

Report on Birds and Conservation at

MILL FARM & LITTLE MILL FARM

MARDEN



Sunflowers for birds on an icy morning.
Ginny Wenban

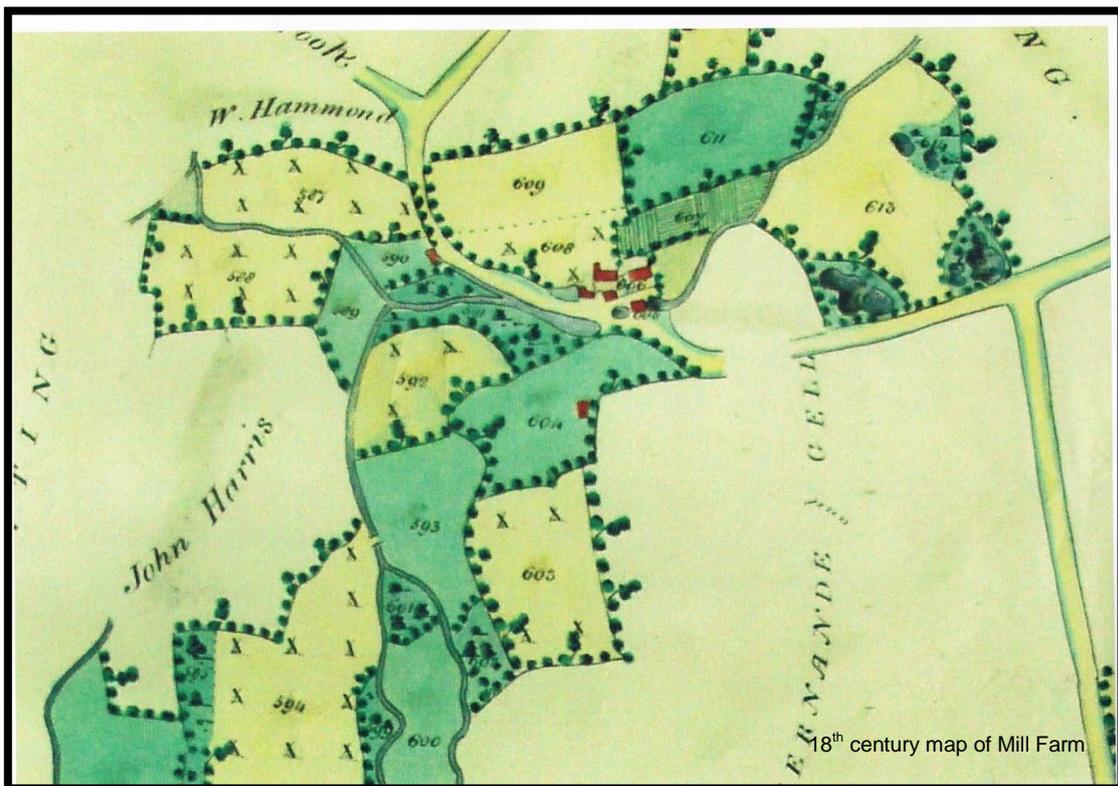
2015-16

Background

Little Mill is a mixed fruit and arable farm, owned by HE Hall & Son Ltd¹. Roughly 4Ha of a variety of Wild Bird Crops (WBCs) are planted annually at Little Mill to provide over-winter food to support birds, particularly farmland species, many of which are now red-listed, ie. on the red list of conservation concern².

In 2015, along with Poultry Farm to the south of the village, Little Mill was involved in a supplementary feeding trial run by the RSPB to investigate the possibility of supporting the local populations of turtle doves, a red-listed species in steep decline in the UK but which still breeds in Marden. Other red-listed species such as skylark, linnet and yellowhammer also nest on the farms, along with barn, little and tawny owls, the tawny also being an amber-listed species .

Mill Farm was acquired in March 2015. It is mixed fruit and arable with a small plantation of native deciduous trees, generous areas of tall hedgerow and boundary vegetation, with patches of bramble scrub. The farm is bounded on one side by the Lesser Teise river and has several significant drainage channels, one of which fed the mill prior to its demolition a century ago. Much of 2015 was spent clearing the farm of substantial quantities of agricultural and other rubbish. The old mill stream was re-opened and water can once again be diverted to a drain alongside a field to the north of Hunton Road. In November 2016 creation of a wetland for flood-prevention purposes in this field was started. Once established, this will also benefit wildlife, particularly birds. In 2016 4Ha of sunflowers and 2Ha of Bumblebird mix were planted as a WBC.



Bird ringing³ has taken place intermittently at Little Mill Farm (and Poultry Farm, south of Marden) since 2009. This has increased during the last year following the acquisition and inclusion of Mill Farm in the programme.

¹ <http://www.hehall.co.uk/>

² Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD. (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, 708–746. Available online at britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf

³ Ringers are licensed by The British Trust for Ornithology www.bto.org on behalf of DEFRA.

