

Charlcombe Meadows

Bioblitz 18 August 2024



**Bath Natural History Society &
Friends of Charlcombe Meadows**

Report by Mike Williams, Alan Feest & Alvan White

Background

On 18 August 2024, members of Bath Natural History Society and Friends of Charlcombe Meadows undertook a bioblitz at Charlcombe Meadows.

Plants were recorded by Alan Feest, with additional species added to the list by Darrel Watts of Bath Spa University, and invertebrates and birds were recorded by Mike Williams and Alvan White.

The site consists of two fields (see Figures 1 and 2).

Field 1 (Great Park) – ST748669

The Tithe Map of 1839 shows that the western field was previously larger and included the field to the south, now owned by Wessex Water and the site of a former reservoir. This field was named Great Park. The field immediately to the west (now houses and gardens) was named Little Park and the field to the south (now a housing estate) was named The Parks. These field names suggest that the area was formerly a medieval deer park. No documentation relating to the deer park could be found, therefore it may have been an informal deer park with no official status. In 1839 it was recorded as pasture.

The modern eastern field boundary is scrub, beyond which is the trackway of Charlcombe Way. The Tithe Map shows the field boundary in 1839 to have been to the west of the trackway. The wooded northern field boundary corresponds to the Tithe Map boundary, where it was likely just a hedgerow in 1839 (the field immediately to the north, now an area of woodland, is listed as pasture in 1839). The wavy line of the boundary corresponds to the topography of the field, which comprises most of a plateau with steep slopes to the north, east and south. The eastern boundary is a hedgerow running along the edge of the plateau, immediately below is the west field (Mudcombe). The hedgerow continues south and is also the eastern boundary of the Wessex Water field – it is likely an ancient hedgerow. As mentioned, the field formerly included the field now owned by Wessex Water to the south, however a hedgerow now divides these fields. The hedgerow runs along the edge of the plateau, the Wessex Water field is in the valley below.

The field has been historically grazed, but is currently given an annual hay cut. Last year's arisings appear to have largely been left at the sides of the field.

Most of the field is on Inferior Oolite, surrounded by Bridport (Midford) Sands along the north-eastern, eastern and southern boundaries.

Field 2 (Mudcombe) – ST751669

The Tithe Map shows the boundaries of the eastern field as they are today, and records the field name as Mudcombe and the land-use as pasture. Several fields to the south are also named Mudcombe on the 1840 Tithe Map for the adjacent parish of Walcot, and a Mutcombe Farm is also noted on 19th and 20th Century OS maps. The name 'Mutta Cumbe' is recorded in the boundaries of the Saxon Charter for Charlcombe in 1087, which Grundy suggests means 'Mouth Combe' (mouth as in 'mouth of the river').¹ The southern boundary of the field is a stream, which originates from field

¹ Grundy, G. B. (1934) The Saxon Charters of Somerset, Part VI, Part III. *Proceedings of the Somerset Archaeological and Natural History Society*, 80, pp225-245

now owned by Wessex Water, the source of which is noted in the Saxon Charter as 'hpita pylle' ('White Well'), the name preserved in Whitewell Mead to the south-east on the 1840 Tithe Map.

The north-western boundary is a continuation of the wooded northern boundary of Field 1 as it runs down the slope to a stream. The stream forms the north-eastern boundary and runs to the south-east, where it joins the stream originating from the Wessex Water field, which forms the southern boundary. The western boundary is the hedgerow, the boundary with Field 1. The field slopes gently to the east and to the south. While the majority of the site consists of grassland, there is much encroaching woodland and scrub, particularly around the boundaries.

Most of the field is on Bridport (Midford) Sands, with a band of Dyrham Formation Siltstone running north-south close to the eastern boundary at the bottom of the slope.

Methods

The bioblitz event consisted largely of a walkover of the site, with all species being recorded by members of Bath Natural History Society, frequently stopping to show and talk about species of note to attendees from the Friends group. All identifications were undertaken in the field, specimens were not taken on this occasion. Following the walkover, the members of Bath Natural History Society undertook a few more intensive survey methods, including sweep-netting and beating of trees and shrubs in the western field.

Results

Plants

Field 1 had 33 species and Field 2 had 60 species of plants. However, many of the additional plants found in Field 2 are woodland species from the encroaching woodland and scrub.

60 species in total were found on the site, which is a relatively typical number of species found in this type of survey.

A large amount of agricultural 'weeds' are present in both fields, despite the cessation of grazing around 10 years ago. These include Field Bindweed, Common Nettle, Knotgrass, Pineappleweed, Cock's-foot, Creeping Thistle, Timothy, Red Clover, White Clover, Dandelion, Perennial Rye-grass, Meadow Buttercup, Wood Dock, Common Sorrel and Ribwort Plantain.

