



## Hotspot Report, River Great Ouse floodplain Meadows TL215707

*Brampton Biodiversity Project*

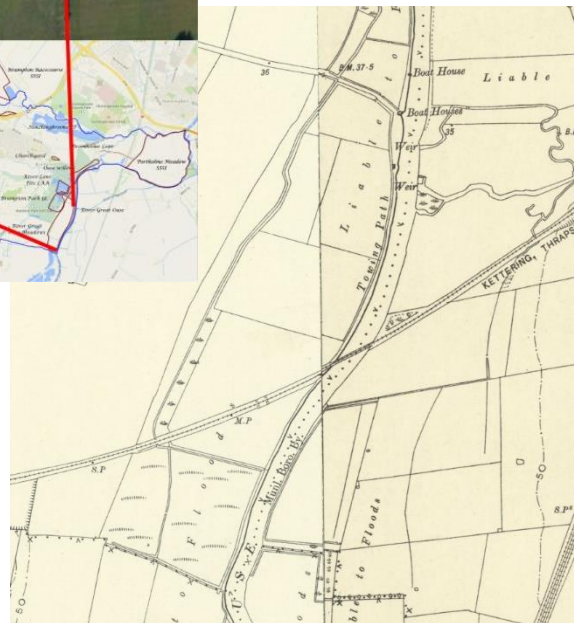
[Dr J Patrick Doody July 2016, email [jp.doody@ntlworld.com](mailto:jp.doody@ntlworld.com)]



### Location maps

These meadows typify the situation along much of the River Great Ouse valley. The field boundaries present in 1772 when the map used to delimit the ownership boundaries was drawn (shown in white on the Google map) are still present today. The additional boundaries/hedges were established, presumably as part of the enclosure award.

By 1902 when the OS map shown below right was published the hedgerows appear largely intact. [This is different to the agricultural areas in the west of the Parish where arable land is predominant, and many hedges have been lost.] In this case, the now disused railway to Kettering bisects



one of the lower fields. There is evidence to suggest that despite the survival of the landscape features the wildlife interest of the meadow (plants, invertebrates and probably breeding birds) is less now than formerly. This is largely due to the use of herbicides and artificial fertilisers to increase the productivity of the grassland, which is used as a hay crop and grazing.

In 1986 the southernmost meadow, shown as rough grassland on the 1902 map, remained (see picture below).



**Picture: Grazed 'rushy' meadow 1989 south of disused railway track**

This supported a number of wetland plants in its western corner, including those listed below.

*Agrostis stolonifera* Creeping Bent  
*Angelica sylvestris* Wild Angelica  
*Carex hirta* Hairy Sedge  
*Carex otrubae* False Fox-sedge  
*Carex riparia* Greater Pond-sedge  
*Cirsium palustre* Marsh Thistle  
*Deschampsia cespitosa* Tufted Hair-grass  
*Epilobium hirsutum* Great Willowherb  
*Filipendula ulmaria* Meadowsweet  
*Galium palustre* Common Marsh-bedstraw  
*Holcus lanatus* Yorkshire-fog  
*Iris pseudacorus* Yellow Iris

*Juncus inflexus* Hard Rush  
*Lathyrus pratensis* Meadow Vetchling  
*Lychnis flos-cuculi* Ragged-Robin  
*Phalaris arundinacea* Reed Canary-grass  
*Potentilla anserine* Silverweed  
*Ranunculus acris* Meadow Buttercup  
*Ranunculus bulbosus* Bulbous Buttercup  
*Scrophularia nodosa* Common Figwort  
*Scutellaria galericulata* Skullcap  
*Trifolium medium* Zigzag Clover

This small remaining part of the unimproved meadow was destroyed by an extension to the refuge tip in 1986. Snipe *Gallinago gallinago* Woodcock *Scolopax rusticola* Oystercatcher *Haematopus ostralegus* were also recorded in the same area prior to its loss. (Personal records JPD)

## Flora, the meadows

Previous work in the Ouse Valley has recognised the importance of the species-rich flood meadows. "A survey of the grasslands along the Ouse Valley was undertaken in 1987 (*Cambridgeshire Rivers & Meadows Survey: River Ouse St Neots to Earith*, R. Newman, 1987, NCC). This was supplemented through the County Habitat Survey 1992-97, when selected grassland sites were visited during 1997 as part of a phase 2 survey." These earlier surveys provided a good baseline from which to assess the Ouse Valley wet meadows. A further visit took place in June 2003. Part of the Ouse Valley Wet Woodland and Wet Meadows Project, this identified the meadows as a "*Mixture of unimproved, species-rich semi-improved and species-poor grassland*". It gave them a High Priority with a recommendation "*Enhance meadow through improved management & Enhance sward to create new species-rich grassland... through adoption of a more sympathetic management regime*". The surveyor (Sharon Brown) commenting on their biodiversity said "*All the meadows have been semi-improved and are less species-rich than when visited in 1987. In recent years management has become unfavourable with cutting taking place too early.*" (Ouse Valley Wet Woodland & Wet Meadows Report WT BCNP 2005).

Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire & Peterborough December (2005). *Ouse Valley Wet Meadows & Wet Woodlands Project, Wet Woodland & Wet Meadows Inventory & Habitat Strategy*. Report Prepared for Huntingdonshire District Council.

These combined records from 1997 and 2010 (from the Cambridge & Peterborough Environmental Record Centre) give a good indication of the range of species formerly present.

<i>Ajuga reptans</i> , Bugle	<i>Lathyrus pratensis</i> , Meadow Vetchling
<i>Alopecurus pratensis</i> , Meadow Foxtail	<b><i>Leucanthemum vulgare</i>, Oxeye Daisy</b>
<i>Anthoxanthum odoratum</i> , Sweet Vernal-grass	<i>Lolium perenne</i> , Perennial Rye-grass
<i>Anthriscus sylvestris</i> , Cow Parsley	<i>Lotus corniculatus</i> , Common Bird's-foot-trefoil
<i>Arrhenatherum elatius</i> , False Oat-grass	<i>Luzula campestris</i> , Field Wood-rush
<i>Bromus hordeaceus</i> , Lesser Soft-Brome	<i>Lychnis flos-cuculi</i> , Ragged-Robin
<b><i>Cardamine pratensis</i>, Cuckooflower</b>	<i>Lysimachia nummularia</i> , Creeping-Jenny
<i>Carex acutiformis</i> , Lesser Pond-sedge	<i>Myosotis arvensis</i> , Field Forget-me-not
<i>Carex disticha</i> , Brown Sedge	<i>Poa trivialis</i> , Rough Meadow-grass
<i>Carex flacca</i> , Glaucous Sedge	<i>Potentilla anserina</i> , Silverweed
<i>Carex hirta</i> , Hairy Sedge	<b><i>Primula veris</i>, Cowslip</b>
<i>Carex spicata</i> , Spiked Sedge	<i>Quercus robur</i> , Pedunculate Oak
<b><i>Centaurea nigra</i>, Common Knapweed</b>	<i>Ranunculus acris</i> , Meadow Buttercup
<i>Cerastium fontanum</i> , Common Mouse-ear	<i>Ranunculus bulbosus</i> , Bulbous Buttercup
<i>Cirsium arvense</i> , Creeping Thistle	<i>Ranunculus lingua</i> , Greater Spearwort
<i>Cirsium vulgare</i> , Spear Thistle	<i>Ranunculus repens</i> , Creeping Buttercup
<i>Cynosurus cristatus</i> , Crested Dog's-tail	<b><i>Rhinanthus minor</i>, Yellow-rattle</b>
<i>Dactylis glomerata</i> , Cock's-foot	<i>Rumex acetosa</i> , Common Sorrel
<i>Deschampsia cespitosa</i> , Tufted Hair-Grass	<i>Rumex crispus</i> , Curled Dock
<i>Festuca rubra</i> , Red Fescue	<i>Rumex obtusifolius</i> , Broad-leaved Dock
<i>Filipendula ulmaria</i> , Meadowsweet	<b><i>Sanguisorba officinalis</i>, Great Burnet</b>
<i>Galium aparine</i> , Cleavers	<i>Senecio jacobaea</i> , Ragwort
<b><i>Galium verum</i>, Lady's Bedstraw</b>	<b><i>Silaum silaus</i>, Pepper-saxifrage</b>
<i>Geranium dissectum</i> , Cut-leaved Crane's-bill	<i>Stellaria graminea</i> , Lesser Stitchwort
<i>Glechoma hederacea</i> , Ground-ivy	<i>Taraxacum officinale</i> agg., Dandelion
<i>Heracleum sphondylium</i> , Hogweed	<i>Trifolium pratense</i> , Red Clover
<i>Holcus lanatus</i> , Yorkshire-fog	<i>Urtica dioica</i> , Common Nettle
<i>Hordeum secalinum</i> , Meadow Barley	<i>Vicia cracca</i> , Tufted Vetch
<i>Juncus inflexus</i> , Hard Rush	

These surveys suggested that the fields retained a reasonable selection of plants, typically found in old meadows. These include Crested Dogs-tail *Cynosurus cristatus* and a broad range of other species such as Common Knapweed *Centaurea nigra*, Red Fescue *Festuca rubra*, Red Clover *Trifolium pratense*, Ox-eye Daisy *Leucanthemum vulgare*, Yellow Rattle *Rhinanthus minor*. Additionally, many Cambridgeshire sites have developed on mildly calcareous substrates (chalky boulder clay) and have in places developed richer swards with calcicoles such as Cowslip *Primula veris* and Lady's Bedstraw *Galium verum*, which have all been recorded on these meadows. Other species included Great Burnet *Sanguisorba officinalis* and Pepper-saxifrage *Silaum silaus* both uncommon generally, but typical of these unimproved river valley grasslands. Sadly, although many of the species were still present in the 2010 survey, they were restricted to the margins of the grassland and in only a few locations. During a 'walk-over' in June 2016 most of these herbs appeared to have been lost.



