

## Warwickshire Sites of Importance for Nature Conservation: Local Wildlife Sites Evaluation Form

Site Name: Broom Old Quarry	Site Ref: SP05 W2	Grid Ref: SP088532
Local Authority Area: Stratford-on-Avon DC	Date Selected: 28/1/10	
<b>Site description:</b>	Suitably managed: No	Area: 6.42 ha
<p>The LWS is a roughly rectangular public open space situated within the centre of Broom village between the High Street to the north and King's Lane to the south. It is bordered by private gardens to the north and south, by a public recreation ground to the east and a narrow green lane (now a public footpath) to the west, beyond which is the River Arrow.</p> <p>The site was formerly a small sand and gravel pit that was subsequently used as a rubbish tip. In the 1970's the tip was levelled and capped with locally sourced gravel and topsoil. Since then the site has been left to develop naturally with virtually no additional planting, and is now a mosaic of scrub, tall herb and semi-improved neutral grassland. The site is well used by local people, particularly by dog walkers.</p> <p>Immediately to the west of the green lane is a narrow strip of semi-natural W8 Ash-Field Maple woodland (as defined by the National Vegetation Classification –NVC) and tall herb occupying a steep bank on the eastern side of the River Arrow. This acts as an important wildlife corridor and connects the old quarry area with a small semi-improved hay meadow to the south of the end of King's Lane (and south-west of the tip), which is also part of the LWS. This area is used by anglers accessing the river. Another small area of scrub and tall herb is situated at the south end of the recreation ground and connects to the south-eastern corner of the tip.</p> <p>The natural geology of the area consists of Mercia Mudstones overlain by a layer of glacial sands and gravels which have here been exploited by the aggregates industry. The land is fairly level, except for the old river cliff above the Arrow; and is generally free-draining being above the narrow flood plain at around 35m ASL.</p>		
<b>Habitats</b>		
1) Old Quarry area.		
<p>The main component of the LWS consists of the restored tip which consists of a mosaic of scrub, tall herb and rough semi-improved neutral grassland, together with a scatter of wet hollows but no permanent water body. The whole area is crisscrossed with a network of paths.</p> <p>Scrub is widespread and often dominant across the site, with Hawthorn the dominant species but with locally frequent Elder, Blackthorn and Dog Rose, together with a scatter of other species at low density. The few mature trees are restricted to the boundaries, with single Ash and Crack Willow on the north-western side and a line of Cherry and Sycamore on the south-eastern side adjacent to the recreation ground.</p> <p>The grassland areas vary in sward height, with the shorter sections (particularly along the paths and in the south-east corner) kept open by intensive rabbit grazing. Much of the drier grassland is dominated by Common Bent, together with frequent Perennial Ryegrass, Soft-brome, Red Fescue, Smaller Catstail, Yellow Oat-grass, and more locally by Creeping Bent and Annual Meadow-grass. Along the borders of this grassland there are ranker swards dominated by False Oat-grass and frequent Cocksfoot, and this grades into tall herb. Forbs are fairly numerous and diverse in the shorter grassland, with abundant Yarrow, Common Mouse-ear, Lady's Bedstraw, Ground-ivy,</p>		

Black Medick, Ribwort Plantain, Creeping Cinquefoil, White Clover and Germander Speedwell. Wild Basil is locally abundant in the south-western corner, while other locally frequent species include Glaucous Sedge, Spiked Sedge, Common Knapweed, Hedge Bedstraw, Cut-leaved, Dovesfoot and Small-flowered Cranesbills, Perforate St. John's-wort, Oxeye Daisy, Common Birdsfoot-trefoil, Musk Mallow, Red Bartsia, Selfheal, Hoary Ragwort, Lesser Stitchwort and Red Clover, with locally frequent Hairy and Sweet Violets in the shadier areas. Rare-occasional species include Common Centaury, Pignut, Wild Carrot, Meadow Oat-grass, Golden Melilot, Annual Pearlwort, Stone Parsley, Hop Trefoil, Zigzag Clover and Asparagus.

The expanding areas of tall herb, which are concentrated around the perimeter of the site and in the central areas, are dominated by abundant Creeping Thistle, Hemlock, Bramble, Common Ragwort and Common Nettle. Other species here include frequent Wild Teasel and Welled Thistle.