Species Recording in 2015/16

Birds were the main focus due to the expertise available to carry out the recording, although bat and plant surveys have been carried out at Mill Farm. (See below).

Bird species recorded at Mill and Little Mill Farms in 2015/16 and their conservation status

(Based on survey visits, twenty-three ringing sessions and casual observations)

F = Flying over * = Probably/possibly breeding ** = Confirmed breeding

Green – least concern		
Cormorant <i>Phalacrocorax carbo</i> F	Great Spotted Woodpecker <i>Dendrocopos major</i> *	Lesser Whitethroat <i>Sylvia curruca</i>
Mandarin Duck <i>Aix galericulata</i> **	Magpie <i>Pica pica</i> *	Whitethroat <i>Sylvia communis</i>
Red-legged Partridge <i>Alectoris rufa</i>	Jay <i>Garrulus glandarius</i> *	Reed Warbler <i>Acrocephalus scirpaceus</i>
Pheasant <i>Phasianus colchicus</i> *	Jackdaw <i>Corvus monedula</i> **	Nuthatch <i>Sitta europaea</i>
Little Egret <i>Egretta garzetta</i>	Rook <i>Corvus frugilegus</i> **	Wren <i>Troglodytes troglodytes</i> **
Grey Heron <i>Ardea cinerea</i>	Carrion Crow <i>Corvus corone</i> *	Blackbird <i>Turdus merula</i> **
Red Kite <i>Milvus Milvus</i> F	Goldcrest <i>Regulus regulus</i> *	Robin <i>Erithacus rubecula</i> **
Sparrowhawk <i>Accipiter nisus</i>	Blue Tit <i>Caerellus cyanistes</i> **	Pied Wagtail <i>Motacilla alba yarellii</i> *
Buzzard <i>Buteo buteo</i>	Great Tit <i>Parus major</i> **	Chaffinch <i>Fringilla coelebs</i> **
Moorhen <i>Gallinula chloropus</i> **	Swallow <i>Hirundo rustica</i> **	Brambling <i>Fringilla montifringilla</i>
Woodpigeon <i>Columba palumbus</i> **	Long-tailed Tit <i>Aegithalos caudatus</i>	Greenfinch <i>Carduelis chloris</i> *
Collared Dove <i>Streptopelia decaocto</i> *	Chiffchaff <i>Phylloscopus collybita</i> **	Goldfinch <i>Carduelis Carduelis</i> *
Barn Owl <i>Tyto alba</i> **	Blackcap <i>Sylvia atricapilla</i> **	Siskin <i>Spinus spinus</i>
Little Owl <i>Athene noctua</i> **	Garden Warbler <i>Sylvia borin</i> **	
Green Woodpecker <i>Picus viridis</i> *		
Amber – moderate concern		
Mute Swan <i>Cygnus olor</i> F	Lesser Black-backed Gull <i>Larus fuscus</i>	Dunnock <i>Prunella modularis</i> **
Mallard <i>Anas platyrhynchos</i> **	Stock Dove <i>Columba oenas</i> **	Meadow Pipit <i>Anthus pratensis</i>
Kestrel <i>Falco tinnunculus</i> *	Tawny Owl <i>Strix aluco</i> **	Bullfinch <i>Pyrrhula pyrrhula</i> **
Green Sandpiper <i>Tringa ochropus</i>	Swift <i>Apus apus</i>	Reed Bunting <i>Emberiza schoeniclus</i>
Black-headed Gull <i>Chroicocephalus ridibundus</i>	Kingfisher <i>Alcedo atthis</i> **	
Mediterranean Gull <i>Larus melanocephalus</i>	House Martin <i>Delichon urbicum</i> **	
	Treecreeper <i>Certhia familiaris</i> **	
Red – highest concern		
Lapwing <i>Vanellus vanellus</i>	Skylark <i>Alauda arvensis</i>	House Sparrow <i>Passer domesticus</i> **
Snipe <i>Gallinago gallinago</i>	Starling <i>Sturnus vulgaris</i> *	Linnet <i>Carduelis canabina</i>
Woodcock <i>Scolopax rusticola</i>	Fieldfare <i>Turdus pilaris</i>	Lesser Redpoll <i>Acanthis cabaret</i>
Herring Gull <i>Larus argentatus</i>	Song Thrush <i>Turdus philomelos</i> *	Yellowhammer <i>Emberiza citronella</i> *
Turtle Dove <i>Streptopelia turtur</i> *	Redwing <i>Turdus iliacus</i>	
Cuckoo <i>Cuculus canorus</i>	Mistle Thrush <i>Turdus viscivorus</i> *	
Lesser-spotted Woodpecker <i>Dryobates minor</i> *	Spotted Flycatcher <i>Muscicapa striata</i>	
	Grey Wagtail <i>Motacilla cinerea</i> **	

Little Mill Farm

Significant counts of birds have been recorded using the sunflower WBCs. Early in the year these included flocks of c150 greenfinch and c150 stock dove, both declining species, with several-hundred strong mixed flocks of chaffinch, reed bunting, brambling, siskin, linnet and lesser redpoll. In November good numbers of fieldfare were feeding in the orchards, along with a 400-strong flock of starlings; both are red-listed species. Sparrowhawks frequently visited the WBCs, as did the amber-listed kestrel and little owl. A wintering flock of 50 lapwing used Plover Field for a period, alternating with the recently-ploughed Chalkmead at Mill Farm.