*Picture of the meadows and associated hedgerows June 2014*

### **Associated habitats**

Despite the loss of herb-rich vegetation the hedgerows have a good range of species including those listed below. In those that predate the enclosure acts, i.e. are present on the 1772 map shown above, the presence of at least 11 ‘woody’ trees and shrubs suggest that they could be several hundred years old. Based on a ‘hedge dating’ system devised by Dr Max Hooper\* when based at Monk’s Wood Experimental Station in the 1970’s.

*Euonymus europaeus*, Spindle  
*Fraxinus excelsior*, Ash  
*Prunus spinosa*, Blackthorn  
*Rhamnus cathartica*, Buckthorn  
*Ruscus aculeatus*, Butcher’s Broom  
*Salix fragilis*, Crack Willow

*Rosa canina*, Dog Rose  
*Cornus sanguinea*, Dogwood  
*Crataegus monogyna*, Hawthorn  
*Humulus lupulus*, Hop  
*Quercus robur*, Oak

\*Known as ‘Hooper's Hedgerow History Hypothesis’, it is summarised as “the Age of the hedge is equal to the number of species x 100”. In this case it uses the presence of ‘woody’ plants, structural species, not climbers (other than roses) or bramble in a 30m length of hedgerow. In theory every **native** species adds one hundred years to the age of the hedge.

The marginal habitats, mainly hedgerows and the river bank, support a good range of birds Many of which have nested or are thought to have nested in the area; these are listed below.

### Bird species list

Blackbird, <i>Turdus merula</i>	Oystercatcher, <i>Haematopus ostralegus</i>
Blackcap, <i>Sylvia atricapilla</i>	Pheasant, <i>Phasianus colchicus</i>
Bullfinch, <i>Pyrrhula pyrrhula</i>	Carrion Crow, <i>Corvus corone</i>
Chaffinch, <i>Fringilla coelebs</i>	Pied Wagtail, <i>Motacilla alba</i>
Chiffchaff, <i>Phylloscopus collybita</i> *	Red-legged Partridge, <i>Alectoris rufa</i>
Corn Bunting, <i>Emberiza calandra</i> *	Redshank, <i>Tringa totanus</i>
Cuckoo, <i>Cuculus canorus</i>	Reed Warbler, <i>Acrocephalus scirpaceus</i>
Dunnock, <i>Prunella modularis</i>	Sand Martin, <i>Riparia riparia</i>
Garden Warbler, <i>Sylvia borin</i>	Sedge Warbler, <i>Acrocephalus schoenobaenus</i>
Goldfinch, <i>Carduelis carduelis</i>	Shoveler, <i>Anas clypeata</i>
Great Spotted Woodpecker, <i>Dendrocopos major</i>	Skylark, <i>Alauda arvensis</i>
Green Woodpecker, <i>Picus viridis</i>	Snipe, <i>Gallinago gallinago</i>
Greenfinch, <i>Chloris chloris</i>	Sparrowhawk, <i>Accipiter nisus</i>
Grey Heron, <i>Ardea cinerea</i>	Spotted Flycatcher, <i>Muscicapa striata</i>
Jay, <i>Garrulus glandarius</i>	Stock Dove, <i>Columba oenas</i>
Kingfisher, <i>Alcedo atthis</i>	Tawny Owl, <i>Strix aluco</i>
Lapwing, <i>Vanellus vanellus</i>	<b>Tree Sparrow, <i>Passer montanus</i>*</b>
<b>Lesser Spotted Woodpecker, <i>Dendrocopos minor</i>*</b>	Treecreeper, <i>Certhia familiaris</i>
Lesser Whitethroat, <i>Sylvia curruca</i>	Tufted Duck, <i>Aythya fuligula</i>
Linnet, <i>Carduelis cannabina</i>	Turtle Dove, <i>Streptopelia turtur</i> *
<b>Little Owl, <i>Athene noctua</i>*</b>	Water Rail, <i>Rallus aquaticus</i> *
Long-tailed Tit, <i>Aegithalos caudatus</i>	Willow Warbler, <i>Phylloscopus trochilus</i>
Magpie, <i>Pica pica</i>	Wren, <i>Troglodytes troglodytes</i>
Mallard, <i>Anas platyrhynchos</i>	<b>Yellow Wagtail, <i>Motacilla flava</i>*</b>
Mistle Thrush, <i>Turdus viscivorus</i>	Yellowhammer, <i>Emberiza citronella</i> *

Species \* Not recorded in recent (last 10 years)

### Diptera (recorded 30 April 2014)

The meadows lie along the River Ouse between River Lane and the old railway embankment in TL21-69- and collecting was mainly along the largely unmanaged hedgerows and wet ditches. No species of special interest were found except *Syntormon macula* (Dolichopodidae), a rare species in south west England which has been spreading in recent years. This is the second VC31 record, the first was Brampton Wood in 2012.