There are scattered pockets of impeded drainage across the site and these tend to be dominated by Hard Rush and Hairy Sedge, but there is one small basin of Lesser Pond-sedge in the south-west corner. In the northern half of the quarry area there are also several seasonally dry beds of Common Reed.

In the extreme south-eastern corner there is a fairly recently excavated small circular shallow pond which was dry at the time of survey. Common Bistort, a scarce species in Warwickshire, was present here.

The small appendage at the south end of the recreation ground is dominated by Hawthorn scrub with a ground layer of Common Nettle. There is also one young Pedunculate Oak present.

## 2) River corridor.

Between the green lane and the river there is a strip of semi-natural W8 woodland (NVC) occupying the steep river cliff. This is dominated by Ash, but with locally frequent Crack Willow and rare White Willow along the river margin and at the northern end. There is a shrub layer of frequent Hawthorn, Field Maple, Elder and Wych Elm, and this forms the canopy in places.

Towards the southern end of the wood the tree canopy disappears, and south of King's Lane the shrub layer also becomes patchy and here the bank is dominated by Bramble and Common Nettle. The ground layer of the wood tends to be dominated by abundant Ivy, Bramble and Ground-ivy, while an above-average range of typical shade-loving species include frequent Garlic Mustard, Cow Parsley, Hairy Brome, Herb Robert, Herb Bennet, Upright Hedge Parsley, Nipplewort and Sweet Violet. More occasional species present here include Welled Thistle, Remote Sedge, Greater Celendine, Pignut, Foxglove, Small Teasel, Common Male-fern, Bearded Couch, Wild Privet, Honeysuckle, Wood Forgetmenot, Greater Periwinkle and Hairy Violet. At the northern end there is a small triangular area of wet flood plain between the woodland and river, and this is now dominated by Common Nettle with occasional Indian Balsam.

## 3) Hay Meadow.

Only the western half of the former hay meadow south of King's Lane is within the LWS. The eastern half has been fenced off and is now close-grazed by horses and alpacas.

The western half appears not to have been cut recently and is now very rank but still semi-improved. The meadow appears originally to have been MG5 Crested Dogstail-Common Knapweed (NVC) grassland, a threatened habitat in both Warwickshire and the UK, but through neglect is gradually deteriorating to MG1. False Oat-grass is now dominant over much of the meadow, while Cocksfoot, Common Bent and Yorkshire Fog are also abundant. Other grasses present include locally frequent Meadow Foxtail, Red Fescue, Smaller Catstail and Yellow Oat-grass. Forbs are dominated by abundant Lady's Bedstraw and Common Sorrel, while Hairy Sedge, Common Mouse-ear, Common Knapweed, Common Birdsfoot-trefoil, Ribwort Plantain, Lesser

Stitchwort, White Clover and Germander Speedwell are all locally frequent. Species of occasional frequency include Field Wood-rush, Welled Thistle, Meadow Vetchling, Bulbous Buttercup and Red Clover. A margin of tall herb exists on three sides of the meadow and these are gradually invading the grassland. The main plants here are Creeping Thistle, Hogweed, Hemlock, Mugwort, Broad-leaved Dock and Common Nettle, with the latter species being dominant. The meadow is bounded on the south side by a stretch of the long disused East-West Junction Railway, which is now overgrown with scrub.

#### Fauna

The LWS has an excellent avifauna, with a range of scrubland species breeding including at least three which are on the Red List of Birds of Conservation Concern, namely Turtle Dove, Common Cuckoo, Song Thrush and Grasshopper Warbler. Other species known to be breeding on the LWS include Green and Great Spotted Woodpeckers, Blackcap, Lesser and Common Whitethroats, Willow Warbler, Chiffchaff, Long-tailed Tit, Treecreeper and Bullfinch.

The site also holds important invertebrate populations, with moths being particularly important. The reed bed areas on the old tip support a breeding colony of Twin-spotted Wainscot (*Archanara geminipuncta*), one of only three known sites in the county. Another moth which is nationally scarce, Silver Cloud (*Egira conspicillaris*) has also occurred here (per D Brown). The site supports healthy populations of grasshoppers and butterflies.