No rare plant species were noted, however, Field 1 in particular had Red Bartsia in an abundance seldom seen in the Bath area. This plant is hemi-parasitic on grasses and helps to suppress their growth, which is useful when establishing a wildflower meadow.

Invertebrates

25 species were found in Field 1 and 16 species in Field 2 (33 species in total). No rare species were found, however several species are worthy of mention:

Roesel's Bush Cricket and Hornet Hoverfly were formerly rare species confined to the south coasts of Great Britain but in recent decades have shifted their distribution northwards, likely responding to climate change – in particular warmer winters. Neither were known from Bath at the turn of the

millennium. Tree Bumblebee is a relatively recent arrival to Britain, but since its range in Europe includes cooler climates than are found in the British Isles, their presence here is thought to be a natural expansion in range and not linked to climate change.

The Box Bug was formerly a very rare species confined in the UK to Box Hill in Surrey, feeding on Box trees, however it has dramatically expanded its range over the past decade and now also feeds on common tree species including Hawthorn, on which it was found on Charlcombe Meadows.

Harlequin Ladybird is an invasive species from Asia, first found in the UK in 2004 (first recorded in Bath and North-east Somerset in 2006) and is now one of the most common ladybirds in Britain.

The invertebrate assemblage found is typical of the habitats present at this time of year.

Birds

Although not a focus of the study, birds seen or heard during the survey were noted. Only 6 species were recorded, all of which are relatively common in the Bath area.

Amphibians

A juvenile Common Frog was found in Field 1. The area is noted for its amphibian populations and the site is likely to provide suitable terrestrial habitat for the local amphibians.

Further Study

The number of species recorded in this survey represents only a small proportion of the total species present. Many further species will be more apparent at other times of the year, and more abundant in other years (2024 has been particularly notable for the poor numbers of many invertebrate species).

An intensive invertebrate survey would likely produce records of several hundred additional species, however such survey work is extremely time-consuming and requires specialist knowledge. It would, however pick up any rarities present and contribute a considerable amount of data to various recording schemes and record centres.

Casual surveying by non-specialists would also increase the number of species recorded. It is recommended that a database of records is kept and maintained, with records sent to recording schemes and the local environmental records centre. Mobile phone applications with image recognition software have their uses, but also limitations. For serious recording efforts, consult the relevant standard identification work.

Disclaimer

This report is intended for the use of the Friends of Charlcombe Meadows group to aid their ongoing conservation efforts at the site. It is not intended to be used to inform any current or future planning application.

Species List: Plants

Scientific Name	Common Name	Field 1	Field 2
<i>Acer campestre</i>	Field Maple		x
<i>Agrimonia eupatoria</i>	Agrimony	x	x
<i>Agrostis</i> sp.	a bent-grass	x	x
<i>Angelica sylvestris</i>	Wild Angelica	x	x
<i>Arrhenatherum elatius</i>	False Oat-grass	x	x
<i>Asplenium scolopendrium</i>	Hart's-tongue		x
<i>Athyrium filix-femina</i>	Lady Fern		x
<i>Brachypodium sylvaticum</i>	False Brome		x
<i>Carex pendula</i>	Pendulous Sedge		x
<i>Circaea lutetiana</i>	Enchanter's Nightshade		x
<i>Cirsium arvense</i>	Creeping Thistle	x	x
<i>Clematis vitalba</i>	Traveller's-joy		x
<i>Convolvulus arvensis</i>	Field Bindweed	x	x
<i>Cornus sanguinea</i>	Dogwood		x
<i>Corylus avellana</i>	Hazel	x	x
<i>Crataegus monogyna</i>	Hawthorn	x	x
<i>Dactylis glomerata</i>	Cock's-foot	x	x
<i>Dryopteris affinis</i>	Scaly Male Fern		x
<i>Dryopteris dilatata</i>	Broad Buckler Fern		x
<i>Dryopteris filix-mas</i>	Male Fern	x	x
<i>Equisetum telmateia</i>	Great Horsetail		x
<i>Eupatorium cannabinum</i>	Hemp Agrimony	x	x
<i>Filipendula ulmaria</i>	Meadowsweet		x
<i>Fraxinus excelsior</i>	Ash	x	x
<i>Galium mollugo</i>	Hedge Bedstraw	x	x
<i>Galium verum</i>	Lady's Bedstraw		x
<i>Geranium robertianum</i>	Herb Robert		x
<i>Helosciadium nodiflorum</i>	Fool's Watercress		x
<i>Heracleum sphondylium</i>	Hogweed	x	x
<i>Hypericum androsaemum</i>	Tutsan		x
<i>Ilex aquifolium</i>	Holly		x
<i>Larix decidua</i>	European Larch	x	x
<i>Lathyrus pratensis</i>	Meadow Vetchling	x	x
<i>Lolium perenne</i>	Perennial Rye-grass	x	x
<i>Lotus pedunculatus</i>	Greater Bird's-foot Trefoil		x
<i>Matricaria discoidea</i>	Pineappleweed	x	x
<i>Mentha aquatica</i>	Water Mint		x
<i>Mercurialis perennis</i>	Dog's Mercury		x
<i>Odontites vernus</i>	Red Bartsia	x	x
<i>Phleum pratense</i>	Timothy	x	x
<i>Plantago lanceolata</i>	Ribwort Plantain	x	x
<i>Plantago major</i>	Greater Plantain	x	x
<i>Polygonum aviculare</i>	Knotgrass	x	x
<i>Polystichum setiferum</i>	Shield Fern		x
<i>Prunus spinosa</i>	Blackthorn	x	x
<i>Ranunculus acris</i>	Meadow Buttercup	x	x