Tipulidae	<i>Nephrotoma appendiculata</i> Pierre		<i>Rhaphium appendiculatum</i> Zetterstedt
	<i>Tipula oleracea</i> L.		
Limoniidae	<i>Erioconopa trivialis</i> (Meigen)		<i>Syntormon macula</i> Parent
	<i>Limonia nubeculosa</i> Meigen	Lonchopteridae	<i>Lonchoptera lutea</i> Panzer
	<i>Phylidorea ferruginea</i> (Meigen)	Tephritidae	<i>Tephritis formosa</i> (Loew)
Mycetophilidae	<i>Cordyla fissa</i> Edwards	Sciomyzidae	<i>Tetanocera arrogans</i> Meigen
Stratiomyidae	<i>Beris chalybata</i> (Forster)	Sepsidae	<i>Sepsis flavimana</i> Meigen
Hybotidae	<i>Bicellaria vana</i> Collin	Opomyzidae	<i>Geomyza tripunctata</i> (Fallén)
	<i>Ocydromia glabricula</i> (Fallén)	Chloropidae	<i>Calamoncosis glyceriae</i> Nartshuk
	<i>Platypalpus longicornis</i> (Meigen)		<i>Chlorops frontosus</i> Meigen
Empididae	<i>Empis femorata</i> Fabricius		<i>Chlorops speciosus</i> Meigen
	<i>Empis scutellata</i> Curtis		<i>Elachiptera cornuta</i> (Fallén)
	<i>Empis trigramma</i> Wiedemann	Agromyzidae	<i>Phytomyza ranunculi</i> (Schrank)
	<i>Rhamphomyia crassirostris</i> (Fallén)	Anthomyzidae	<i>Anthomyza gracilis</i> Fallén)
Dolichopodidae	<i>Campsicnemus scambus</i> (Fallén)	Heleomyzidae	<i>Suillia affinis</i> (Meigen)
	<i>Dolichopus plumipes</i> (Scopoli)	Scathophagidae	<i>Cleigastra apicalis</i> (Meigen)

	<i>Cordilura albipes</i> (Fallén)		<i>Anthomyia procellaris</i> Rondani
	<i>Cordilura impudica</i> Rondani		<i>Hylemya vagans</i> (Panzer)
	<i>Nanna flavipes</i> (Fallén)		<i>Hylemya variata</i> (Fallén)
	<i>Nanna tibiella</i> (Zetterstedt)	Fanniidae	<i>Fannia serena</i> (Fallén)
	<i>Scathophaga furcata</i> (Say)	Muscidae	<i>Hebecnema vespertina</i> (Fallén)
Anthomyiidae	<i>Anthomyia confusanea</i> Michelson		<i>Helina reversio</i> (Harris)
	<i>Anthomyia liturata</i> (Robineau-Desvoidy)		<i>Hydrotaea cyrtoneurina</i> (Zetterstedt)
		Sarcophagidae	<i>Sarcophaga dissimilis</i> Meigen

This is a small number compared to the more than 450 species that Jon has recorded since the 1970s, included as a separate Appendix. It is not possible to judge change over time, but it seems highly likely that the impoverishment of the grassland has resulted in a diminution of the invertebrate fauna.

### Glossary

**“Copyhold tenure**, as opposed to freehold or leasehold, was a form of landholding peculiar to manors. Copyhold tenants were restricted in what they could do with their land and needed permission from the manorial court to inherit, sell, sublet, buy or mortgage their copyhold property. These transactions, referred to as admissions and surrenders, were written down in the formal record of the court, that is the court roll or court book, and a copy of the entry given to the new tenant as proof of title. The term copyhold therefore derives from the fact that the land was held by copy of the court roll. Copyhold tenants were also subject to certain customary payments. For example, when a new tenant took over copyhold property he had to pay an entry fine to the lord of the manor and when a copyhold tenant died a payment called a 'heriot' had to be made. Copyhold was abolished by the Law of Property Act 1922.” From the National Archives

<http://apps.nationalarchives.gov.uk/mdr/help/mdr/mdrfaq.htm#4>.

