

Wild Warwickshire

# The Wildlife of the Saxon Mill – A Five Year Report

2004 -2008



M. C Smith

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## Introduction

In 2002 I realised that I need to keep on top of my identification and research skills learnt at university. Knowing that the river by the Saxon Mill was a wildlife rich and easily reachable location I decided to start recording whatever I could down there.

Being of a more zoological inclination than botanical my main focus naturally fell towards recording the fauna present and in particular the birds. Very soon was gathering species lists and come rain or shine making my way down to see what could be seen. Those first few months were a learning cover as I re-familiarised myself with the species native to the area after spending 4 years in mid-Wales.

Slowly my visits became more regimented with timings recorded and then simple environmental data such a temperature and a simple scale of wind speed. My visits became more religious and very soon I came to the realisation that the quantity of data I was collecting had the potential for a longer term study. This report then is a simple analysis of the first 5 years of reliable study covering the years 2004 to 2008. I hope it will be merely a précis of a more thorough and interesting 10 year study to be completed in 2013.

Mark Smith

December 2010

## Site Description

Guys Cliffe Meadow is a collection of fields and woodland that run along the River Avon north of Warwick. The site was once part of the estate of Guys Cliffe House and is within the boundary of Blackdown and Milverton Parish and borders Leek Wootton Parish. The area is listed by the County Ecology Unit as Eco-site 21/26 and the rocky outcrop across the river from the site upon which the house sits is a geological site of special scientific interest.

The land in question is owned predominantly by the Heber-Percy Estate, the ancestral landowner, who lets the land to a tenant. A small section is owned by the Saxon Mill Restaurant.

The site provides a range of habitats along its length. The primary assessment of habitats was conducted in 2001 using a JNCC Phase 1 Survey and this is now very much out of date.

### The River Avon

The river is eutrophic with areas of dense macrophyte vegetation. The river course is characterised by the weir and mill pond at the Saxon Mill. The banks are relatively high and steep sided on the furthest bank. The vegetation in the river is dominated by *Schoenoplectus lacustris*, *Phragmites australis*, *Typha latifolia* and Eelgrass.

### Guys Cliffe Meadow

The meadow in 2001 was recorded as semi-improved grassland with patches of encroaching shrub. It is possible that this region could now be regarded totally as tall ruderal shrub or inundation vegetation as the site floods every year.

The meadows river bank is lined with Willow, Alder, Plane and Sycamore trees. The grassland is dominated by *Alopecurus geniculatus*, *Arrhenatherum elatius*, and *Dactylis glomerata*. An old ditch runs the length of the meadow where Lady's Smock and several species of buttercup grow. The interior is becoming increasingly encroached by *Umbellifers* and Nettles and the patches of Great Burnet and Meadowsweet are becoming increasingly rare.

At the northern edge there is a backwater of the river, here there is a lot of emergent aquatic vegetation including Corn Mint, Reed Sweet-grass and Meadowsweet.

### Saxon Mill Peninsula

Between the river and the backwater there is a peninsula of land owned by the Saxon Mill Restaurant. This area is typified by extensive coverage of nettles with patches of *Umbellifers* and Meadowsweet. Both bank sides are lined with Alders and there is a small area of Blackthorn scrub. Along the path there is Indian Balsam and the occasional Comfrey and Burdock.

### Woodland

A thin strip of wet woodland runs between the river and a number of stream fed ponds and pools. This woodland is composed of Alder, Oak and Willow with an under storey of Ivy and Bramble. In the clearings there is Comfrey embedded in extensive nettle beds. The small pools are often covered with duckweed (*Lemna*) but also have Marsh Marigold and other emergent vegetation.

### Geological Features

The entire site is on alluvial deposits. These are contributed to by annual flooding. The surrounding geology is river terrace deposits on the fields to the east and an outcrop of Triassic Bromsgrove Sandstone to the south. It is this outcrop that is a geological site of special scientific interest.

## The Survey Procedure

The Saxon Mill site has been surveyed regularly since 2002. A weekly visit has been undertaken nearly every week in that timeframe. Although data exists for two years earlier than the framework of this report that data is less rigorous. In that time identification skills were still being honed and a suitable procedure refined. The procedures used during the visits in the reporting period are as follows:

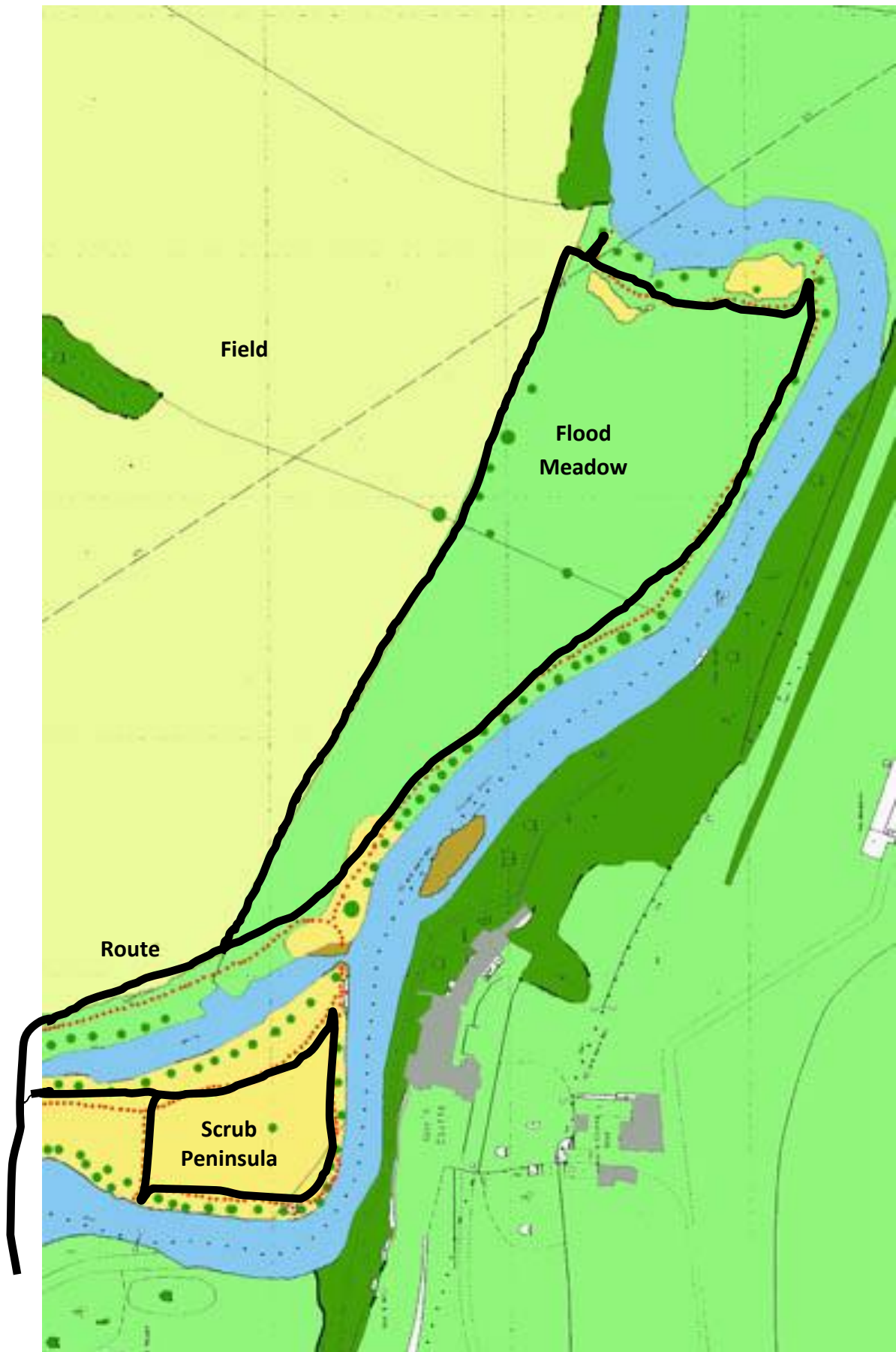
1. The site was visited where possible every Sunday (Exceptions included extremely wet weather or illness). If a Sunday visit was missed the next nearest day was attempted.
2. Where possible the same route was walked as shown on the map.
3. The temperature was taken at the same point and a brief description of the weather was made and any other pertinent points such as the extent of flooding, height of the river or the crop in the field.
4. All birds and animals observed during the survey were recorded. Where possible, attempts were made so as not to record the same individual twice. All records had to be made within the visual envelope of what could be seen from the route taken. Over flying individuals were counted.

## Notes on Data Interpretation

The data collected was recorded on PC using Wildlife Recorder software. This was then manipulated in Excel to create suitable data tables. Data for bird species was aggregated into monthly slots with the maxima number of individuals recorded in that month and the percentage of times the species was seen in that month expressed as a ratio. These two figures essentially population size and frequency could then be multiplied together to give an abundance value that could then be plotted against time to illustrate trends.

For Odonata and Lepidoptera monthly aggregations are too coarse and so weekly observations were retained.





## Mammals

### **Mole (*Talpa europea*)**

There are numerous mole hills throughout the meadow despite the frequent flooding. Most are half way down the meadow and follow the river bank south. Here the ground is somewhat drier and rarely floods completely.

### **Bats (*Chiroptera*)**

No bat species have been specifically recorded on the site as of yet although it is highly likely that several species are present. A number of tree holes appear to be roost sites with guano staining the bark beneath the hole.

### **Rabbit (*Oryctolagus cuniculus*)**

Although rarely seen there is much evidence of Rabbits being present on the site. There is a warren comprised of a small number of burrows that run along and beneath the main path beside a Sweet Chestnut tree.

### **Grey Squirrel (*Sciurus carolinensis*)**

Grey Squirrels are a very common site along this stretch of river. The ribbon of woodland by Guy's Cliffe House is perfect habitat and young squirrels are seen each year.

### **Bank Vole (*Clethrionomys glareolus*)**

Bank Voles are abundant across the meadow. Sightings are scarce and fleeting but their presence is confirmed by remains found in raptor pellets.

### **Fox (*Vulpes vulpes*)**

As a top predator in this habitat it is no surprise that Foxes are present, seen just under once a year, they are most often spotted on the far bank in mid-March. On two occasions individuals have been observed sunbathing on the mud bank.

In 2008 a large earthwork was discovered in the field which was believed to be a den although no confirmation of this has yet to be made. A large well fed male was seen on the 28<sup>th</sup> December 2008 just north of Saxon Mill Carr.



### **American Mink (*Mustela vison*)**

Mink were a regular site along the riverbank but their numbers have been slowly dwindling. The last direct sighting was in 2005 and local fisherman have remarked on how rarely they now see them. Judging by the colourations of the mink observed it is predicted that at least a pair existed on this stretch with a possible holt in a hollow tree stump near the water's edge. It is likely that Mink are the key predator of ducklings and cygnets in the breeding season.

### **Badger (*Meles meles*)**

No direct observation of Badgers have been made and the nearest confirmed sett is the other side of the Coventry Road, however in 2004 a latrine pit was discovered under a tree at the apex of the river bend. No further evidence has been recorded.

### **Muntjac (*Muntiacus reevesi*)**

Muntjacs frequent the site with most sightings and footprints being discovered in the Autumn and Winter.

## **Amphibians and Reptiles**

### **Common Frog (*Rana temporaria*)**

The backwater is home to several Common Frogs. All sightings were as a result of active searching through reeds.

### **Common Toad (*Bufo bufo*)**

Common Toads have been recorded on two occasions. These were both spawning events located in the river at the furthest extent of the meadow.

