) ground flora. An open area within the wood has another ungrazed purple moor-grass area with common reed, this time co-dominant in the sward, with bog myrtle also very abundant. Slightly drier ground along the beck has a broad strip of the more common NVC W4a downy birch-purple moor-grass woodland, the woodland type that probably covered most wet dale bottoms in the Lake District before they were farmed. Mature birch are accompanied by occasional alder (*Alnus glutinosa*), grey willow, scots pine (*Pinus sylvestris*) and sessile oak (*Quercus petraea*), and ground flora species include purple moor grass, bog mosses, broad buckler fern (*Dryopteris dilatata*), bracken (*Pteridium aquilinum*), bramble (*Rubus fruticosus*) and honeysuckle (*Lonicera periclymenen*). Standing and fallen dead wood are plentiful throughout, and tree regeneration is good. At the southern end this community dominates the wood before it peters out into a rank purple moor-grass field.

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At the southern end, the woodland is reduced to a thin strip of trees resembling NVC W4 along the banks of Cinderdale Beck, which has been dug out and canalized for this whole stretch. Adjacent is a field of NVC M15 wet heath that has been rather undergrazed, with a lot of purple moor-grass, some cross-leaved heath, common cottongrass, bog myrtle, bog mosses and common reed. The mire then narrows to a thin strip of NVC M23a sharp-flowered rush-marsh bedstraw (*Juncus acutifloris-Galium palustre*) below the valley slopes within a semi-improved pasture, before widening to form a field of M25a and M25b purple moor-grass habitats at the southern tip of the site.

Away from the valley mire, the majority of the flushed slopes are NVC M15a wet heath (as above) on thin peat soils with surface movement of water. One area flushed with less acidic water has NVC M10a flushes with abundant grass-of-Parnassus and other species including bog moss (*Sphagnum denticulatum*), carnation sedge, common yellow sedge (*Carex viridula ssp oedocarpa*), dioecious sedge (*Carex dioica*), few-flowered spike-rush (*Eleocharis quinqueflora*), common butterwort (*Pinguicula vulgaris*), cranberry and devils-bit scabious (*Succisa pratensis*).

Two wet hillslopes have extensive water-tracks dominated by thick bog-moss carpets and resembling NVC M29 marsh St-John's wort-bog pondweed (*Hypericum elodes-Potamogeton polygonifolius*) soakways without marsh St John's wort. The bog moss carpet has a scattering of many other species including bog pondweed, bog asphodel, white beak sedge, common cottongrass, few-flowered spike-rush, round-leaved sundew, common lousewort (*Pedicularis sylvatica*), bulbous rush (*Juncus bulbosus*), mat grass (*Nardus stricta*), viviparous fescue (*Festuca vivipara*). This also extends along the edge of the small basin at NY141046, where the above species are found along with cross-leaved heath and locally dominant bog myrtle. This mire closely resembles the nationally scarce NVC M21 valley mire but it is unusually dry due to the deep central land drain and is perhaps slowly turning to NVC M15 wet heath.

The remnants of a larger valley mire run along the bottom of the flushed slopes at High Birkhow, but these have been extensively drained and now mostly consist of NVC M25b grassland, with purple moor-grass and a variety of other common grasses. Two small wet areas remain, with a complex mosaic of wetland habitats including NVC M10a, NVC M15a, NVC M25b, NVC M29 (as described above) plus NVC M6a star sedge-bog moss (*Carex echinata-Sphagnum fallax/denticulatum*), NVC M23 soft rush-marsh bedstraw (*Juncus effusus-Galium palustre*) and NVC M30 many-stalked spike-rush (*Eleocharis multicaulis*) mires, three widespread plant communities in Cumbria. Purple moor-grass and sharp-flowered rush (*Juncus acutifloris*) are locally dominant over the bog moss carpet, with other species including soft rush, cross-leaved heath, star sedge, carnation sedge, common yellow sedge, heath rush (*Juncus squarrosus*), many-stalked spike-rush, lesser spearwort (*Ranunculus flammula*), bogbean, tormentil, round-leaved sundew, bog asphodel, bog pondweed, marsh willowherb (*Epilobium palustre*), white beak sedge, cuckoo-flower (*Cardamine pratensis*), marsh thistle (*Cirsium palustre*), greater birds-foot-trefoil (*Lotus pedunculatus*), autumn hawkbit (*Leontodon autumnalis*) and clover (*Trifolium* species).

The site also has many patches of drier ground with common grassland types of limited wildlife interest, including NVC U5 mat grass-heath bedstraw (*Nardus stricta-Galium saxatile*), NVC MG10 yorkshire fog-soft rush (*Holcus lanatus-Juncus effusus*) and M25b, plus NVC U20a bracken (*Pteridium aquilinum*).

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<b>Owner</b>	Private National Trust

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<b>Guidelines for Selection</b>	<b>Cumbrian Wildlife Sites Criteria for Selection (New Guidelines 2008)</b> Fe2: Tall herb fen, swamp or reedbed. Fe3: Fen meadow, purple moor-grass or rush pasture. Fe5: Series of flushes and springs. HM2: Mosaic of habitats (rated by diversity score). Wd4: Semi-natural woodland and scrub (NVC types W1-W7).		

*Print Date: 02/07/2010*