Lesser redpoll. Terry Hilsden

Four ringing sessions took place when 137 birds of eleven species were ringed and released. These included brambling, greenfinch, lesser redpoll and reed bunting.

Some years ago, artificial house martin nests were attached to the oast and barn to boost the existing local colony. In line with the national trend which shows a steady reduction in the species' population, notably in the south of the UK, the number of martins using the nests has declined (as has their population in the village as a whole) but 14 artificial nests were occupied by martins this year along with 6 that were built by the birds on the oast and adjacent cottage eaves.

Included on the farm is Little Pattenden farmhouse, where a red-listed lesser-spotted woodpecker was recorded in the garden.

Mill Farm

In 2015, prior to changes in its management, the main recording effort was to establish a baseline audit of species by territory mapping, regular species lists recorded on visits and entered on the British Trust for Ornithology's (BTO) BirdTrack⁴ database, and sixteen ringing sessions.

As a result of the mixture of habitat, seventy-one species of bird have so far been recorded at Mill Farm. With the exception of three, Mute Swan, Cormorant and Red Kite which were only seen flying over, all are (or are likely to be) using the farm for feeding and/or breeding.

As at Little Mill, the sunflowers planted to provide over-winter feed have already attracted significant flocks of birds. These have included c250 linnets, c200 chaffinches, c150 greenfinches and c350 reed buntings. In March 2015 – the hunger gap for birds because of depleted food sources in the countryside – significant flocks of reed buntings and yellowhammers were still feeding in cereal stubble left from the previous autumn.



The drainage channels on the farm are also important habitats for birds. They provide habitat for breeding kingfishers and grey wagtails, and herons and little egrets forage in them. This winter woodcock, snipe and green sandpiper have all been recorded.

The deciduous woodland provides habitat for a wide range of birds from goldcrest to tawny owl and winter roosts for fieldfares and redwings. Many species, including bullfinch and sub-Saharan summer migrants such as garden warbler also breed there. Advice from RSPB to layer edges to the rides was acted upon to increase diversity of habitat. Continued 'scalping' of the margins in future years will increase the length of edge habitat available for insects and birds to use.

A further supplementary feeding trial for turtle doves, regularly heard calling in the wood and adjacent hedgerows, was carried out by the RSPB at Mill Farm in 2016.

In November, work began to create a wetland on 4Ha north of Hunton Road, where water diverted through the newly-cleared mill stream can be retained for flood-prevention purposes. It will also create valuable wetland habitat for birds and other taxa.

KCC-funded, through The Natural Flood Management / Medway Valley Countryside Partnership, and in co-operation with the RSPB, the project will retain between 15,000 – 20,000 cubic metres of water, creating channels and a scrape with shelving, muddy margins ideal for water birds, and rough meadow/grassland for plants, small mammals and invertebrates. Several days of heavy rain unfortunately brought the work to a halt. It will be completed in the spring and summer of 2017.



However, while it was in progress, the excavation attracted flocks of c300 starlings and c50 pied wagtails, and a little egret was soon seen prospecting in the flooded channel!

While the machinery was on site the opportunity was taken to create an otter holt from the branches of a fallen oak on the bank of a deep drain. Large pipes were inserted to provide two entrances/exits and the whole covered with soil from the excavated scrape.

⁴ <http://app.bto.org/birdtrack/main/data-home.jsp>

Bird Ringing



Bird ringing⁵ has been carried out by ringers licensed by the BTO. Birds are trapped in mist nets and fitted with small, uniquely numbered leg rings. Biometric details (wing length and mass, feather moult etc.) are recorded along with the age and sex of the bird before releasing it. The data are used by the BTO to track birds' movements, migration routes and survival rates. Nestboxes on the farm are also monitored to provide further information on reproductive success. All the data are fed into a national database to indicate demographic trends which help explain changes in population levels. Conservation decisions can then be based on sound scientific information.

A total of 594 birds were handled, providing evidence that certain species (eg. grey wagtail, garden warbler, kingfisher and treecreeper) were actually breeding on the site.



The grey wagtail pictured left, for example, was found to have a brood patch (bare skin with swollen blood vessels on its breast to help keep eggs and chicks warm in the nest), confirming it had young nearby.



Later in the year the juvenile bird above was trapped in the same place, and was possibly the offspring of the adult caught earlier.