### **Grass Snake (*Natrix natrix*)**

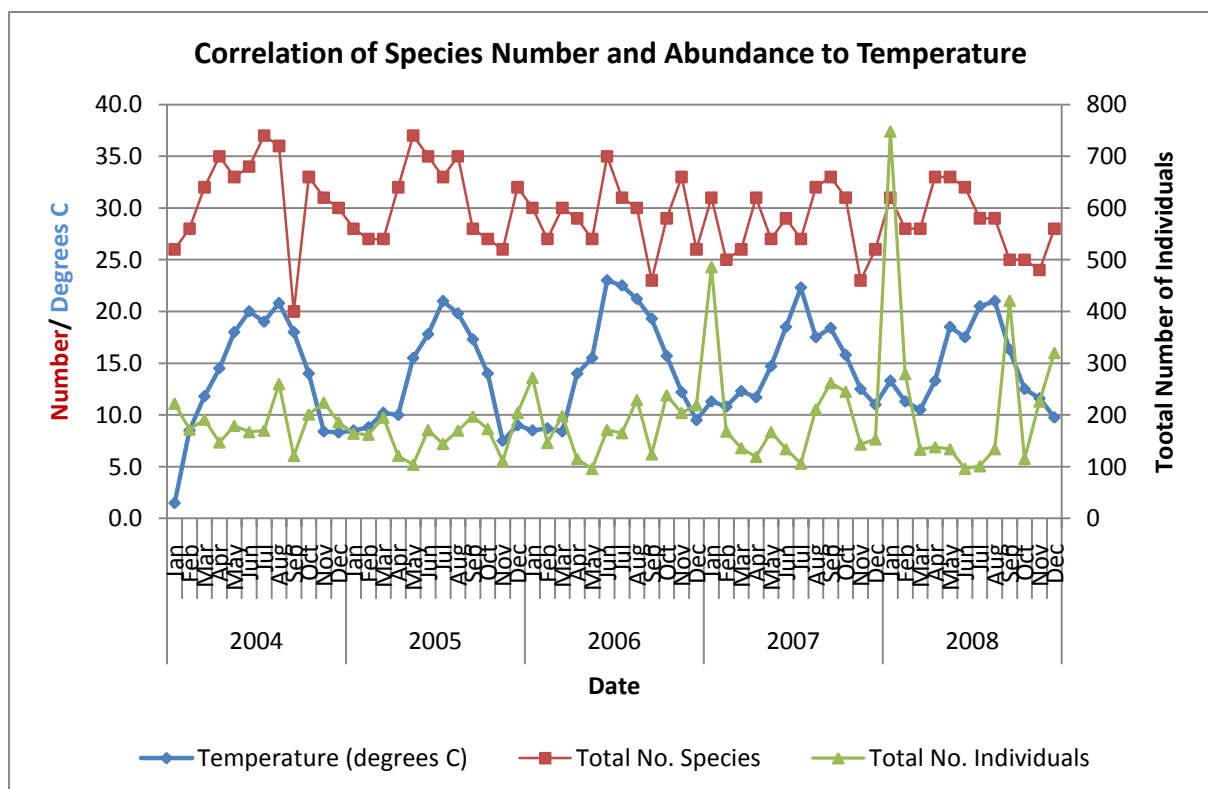
On one occasion a Grass Snake was observed basking on an old piece of tin beside the field side path.



## Birds

73 species of bird have been recorded on the site in the survey period. Of these some are only passing migrants or occasional. The graph below illustrates the general trends of bird species and number. As one may expect there are more species in the spring and summer as visiting migrants come to the area to breed.

The number of individuals shows two annual peaks. A small one at the end of the breeding season indicates the recruitment of that seasons young into the population. This initial rise is followed by a dip where young disperse and summer visitors leave during the early autumn. The peak is generally the largest and occurs usually after the lowest winter temperature and indicates the arrival of flocks of winter migrants such as Redwing and Fieldfare.



## Mute Swan (*Cygnus olor*)

Mute Swans are a common sight right along the length of the River Avon and especially on the stretch through Warwick. The Saxon Mill in particular has long been a site in which pairs have successfully raised young.

Over the past 6 years I have come to know the swans intimately and I have followed their



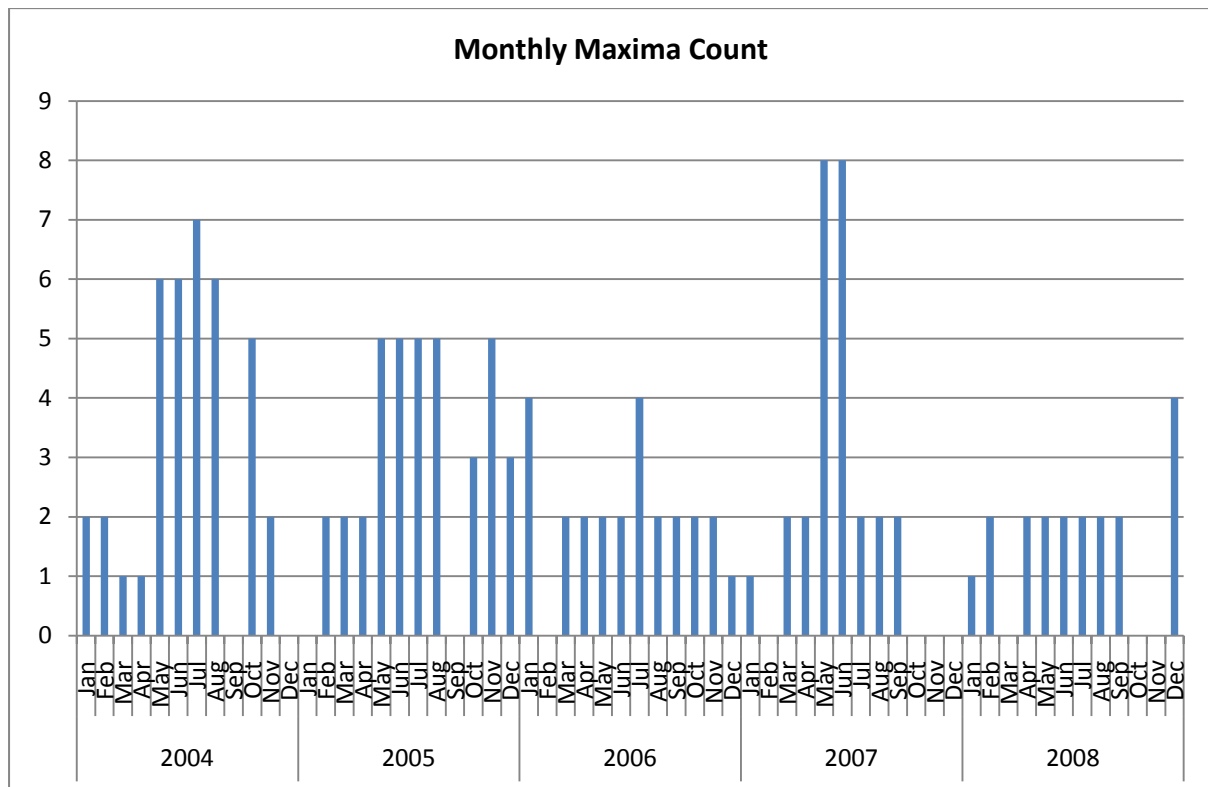
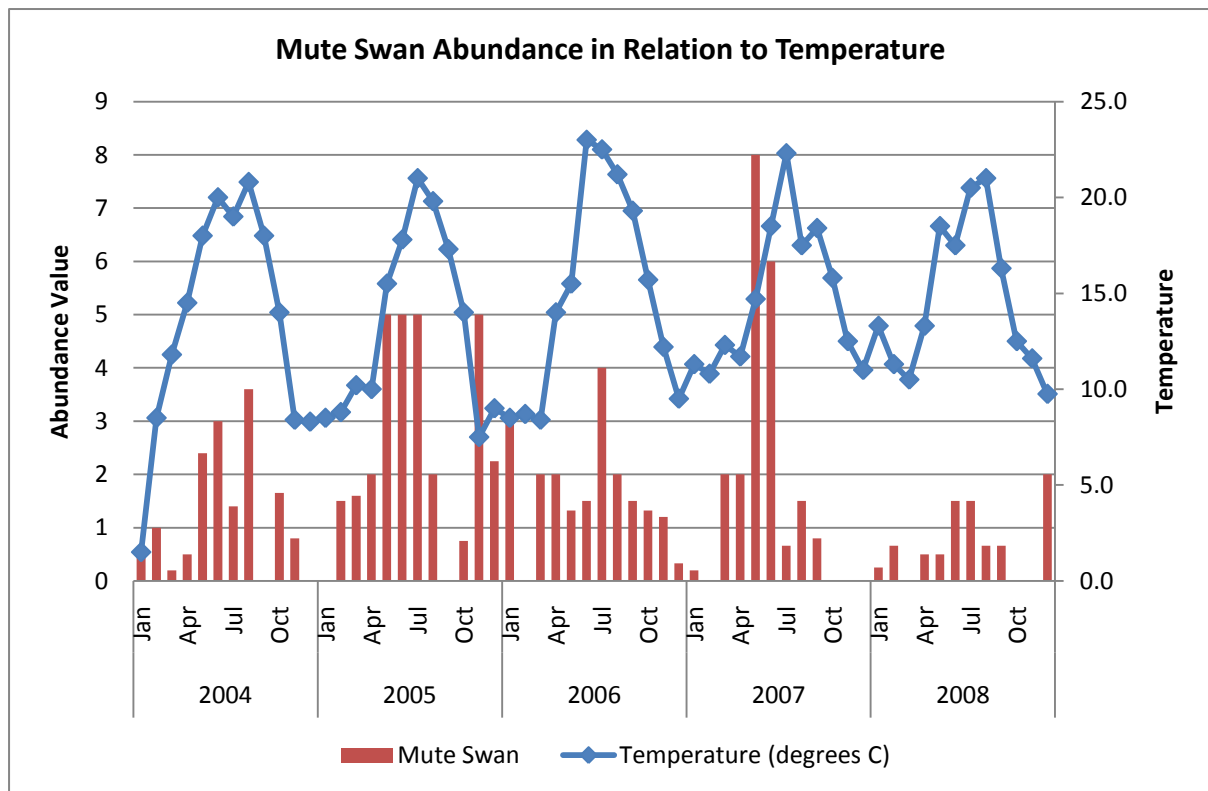
VGY with the 2007 brood

fortunes through some highs and lows. The bright Orange DARVIC identification tags on their legs make identifying individual swans simple although after awhile I could recognise the resident pair by the way they looked and moved. The pair that maintained a territory at the Saxon Mill were VGY and ZNY. This pair was an experienced and successful pair. VGY, a female was born in Stratford-upon-Avon in 1992. After

fledging she spent much of her time around the River Leam in Leamington and Jephson Gardens it is here that in 2001 it is likely she met ZNY. ZNY's birthplace is unknown but he was ringed as an adult in 1999 in Stratford. In 2002 both he and VGY were on the Avon at the Saxon Mill here they successfully bred in an unknown location and raised 2 cygnets to adulthood out of 3 that hatched. The following year the pair nested again in an unknown site and this time raised 3 cygnets from 6 that successfully hatched. In 2004 their success continued with 3 cygnets surviving from 4 hatchlings. Both individuals were known to leave the site in the winter and in 2004 were observed joining an over-wintering flock in St Nicholas Park here they mingled with their own offspring, other local birds and swans from outside the area.

In 2005 the pair nested in plain sight, development of the bank side downstream where it was suspected they nested lent credence to this assumption. They built the nest on a mud bank close to the ruins. They hatched 5 cygnets from this nest and raised 3 to adulthood. Sadly this was to be their last brood together. In February 2006 both swans disappeared. On speaking with a local man he told me that one of the pair had been injured. They had eaten a crisp packet that had become lodged in his throat. The bird had been caught and treated by the vet and subsequently returned however days after the bird was apparently hit by a car on the main road outside the Saxon Mill Restaurant. After searching, VGY turned up in the winter flock in St Nicholas Park here she was initiating basic mating behaviour with another local male AFO, this suggested to me that ZNY had indeed been killed.





In the summer I expected to see AFO and VGY as a pair but given that pair bonds can take time to establish that no nesting would take place. I was however proved wrong on both counts. VGY returned to the Mill with a different untagged male who proceeded to build a

nest for her in the same place ZNY had in previous years. Unfortunately the construction was poor. It was positioned too low down the bank so that when the heavy spring rains came the nest was completely washed away. The pair was persistent and in 2007 tried again, this time they were successful, they hatched 6 healthy cygnets. In July 2007 we experienced very heavy rain and much of the area was flooded for several days, I feared for the cygnet's safety and they went missing for over a week. When they did reappear they did so not on the river but on the canal and how they got there is a mystery to me. The only point the river and canal cross is at some height at an aqueduct and all around are busy main roads. Since then VGY and her new mate have remained on the canal and in 2008 raised another 6 cygnets there.

In 2008 with the breeding site now vacant a pair of swans did take up occupancy. ALN and an untagged individual were observed mating and undertaking some nest building behaviour but these were both too late in the season and the no nest was completed.

### **Canada Goose (*Branta canadensis*)**

Canada Geese are a frequent visitor to the survey area. They are found more commonly just south of the meadows where they are able to graze on the paddock. In 2004 and 2005



The 2004 nest subsequently washed away

breeding evidence was recorded. In 2004 a pair nested unusually close to the resident Mute Swans who normally chase them off downstream. The pair of geese built a nest on the tip of one of the mud banks. Unfortunately the bank wasn't very high and so when on 9<sup>th</sup> May heavy rains caused the river to flood the nest and all its eggs were washed away. The following year nesting must have been successful as on the 29<sup>th</sup> May a single pre-fledged gosling was recorded with its parents.

### **Mallard (*Anas platyrhynchos*)**

Mallard are a common site on the river and up until 2008 bred relatively well. Each season apart from 2005 and 2008 up to three to four broods were recorded with some broods as large as 12. Predation rates however are extremely high for example in 2003 a newly hatched brood of 12 ducklings was reduced to 9 within 7 days.

The earliest ducklings have been seen is on 15<sup>th</sup> May 2005 with most being seen in late May and early June.

### **Tufted Duck (*Aythya fuligula*)**

Tufted Ducks are not commonly found on rivers. A single individual was seen in 2005 on only one occasion on the mill pond. It is likely it was on transit between sites. A previous sighting of a Tufted Duck was made in 2003; this individual was present for two weeks.

### **Common Pheasant (*Phasianus colchicus*)**

Whilst most records of this species are of individuals on the opposite riverbank at Guy's Cliffe a single juvenile was recorded in a nettle bed on 27<sup>th</sup> July 2004.

### **Little Grebe (*Tachybaptus ruficollis*)**

Little Grebe are winter visitors to the river. They never number more than 3 at any one time and occur right along the river.

Year	Arrival Date	Departure Date
2003/2004	27 <sup>th</sup> October	15 <sup>th</sup> February
2004/2005	25 <sup>th</sup> October	6 <sup>th</sup> March
2005/2006	4 <sup>th</sup> December	12 <sup>th</sup> March
2006/2007	15 <sup>th</sup> October	7 <sup>th</sup> January
2007/2008	27 <sup>th</sup> January	9 <sup>th</sup> March

Very elusive, these birds can be very difficult to spot and so a margin of error exists in their arrival and departure dates

### **Great Cormorant (*Phalacrocorax carbo*)**

Most sightings of Cormorants on the site are from fly over's although in 2004 and 2005 an individual was often spotted sat on a Scots Pine up near Milverton Church. Local fisherman confirmed that they were seen on the river fishing and this was confirmed on two occasions in 2008 when a juvenile bird was observed fishing down by the mud bank and outside the Saxon Mill.



Juvenile Cormorant

### **Grey Heron (*Ardea cinerea*)**

Grey Herons are a common site on the river and are also often seen flying over. Herons are more abundant in the winter and often fish on the shallow waters by the Saxon Mill. It is likely that the individuals sighted during the breeding season are non-breeders as the nearest confirmed breeding colony is at New Waters.

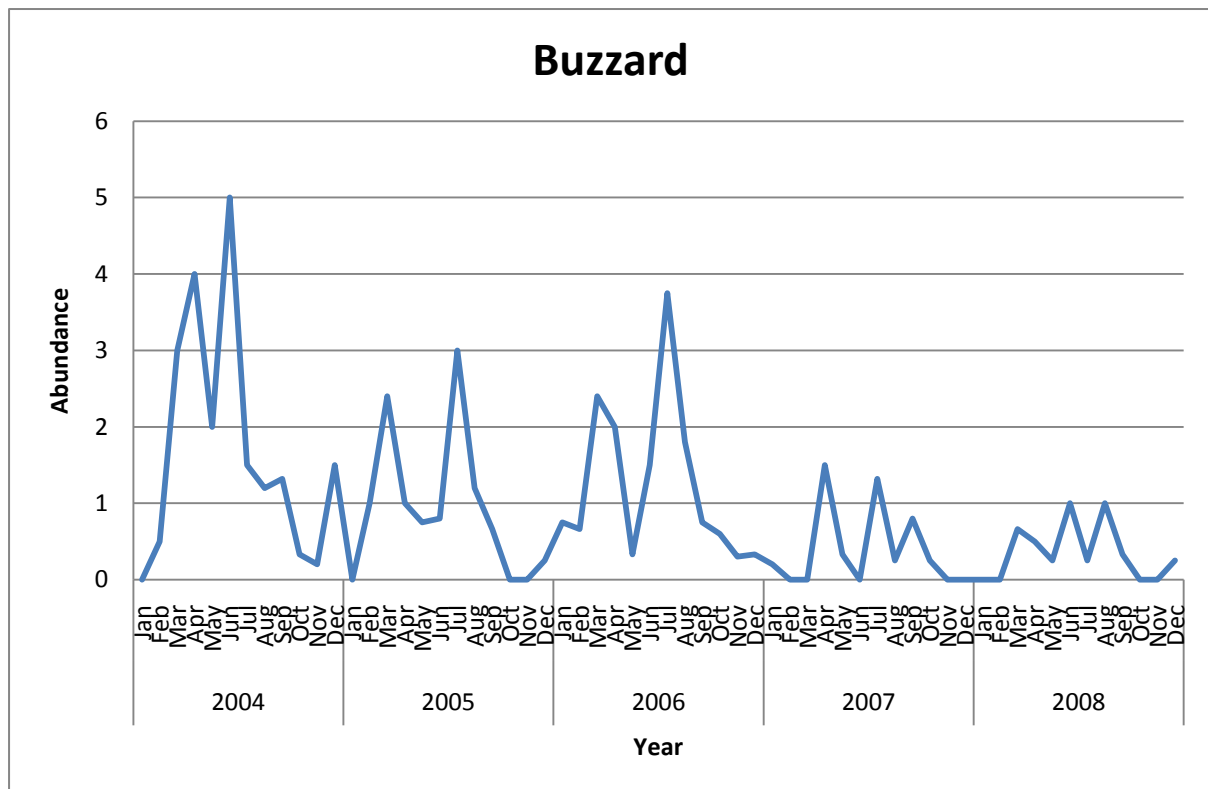
### **Eurasian Sparrowhawk (*Accipiter nisus*)**

Sparrowhawks were seen regularly throughout the breeding season in 2004 but became gradually less abundant. They are always sighted over the woods of the Riding School and rarely venture on to the meadow or fields. This fits their preferred ambush style hunting pattern. There are pairs on both Spinney Hill and Woodloes Park as well as two confirmed breeding pairs in Warwick Castle. It is likely that the individuals seen on the site were from the Spinney Hill pair.

### **Common Buzzard (*Buteo buteo*)**

With the buzzard spreading so widely throughout the county it is no surprise that they are a resident species. There is plenty of nesting and foraging habitat and since 2004 a pair has nested on the site. The resident pair was first closely observed in 2004 whereupon they were named Victoria and Albert and who were easily identified by their markings. In their first season Victoria was observed collecting a lot of nesting material and as is their behaviour constructing several nests. Copulation between the pair was observed on 7<sup>th</sup> March. The actual nest site was not identified but 3 young fledglings were recorded from the 27<sup>th</sup> June onwards. There is some anecdotal evidence that there had been 4 fledglings and that one was injured in some way.



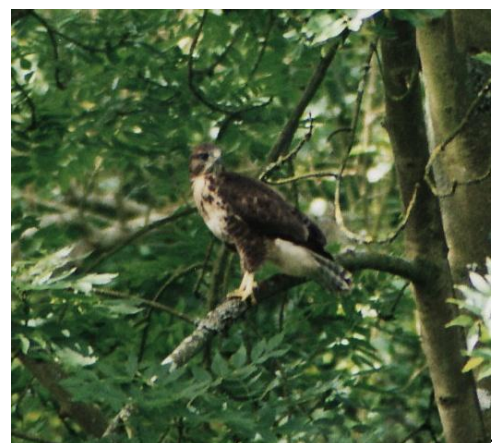


Individual known as 'Notcher'

In 2005 it was revealed that Victoria and Albert's preferred nest site was at the bottom of a garden beside Guys Cliffe House. This year only a solitary fledgling was recorded on the 31<sup>st</sup> May. The same nest site was used again in 2006 this time with two fledglings been recorded on the 16<sup>th</sup> July. During 2007 buzzards were observed less and this coincided with the last confirmed sightings of

Victoria and Albert, anecdotally a pair did nest on the site and raised young but no evidence of this was recorded during survey work. In 2008 poor buzzard sightings suggested that no breeding would take place however on 27<sup>th</sup> July a single recently fledged juvenile was observed and the owners of the house confirmed that the nest site had been used.

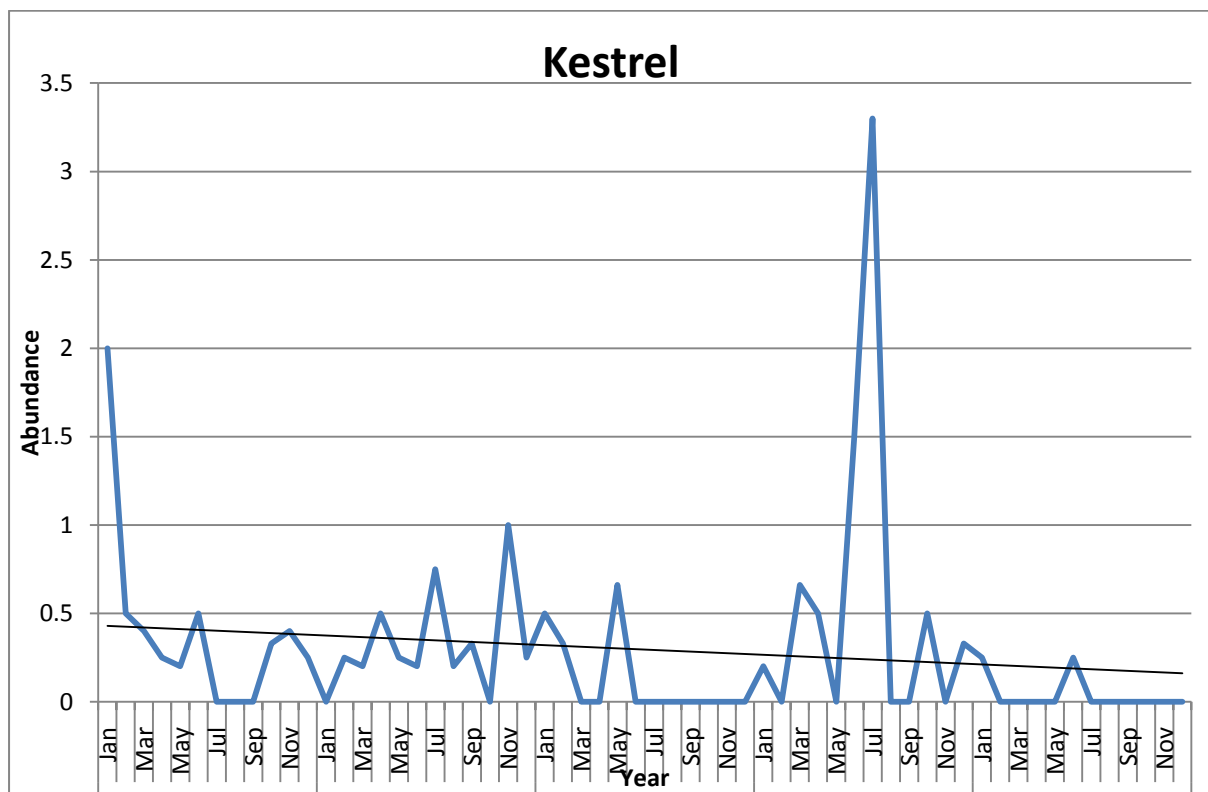
Whilst the graph of abundance suggests a falling population this is due to the inconclusive breeding in 2007 and 2008. Additionally where initial brood sizes seemed to be of 3-4 individuals later broods seemed only to raise a single individual to maturity. The reason for this may be linked to the abundance of food, Buzzards numbers are highly linked to Rabbit



populations and it may be that poor seasons on the hunting grounds on Woodloes Farm and the Riding Schools have impacted on productivity. It may also be the case that the resident pair who continues to use a single nest site, unusual in buzzards that will often shift nests from site to site, are growing older and that their fecundity is somewhat reduced. It is unlikely however to be competition from other species in fact their arrival on the site affected Kestrel numbers. It is more probable that competition from other local pairs at Gavestons Cross and over Milverton and Hill Wootton is to blame.

### Common Kestrel (*Falco tinnunculus*)

Kestrels were a common sight. Both males and females were observed with regularity hunting over the meadow, however over time their incidence fell possibly due to increased competition from a pair of buzzards. Local breeding was confirmed however in 2003 when 5 fledglings were recorded on 21<sup>st</sup> July being taught how to hunt by their mother. The abundance graph shows how their relative abundance has fallen over the past five years.



### Hobby (*Falco subbuteo*)

A Hobby was recorded on the site only once. It was seen on the 26<sup>th</sup> August 2007 flying over Guys Cliffe House. It was picked up being mobbed by Swifts.

### Water Rail (*Rallus aquaticus*)

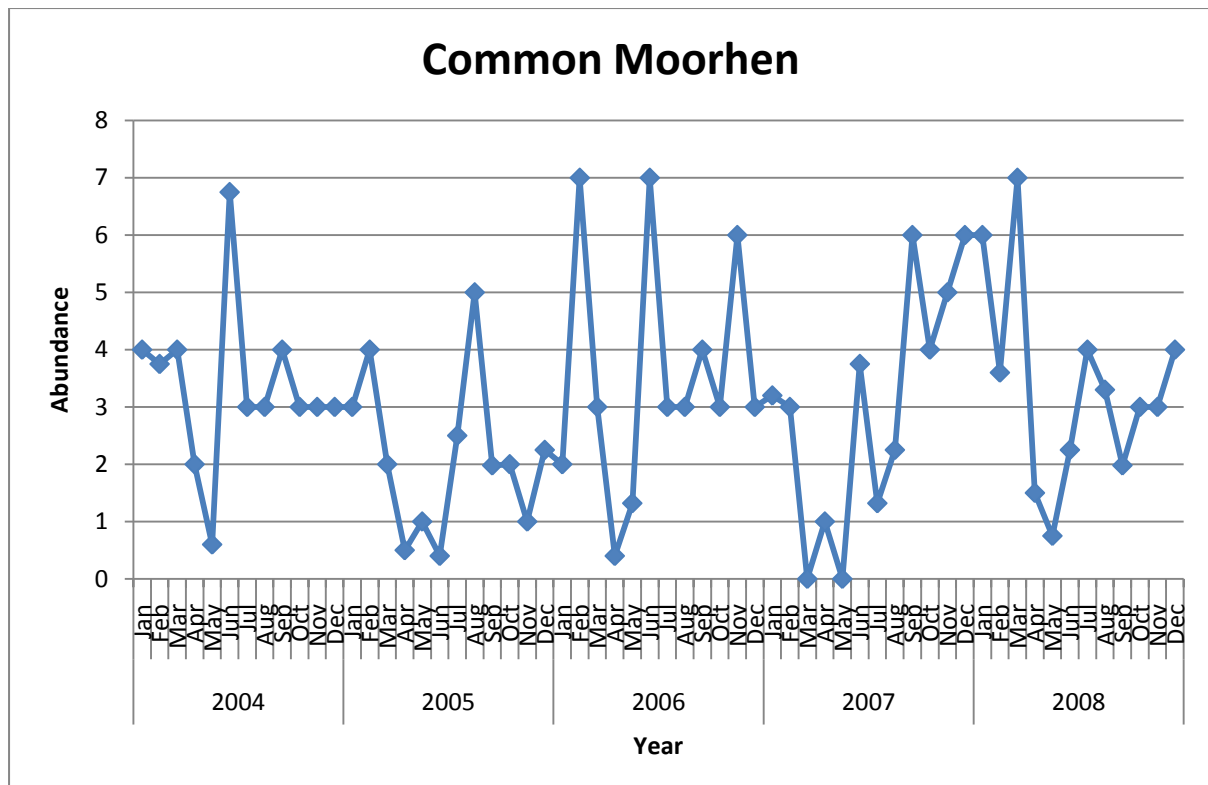
Very elusive birds Water Rail are anecdotally present every year but have only been recorded in the winters of 2005, 2007 and



2008. An individual showed particularly well in January 2007 moving from the backwater right up the river bank to the mud bank.

### Common Moorhen (*Gallinula chloropus*)

Moorhens are a common sight along the river and seem to fare better in terms of reproductive success than Mallard. In 2003 7 young were seen on the 26<sup>th</sup> August. In 2004 a nest was located but sadly this was washed away a second nest was obviously successful as 5 young were seen on the 1<sup>st</sup> June. The following year a single pair had 3 chicks; this became somewhat the norm with 2 pairs and 4 young in 2006 and 1 pair with 3 young in 2007.



Moorhen abundance is relatively stable with some evidence of a slight increase over the five year period. Such increases are likely linked to the decrease in Mink sightings.

### Common Coot (*Fulica atra*)

The habitat of the mill is not particularly suitable for Coot but in 2006 a pair did attempt to nest. They built a nest on the 14<sup>th</sup> May but this was lost the following week in high water.

### Common Sandpiper (*Actitis hypoleucos*)

Common Sandpiper breed on inland rivers and have been recorded on passage on the site in 2005, 2006 and 2007. The first two sightings were in early May whilst the 2007 sighting was in July.



### Woodcock (*Scolopax rusticola*)

Woodcock have never been recorded during a formal survey period but there is much anecdotal evidence of them being present, including a possible sighting in 2005.

### Black Headed Gull (*Chroicocephalus ridibundus*)

Black-Headed Gulls are winter visitors to the fields around the Saxon Mill. They occurred in greatest numbers between October and December and usually when there was bare ground after ploughing.

### Herring Gull (*Larus argentatus*)

Recorded only as a passage bird.

### Lesser Black Backed Gull (*Larus fuscus*)

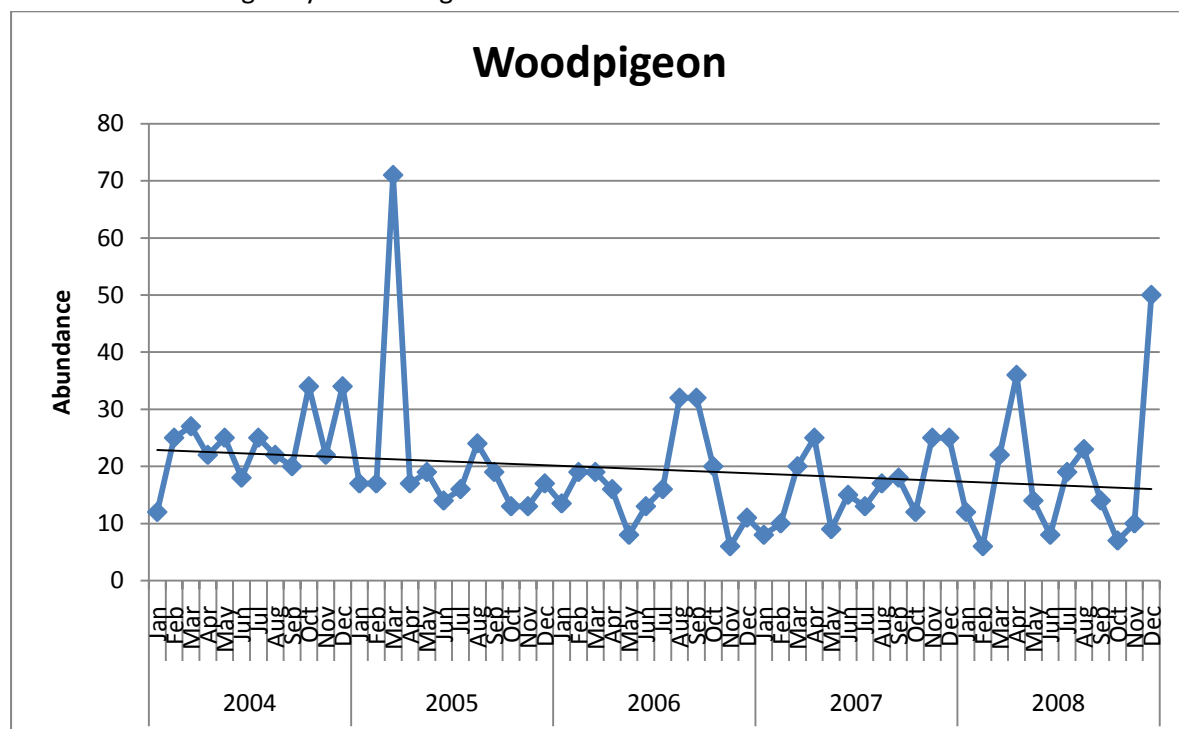
Recorded only rarely as part of larger flocks of Black-Headed Gulls in 2004 and 2006 only.

### Stock Dove/Feral Pigeon (*Columba oenas*/ *Columba livia*)

Throughout the study period Feral Pigeons and Stock Doves were not differentiated. A small colony of Feral Pigeons does frequent Guys Cliffe and they have been seen in numbers up to 15 regularly over the past 5 years.

### Woodpigeon (*Columba palumbus*)

Young Woodpigeons are notoriously difficult to see and identify however breeding on the site was confirmed in 2004 when a nest was identified. Woodpigeons are one of the commonest species on the site and this is reflected in their abundance values. The graph does indicate a marginally decreasing trend.



### **Tawny Owl (*Strix aluco*)**

Direct observations of Tawny Owls have not been made on the site however evening visits have resulted in the identification of adult females calling. An owl pellet was also discovered on the site. It is unclear as to whether the owls are resident.

### **Little Owl (*Athene noctua*)**

Little Owls were seen in small numbers regularly in 2003 through much of the spring and summer. They were found to frequent a number of dead trees along the border of the meadow and the main field. It is suspected that at least one of these trees that were hollow contained a nest or roost site. From 2004 onwards however the frequency of sightings fell starkly. This fall in sightings was no doubt exasperated when in 2006/07 the dead trees both fell down and disintegrated. Sightings moved away from this location to Alders and Willows running along the river beside the horse paddock.

### **Swift (*Apus apus*)**

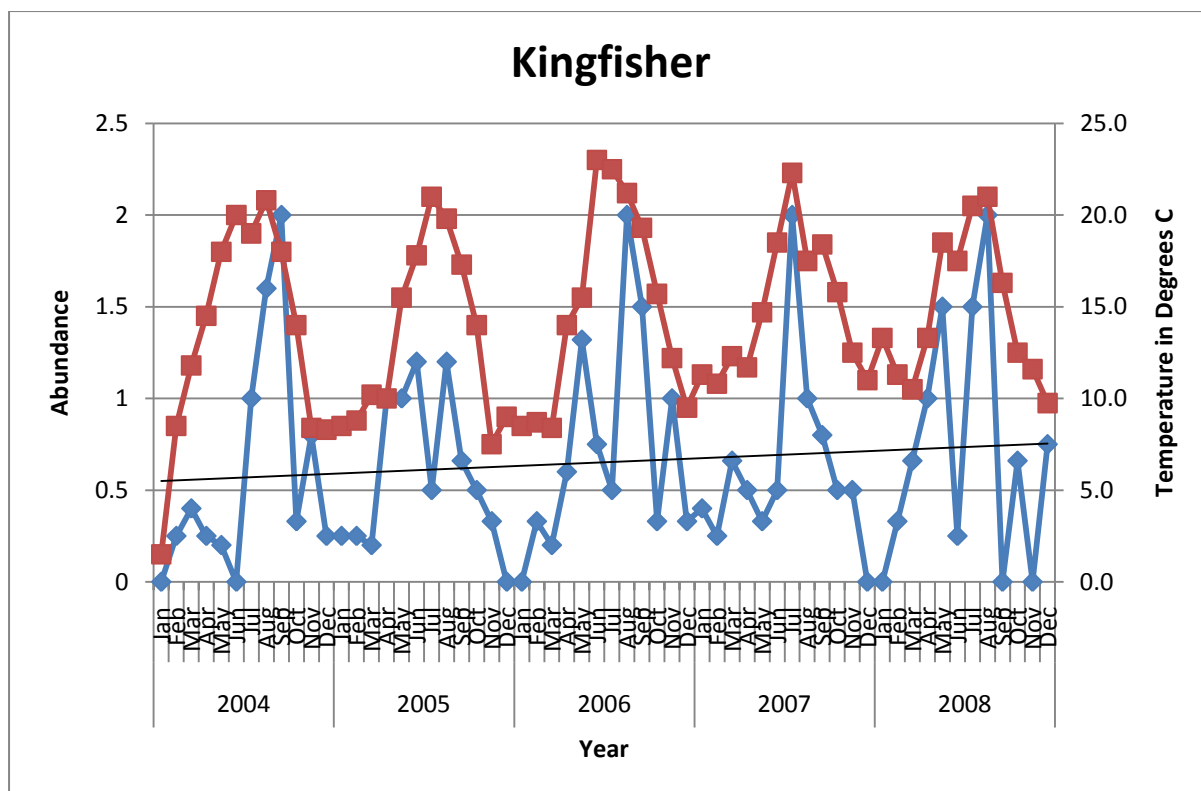
Swifts are a summer visitor seen between May and August. Remarkably large numbers were recorded in June and July of 2005 with maxima numbers of 45 and 22 respectively. It is possible these were expanded flocks of juveniles or possibly evidence of a particularly dense mass of flying invertebrates.

Year	Arrival Date	Departure Date
2004	23 <sup>rd</sup> May	11 <sup>th</sup> July
2005	8 <sup>th</sup> May	25 <sup>th</sup> July
2006	25 <sup>th</sup> June	16 <sup>th</sup> July
2007	28 <sup>th</sup> May	28 <sup>th</sup> July
2008	18 <sup>th</sup> May	15 <sup>th</sup> June

### **Kingfisher (*Alcedo atthis*)**

Kingfishers are a very common site and definitely breed on the river. A pair of juveniles were recorded in 2004 and the nest site located in 2008. Population wise Kingfisher numbers seem stable and there is evidence of an upward trend in numbers. During the winter months the river is prone to much flooding and high water that makes fishing difficult and so it is believed the resident pair move to smaller quieter stretches where the water is calmer and clearer. It is difficult to assess the exact number of pairs on the site. There is a confirmed breeding hole but anecdotal evidence has been received that a second site exists nearer the Saxon Mill Restaurant. Territorial behaviour between adults has been regular documented suggesting that more than one territory is held along this stretch of the river.





### Green Woodpecker (*Picus viridis*)

A pair of Green Woodpecker nests on the site and raise approximately 1 brood. A single juvenile is usually seen at the end of each breeding season. Green Woodpecker numbers and frequency are relatively stable with them being observed in all seasons throughout the study period.

### Great Spotted Woodpecker (*Dendrocopos major*)

There are plenty of nest sites suitable for Woodpeckers across the site and despite staking out many suitable locations exact nest locations have yet to be identified. Breeding has been confirmed through the identification of juveniles at the end of the breeding season. Numbers and frequency like that of the Green Woodpecker is remarkably stable throughout the seasons. Whilst only a single pair has been confirmed territorial interactions between adults indicates the presence of more than one or at the very least other territories close by.

### Lesser Spotted Woodpecker (*Dendrocopos minor*)

Whilst anecdotally this species was known to be present on the site an actual individual was only recorded once in the study period. This was on the 17<sup>th</sup> February 2006 and was recorded possibly only due to the fact that the day's survey was conducted much earlier than usual. The individual was first identified in the large tree beside the field (Little Owl Tree) and was followed along the riverside into the willows beside the bridge.

### Skylark (*Alauda arvensis*)

Skylark have been occasionally recorded on the site often the sightings have been in the autumn or winter and are no doubt on passage however in 2007 it was suspected that a pair had started to nest in the main field when adults were recorded singing and displaying between May and June. Whether



these birds were successful is unknown. The crop that year was corn and when young would have made suitable habitat however as the crop matured the suitability would have decreased. The lack of suitable habitat is the main reason why Skylarks are not generally expected to breed on the site.

### **Barn Swallow (*Hirundo rustica*)**

Swallows are an annual summer visitor arriving from May onwards. They feed primarily over main fields and must breed close by as juvenile birds are often recorded being fed by adults towards the end of the season.

Year	Arrival Date	Departure Date
2004	18 <sup>th</sup> April	19 <sup>th</sup> September
2005	5 <sup>th</sup> June	4 <sup>th</sup> September
2006	14 <sup>th</sup> May	27 <sup>th</sup> August
2007	22 <sup>nd</sup> April	23 <sup>rd</sup> September
2008	4 <sup>th</sup> May	24 <sup>th</sup> August

### **House Martin (*Delichon urbicum*)**

House Martins are a rare sight at the Saxon Mill occurring only in the summer months in small numbers. It is believed that the Martins nest in the buildings of the Riding School and only occasionally forage over the Saxon Mill.

### **Pied Wagtail (*Motacilla alba*)**

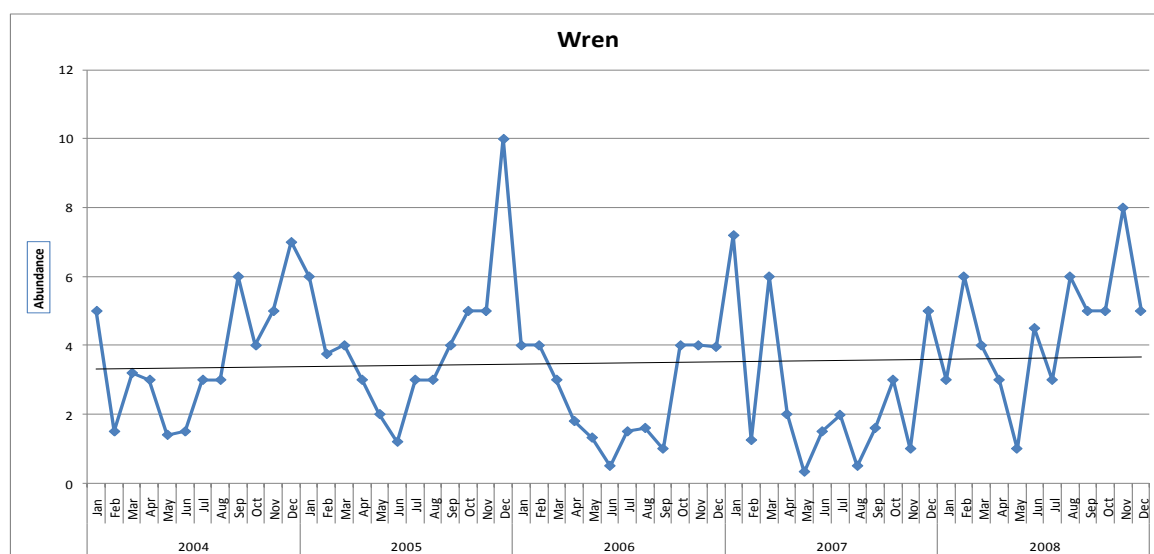
Pied Wagtails are a rare occasional visitor.

### **Grey Wagtail (*Motacilla cinera*)**

Grey Wagtails nest at the Saxon Mill and they are seen regularly along the rivers length. They are most commonly seen along the boom behind the mill house and around the bridge.

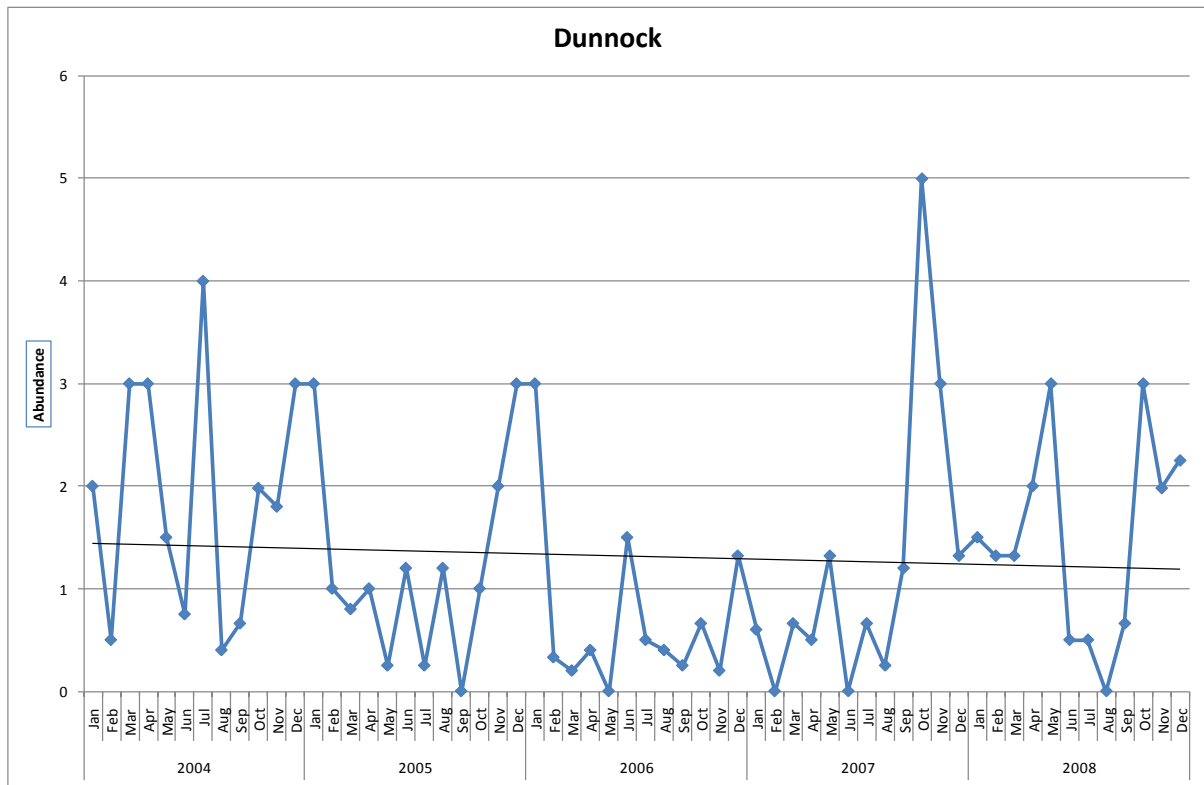
### **Wren (*Troglodytes troglodytes*)**

The wren is a common bird and there are large numbers on the site. This is due to the abundant suitable habitat. Abundance figures indicated a slightly rising population with seasonal numbers peaking each winter.



### **Dunnock (*Prunella modularis*)**

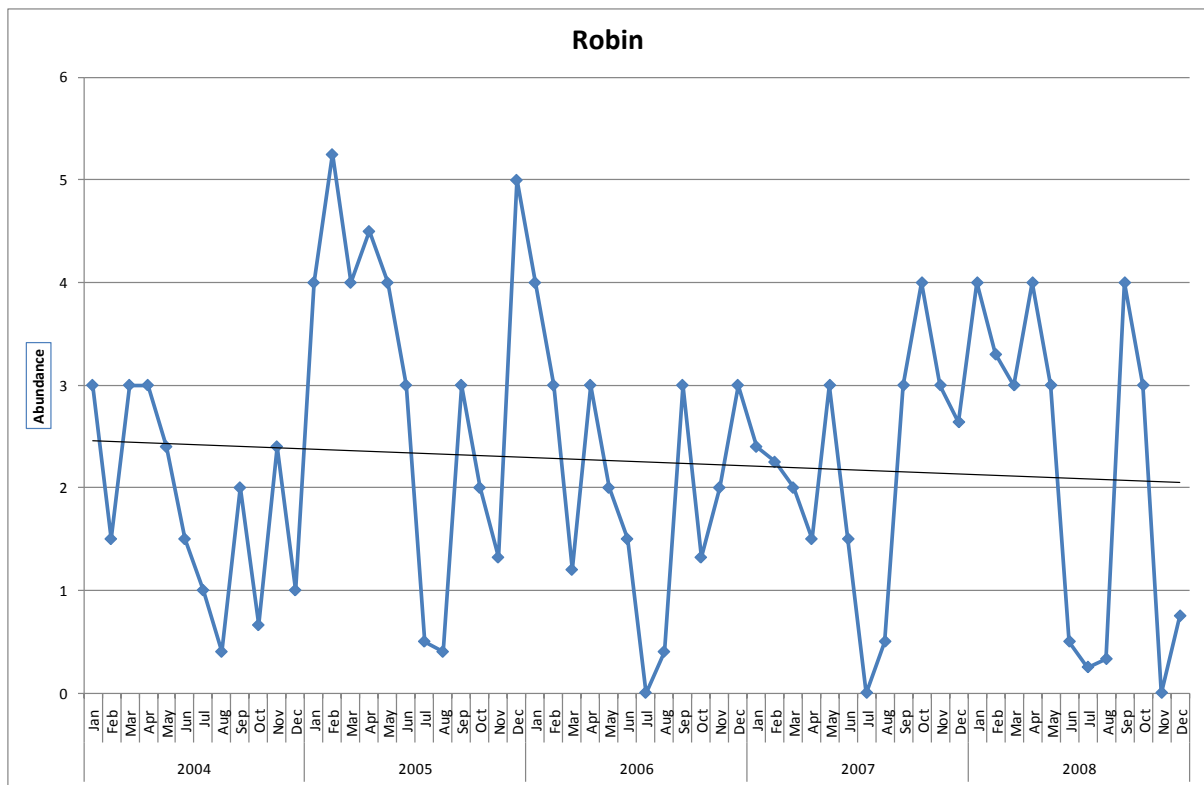
The vegetation of the Saxon Mill lends itself to Dunnock survival. There are large areas of tall ruderal shrubs for nesting and foraging and several pairs are recorded each breeding season. The graph illustrates a slightly declining population across the site



### **Robin (*Erithacus rubecula*)**

Robin numbers fluctuate between extreme lows in mid-summer to highs in late winter. Many of these late winter birds are likely to be juveniles recruited in the breeding season as well as migrants from other areas. The lows up to July are likely to be indicative of breeding patterns in which unpaired individuals are forced to leave the area by territorial pairs; these pairs are then seen less regularly whilst sitting on eggs. The winters of 2005 and 2006 show the greatest abundance of individuals, following winters are lower. From 2006 onwards abundance crashes to zero on at least one occasion during the year, this results in the overall trend of Robin abundance being of a declining population.





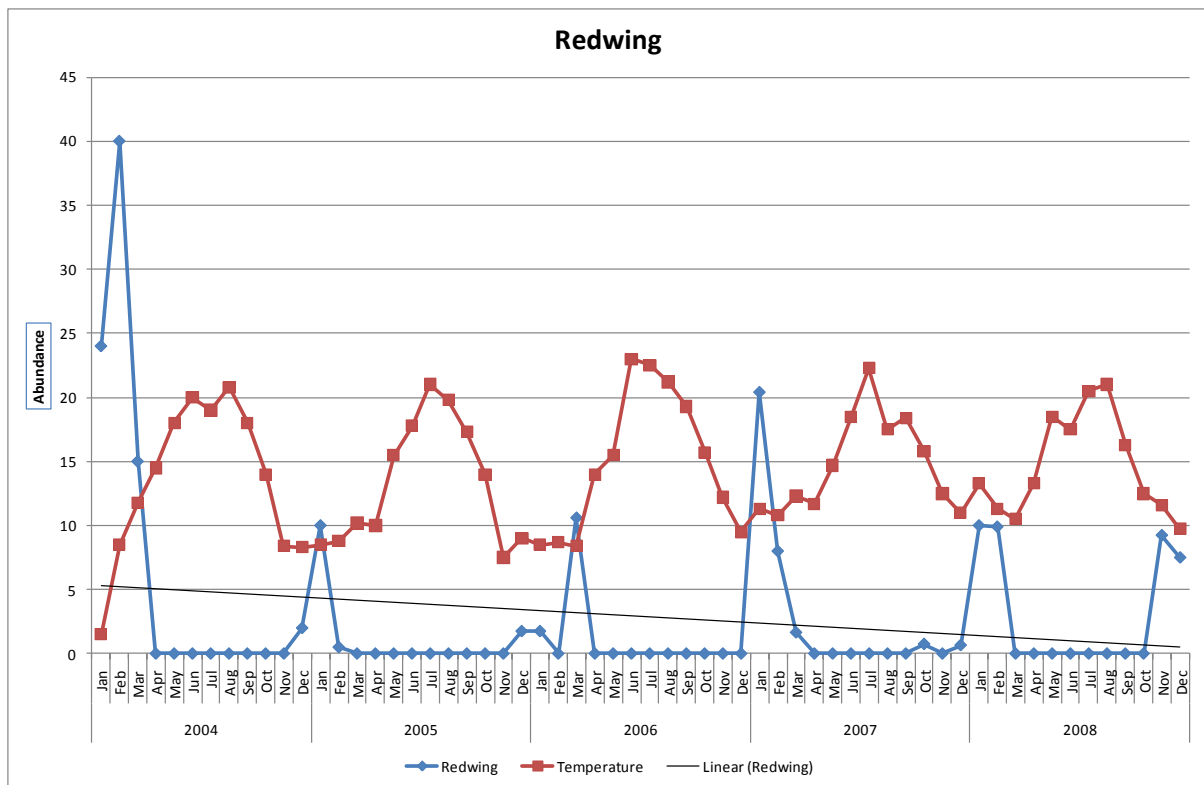
### **Song Thrush (*Turdus philomelos*)**

Song Thrushes are a regular resident. A number of pairs perhaps upwards of 2 nest and breed on the site.

### **Redwing (*Turdus iliacus*)**

Redwings are a winter visitor to the Saxon Mill. They spend much of their time in the main field but seem to roost in the trees along the boundary of the riding school. Redwing flocks arrive generally during the coldest periods of weather and remain until the temperature begins to rise once more. On the whole the Redwings are not seen on their own and are more regularly a small part of larger Fieldfare flocks.





### Mistle Thrush (*Turdus viscivorus*)

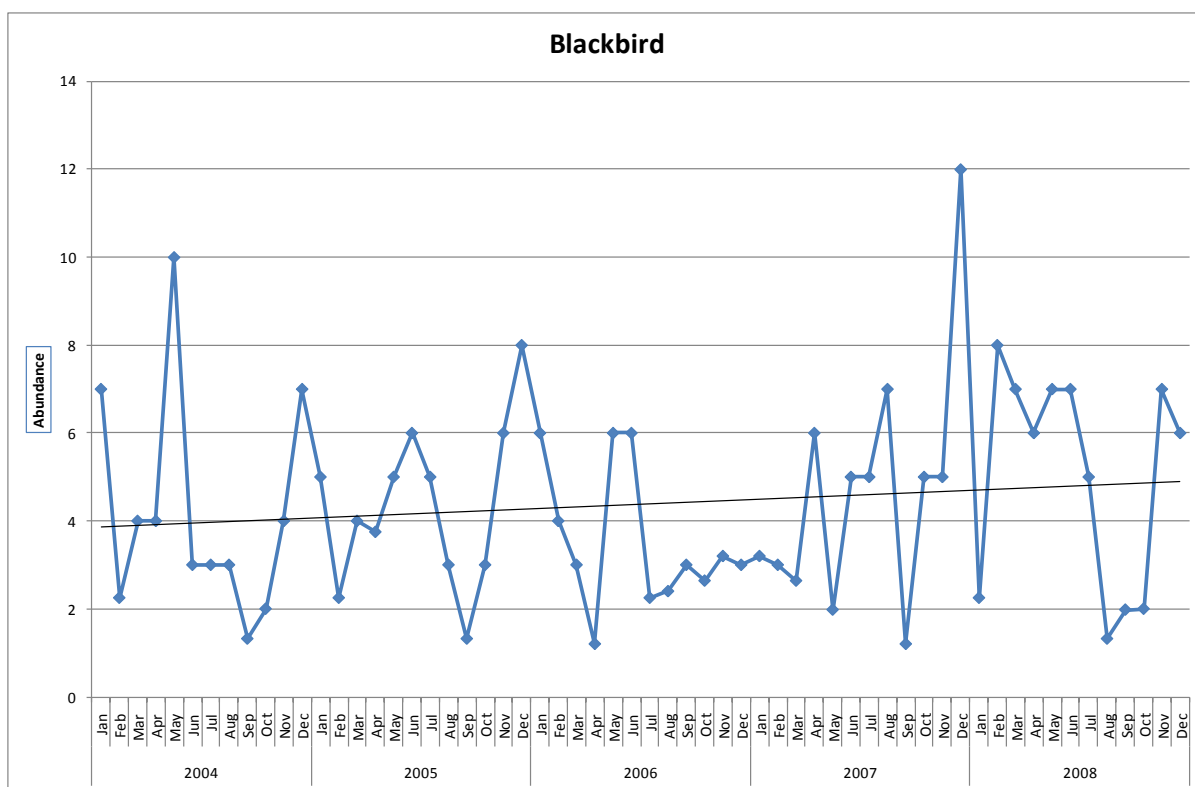
The Mistle Thrush is another of the winter visiting thrushes. These tend to be the first to arrive sometimes arriving as early as August with most leaving between October and December. In 2005 and 2007 Mistle Thrushes occurred in larger numbers than usual with maximas of 35 and 22 individuals respectively. Single birds were recorded on single trips during the summers of 2006 and 2007.

### Fieldfare (*Turdus pilaris*)

During each winter flocks of Fieldfares with Redwings and Mistle Thrushes visit the Saxon Mill. These Fieldfare flocks tend to begin to arrive from November onwards peaking in December or January and leaving in February and March. During the five year study period flock sizes increased. In 2004 flock sizes were in the low teens but by 2006 they were in the hundreds.

### Blackbird (*Turdus merula*)

Blackbird numbers fluctuate greatly across the year. Lows at the end of summer indicate periods in which the young have dispersed but wintering individuals have yet to arrive. Abundance generally increases each winter as numbers are swelled by migrants from the continent. Unusually in the winter of 2006 and 2007 there was no increase in abundance in fact numbers remained relatively stable between September and March. This flat lining of the population does not seem to correspond to local weather conditions forcing individuals to move into towns and cities to feed but could indicate that a smaller migration from the continent occurred perhaps as a result of milder temperatures there or unfavourable winds.



### Blackcap (*Sylvia atricapilla*)

Blackcaps are generally seen in small numbers. In 2004 they were seen every month of the summer, in later years this season was much contracted as seen in the table below.

Year	Arrival Date	Departure Date
2004	25 <sup>th</sup> April	22 <sup>nd</sup> August
2005	5 <sup>th</sup> June	10 <sup>th</sup> July
2006	14 <sup>th</sup> May	4 <sup>th</sup> June
2007	26 <sup>th</sup> August	26 <sup>th</sup> August
2008	27 <sup>th</sup> April	27 <sup>th</sup> April

### Whitethroat (*Sylvia communis*)

Whitethroats are a regular summer visitor and hold a number of territories across the site. A detailed analysis of these territories was carried out in 2004, thus identifying 4 pairs. Actually sightings of juveniles are more limited. 1 was seen in 2004 and 4 in 2006.

Year	Arrival Date	Departure Date
2004	25 <sup>th</sup> April	15 <sup>th</sup> August
2005	3 <sup>rd</sup> April	4 <sup>th</sup> September
2006	23 <sup>rd</sup> April	17 <sup>th</sup> September
2007	29 <sup>th</sup> April	2 <sup>nd</sup> September
2008	27 <sup>th</sup> April	4 <sup>th</sup> August

## Willow Warbler (*Phylloscopus trochilus*)

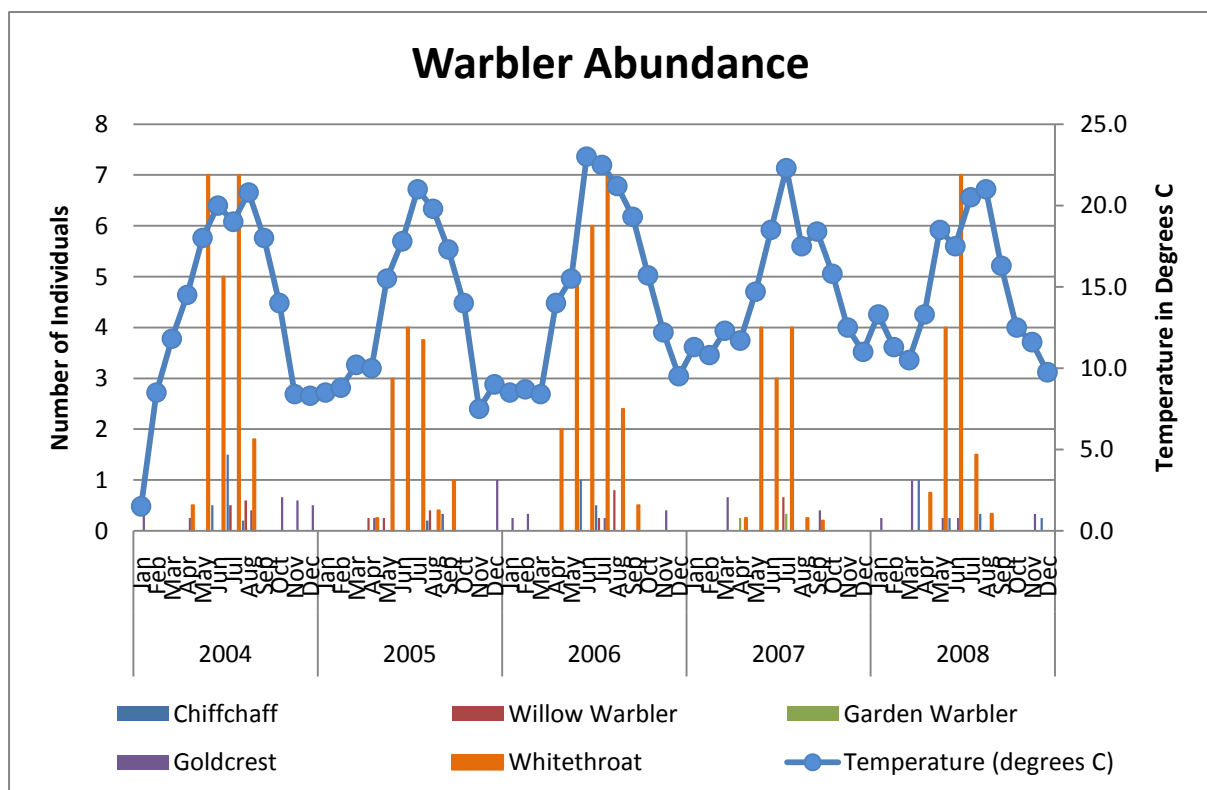
Willow Warblers are a summer visitor that has been recorded across the five years in small numbers. It is likely that the number recorded is considerably lower than the actual number on the site due to difficulties in accurate identification.

Year	Arrival Date	Departure Date
2004	11 <sup>th</sup> July	22 <sup>nd</sup> August
2005	1 <sup>st</sup> August	1 <sup>st</sup> August
2006	9 <sup>th</sup> July	18 <sup>th</sup> August
2007	8 <sup>th</sup> July	8 <sup>th</sup> July
2008	-	-

## Chiffchaff (*Phylloscopus collybita*)

Like the other leaf warblers Chiffchaff numbers and abundance have fallen from 2005 onwards.

Year	Arrival Date	Departure Date
2004	6 <sup>th</sup> June	22 <sup>nd</sup> August
2005	22 <sup>nd</sup> August	22 <sup>nd</sup> August
2006	11 <sup>th</sup> June	23 <sup>rd</sup> July
2007	-	-
2008	13 <sup>th</sup> April	7 <sup>th</sup> December



## Goldcrest (*Regulus regulus*)

Goldcrests are a resident of the Saxon Mill most commonly seen in the Yew trees between the main river channel and the backwater. They are recorded more in winter which may reflect a seasonal

trend in coming to the site or given the size of the bird an increased chance of recording due to the loss of leaves from trees making it easier to see them.

### Spotted Flycatcher (*Musciapa striata*)

Spotted Flycatchers have never been recorded as part of formal surveys taken each Sunday they have however been seen during two summers. On both occasions a single individual was observed feeding from a dog rose bush over the back water. Anecdotally Spotted Flycatchers are reported to breed up at Milverton Church and it is likely these individuals were adults collecting food for young.

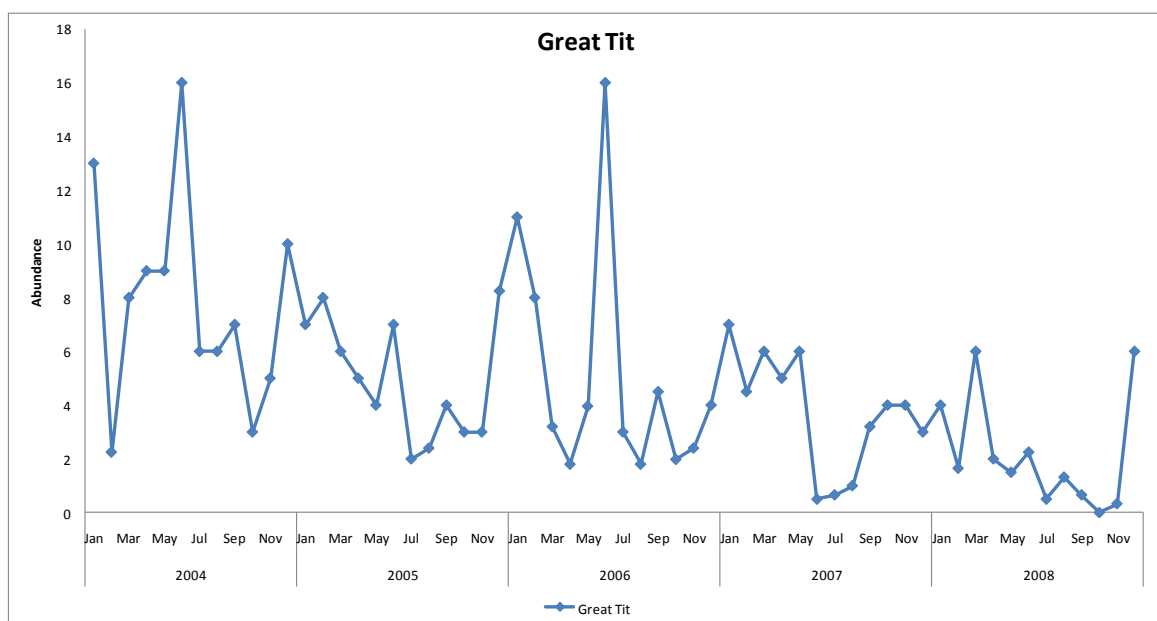
### Pied Flycatcher (*Ficedula hypoleuca*)

A single Pied Flycatcher was recorded on passage in the small wood in the garden behind the Saxon Mill restaurant.



### Great Tit (*Parus major*)

Great Tits were particularly successful in breeding in 2004 with productivity falling off from then onwards. First juveniles are normally seen on the 1<sup>st</sup> week of June although in 2007 it was a week earlier. As the graph of abundance below illustrates the Great Tit population is declining.

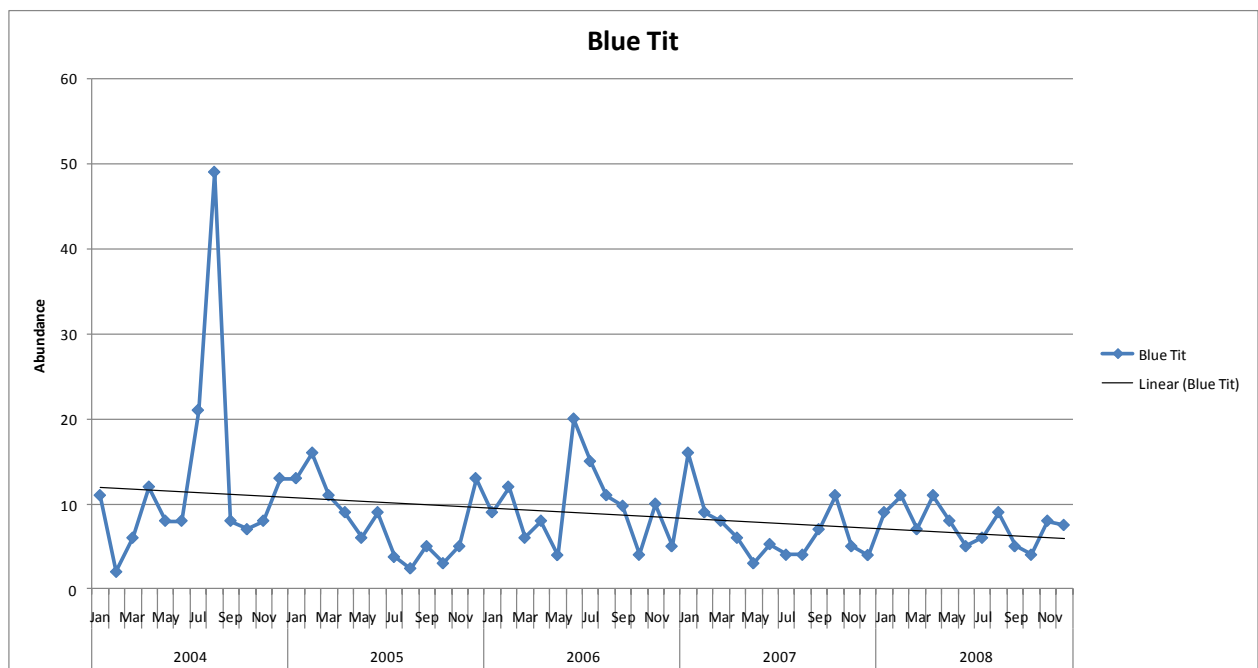


### Coal Tit (*Parus ater*)

Coal Tits despite the number of yews on the site are an occasional visitor. In the five year period they have been recorded on only five occasions across 2004, 2006 and 2008.

### Blue Tit (*Parus caeruleus*)

Blue Tit breeding success varies from year to year. There are plenty of nest sites and many are used year on year. The best year in terms of productivity was in 2004 when a juvenile flock of 46 individuals was recorded. Juvenile birds are seen in the first week of June. 2007 was the worst year with only two families identified and maxima of 3 juveniles spotted. Like the Great Tit the Blue Tit seems to be declining in number. This can be backed up by anecdotal evidence of fewer nests been located each year.



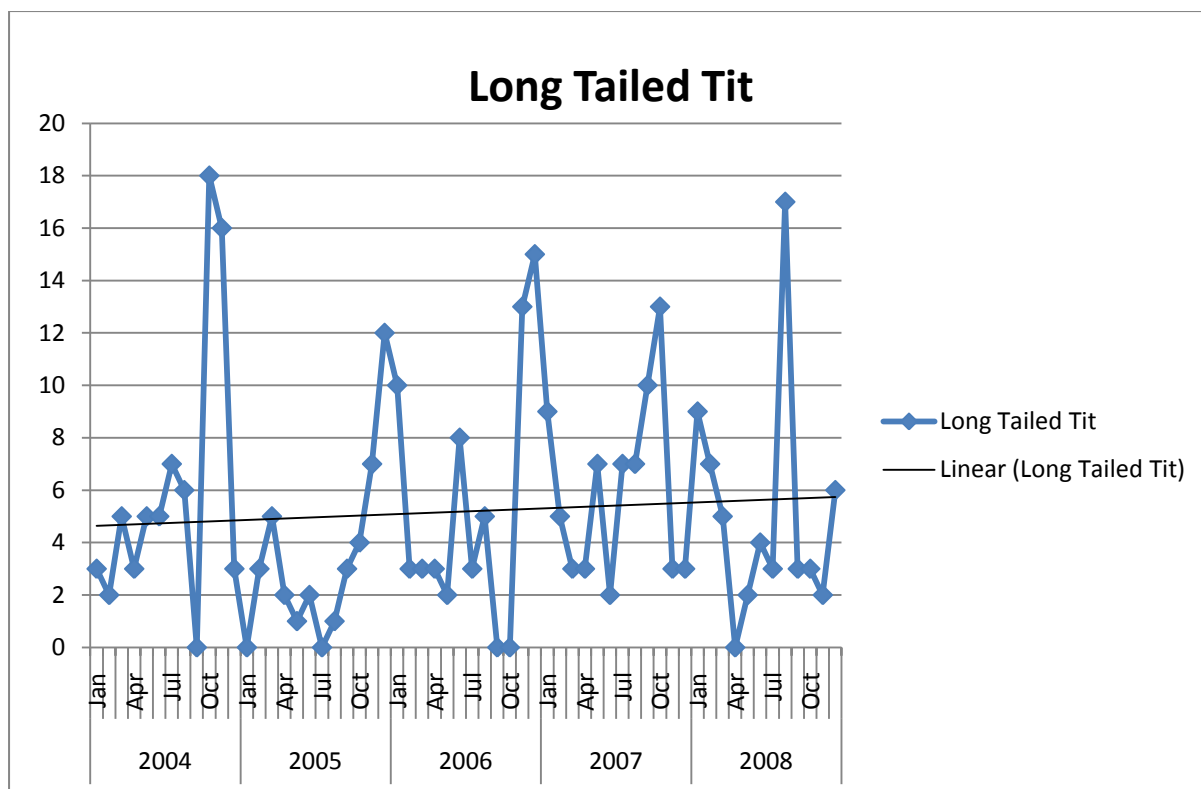
### Willow Tit (*Parus montanus*)

Like the Coal Tit there is abundant habitat suitable for Willow Tit, however they are a rare sight. They have been seen on three occasions only in 2004 in January and July.

