



**Bedfordshire  
Cambridgeshire  
Northamptonshire**

# 2021

## Assessment of Potential Extension to Mowsbury Hill CWS



Elizabeth Dobbie

The Wildlife Trust for Bedfordshire,  
Cambridgeshire and Northamptonshire

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# 1. Site Description

## 1.1. Habitat

The meadow consists of neutral grassland with a strong calcareous influence. There is a slight slope grading down to the south-west of the meadow. The sward is fine with grasses heavily tamed by the hemi-parasites yellow rattle and red bartsia. The sward is moderately coarser at the top of the slope along the frequently used path at the western edge of the meadow. The meadow is bordered on the western, northern, and eastern edge by a small woodland and there are seedlings attempting to establish themselves throughout the grassland.

The eastern side of the meadow is bordered by the bank leading to Mowsbury Hillfort. The bank is markedly coarser and less herb-rich with false oatgrass, bramble and hedge bindweed dominate, however, the species of interest in the rest of the meadow can still be found at reduced frequencies.

## 1.2. Fauna

The fauna observed during the visit include red-tailed bumblebee, meadow brown butterfly, and at least one species of damselfly. The survey was brief due to the small size of the area considered for the extension to the site and fauna was not the focus of the survey.

# 2. Site Assessment

In this section the site is assessed against the criteria for CWS status as described by Bedfordshire and Luton Local Sites Partnership (2019).

## 2.1. Recorded History

In 1990 part of Mowsbury Hill was recognised as a CWS for the neutral grassland, orchards and broadleaved woodland. At that time, and in the subsequent survey by Laura Taylor in 2013, the meadow did not meet the requirements for CWS and so was excluded from the CWS designation.

In the 2013 report it was noted that the meadow had been under significant threat from the encroachment of the surrounding woodland and hedgerows into the grassland. Over the years since, this encroachment has been pushed back and an annual cut and collect has ensured the vigour of the grassland has been diminished, creating a finer sward than was documented in the past.

## 2.2. Size

The current CWS is 2.76ha and the proposed extension is 1.58ha bringing the total area of the proposed CWS to 4.34ha. At 1.58ha the grassland exceeds both of the threshold sizes set in the CWS criteria for Neutral and Calcareous grassland, which are 0.06ha and 0.1ha respectively.

### 2.3. Rarity

The semi-improved neutral grassland with calcareous influence supports a many indicators of species rich grassland, with many of them meeting the minimum frequency threshold (> occasional).

Table 1. Indicators of CWS grassland condition present in the surveyed extent of the proposed extension of Mowsbury Hill CWS.

Common Name	Scientific Name	Strong/General	Frequency
Adder's Tongue	<i>Ophioglossum vulgatum</i>	Strong Neutral	Occasional
Agrimony	<i>Agrmonia eupatoria</i>	General Neutral/Calcareous	Frequent
Bee Orchid	<i>Ophrys apifera</i>	General Neutral/Calcareous	Rare
Birds Foot Trefoil	<i>Lotus corniculatus</i>	General Neutral/Calcareous	Rare
Black Knapweed	<i>Centurea nigra</i>	General Neutral/Calcareous	Rare
Common Sorrel	<i>Rumex acetosa</i>	General Neutral	Rare
Common Spotted Orchid	<i>Dactylorhiza fuchsii</i>	Strong Neutral/Calcareous	Rare
Cowslip	<i>Primula veris</i>	General Neutral/Calcareous	Occasional
Fairy Flax	<i>Linum catharticum</i>	Strong Neutral/Calcareous	Occasional
Field Scabious	<i>Knautia columbaria</i>	Strong Neutral/Calcareous	Locally Occasional
Glaucous Sedge	<i>Carex flacca</i>	Strong Neutral/Calcareous	Occasional
Grass Vetchling	<i>Lathyrus nissolia</i>	Strong Neutral	Occasional
Hairy Violet	<i>Viola hirta</i>	Strong Neutral/Calcareous	Rare
Hoary Ragwort	<i>Senecio erucifolius</i>	General Neutral/Calcareous	Occasional
Lady's Bedstraw	<i>Galium verum</i>	General Neutral/Calcareous	Occasional
Meadow Barley	<i>Hordeum secalinum</i>	General Neutral	Occasional
Meadow Vetchling	<i>Lathyrus pratensis</i>	General Neutral	Rare
Pyramidal Orchid	<i>Anacamptis pyramidalis</i>	Strong Calcareous	Rare/Occasional
Sheep's Fescue	<i>Festuca ovina</i>	General Calcareous	Rare
Spiked Sedge	<i>Carex spicata</i>	Strong Neutral	Rare
Tor Grass	<i>Brachypodium pinnatum</i>	Strong Calcareous	Locally Occasional
Wild Basil	<i>Clinopodium vulgare</i>	Strong Calcareous	Frequent
Woolly Thistle	<i>Cirsium eriophorum</i>	Strong Calcareous	Rare
Yellow Oat-Grass	<i>Trisetum flavescens</i>	General Neutral	Rare
Yellow Rattle	<i>Rhinanthus minor</i>	Strong Neutral/Calcareous	Frequent