<i>Ribes rubrum</i>	Redcurrant		x
<i>Rubus fruticosus</i> agg.	Bramble	x	x
<i>Rumex acetosa</i>	Common Sorrel	x	x
<i>Rumex sanguineous</i>	Wood Dock	x	x
<i>Salix fragilis</i>	Crack Willow		x
<i>Sambucus nigra</i>	Elder	x	x
<i>Silene dioica</i>	Red Campion		x
<i>Scrophularia auriculata</i>	Water Figwort		x
<i>Stachys sylvatica</i>	Hedge Woundwort		x
<i>Taraxacum officinale</i> agg.	Dandelion	x	x
<i>Trifolium pratense</i>	Red Clover	x	x
<i>Trifolium repens</i>	White Clover	x	x
<i>Urtica dioica</i>	Common Nettle	x	x
<i>Veronica beccabunga</i>	Brooklime		x
TOTAL		33	60

Species List: Invertebrates

Scientific Name	Common Name	Field 1	Field 2
Odonata (Dragonflies & Damselflies)			
<i>Sympetrum striolatum</i>	Common Darter	x	
Orthoptera (Grasshoppers & Crickets)			
<i>Chorthippus brunneus</i>	Field Grasshopper	x	
<i>Pseudochorthippus parallelus</i>	Meadow Grasshopper	x	x
<i>Roeseliana roeselii</i>	Roesel's Bush-cricket	x	x
Hemiptera (True Bugs)			
<i>Acanthosoma haemorrhoidale</i>	Hawthorn Shieldbug	x	
<i>Eysarcoris venustissimus</i>	Woundwort Shieldbug		x
<i>Gonocerus acuteangulatus</i>	Box Bug	x	
<i>Himacerus apterus</i>	Tree Damsel Bug	x	
Lepidoptera (Butterflies & Moths)			
<i>Maniola jurtina</i>	Meadow Brown	x	x
<i>Pararge aegeria</i>	Speckled Wood	x	
<i>Phalera bucephala</i>	Buff-tip		x
<i>Pyronia tithonus</i>	Gatekeeper		x
<i>Rivula sericealis</i>	Straw Dot	x	x
Diptera (True Flies)			
<i>Chrysotoxum bicinctum</i>	Two-banded Spearhorn	x	
<i>Episyrphus balteatus</i>	Marmalade Hoverfly	x	
<i>Eristalis arbustorum</i>	Plain-faced Dronefly	x	x
<i>Eristalis pertinax</i>	Tapered Drone Fly	x	x
<i>Eristalis tenax</i>	Drone Fly	x	
<i>Syrirta pipiens</i>	Thick-legged Hoverfly	x	

<i>Urophora cardui</i>	Thistle Gall Fly	x	
<i>Volucella zonaria</i>	Hornet Hoverfly		x
Hymenoptera (Ants, Bees, Wasps etc.)			
<i>Andricus kollari</i>	Oak Marble Gall Wasp		x
<i>Apis mellifera</i>	Honeybee	x	x
<i>Bombus hypnorum</i>	Tree Bumblebee		x
<i>Bombus lucorum</i> agg.	White-tailed Bumblebee	x	
<i>Bombus pascuorum</i>	Common Carder Bee	x	x
<i>Neuroterus quercusbaccarum</i>	Common Spangle Gall Wasp		x
<i>Tenthredo scrophulariae</i>	Figwort Sawfly		x
Coleoptera (Beetles)			
<i>Calvia quatuordecimguttata</i>	Cream-spot Ladybird	x	
<i>Coccinella septempunctata</i>	7-spot Ladybird	x	
<i>Harmonia axyridis</i>	Harlequin Ladybird	x	
<i>Propylea quatuordecimpunctata</i>	14-spot Ladybird	x	
Arachnida: Araneae (Spiders)			
<i>Araneus quadratus</i>	Four-spot Orb-weaver	x	
TOTAL (33 species)		25	16