Two birds provided particularly interesting information. The first, a female wren ringed at Mill Farm in May, was recaptured 50km away near Seaford, East Sussex in October; an unusually long distance for a normally sedentary wren. The second was a chiffchaff caught in June 2016 at Mill Farm. This bird had originally been ringed as a juvenile bird in October 2015 on an island off the Brittany coast, on its migration route to Africa. It had subsequently returned to breed for the first time in Marden – a significant round trip for a bird weighing just 8g.

A discrete field, historically named Otter Cape Mead, bounded almost entirely by water and now managed entirely for wildlife, was selected as being potentially suitable for ringing as a Constant Effort Site (length and position of nets, duration, timing and frequency of sessions, height of vegetation remain the same every year) to contribute particularly valuable data for the BTO's population monitoring programme. However, although a wide variety of species were trapped and ringed, the height of surrounding boundaries reduced the numbers of birds caught and so it proved unsuitable.

Tree sparrows *Passer montanus* are currently absent from the area, in common with most of southern England. Their population has seen a 90% drop since 1970, but a few colonies still exist in Kent and Sussex. It is possible that birds dispersing from these colonies in autumn could be attracted to Mill Farm by providing artificial feed in suitable habitat so, since October 2016 there is an ongoing programme of feeding in a thorny hedge close to water at Mill Farm, along with the provision of nestboxes which the species will readily use.

Owls and Raptors

Barn owls are regular breeders at Little Mill but have not been recorded nesting at Mill Farm, although they use it for hunting. Tawny owls breed on both, but little owl has yet to be recorded at Mill Farm although it definitely breeds at Little Pattenden. A pair of kestrels have a territory at Mill Farm. Both farms are regularly visited by kestrels, sparrowhawks and buzzards. Red kites are regularly, if not frequently, sighted in the area.

⁵ <https://www.bto.org/volunteer-surveys/ringing>

Both farms, along with all other HE Hall land in Marden, were surveyed in December 2016 by workers from the Hawk and Owl Trust⁶, with the intention of erecting barn owl and kestrel nestboxes in time for the 2017 breeding season. These will be regularly monitored to record breeding attempts and outcomes. Barn owls are designated Schedule 1 species under the Wildlife & Countryside Act 1981⁷ so may only be checked by workers with the necessary BTO permits.

Other Taxa

Flora



Botanist Sue Buckingham very kindly spent a day surveying the flora at Mill Farm in August. Her report is attached in Appendix 1.

A highlight of her visit was discovery of several significant colonies of small teasel *Dipsacus pilosus* and yellow loosestrife *Lysimachia vulgaris*. Small teasel has only been found on about a dozen sites in Kent, including Marden Meadow (approximately 2km away) a Site of Special Scientific Interest (SSSI) managed by Kent Wildlife Trust. Yellow loosestrife is also relatively rare in Kent. This information will ensure care is taken not to damage these colonies. Care is also needed to ensure the New Zealand Pigmyweed *Crassula helmsii*, an invasive alien water plant found alongside the proposed wetland north of Hunton Road, is not allowed to spread.

Hopefully Sue will return for a springtime survey to help complete a comprehensive list of plants on the farm.

Mammals

Bats. Peter Scrimshaw, Steve Songhurst, Katy Tennant and Val Sutton, all members of Kent Bat Group⁸, were also kind enough to survey Mill Farm in August 2016. Their report is attached in Appendix 2.

Although fewer species than might have been expected were found on the night the survey was conducted, four were detected using the site: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Daubenton's *Myotis daubentonii* and brown long-eared *Plecotus auritus*. There was no evidence of a maternity roost. It was thought that the number of large, old trees is insufficient for many nest sites, but these could be increased by providing artificial boxes on suitably large trees and on the farm buildings once any conversion work is completed. As bats will hunt over water, the development of the new wetland should help support greater numbers in future.

Unsurprisingly, **grey squirrel** *Sciurus carolinensis* and **rabbit** *Oryctolagus cuniculus* are plentiful on both farms. Both are considered significant arboricultural or agricultural pests and there is little doubt that the presence of grey squirrels will depress the number of successful broods fledged by open-nesting birds. Along with magpies and **fox** *Vulpes vulpes*, squirrels are periodically culled by farm staff if numbers become too great. It might be worth considering a more coordinated approach, however, if other predators, such as mink (see below) are also present. To avoid unintended adverse consequences, careful consideration needs to be given to any planned reduction in numbers of pest species.

American mink *Neovison vison* has been recorded in the waterways. Its presence is generally considered the main reason for the absence of the **water vole** *Arvicola amphibious*, which has not been recorded on either farm, even though suitable habitat exists. It is no doubt a serious predator of other small mammals and ground-nesting birds and specialist traps are required to capture and cull them humanely.⁹

Although a probably disused sett exists at Mill Farm, no sightings of **badger** *Meles meles* have been made in the current period. Apart from a single casual sighting of two **shrew** *Sorex spp* no other small mammals have been encountered, although there is no doubt they are present from remains in barn owl pellets. A specific survey is therefore required to identify those present. **Hazel (common) dormouse** *Muscardinus avellanarius* has been recorded in the area and could well be present on both farms. Hopefully an appropriately licensed person will be available in the coming year to carry out a survey for them and other mouse and vole species.

⁶ <http://hawkandowl.org/groups/east-midlands-group/>

⁷ http://jncc.defra.gov.uk/PDF/waca1981_schedule1.pdf

⁸ <http://www.kentbatgroup.org.uk/>

⁹ <http://www.gwct.org.uk/wildlife/research/mammals/american-mink/mink-in-britain/>

While there have been numerous signs of **mole** *Talpa europaea* on the farms, **hedgehog** *Erinaceus europaeus*, **stoat** *Mustela ermine* and **weasel** *Mustela nivalis* have yet to be recorded. However, as there has been relatively little recent use of pesticides on the sites and plenty of appropriate habitat exists, these species are likely to be present. Using a camera trap in baited areas is something that could be done in the coming year to establish this.

Similar comments apply to the **otter** *Lutra lutra*, but more in hope than anticipation!

Reptiles and Amphibians

Although a field at Mill Farm was marked as 'Snake Mead' on an old map, apart from occasional past sightings of **grass snake** *Natrix natrix* and **adder** *Vipera berus*, there are no current records. The only records for amphibians were collected during the plant survey in August 2016, when the following were found: **frog** *Rana temporaria*, **marsh frog** *Pelophylax ridibundus* and **toad** *Bufo bufo*. With the significant amount of water and damp areas on the farms it is likely that most, if not all, **newt** species may be present. This is another group of animals that requires a proper survey.

Invertebrates

Once again, lack of specialist knowledge has resulted in very little information about this group of animals. However, the following butterflies and moths were recorded at Mill Farm during 2016 as casual observations:

Cinnabar <i>Tyria jacobaeae</i>	Large White <i>Pieris brassicae</i>	Red Admiral <i>Vanessa atalanta</i>
Comma <i>Polygonia c-album</i>	Meadow Brown <i>Maniola jurtina</i>	Small White <i>Pieris rapae</i>
Common Blue <i>Polyommatus icarus</i>	Orange Tip <i>Anthocharis cardamines</i>	
Gatekeeper <i>Pyronia tithonus</i>	Peacock <i>Aglais io</i>	

Fungi

No records have been made, and a specialist survey is required.

Ray Morris
December 2016

APPENDIX 1

Vascular plant list for Mill Farm, Sue Buckingham, 08 Aug 2016

Taxon	Vernacular	Date	Comment
<i>Acer campestre</i>	Field Maple	08 Aug 2016	
<i>Achillea millefolium</i>	Yarrow	08 Aug 2016	
<i>Agrimonia eupatoria</i>	Agrimony	08 Aug 2016	
<i>Agrostis capillaris</i>	Common Bent	08 Aug 2016	
<i>Agrostis stolonifera</i>	Creeping Bent	08 Aug 2016	
<i>Alisma plantago-aquatica</i>	Water-plantain	08 Aug 2016	
<i>Alnus glutinosa</i>	Alder	08 Aug 2016	
<i>Alopecurus myosuroides</i>	Black-grass	08 Aug 2016	
<i>Alopecurus pratensis</i>	Meadow Foxtail	08 Aug 2016	
<i>Angelica sylvestris</i>	Wild Angelica	08 Aug 2016	
<i>Anisantha sterilis</i>	Barren Brome	08 Aug 2016	
<i>Anthriscus sylvestris</i>	Cow Parsley	08 Aug 2016	
<i>Arctium lappa</i>	Greater Burdock	08 Aug 2016	
<i>Arrhenatherum elatius</i>	False Oat-Grass	08 Aug 2016	
<i>Arum maculatum</i>	Lords-and-Ladies	08 Aug 2016	
<i>Asparagus officinalis</i>	Garden Asparagus	08 Aug 2016	
<i>Asplenium scolopendrium</i>	Hart's-tongue	08 Aug 2016	
<i>Atriplex patula</i>	Common Orache	08 Aug 2016	
<i>Atriplex prostrata</i>	Spear-leaved Orache	08 Aug 2016	
<i>Avena fatua</i>	Wild-oat	08 Aug 2016	
<i>Ballota nigra</i>	Black Horehound	08 Aug 2016	
<i>Borago officinalis</i>	Borage	08 Aug 2016	Probably with birdseed mix
<i>Brachypodium sylvaticum</i>	False-brome	08 Aug 2016	
<i>Brassica nigra</i>	Black Mustard	08 Aug 2016	
<i>Calystegia sepium</i>	Hedge Bindweed	08 Aug 2016	
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	08 Aug 2016	
<i>Carex pendula</i>	Pendulous Sedge	08 Aug 2016	
<i>Carex remota</i>	Remote Sedge	08 Aug 2016	
<i>Centaureum erythraea</i>	Common Centaury	08 Aug 2016	
<i>Cerastium fontanum</i>	Common Mouse-ear	08 Aug 2016	
<i>Chenopodium album</i>	Fat-hen	08 Aug 2016	
<i>Chenopodium polyspermum</i>	Many-seeded Goosefoot	08 Aug 2016	
<i>Cirsium vulgare</i>	Spear Thistle	08 Aug 2016	
<i>Conium maculatum</i>	Hemlock	08 Aug 2016	
<i>Convolvulus arvensis</i>	Field Bindweed	08 Aug 2016	
<i>Cornus sanguinea</i>	Dogwood	08 Aug 2016	
<i>Corylus avellana</i>	Hazel	08 Aug 2016	
<i>Crassula helmsii</i>	New Zealand Pigmyweed	08 Aug 2016	Abundant along the entire length of a recently dug channel at approx. TQ95 4585. An extremely invasive non-native species.
<i>Crataegus monogyna</i>	Hawthorn	08 Aug 2016	
<i>Crepis capillaris</i>	Smooth Hawk's-beard	08 Aug 2016	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	08 Aug 2016	
<i>Dipsacus pilosus</i>	Small Teasel	08 Aug 2016	A massive population of plants on the bank of a drain of the Lesser Teise at TQ7341 4567 also more plants as result of clearance of stream-side vegetation under a power line at TQ7381 4595 and a third patch by Teise bridge and road at TQ737 456 all on Mill Farm. (Currently recorded from only a dozen or so sites in Kent, so this surely one of the largest).
<i>Dryopteris dilatata</i>	Broad Buckler-fern	08 Aug 2016	
<i>Dryopteris filix-mas</i>	Male-fern	08 Aug 2016	

<i>Elytrigia repens</i>	Common Couch	08 Aug 2016	
<i>Epilobium ciliatum</i>	American Willowherb	08 Aug 2016	
<i>Epilobium hirsutum</i>	Great Willowherb	08 Aug 2016	
<i>Epilobium tetragonum</i>	Square-stalked Willowherb	08 Aug 2016	
<i>Equisetum arvense</i>	Field Horsetail	08 Aug 2016	
<i>Euonymus europaeus</i>	Spindle	08 Aug 2016	
<i>Eupatorium cannabinum</i>	Hemp-agrimony	08 Aug 2016	
<i>Euphorbia helioscopia</i>	Sun Spurge	08 Aug 2016	
<i>Fallopia convolvulus</i>	Black-bindweed	08 Aug 2016	
<i>Filipendula ulmaria</i>	Meadowsweet	08 Aug 2016	
<i>Fraxinus excelsior</i>	Ash	08 Aug 2016	
<i>Fumaria officinalis</i>	Common Fumitory	08 Aug 2016	
<i>Galeopsis bifida</i>	Bifid Hemp-nettle	08 Aug 2016	
<i>Galium album</i>	Hedge Bedstraw	08 Aug 2016	
<i>Galium aparine</i>	Cleavers	08 Aug 2016	
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	08 Aug 2016	
<i>Geum urbanum</i>	Wood Avens	08 Aug 2016	
<i>Glechoma hederacea</i>	Ground-ivy	08 Aug 2016	
<i>Gunnera tinctoria</i>	(Giant-rhubarb)	08 Aug 2016	Planted along streambanks in at least 2 places
<i>Hedera helix</i>	Common Ivy	08 Aug 2016	
<i>Holcus lanatus</i>	Yorkshire-fog	08 Aug 2016	
<i>Humulus lupulus</i>	Hop	08 Aug 2016	
<i>Hyacinthoides non-scripta</i>	Bluebell	08 Aug 2016	
<i>Iris pseudacorus</i>	Yellow Iris	08 Aug 2016	
<i>Juncus effusus</i>	Soft-rush	08 Aug 2016	
<i>Juncus inflexus</i>	Hard Rush	08 Aug 2016	
<i>Lactuca virosa</i>	Great Lettuce	08 Aug 2016	
<i>Lamium purpureum</i>	Red Dead-nettle	08 Aug 2016	
<i>Lapsana communis</i>	Nipplewort	08 Aug 2016	
<i>Lathyrus pratensis</i>	Meadow Vetchling	08 Aug 2016	
<i>Lemna minor</i>	Common Duckweed	08 Aug 2016	
<i>Linaria vulgaris</i>	Common Toadflax	08 Aug 2016	
<i>Linum usitatissimum</i>	Flax	08 Aug 2016	crop relict
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	08 Aug 2016	
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil	08 Aug 2016	
<i>Lycopus europaeus</i>	Gypsywort	08 Aug 2016	
<i>Lysimachia nemorum</i>	Yellow Pimpernel	08 Aug 2016	
<i>Lysimachia vulgaris</i>	Yellow Loosestrife	08 Aug 2016	Recorded from only around a couple of dozen sites in Kent and rarely ever as abundant as here.
<i>Lythrum salicaria</i>	Purple-loosestrife	08 Aug 2016	
<i>Matricaria chamomilla</i>	Scented Mayweed	08 Aug 2016	
<i>Matricaria discoidea</i>	Pineappleweed	08 Aug 2016	
<i>Medicago lupulina</i>	Black Medick	08 Aug 2016	
<i>Mentha aquatica</i>	Water Mint	08 Aug 2016	
<i>Mercurialis perennis</i>	Dog's Mercury	08 Aug 2016	
<i>Myosotis arvensis</i>	Field Forget-me-not	08 Aug 2016	
<i>Nuphar lutea</i>	Yellow Water-lily	08 Aug 2016	
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	08 Aug 2016	
<i>Panicum miliaceum</i>	Common Millet	08 Aug 2016	from a birdseed sowing
<i>Papaver rhoeas</i>	Common Poppy	08 Aug 2016	
<i>Persicaria hydropiper</i>	Water-pepper	08 Aug 2016	
<i>Persicaria maculosa</i>	Redshank	08 Aug 2016	
<i>Petasites fragrans</i>	Winter Heliotrope	08 Aug 2016	
<i>Phalaris paradoxa</i>	Awed Canary-grass	08 Aug 2016	from a birdseed sowing
<i>Pimpinella major</i>	Greater Burnet-saxifrage	08 Aug 2016	
<i>Plantago major</i>	Greater Plantain	08 Aug 2016	
<i>Poa annua</i>	Annual Meadow-grass	08 Aug 2016	
<i>Poa trivialis</i>	Rough Meadow-grass	08 Aug 2016	
<i>Polygonum aviculare</i>	Knotgrass	08 Aug 2016	

<i>Populus x canadensis</i>	Hybrid Black-poplar	08 Aug 2016	
<i>Potentilla anserina</i>	Silverweed	08 Aug 2016	
<i>Potentilla reptans</i>	Creeping Cinquefoil	08 Aug 2016	
<i>Prunella vulgaris</i>	Selfheal	08 Aug 2016	
<i>Prunus domestica</i>	Wild Plum	08 Aug 2016	
<i>Prunus spinosa</i>	Blackthorn	08 Aug 2016	
<i>Pulicaria dysenterica</i>	Common Fleabane	08 Aug 2016	
<i>Quercus robur</i>	Pedunculate Oak	08 Aug 2016	
<i>Ranunculus acris</i>	Meadow Buttercup	08 Aug 2016	
<i>Ranunculus repens</i>	Creeping Buttercup	08 Aug 2016	
<i>Ranunculus sceleratus</i>	Celery-leaved Buttercup	08 Aug 2016	
<i>Rosa arvensis</i>	Field-rose	08 Aug 2016	
<i>Rosa x dumalis</i>	Rosa caesia x canina	08 Aug 2016	
<i>Rumex crispus</i>	Curled Dock	08 Aug 2016	
<i>Rumex obtusifolius</i>	Broad-leaved Dock	08 Aug 2016	
<i>Rumex sanguineus</i>	Wood Dock	08 Aug 2016	
<i>Sagina procumbens</i>	Procumbent Pearlwort	08 Aug 2016	
<i>Salix caprea</i>	Goat Willow	08 Aug 2016	
<i>Salix cinerea</i>	Grey Willow	08 Aug 2016	
<i>Salix x fragilis sens. lat.</i>	(Hybrid Crack-willow)	08 Aug 2016	
<i>Sambucus nigra</i>	Elder	08 Aug 2016	
<i>Schedonorus giganteus</i>	Giant Fescue	08 Aug 2016	
<i>Scorzonoides autumnalis</i>	Autumn Hawkbit	08 Aug 2016	
<i>Scrophularia auriculata</i>	Water Figwort	08 Aug 2016	
<i>Scutellaria galericulata</i>	Skullcap	08 Aug 2016	by a farm pond at TQ7389 4588
<i>Senecio erucifolius</i>	Hoary Ragwort	08 Aug 2016	
<i>Senecio jacobaea</i>	Common Ragwort	08 Aug 2016	
<i>Senecio vulgaris</i>	Groundsel	08 Aug 2016	
<i>Silene dioica</i>	Red Campion	08 Aug 2016	
<i>Sinapis arvensis</i>	Charlock	08 Aug 2016	
<i>Sison amomum</i>	Stone Parsley	08 Aug 2016	
<i>Sisymbrium officinale</i>	Hedge Mustard	08 Aug 2016	
<i>Solanum nigrum</i>	Black Nightshade	08 Aug 2016	
<i>Sonchus arvensis</i>	Perennial Sow-thistle	08 Aug 2016	
<i>Sonchus asper</i>	Prickly Sow-thistle	08 Aug 2016	
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	08 Aug 2016	
<i>Sparganium erectum</i>	Branched Bur-reed	08 Aug 2016	
<i>Stachys sylvatica</i>	Hedge Woundwort	08 Aug 2016	
<i>Stellaria graminea</i>	Lesser Stitchwort	08 Aug 2016	
<i>Stellaria media</i>	Common Chickweed	08 Aug 2016	
<i>Tanacetum parthenium</i>	Feverfew	08 Aug 2016	
<i>Tanacetum vulgare</i>	Tansy	08 Aug 2016	
<i>Taraxacum agg.</i>	Dandelion	08 Aug 2016	
<i>Thlaspi arvense</i>	Field Penny-cress	08 Aug 2016	
<i>Torilis japonica</i>	Upright Hedge-parsley	08 Aug 2016	
<i>Trifolium repens</i>	White Clover	08 Aug 2016	
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	08 Aug 2016	
<i>Urtica dioica</i>	Common Nettle	08 Aug 2016	
<i>Veronica arvensis</i>	Wall Speedwell	08 Aug 2016	
<i>Veronica persica</i>	Common Field-speedwell	08 Aug 2016	
<i>Veronica polita</i>	Grey Field-speedwell	08 Aug 2016	
<i>Viburnum opulus</i>	Guelder-rose	08 Aug 2016	planted
<i>Vicia cracca</i>	Tufted Vetch	08 Aug 2016	
<i>Vicia hirsuta</i>	Hairy Tare	08 Aug 2016	
<i>Vicia sativa subsp. segetalis</i>	Common Vetch	08 Aug 2016	
<i>Vicia tetrasperma</i>	Smooth Tare	08 Aug 2016	