## 2.4. Diversity

### *Neutral Grassland:*

The CWS selection guidelines for neutral grassland (September 2019 version 2) state the minimum threshold for CWS recognition is:

1. Eight or more neutral grassland indicator species in total.
2. Three or more strong neutral grassland indicator species.
3. Neutral grassland supporting a good example of 0.05 ha in size of MG4, MG5, MG8 or MG13 grassland.

For a species abundance to be considered a 'good population' they need to be occasional or more in the sward. If the species is recorded as rare or forming a localised population then this does not count as a 'good population.'

Table 2. Number of neutral grassland indicator species.

<b>Indicator</b>	<b>Frequent</b>	<b>Occasional</b>	<b>Rare</b>	<b>Total Good Populations</b>
Strong	1	4	4	5
General	1	4	6	5
<b>Total</b>	<b>2</b>	<b>8</b>	<b>10</b>	<b>10</b>

This site supports good (> occasional) populations of 5 strong indicator species and 10 general indication species (Table 1 and Table 2).

**Summary: grassland exceeds the neutral grassland CWS selection criteria.**

### *Calcareous Grassland:*

The CWS selection guidelines for calcareous grassland (September 2019 version 2) state the minimum threshold for CWS recognition is:

1. Sixteen or more calcareous grassland indicator species in total.
2. Six or more strong calcareous grassland indicator species.
3. Calcareous grassland supporting a good example of 0.1 ha in size of CG2, CG3, CG4, CG5, CG6 or CG7 grassland.

For a species abundance to be considered a 'good population' they need to be occasional or more in the sward. If the species is recorded as rare or forming a localised population then this does not count as a 'good population.'

Table 3. Number of calcareous grassland indicator species.

<b>Indicator</b>	<b>Frequent</b>	<b>Occasional</b>	<b>Rare</b>	<b>Total Good Populations</b>
Strong	2	2	3	4
General	1	3	3	4
<b>Total</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>8</b>

This site supports good (> occasional) populations of 4 strong indicator species and 8 general indication species (Table 1 and Table 3).

**Summary: grassland does not meet the calcareous grassland CWS selection criteria.**

## **2.5. Wider Landscape**

The site sits on the outskirts of the town of Bedford and is a key green space for the nearby residential population. It neighbours a golf course and is very close to another CWS, Putnoe Woods.

## **2.6. Recommendation**

The meadow exceeds the criteria for recognition as a CWS due to the number of good populations of strong indicator species (5) and also the total number of indicator species (10), see Table 2. Although the bank in the meadow does not meet the requirements in its own right, it does sit between the current CWS and the meadow which does meet the requirements. As such I would recommend that it be included in the extension so that the new boundary (Appendix 4.1) follows the clear boundary of the woodland/scrub edge.

In conclusion, it is recommended that the boundary of Mowsbury Hill CWS be extended to include the meadow and earth banks that form part of the site to recognise the high quality neutral grassland present.

## **3. References**

- Bedfordshire and Luton Local Sites Partnership (2019) *Bedfordshire and Luton County Wildlife Sites: Selection Guidelines*, Version 12.
- Downton L (2013) *Mowsbury Hill*.

## 4. Appendix

### 4.1. Proposed CWS Boundary



## 4.2. Photographs



Figure 1. View from the West of the meadow looking across the meadow to the earth bank and Mowsbury Hill CWS to the East.



Figure 2. The sward is fine and has a cover of yellow rattle throughout.