Species List: Birds

Scientific Name	Common Name	Field 1	Field 2
<i>Buteo buteo</i>	Buzzard	x	
<i>Coloeus monedula</i>	Jackdaw	x	
<i>Corvus corax</i>	Raven	x	
<i>Dendrocopos major</i>	Great-spotted Woodpecker	x	
<i>Erithacus rubecula</i>	Robin	x	x
<i>Picus viridis</i>	Green Woodpecker	x	
TOTAL		6	1

Species List: Amphibians

Scientific Name	Common Name	Field 1	Field 2
<i>Rana temporaria</i>	Common Frog	x	

Photos



1 Roesel's Bush-cricket (female), M. Williams



2 Four-spot Orb-weaver (female), M. Williams



3 Common Darter (female), M. Williams



4 Buff-tip Moth caterpillars on oak, M. Williams



5 Hawthorn Shieldbug, M. Williams



6 Box Bug (nymph), M. Williams

Figure 1: Site Boundary

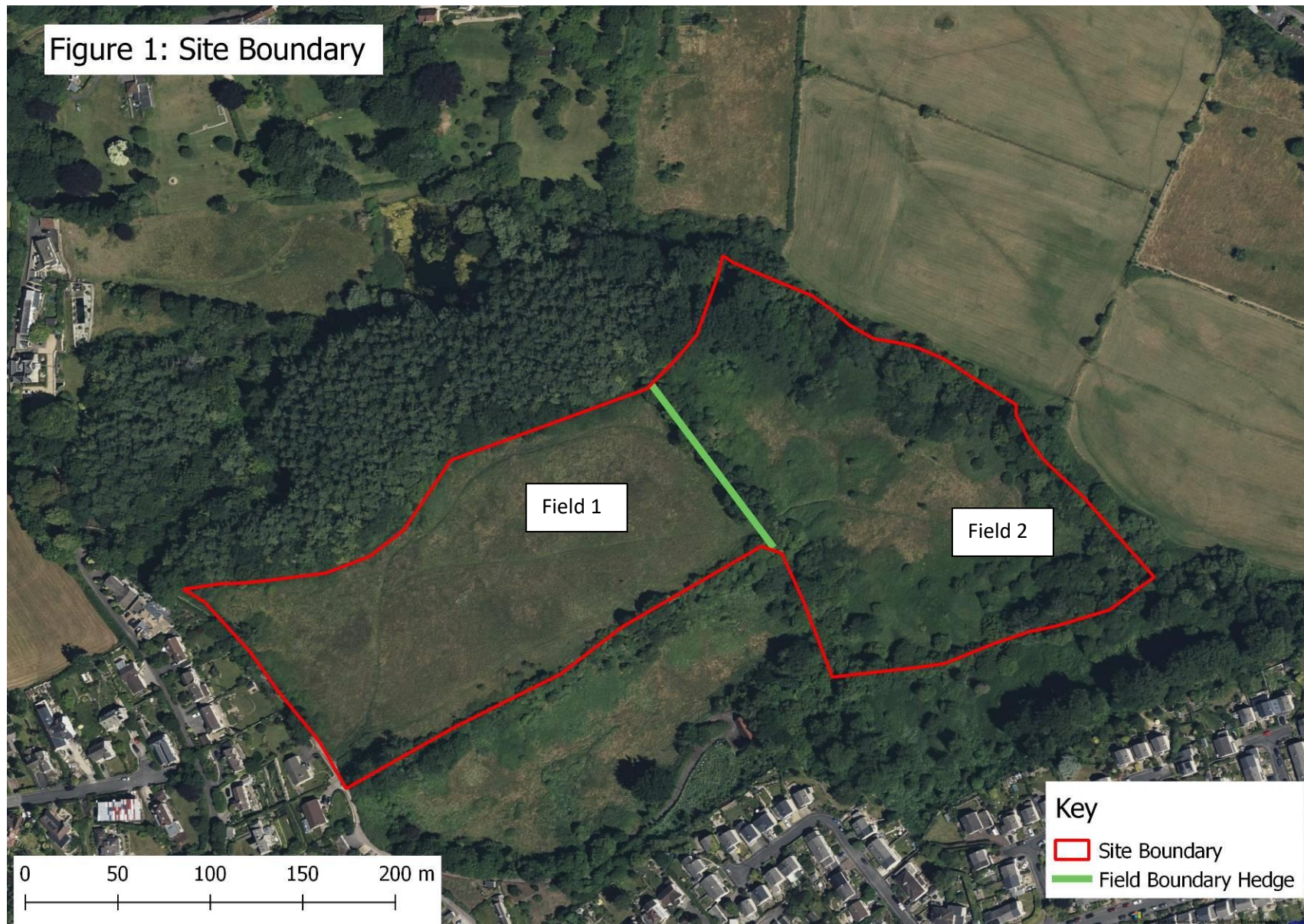


Figure 2: Tithe Map field boundaries