Appendix 2

BAT SURVEY REPORT

Site: Mill Farm, Hunton Road, Marden, Kent TN12 9QX

Surveyors: Peter Scrimshaw and Steve Songhurst using Elekon Batlogger M bat detectors, plus Katy Tennant and Val Sutton (volunteers)

Background

Peter Hall is managing his recently acquired Mill Farm with wildlife in mind. Kent Bat Group was approached by Ray Morris, who has done a comprehensive bird survey and is working with the RSPB on a Turtle Dove breeding program on the site, with a view to finding out what bats were present, how they used the farm and what might be done to improve the habitat for them. Peter S and Val did a daylight walkover with Peter H and Ray on 22nd June, maps of the site were produced and an evening survey organised for 5th August.

Survey

The survey commenced at sunset, 20.39, and the first bat, a common pipistrelle (*Pipistrellus pipistrellus*), was heard hunting at 21.02 at point M and another at 21.08 at D. The first soprano pipistrelles (*Pipistrellus pygmaeus*) appeared at M at 21.16 and at H at 21.17. These are believed to be separate individuals. Both species of pipistrelle, in ones and twos, continued to feed at these spots during the rest of the survey. The 'hotspots', where the bats were finding most food, were at D west of the sluice gate, between D and F in the woodland, at H on the north side of the footbridge, north east of J and in the overgrown area between K and M. Later in the evening both pipistrelles were also found hunting round the farmyard.

At 21.35 and 22.06 a myotis bat, probably Daubenton's (*Myotis daubentonii*), was recorded hunting in the woodland near point F. Daubenton's bats are most frequently found feeding on aquatic insects over larger bodies of water and it was disappointing not to find any upstream of the main sluice. No bats were recorded leaving any of the buildings, however we did not conduct a specific dusk roost emergence survey, which would have required several more volunteers. We do know, from previously found droppings, that Brown Long-eared/s (*Plecotus auritus*) have used the oast. No Noctules (*Nyctalus noctula*) or Serotines (*Eptesicus serotinus*) were encountered.

Conclusions

Mill Farm currently supports small numbers of four species of bat, but there is no evidence of a maternity roost anywhere. The majority of bats were flying north to south, reasonably soon after sunset, so roosts are presumed to be nearby, north of the site.

Recommendations

It is uncertain why the number of bats visiting Mill Farm is lower than expected. It could be that surrounding fields are mostly monocultures, which do not attract the insect loads bats need, and they are finding them elsewhere. However we know that Peter H is addressing this issue and also developing a wetland area to the north, which should benefit bats as well as birds. There are generally few suitable sites for roosts on the farm. As the trees are relatively young they do not provide many holes and splits. Roosting sites could be provided by erecting bat boxes on or in the buildings, though immediate results should not be expected.

Note: This report is not adequate for attaching to a planning application, so if in the future it was proposed to convert any of the buildings to other uses, a professional survey with many more participants, would be required.

Other Highlights

A Kingfisher seen from the bridge at H at 20.49 and young tawny owls serenading us as we finished surveying at 22.15.

Val Sutton

12th August 2016