Phase 1 Habitats present: Semi-natural broadleaved woodland, scrub, tall herb, semi-improved grassland, dry reed swamp.

**Evaluation against the criteria**

**Habitat criteria applied:** Post Industrial

SCIENTIFIC CRITERIA	Elements of the criteria applying to the site						COMMUNITY CRITERIA	Elements of the criteria applying to the site				
	1	2	3	4	5	6		1	2	3	4	5
Diversity	√	√	√				Physical & Visual Access	√	√			
Rarity	√	√					Educational Value		√	√		
Size	√	√					Community & Amenity Value	√	√	√		
Naturalness	√	√	√				Aesthetic Appeal & Landscape		√	√		
Fragility							Geographical Position		√			
Typicalness		√					Recorded History	√				
Ecological Position	√		√				Continuity of Landuse					
Significant Populations	√	√										
Potential Value	√											

**Why this site qualifies as a Local Wildlife Site: summary of assessment**

Broom Old Quarry qualifies as a Local Wildlife Site with 16 scientific and 11 community criteria, of which the following are considered to be the most important.

**Diversity**

The LWS supports a diverse range of habitats ranging from W8 Ash woodland along the river, through extensive Hawthorn scrub and tall herb habitats, to semi-improved neutral grassland including an area of MG5 hay meadow. The site also displays an above average diversity of species characteristic of these habitats, particularly in the grassland and woodland areas. The site is also locally important for other groups, particularly birds and moths.

**Rarity**

The LWS contains a small area of MG5 grassland, which is an increasingly scarce habitat both in Warwickshire and nationally due to the agricultural improvement of most grassland since the 1940's. Semi-improved grassland is particularly scarce in the local area. The site supports several vascular plants which are scarce in Warwickshire, including Wild Basil, Small Teasel, Meadow Oat-grass and Common Bistort. Of other groups, the site supports at least four breeding birds on the national Red List, of which two (Turtle Dove and Grasshopper Warbler) are now scarce in

Warwickshire. The site also supports at least two nationally scarce moths (Twin-spotted Wainscot and Silver Cloud), of which the first has been proved to breed at just two other sites in the county.

**Ecological Position**

The site is adjacent to the important River Arrow corridor which connects the site with other semi-natural habitats, particularly those along the disused Alcester-Evesham railway LWS. Part of this LWS which was the western end of the long dismantled East-West Junction Railway forms the southern border to the small hay meadow.

**Significant Population**

The reed swamp areas on the old tip hold a county important population of the Twin-spotted Wainscot moth.

**Potential Value**

The site could be considerably improved with sensitive management, particularly the hay meadow which would soon return to a species rich MG5 grassland if annually mown in late summer.

**Physical and visual Access**

The site is wholly open to local residents for recreation, although it is largely hidden from surrounding roads by adjacent gardens.

**Community and Amenity Value**

The site is very well used by local residents, being one of the few open access areas in the Bidford-on-Avon district.

Broom Old Quarry

Sources of Information :		Recorder Site No:	Ecosite No: 35/05
Survey Details:			Location of records (HBA / WWT / WBRC / EN / Other)
Date:	Survey Type:	Surveyors:	
15/7/09	Phase 2	J J Bowley	HBA
26/5/98	Phase 1	S Garnett	HBA
	General Records (including Moths)	R Cox et al	WBRC
2002-09	Birds	J J Bowley	WMBC
<p>Any Other Information:</p> <p>Bee Orchids have been recorded from the site. In the 1980's both Brown Argus and Small Blue butterflies were present here (WBRC). The site is no longer suitable for the latter species which is now rare in Warwickshire.</p> <p>The quarry area will need some low level management to preserve its current mosaic of habitats, particularly the herb-rich grassland. The hay meadow needs to be cut once a year in late summer to restore its MG5 status.</p> <p>The stretch of disused railway immediately to the south of the King's Lane hay meadow contains a geological SSSI.</p>			
Completed By: J J Bowley Date: 5/1/10		Map attached: Yes    Species list attached: Yes	
Passed by Sites Selection Panel:		Yes / No / Further survey required:	(circle as appropriate)
Signed:		candidate Wildlife Site	Date: