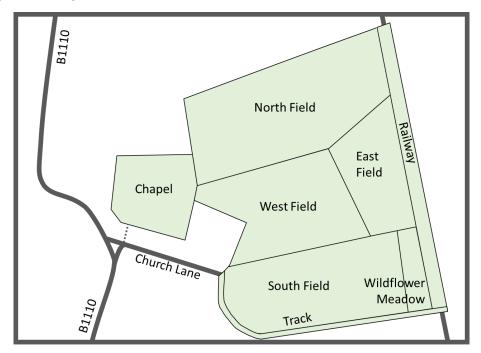
#### Wildlife at the North Elmham Cathedral Meadows

### Introduction

Since late April 2018 we have recorded well over 1,400 species of bird, animal, insect, plant and other wildlife at the Cathedral Meadows. As well as the Parish Council owned Cathedral Meadows themselves, we also include the section of the track leading from Church Lane that runs alongside the meadows, the section of disused railway that runs alongside the meadows, and the area round the chapel ruins that is managed by English Heritage.



Below are details of a selection of wildlife that have been seen in this area since the wildlife survey began in late April 2018. We have included some of the more distinctive and easily seen species that the average person may be able to recognise without specialised equipment as well as a few that are unusual or interesting in other ways. We will update this from time to time as the survey team discovers more wildlife.

Winter - Spring - Summer - Autumn

## Winter

Up to three species of owl can be seen and heard around the meadows. **Tawny Owls** are strictly nocturnal – they don't become active until it is dark (unlike Little Owls and Barn Owls that will start hunting well before dusk), so opportunities to see a Tawny Owl in daylight can be hard to come by. However one particular Tawny Owl sometimes spends its daytimes roosting in clear view in the trees behind the chapel.



Tawny Owl roosting high up in an old tree on 24th December 2018

**Barn Owls** can sometimes be seen hunting over the valley east of the meadows, and if you're lucky you might find one hunting over the meadows themselves. Just before dusk is the best time to see them.



Barn Owl viewed from the railway at the bottom of the meadows on 28th January 2019

Once extinct in England, **Red Kites** were reintroduced in the early 90s and have now spread into Norfolk where they are getting commoner. You'll still need to be lucky to see one at the meadows, but it's possible. Look out for their forked tail.



Red Kite soaring over the meadows on 15th February 2019

**Bullfinches** are common in the hedgerows around the meadows (especially the northernmost one) throughout the year but they can be fiendishly hard to see as they tend to stay hidden for much of the time. With no leaves on the trees winter can be the easiest time to see them.



Male Bullfinch along the railway at the bottom of North Field on 14th January 2019

**Bramblings** are finches that are related to Chaffinches but they are only here in the winter. They aren't very numerous at the meadows but a few birds started to appear towards the end of the winter.



Brambling along the railway on 18th February 2019

Although some breed in Norfolk most of the **Siskins** and **Redpolls** we see here are just here for the winter. But they're often easiest to find at the end of the winter or early spring, and that was certainly the case here in 2019.



Lesser Redpoll feeding on willow catkins on 18th March 2019

The big trees behind the Chapel ruins are the best place to see **Nuthatch** but on occasion you may see or hear them in trees elsewhere around the meadows. Their blue-grey upperparts, black eye-stripe and orangey-buff underparts makes them quite distinctive, and they are the only British bird that routinely walks down tree trunks head-first.



Nuthatch in tree near the chapel ruins on 11th February 2019

Winter time is a good time to see lichens. Many are hard to identify but one that's relatively distinctive and is common growing on old branches is **Yellow Crotal**.



Yellow Crotal growing on a branch by the railway at the bottom of the meadows on 11th January 2019

Several species of wildflower will continue flowering throughout the winter but there is one that *only* flowers in the winter, the **Winter Heliotrope**. There is a great display of these on the bank next to the chapel ruins.



Winter Heliotrope growing near the chapel ruins on 13<sup>th</sup> January 2020

They start flowering in January but it's February when the **Snowdrops** look their best. Like several of the flowers growing in the area round the Chapel ruins they're not truly wild, but they do look good!



Snowdrops growing near the chapel ruins on 15th February 2019

Several species of bee may appear early in the year if it's warm enough, such as this Honey Bee.



Honey Bee found during a warm spell on 22<sup>nd</sup> February 2019

Checking tree trunks after dark is one of the easiest ways of finding invertebrates at this time of year as day-flying insects become scarcer. Oak trees are especially productive so the trees along the railway are worth checking. You may well find this distinctive little beetle, a **Great Four-spot Treerunner**.



Great Four-spot Treerunner found climbing up an Oak tree trunk after dark on 8th November

Other mini-beasts you can find this way include centipedes and millipedes. 'Centipede' means 100 feet, but most species don't have nearly so many feet as that – this common species has 15 pairs of legs. Centipedes don't seem to have standardised common names yet but this one, the easiest to find here, is often called **Common Stone Centipede**.



Common Stone Centipede, found on an Oak tree trunk along the railway on 23rd November 2018

One of the first moths to start flying at the beginning of the year is the aptly-named **Spring Usher**. You can find these by torchlight under the oaks at the bottom of the meadows on mild February nights.



Spring Usher found along the railway on 24th January 2020

A distinctive fungus you may find in the winter is more peculiar-looking than some of the typical mushrooms. It's called **Yellow Brain** – with its wrinkled round appearance it is supposed to look (a little bit) like a brain...



Yellow Brain growing on an old twig on 22<sup>nd</sup> December 2018

Rooks and Jackdaws are very common around the meadows all year round. Adult **Rooks** can be recognised by the white on their bill; **Jackdaws** are smaller, shorter-necked and have a greyish shawl.



A Rook hanging around the sheep-fields on 8th March 2019

Another common bird in the surrounding countryside is the **Pheasant**. They're not native here but millions are released every year by gamekeepers. They are easiest to find at the meadows at dawn or dusk.



Pheasant in the northernmost meadow on 18th March 2019

In mild winters the **Primrose** can start flowering in the middle of winter, and you can pretty much rely on finding some flowering from the middle of February.



Primrose growing near the chapel ruins on 13th February 2019

There are loads of **Lesser Celandines** growing at the meadows, especially behind the Chapel ruins. To me they always signal that spring is starting to arrive...



A bank of Lesser Celandines near the Chapel ruins on 29th March 2019

# **Spring**

**Chiffchaff** is usually the first of the summer visitors to arrive in spring. It's not easy to recognise visually but it has a very distinctive song. Their song isn't as melodious as some species but very easy to recognise: *chiff*, *chiff*, *chiff*, *chiff*, *chiff*, *chaff*, and so on.



A Chiffchaff singing its name on 20th March 2019

Both **Whitethroats** and **Lesser Whitethroats** may be found at the meadows during the spring and summer, although the latter can be very elusive and hard to find unless you recognise their rattly song. The best place to see Whitethroat is at the bottom of North Field along the railway.



Whitethroat in song-flight at the east end of North Field on 12th May 2018

**Yellowhammers** are small yellow or brown farmland birds that have declined a great deal in recent years partly as a result of changing farming practices and the destruction of hedgerows. The restoration of the

hedgerows at the Cathedral Meadows has served this species well and it remains a great place to see and hear them. Listen out for their "little-bit-of-bread-and-no-*cheeeese*" song in the spring and early summer.



male Yellowhammer at the edge of the Wildflower Meadow on 5th May 2018

In contrast, a species that has dramatically increased in the east of England in recent years is the **Buzzard**. Up until the mid 1990s **Buzzards** were rarely seen in Norfolk but now they are very common throughout the county and they're the easiest raptor to see at the meadows. You can sometimes hear their distinctive mewing call too. Spring is the best time to see them but they are around all year long.



Buzzard flying over the railway on 12th May 2018

You can often hear **Little Owls** calling at the meadows towards the end of the day but they can be a pig to find. They look adorable when you do though!



Little Owl in a hedgerow near the top of the meadows on 30<sup>th</sup> April 2019

The loud laughing call is often the first sign that there is a **Green Woodpecker** around – it's why they are sometimes known as the 'Yaffle". Unlike the spotted woodpeckers, Green Woodpeckers usually feed on the ground (they're looking for ants) and often the first you see of one is it flying away after you accidentally flush it, flashing its bright yellow rump as it goes. They are often seen and heard around the meadows.



Green Woodpecker in a tree near the chapel ruins on 2<sup>nd</sup> May 2019

Often the first butterfly to be seen in spring is the **Brimstone**, our only common butterfly that is predominantly yellow.



Brimstone along the railway on 29th March 2019

**Orange-tips** are not far behind, one of the first butterflies to appear most years.



male Orange-tip feeding on Herb Robert along the railway on 14th May 2018

You may have noticed in the last decade or two that Horse Chestnut trees seem to go brown earlier than they used to in the summer. Well that's not the leaves turning brown before falling, it's the leaf-mines of a

tiny moth that rapidly colonised the UK earlier this century. The adult **Horse-chestnut Leaf-miners** start flying in April and remain common throughout the summer, but they're only about 4 mm long!



Horse-chestnut Leaf-miner caught beneath the Horse Chestnuts near the chapel on 19th April 2019

If you see a deer at the meadows there's a fair chance it will be a **Muntjac**, an introduced species of Asian origin. They're our smallest deer and can look quite dog-like at times.



Muntjac running through East Field on 27th April 2018

One of our largest and most spectacular moths is a day-flying species, the **Emperor Moth**. Males are attracted to the pheromones (scent) given off by females. Pheromone lures are little rubber bungs that have been impregnated with a chemical that smells like a female moth, and these offer the easiest way to find Emperor Moths.



Emperor Moth that had been attracted to a pheromone lure on 20th April 2019

Some of the tiniest moths are also the most distinctively marked – this **Common Thorn Midget** is just 3mm long. They are one of the leaf-miner moths whose larvae produce patterns in the leaves they feed on. That's usually the easiest way to record them as the moths don't come to light very often, but they can be found flying along the hedgerows early in the mornings.



Common Thorn Midget found flying over the track first thing on 27th April 2018

There are ferns growing in several places (especially along the railway) but the chapel ruins have the greatest diversity of species with **Polypody**, **Hart's-tongue** and **Maidenhair Spleenwort** all growing on the stone walls. The last of these is especially attractive with its delicate pairs of leaflets.



Maidenhair Spleenwort growing on the chapel ruins on 13th June 2018

These ferns are home to a number of tiny insects, like the **Fern Smut** and the rarer **Hart's-tongue Smut**, little moths that can both be found on Hart's-tongue fern here.



Fern Smut on 26<sup>th</sup> February 2019 having emerged from a larva found at the chapel ruins in November 2018

It was while looking for these that I made an exciting discovery – a colony of **Black Fern Aphids**. Up until then this species had only ever been known in Britain and northern Europe from glasshouses and other indoor situations. Our colony has survived outside for at least two winters now, so this is a UK first!



Black Fern Aphid on Hart's-tongue at the chapel ruins on 2<sup>nd</sup> May 2019



a winged Black Fern Aphid on 6th May 2019 - winged examples are relatively rare

If you are out at night with a torch at night time shine your light on some tree trunks, such as those along the railway, and you will very likely find millipedes and woodlice among other things. The most likely species are the **White-legged Snake Millipede** and the **Common Rough Woodlouse**.



White-legged Snake Millipede on a fence post on 4th May 2018



Common Rough Woodlouse found on a fence post on 4th May 2018

On warm sunny days in May you stand a good chance of finding some **Dark-edged Bee-flies**. Bee-flies are flies but with big furry bodies they resemble bees to some extent, but the most distinctive feature about them is their very long straight proboscis. Although it may look dangerous this is just used for feeding and they are completely harmless. The best places have been along the track and the railway but they could be along any of the sunny edges of the meadows so long as there are flowers there for them to feed on.



Dark-edged Bee-fly at the railway on 14th May 2018

One of our most distinctive spring flowers is the **Cowslip**. It is related to the Primrose but the flowers are on longer stalks; there are lots of clumps of it growing in the Wildflower Meadows.



Cowslips in the Wildflower Meadow on 10th April 2019

According to the books **Meadow Saxifrage** is common, but it doesn't seem to be especially common to me. It's an attractive plant and grows on grassy slopes of the railway beneath the oak trees opposite East Field.



Meadow Saxifrage growing along the railway on 5th May 2018

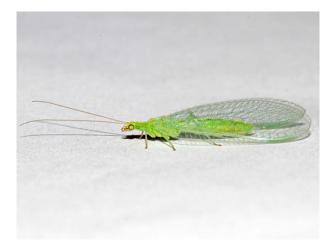
You may notice some of the younger smaller Oak trees have lots of small brown spheres attached to their branches, each sphere bearing a small hole at one end. These are Marble Oak Galls that have been home to a larva of the **Oak Marble Gall Wasp**. The galls remain long after the adult wasp has emerged.



vacated galls of the Oak Marble Gall Wasp on the small isolated Oak tree at the bottom of North Field on 5<sup>th</sup> May 2018

Lacewings are a peculiar group of insects which, as their name suggests, have a lace-like pattern of veins in their long wings. They include several species of **Green Lacewings** and a number of **Brown** 

**Lacewings**. You can often find them along hedgerows or around trees, and they come to light at night-time.



The Green Lacewing Chrysoperla carnea found in a hedge bordering North Field on 5th May 2018

One of the commonest bees at the meadows is the **Common Carder Bee**, a type of bumblebee that is quite gingery orange on the top front of its body.



Common Carder Bee flying between Gorse flowers by the railway on 5th May 2018

Although not really day-flying, **Green Carpet** is a moth you can find without light-trapping overnight. They start flying at dusk before it gets fully dark and can be quite numerous along the track.



Green Carpet caught along the track at dusk on 6th May 2018

Usually the first dragonfly to emerge in the spring is the **Large Red Damselfly** and these can be found anywhere round the meadows in spring, especially in the first half of May.



Large Red Damselfly near the Chapel ruins on 9th May 2018

**Dock Bugs** are related to Shieldbugs (of which there are several species present at the meadows) – look out for them on Dock leaves during the day. They are easily identified by the dark brown diamond-shaped patch on the rear of their upper side.



Dock Bug on Dock leaf near the Chapel ruins on 9th May 2018

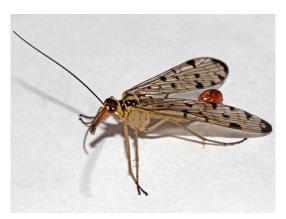
**Waxflies** are very small white insects. They aren't really flies – they're more closely related to lacewings but their bodies and their wings are covered in powdery white scales. There are several different species, including at least two at the meadows. One of these species, known only by its scientific name *Coniopteryx tineiformis* was found flying in large numbers along all the hedgerows early one morning. This was particularly interesting because it suggests that the species is common in Norfolk, a fact that was not really known up until that point. Prior to 2016, when the author found one in his North Elmham garden, there had

only been only a single record of this species in Norfolk. Some groups of insects are poorly studied and not much is known about their status, and waxflies are one such group.



One of the waxflies Coniopteryx tineiformis found at the meadows early on 12th May 2018

**Scorpion Flies** are neither flies nor scorpions, but the males have a fierce-looking appendage at the end of their bodies that is curled back like a scorpion. There are two different species at the meadows but they are hard to tell from one each other and don't have separate English names. Look out for them in the hedgerows.



the Scorpion Fly Panorpa germanica found in a hedgerow on 12th May 2018

Slugs and snails are easiest to see in the night but you may come across them anytime. There are several common species, some distinctive, some much less so. One easy to find and easy to identify species is the **White-lipped Snail** (the **Brown-lipped Snail** is similar but as their name suggests, check the colour of the lip which is the bit of the shell surrounding the hole that the head comes out).



White-lipped Snail along the track on 12th May 2018

The **24-spot Ladybird** is a small ladybird, quite distinctive in its appearance being entirely dull-red all over except for the black spots on the wing-cases. Although usually a relatively scarce species it seems to be thriving at the Cathedral Meadows where several have been found in grass at various different places around the meadows.



24-spot Ladybird found in North Field on 18th May 2018

Look out for the wasp-like Nomad Bees – these are often quite low down usually near some bare ground, perhaps going in and out of holes where they are parasites of other kinds of bee. The one that is common here is the **Flavous Nomad Bee** – they are especially numerous along the railway but also occur along the margins of some of the meadows.



Flavous Nomad Bee found at the edge of the Chapel field on 18<sup>th</sup> May 2018

These **Red-and-black Froghoppers** are striking insects. They often sit on the upper surface of leaves so are quite easy to see if you are looking out.



Pair of Red-and-black Froghopper on Dock leaf near the Chapel ruins on 19th May 2018

Perhaps the rarest moth to have been recorded at the meadows is the **Sallow Shoot Piercer**. The third individual to have ever been recorded in Norfolk was netted flying through East Field but must have come from elsewhere as they breed on willows and there are no willows growing in East Field. There are some willows along the railway, or perhaps it came from a little further afield. Time will tell if more of these are recorded in the future or if this proves to be a one-off.



Sallow Shoot Piercer found in East Field on 19th May 2018

Until fairly recently **Little Egrets** were very rare visitors to the UK from Mediterranean region but, assisted by climate change, they colonised the UK in the 1990s. They can now be found throughout the year, even here in the Wensum Valley. Between April and June birds were often seen from the meadows, usually flying along the river or like this one sometimes directly overhead.



Little Egret flying over the Wildflower Meadow on 3rd June 2018

It is not unusual to see **Red-legged Partridges** (sometimes known as French Partridges) around the meadows or in surrounding farmland. They are a non-native species introduced for game and are now much commoner than their declining native counterpart, the Grey Partridge. Listen out for their call in

spring and early summer: "chuk chk chk-arr... chuk chk chk-arr... chuk chk chk-arr". They're usually seen on the ground but sometimes perch up on gates and other objects like the one in this picture.



Red-legged Partridge on the gate between East and West Fields on 25th May 2018

### **Summer**

The hedgerows around the meadows provide good feeding grounds for a number of birds and you can often see and hear **Long-tailed Tits**. They're quite noisy when they pass through so keep your ears open and listen out for their high-pitched calls if you want to see them.



Long-tailed Tit in the north-west corner of North Field on 2<sup>nd</sup> July 2018

It is sad to see how **Spotted Flycatchers** have declined so much over the last couple of decades – they are much harder to find in Norfolk than they used to be. They can sometimes be seen in the larger trees

around the meadows, especially behind the chapel ruins. They breed close by, possibly in one of the nearby gardens.



Spotted Flycatcher in trees behind the Chapel ruins on 6th June 2018

**Sparrowhawks** are by no means the easiest of the raptors to see at the meadows but they are present in area and can sometimes be found hunting at the meadows or soaring overhead. Compared to other raptors the long feathers at the tips of the wings are swept back more.



Sparrowhawk soaring over the Chapel area on 27th June 2018

Like many butterflies **Common Blues** are nowhere near as common as they used to be. Gone are the days when you can see clouds of them, but thankfully there are still a few around and they're not too difficult to find at the meadows.



male Common Blue in North Field on 13th June 2018

The "brown" butterflies are not the most colourful species but some of them have some distinctive markings, like this **Ringlet**. Ringlets can be abundant round the meadow edges in mid June, often flying with the even commoner Meadow Brown.



One of scores of Ringlets that were gracing the meadows on 13th June 2018



A Meadow Brown on Brambles on 5th July 2019

Another butterfly that you can see quite easily around the meadows is the **Speckled Wood**. They like shadier places than some butterflies, though like all butterflies they mainly fly on sunny days.



Speckled Wood along the railway on 18th June 2018

**Purple Hairstreak** is normally quite a scarce butterfly but they had a good year in 2018. There were lots of them around the oak trees at the bottom of the meadows in early July – one person estimated about 100

there one afternoon. They tend to fly around the tops of the trees so aren't easy to see, but if you're lucky you might find one low down.



Purple Hairstreak in the oaks at the bottom of the meadows, 3<sup>rd</sup> July 2018 (photo: Chris Mills)

One of the more unusual moths seen at the meadows is another day-flying species, the **Small Yellow Underwing**. It turns out that there is a thriving population here and they can be seen flying in sunshine in May and early June at several places around the meadows. They're easy to miss as they're quite small, but not too hard to recognise when you do find them – they often rest with their wings out revealing the bright yellow spots on the hindwings.



Small Yellow Underwing in East Field on 25th May 2018

There are several similar species of metallic green weevils but the **Green Nettle Weevil** is especially easy to see. At this time of year have a look at clumps of stinging nettles and you may well find one or two, or perhaps several, sitting out on the leaves. When fresh they have lovely reflective green scales covering their bodies.



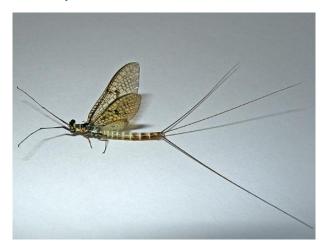
a pair of Green Nettle Weevils on nettles in the corner of the Wildflower Meadow on 25th May 2018

Weevils are types of beetle that are mostly characterised by having long snouts. One with a particularly long and thin snout (or 'rostrum' to give it its technical name) is the **Acorn Weevil**. If you look carefully at the acorns on the Oak trees you may find some of these.



Acorn Weevil found on acorns on 12th August 2018

Mayflies are a fascinating group of insects. The largest is the **Green Drake** and you can see these performing an amazing dancing display flying up and down like a yo-yo. This is most likely to be witnessed on warm sunny evenings in late May/early June at the lowest parts of the meadows or better still from the more open parts of the adjacent railway.



Green Drake, first seen displaying over the railway adjacent to North Field on 25th May 2018

There are several types of Ladybird at the Meadows but the commonest is the **7-spot Ladybird**. On some days these can be very easy to find.



7-spot Ladybird found along the railway on 28th May 2018

There are many different species of hoverfly at the meadows. They are very varied in appearance but some mimic bumblebees. This is because they lay their eggs in bumblebee nests – the bees wouldn't let them in but for their disguise. One common species at the meadows, *Volucella bombylans* (sometimes known as the **Bumblebee Hoverfly**) has two different forms that each mimic a different species of bee, the White-tailed Bumblebee and the Red-tailed Bumblebee. There are a number of minor differences between the flies and their host bees (such as the dark marks in the wings that are lacking on the bees) but they are very easily mistaken for bees.



Bumblebee Hoverfly mimicking White-tailed Bumblebee on 3<sup>rd</sup> June 2018



another Bumblebee Hoverfly mimicking Red-tailed Bumblebee on 18th June 2018

Spiders are not everyone's cup of tea but they are fascinating creatures to study. Unlike some of the big ugly house spiders some of the smaller ones are really quite cute. Take the **Cucumber Spiders** for example – a small green species which occurs at the meadows, bright green in colour (or green and

orange) and lacking the long legs that some of the scarier-looking species have. They can be found in their cobwebs suspended across the taller grasses.



A Cucumber Spider in its web along the edge of North Field on 3rd June 2018



A close-up view of a different Cucumber Spider found in North Field on 3<sup>rd</sup> June 2018

One of the best wildflowers growing at the meadows is the scarce but exquisite **Grass Vetchling**. Although vibrant pink, the flowers are small and its leaves are very grass-like so it's very easy to miss amongst all the grass growing around it.



Grass Vetchling growing in the Wildflower Meadow on 13th June 2018

There are a few growing in several meadows, but East Field is the best place to see a decent display of **Ox-eye Daisies**. It's also one of the places you might find a **Common Spotted Orchid** if you look carefully.



Common Spotted Orchid growing in East Field on 13th June 2018

If you look at flowers, especially Hogweed flowers, you may well find a decent variety of insects feeding on them. At this time of year there's a good chance these will include some bright metallic green elongated beetles – **Swollen-thighed Beetles**. They're so-named because the males have obviously swollen thighs on their rear legs, but the one in this photo is a female so lacks this feature.



female Swollen-thighed Beetle found on Hogweed by the Chapel ruins on 3rd June 2018

A distinctive beetle that can be easy to spot in early summer is the **Garden Chafer**. Look out for them feeding on flowerheads on sunny days. The hairy wing cases are reddish-brown and the front half of the insect is metallic blackish-green.



Garden Chafer found feeding on a Hogweed flower on 5<sup>th</sup> June 2018

There are a number of different species of Soldier Beetle at the meadows but the **Common Red Soldier Beetle** is particularly abundant in early July and the species you are most likely to find in July. They can easily be found feeding on flowerheads, especially Hogweed.



Common Red Soldier Beetle found on Hogweed flower by the chapel ruins on 2<sup>nd</sup> July 2018

It's not just beetles that feed on Hogweed flowers. The **Orange-spot Piercer** is a distinctive little moth recognised by having three big orange spots on its wings. They are day-flying species that are often found feeding on Hogweed flowers.



Orange-spot Piercer found on a Hogweed flower along the railway on 27th June 2018

According to the books **Striped Bent-wing** has become extinct in the UK and hasn't been seen for over a hundred years, so I was surprised to find one when I was walking round the meadows one morning. It turns out that it remained common on the Continent and very recently it has recolonised the south of England. One was seen in Norfolk in 2017 but there hadn't been any more until I found this one in 2019.

There were further records that autumn so it seems that it is on the point of recolonising Norfolk and we may well find more of these tiny moths over the coming years.



Striped Bent-wing found on a Blackthorn leaf by the gate between East and North Fields on 30th August

There are many different species of grass growing at the meadows (probably a few more than we have identified so far) but one of the more distinctive ones is the **Crested Dogstail**.



Crested Dogstail growing in the wildflower meadow on 15th June 2018

They were once a common sight if you went for a walk through grassy areas in the night, but it is now much harder to find a **Glow-worm**. They are not worms of course, but a species of beetle. In daylight they aren't much to look at but at night time the female's abdomen lights up (to attract males) and if you're walking past you can see a small but clear green spot glowing in the dark.



A female Glow-worm glowing in the dark in the Wildflower Meadow on 15th June 2018

Some people think moths are dull brown creatures that fly around your bathroom light. That may be true of a few of them but many are anything but. Here's one that proves the point – a **Green Silver-lines**.



Green Silver-lines attracted to light in the Wildflower Meadow on 15th June 2018

The Hawk-moths are among our largest and most spectacular moths. Several species are common including this **Elephant Hawk-moth**, so named because it's caterpillar loosely resembles an elephant's trunk.



Elephant Hawk-moth coming to light in the Wildflower Meadow on 7th July 2019

Another large and distinctive moth is the **Lobster Moth**, pictured here with another smaller moth that's very common at the meadows, the **Green Oak Tortrix**.



Lobster Moth and Green Oak Tortrix attracted to light in the Wildflower Meadow on 15th June 2018

There is a Brimstone butterfly and a **Brimstone Moth**. The latter is a very common nocturnal species but you may find one during the day if you're lucky, or more likely at dusk.



Brimstone Moth attracted to light at the Wildflower Meadow on 5th July 2018

Plume Moths are a group of species that have extremely narrow wings, the outer sections of which are usually divided in to two or three fingers. Most are nocturnal but some can be seen during the day. Although they are attracted to light traps they tend not to go in them and, like this beautiful **White Plume** they are often seen in vegetation around the trap.



White Plume in grass in the Wildflower Meadow on 5th July 2018

This **Cinnabar** (with another Green Oak Tortrix) came to a light at night-time, but it's species that is more often seen in the daytime. It's often seen flying around the meadows when the crimson-pink hindwing makes it easy to spot. Their caterpillars feed on Ragwort are equally distinctive, black-and-yellow bands all down their body.



Cinnabar and Green Oak Tortrix attracted to light in the Wildflower Meadow on 15th June 2018

**Small Eggars** are scarce moths that aren't often seen by moth-trappers as adults seem to avoid light-traps for some reason. Most records are of the caterpillars that appear in communal webs on Hawthorn or Blackthorn. One such web was found in the hedge between East Field and North Field.



Small Eggar caterpillars in a communal web in a Hawthorn hedge in East Field on 18th June 2018

It remains to be seen how easy **Black-and-yellow Longhorn Beetles** will prove to find at the meadows – so far we have seen just one – but if you do see one it will at least be easy to identify. They are very big beetles and as their name suggests, boldly patterned black and yellow.



Black-and-yellow Longhorn Beetle found by the gate to the Wildflower Meadow on 18th June 2018

Around late June the Wildflower Meadow is at its best. I have rarely seen a better display of **Musk Mallow** than can be found here.







Musk Mallow blooming in the Wildflower Meadow on 27th June 2018

2018 was a good year for **Hornets**. These large wasps are very unlikely to hurt you provided you leave them alone – certainly no more likely than ordinary wasps, indeed they can be positively docile! They may be seen throughout the summer but sometimes become more numerous in autumn when they can be found feeding on Ivy flowers.



Hornet not posing any threat to anyone on 27th June 2018

We have several species of grasshopper at the meadows – probably the easiest to see is the **Field Grasshopper**.



Field Grasshopper found by the railway on 5th July 2018

Bush-crickets are closely related to grasshoppers and one recent colonist in Norfolk is the Roesel's Bush-cricket. You can hear them calling in the meadows on sunny days in the summer but they are fiendishly hard to find. This one appeared one night when I was moth trapping.



Roesel's Bush-cricket coming to light on 4th August 2019

Moth-trappers will be familiar with **Mother of Pearl** as it comes to light in good numbers but it is possible to see them without venturing out after dark. It will be easier to find late in the day though – they start

appearing as the sun goes down. They will often be found feeding on flowers at this time of evening, and a good place to look is on the Rosebay Willowherb growing along the railway adjacent to North Field.



Mother of Pearl on the side of a moth trap in the Wildflower Meadow on 5th July 2018

There were over 200 Mother of Pearls feeding on the **Rosebay Willowherb** one night in 2019. In daylight the Rosebay is a beautiful flower with its bright pink flowerheads. Later in the year they will turn to fluffy seed-heads that blow on the wind.



Rosebay Willowherb along the disused railway on 13th July 2019

There's a lot of **Common Knapweed** (a purple flower a bit like a non-prickly thistle) growing in the meadows (especially the Wildflower Meadow and East Field) so perhaps it's no surprise to find **Knapweed Conch** there, an attractive yellow moth that feeds on Knapweed. In fact it's an excellent place to find this normally uncommon species with good numbers seen both during the day and coming to light at night.



Knapweed Conch caught in a light-trap in the Wildflower Meadow on 16th July 2018

Another moth that can often ben found on Knapweed (as well as other flowers) is the **Six-spot Burnet**. This is a day-flying species and for a short period each summer they can be very easy to find.



pair of Six-spot Burnets on a Common Knapweed flower on 18th July 2018

In mid to late July, the bottom of the furthest field in the NE corner is a great place to see **Marsh Woundwort**, at its peak after many of the other flowers have gone over. There is also Purple Loosestrife growing here. Both flowers are important nectar sources for bees and other insects.



Marsh Woundwort at the bottom of North Field on 18th July 2018



Purple Loosestrife attended by a bee at the bottom of North Field on 3<sup>rd</sup> August 2019

Foxes sometimes come on to the meadows but they're too shy to come on during the day when there are dog-walkers present. You're much more likely to see one in one of the adjacent fields, especially from the disused railway at the bottom of the meadows.



A Red Fox giving me the stare in one of the fields bordering the meadows on 19th July 2019

As well as the familiar 7-spot Ladybird look out for the much scarcer **Adonis Ladybird**. They're a bit smaller, more pear-shaped, have a distinctive face pattern and their spots are positioned nearer the rear of the body. A good place to find them is feeding on Hogweed flowers.



Adonis Ladybird found on a Hogweed flower by the Chapel ruins on 6th August 2018

One of our more spectacular dragonflies can be very numerous along the River Wensum – the **Banded Demoiselle**. They also wander away from the river so may be encountered around the meadows and along the railway. The bright blue males have distinctive dark wings while the clear-winged females have brilliant metallic green bodies.



Male Banded Demoiselle along the railway on 27th July 2018

**Common** and **Ruddy Darters** are among the easiest of the larger dragonflies to observe as they often perch up conspicuously, and if you do disturb one without seeing it first they often then return to the same perch. Mature males are red and females are a yellowy-brown colour.



Immature male Common Darter along the railway on 28th July 2018

**Painted Ladies** are migrant butterflies that comes here in varying numbers. 2019 was an excellent year for them and there were quite a few seen around the meadows. This species undertakes a phenomenal 9,000 mile round trip from tropical Africa to the Arctic Circle. The whole journey is not undertaken by individual butterflies but is a series of steps by up to six successive generations, so the Painted Ladies that return to Africa in the autumn are several generations removed from their ancestors who left Africa earlier in the year.



A migrant Painted Lady in the meadows on 8th August 2019

One of the best singers among the birds of the Cathedral Meadows is the **Blackcap**. They can be heard singing from any of the trees around the meadows but are most reliable along the railway where the males

belt out their melodic warble between May and August. Only the males have black caps but the females are just as easily recognised with their brown caps.



female Blackcap along the railway on 4th August 2018

## **Autumn**

The **Hobby** is a small, fast falcon that migrates to the UK for the summer. They feed on dragonflies which they eat while they're still flying, and also on swallows and martins. They are not common but are frequently seen in the Wensum Valley. At the Cathedral Meadows most sightings have been in the late summer/early autumn with up to two birds feeding over the river and sometimes over the meadows themselves. This photo doesn't do them justice – you can't see the red "trousers" and the boldly striped underparts aren't as distinct as they look in real life.



Hobby terrorising House Martins over East Field on 1st September 2018

**Red Admirals** are one of our more spectacular butterflies and are most commonly found from late summer to autumn. They may be seen anywhere around the meadows, often feeding on brambles or, later on, on ivy flowers.



Red Admiral resting in a hedgerow, 23rd July 2018

**Dark Bush-crickets** are well-armoured and with various pointy bits sticking out of them they look a bit fierce, but they won't do you any harm at all! They are not easy to spot but you may see them in the hedgerows if you are lucky. This one appeared at a moth trap overnight and if you are out at night in the autumn you can often hear them chirping in the hedges.



Dark Bush-cricket in the Wildflower Meadow on 19th August 2018

**Common Earwigs** are most active at night when you can find them on tree trunks and fenceposts. If you want to see one during the day in the autumn then find a bunch of Ash keys (the fruit of the Ash tree) and give them a shake. If you have something underneath to catch things you will probably find a range of insects and other invertebrates but there will be a good chance that there will be earwigs among them.



Common Earwig shaken out of a bunch of Ash keys on 1st September 2018

**Roe Deer** is probably the commonest species of deer in the local area but they are not easily seen at the meadows. Your best chance to see one is if you get out early before the dog-walkers.



Roe Deer in North Field on 14th September 2018

Near the bottom of North Field, on the north side and near the north-east corner, stands a large old **White Willow** tree. This is home to large numbers of a very colourful beetle that you are fairly unlikely to see unless you go looking for them. **Willow Flea Beetles** are tiny and live among the leaves of the tree and throughout the autumn you stand a good chance of finding some among the lower leaves that are within reach if you stand below the tree. If you don't see them straight away, try grabbing hold of a branch and shaking it gently – if you hold something underneath to catch them you'll probably find a few drop out. At least that's how we found this one. The bright metallic colours don't come out well in this photo but in good light they are sparkling green and pink gems. They're called Flea Beetles because they have specially adapted thick thighs on their rear legs which enables them to jump like fleas.



Willow Flea Beetle shaken out of White Willow leaves in North Field on 10th September 2018

This **Small Copper** is one of our prettiest butterflies. They can be seen in the summer but are often still flying into the autumn.



Small Copper in East Field on 14th September 2018

Some species of moth fly for just one period during the year, while others have two or three 'generations' each year. There is an increasing number of species that have always had just a single generation until recently but are now starting to fly a second time, probably due to climate change. One such species is the distinctive rhubarb-and-custard coloured **Long-horned Flat-body**. They have always flown during the summer but now after the summer-flying moths have died off a new generation of moths emerge in September and October.



Long-horned Flat-body, one of several flying at dusk on 17th October 2018

This **Stonechat** was a nice find. They're commoner at the coast but quite scarce migrants in the Wensum Valley. It's a female – males are a bit more brightly coloured.



female Stonechat at the bottom of North Field on 28th September 2018

Large numbers of **Brent Geese** spend their winters along the Norfolk coast but although they sometimes venture a short distance inland to feed on fields they are very rare as far inland as the Wensum Valley. So it was a lovely surprise to see a group of 3 flying over the meadows one morning.



One of three Brent Geese flying over the meadows on 20th October 2018

October is the peak month for the various thrushes that spend the winter here to arrive. **Redwings** and **Fieldfares** are thought of as wintering species because they are not present in the summer, but large numbers of **Blackbirds** and **Song Thrushes** come here for the winter as well. Sometimes there can be big flocks of Redwings in the hedgerows, and if you listen out at night-time you can often hear their thin

"seeeep" calls as they migrate overhead. The red on a Redwing's flanks can be hard to see but look out for the pale stripe over the eye which is not present on Song Thrush.





Redwings in and flying out of the hedgerows on 24th October 2018

The autumn is the best time of year to look out for leaf-mines. Several small species of moth, fly or other insects lay their eggs on the surface of a leaf. When the young caterpillars hatch they make tunnels through the leaf, just below the surface of the leaf, as they munch their way through it. These tunnels, or mines, create different patterns depending on the species involved. Some of the bigger leaf-mines are obvious but for some species the best way of finding them is to look for 'green islands' in fallen brown leaves. The caterpillars carry bacteria that stop the bit of the leaf they're living in from going brown, resulting in a green island in an otherwise brown leaf. Here are three green islands in a single fallen Oak leaf, all caused by caterpillars of **Five-spot Pigmy** moths. In the second picture below you can see a close-up of the path of the leaf-mine, getting broader as the caterpillar gets fatter. The dark line running through the leaf-mine is the caterpillar's droppings, known as 'frass'. The caterpillar was still munching when I took this photo.





Leaf-mines of the caterpillars of Five-spot Pigmy moths in an Oak leaf on 2<sup>nd</sup> November 2018. The caterpillar is at the end of the mine in the bottom picture, with round dark blobs running down its back

The autumn is a good time to find galls. Galls are caused by tiny insects or mites that have chewed on a plant and chemicals in their saliva, or spit, induce the plant to increase its growth hormones. This results in abnormal plant growths, which are the galls. In most cases they don't do any obvious harm to the plants, but the gall provides a safe home for the young eggs or larvae of the insect or mites. One common gall on Dog Rose that you can find in the hedgerows is the **Robin's Pin-cushion**, a gall caused by the **Bedeguar Gall Wasp**.



Robin's Pin-cushion on Dog Rose along the track on 30th October 2019

It is possible to see **Jays** at any time but although this photo was taken in March they are most easily seen in the autumn when they are busy collecting acorns and hiding them away to eat later in the winter. Studies have shown that one Jay can store as many as 5000 acorns in a season! This one was by the Chapel but they are most often seen along the railway where there are more Oak trees (acorns are the fruit

of Oak trees). When Jays fly they show a big conspicuous white patch on their rump which makes them very easy to recognise.



Jay in trees along the disused railway on 27th March

**Stock Doves** are similar to the more common Woodpigeon but are a smaller, more attractive bird. They don't have the white neck collar shown by adult Woodpigeon and they don't have the white patches in the wings shown by Woodpigeons of all ages. In the summer you are most likely to encounter them in the mature trees around the chapel ruins but they can be seen anywhere around the meadows throughout the year.



Stock Dove flying through the meadows on 21st November 2018

When Ivy is flowering in the autumn it is a fantastic source of nectar for all sorts of insects. **Ivy Bees** are very new here. In fact they weren't even known to science until 1993 and they didn't turn up in the UK until 2001. They quickly colonised southern England and reached Norfolk in 2014, but in just 5 years they have become very common here.



At night time the bees give way to moths like this **Pink-barred Sallow**.



Pink-barred Sallow feeding on Ivy along the track on 4th October 2019

The autumn is the best time to find mushrooms and toadstools. They can crop up anywhere, but along the railway seems to be one of the best places to find them. Here are four distinctive species, **Sulphur Knight**, **Wood Blewit**, **Lilac (or Rosy) Bonnet** and **Fly Agaric**.



Sulphur Knight growing on a bank beside the railway on 16th November 2018



Wood Blewit coming up through fallen leaves beside the railway on 21st November 2018



Lilac Bonnet (or possibly Rosy Bonnet) growing on a bank beside the railway on 21st November 2018



Fly Agaric growing along the railway (actually just outside the recording area, but so close you could see it from within) on 27<sup>th</sup> October 2019

## **Full species list**

If you would be interested in seeing a full species list showing every single species recorded at the Cathedral Meadows, including photos of most, as well as the months each one has been recorded and the locations around the meadows, then <u>click here</u>. The file will open in OneDrive and may initially appear quite small – if should be able to enlarge it (or download it) so that you can view it more easily.