### Long-Tailed Tit (*Aegithalos caudatus*)

Small family flocks are seen regularly with confirmed juveniles in 2004, 2006 and 2007. Most families consist of 2 parents and 5 juveniles. At the start of the breeding season pairs seem to congregate in a few key areas suggesting possible nest sites.





### Nuthatch (*Sitta europaea*)

Nuthatches frequent the whole of the site and are more often heard than seen. The abundance has increased year on year reaching record numbers in 2008 with a maxima of three individuals. It is suspected that at least 2 pairs hold territories on the site, one in the woodland around Guy's Cliffe and the other in the thin ribbon of wet woodland running up stream of the Saxon Mill.



### Treecreeper (*Certhia familiaris*)

Most Treecreeper sightings are unusually when they are part of larger mobile Tit flocks. Commonly seen moving with Long Tailed Tits, breeding has been confirmed in the car park of the Saxon Mill. This species is particularly cryptic and secretive and is expected to frequent the site more than currently recorded.

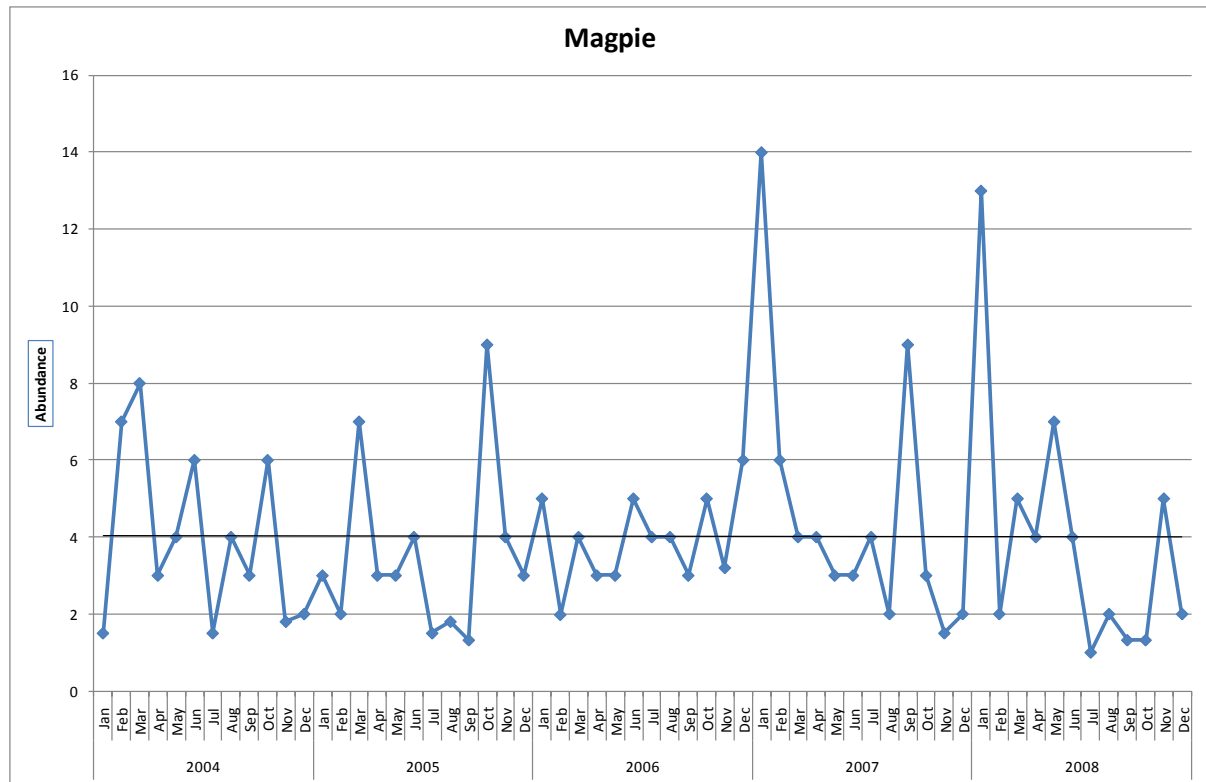
### Magpie (*Pica pica*)

Magpies are very common on the site and breeding has been confirmed with a juvenile recorded in 2004 and a nest located in 2006. In sub urban areas Magpie numbers seem to be on the increase and whilst numbers fluctuate across both the seasons and the study period the general trend is one of stability with no real terms changes in abundance. Having said





that peaks in abundance in the winters of 2007 and 2008 are much larger than at any other peak period, this could be the start of an increase that would follow into 2009 perhaps as a result of successful breeding and juveniles remaining in loose familial groups, only subsequent studies will reveal if this is held to be true.



### Jay (*Garrulus glandarius*)

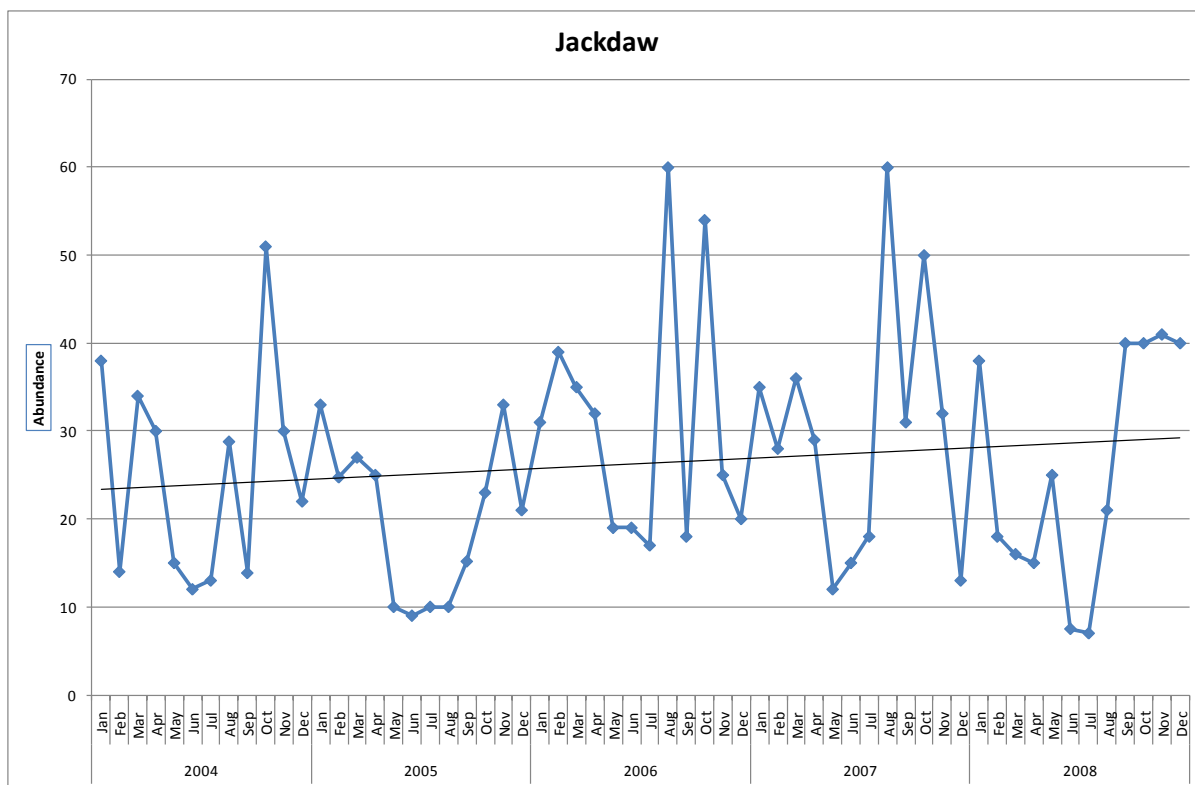
Single pair of Jay is present on the site and they were seen each year of the study period usually from late summer to mid winter. Numbers only every reach three when it is expected juveniles are sighted from that season before dispersal occurs.

### Jackdaw(*Corvus monedula*)

Jackdaws roost on the ruin but nest in a hollow dead alder. A pair has used this site every year from 2004 to 2008. Jackdaw abundance is on the increase. They are seen every week and in increasing numbers. The graph shows that few actually remain on the site in the breeding season returning to large flocks in the winter. This is due to the availability of nest sites in the area.





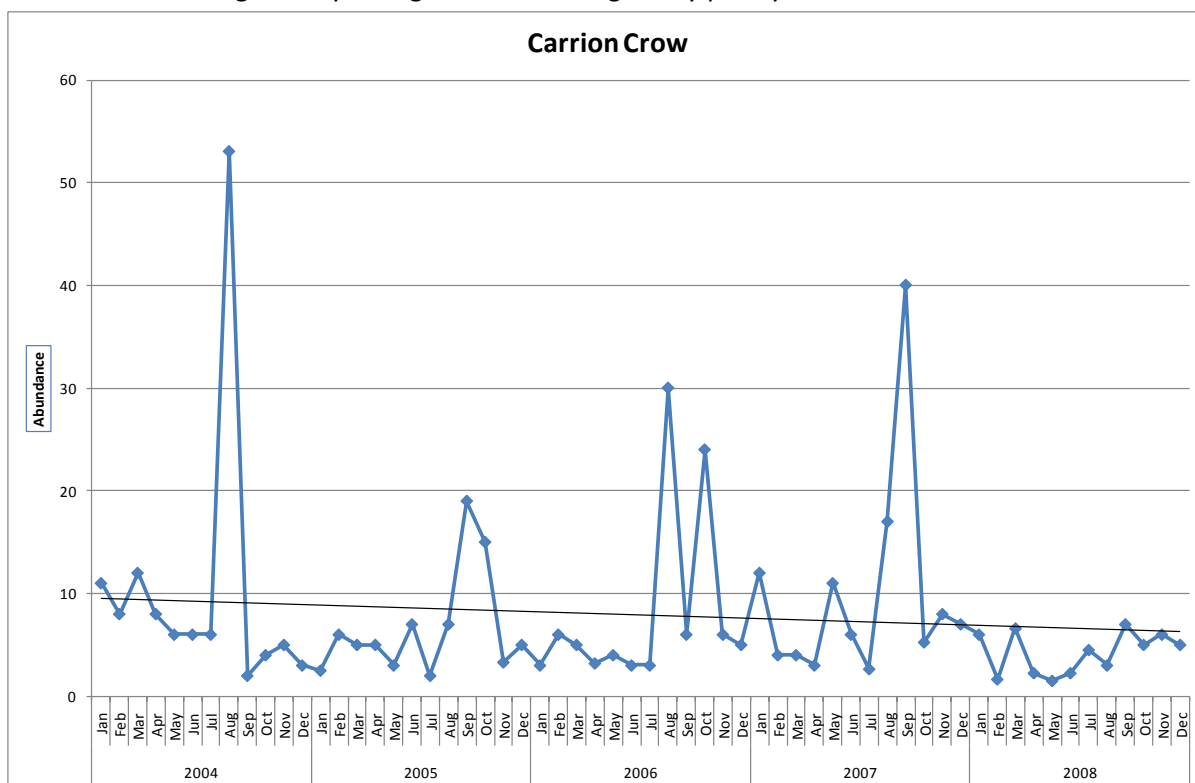


### Rook (*Corvus frugilegus*)

Rooks are an occasional visitor that feed on the main field. A large flock of 42 was recorded in December 2006 but were seen more regularly in smaller numbers in 2008.

### Carrion Crow (*Corvus corone*)

Crow abundance is generally falling with 2008 being a very poor year for them indeed.



They are still seen every week but no longer in large numbers. A single nest has been recorded on the Pylon at the far end of the site, this site has been used in numerous years but it is unknown if by the same pair.

### **Raven (*Corvus corax*)**

Ravens have been recorded on the site as an occasional passage visitor. An individual was seen in October and November of 2006 and was possibly a dispersing juvenile.

### **Starling (*Sturnus vulgaris*)**

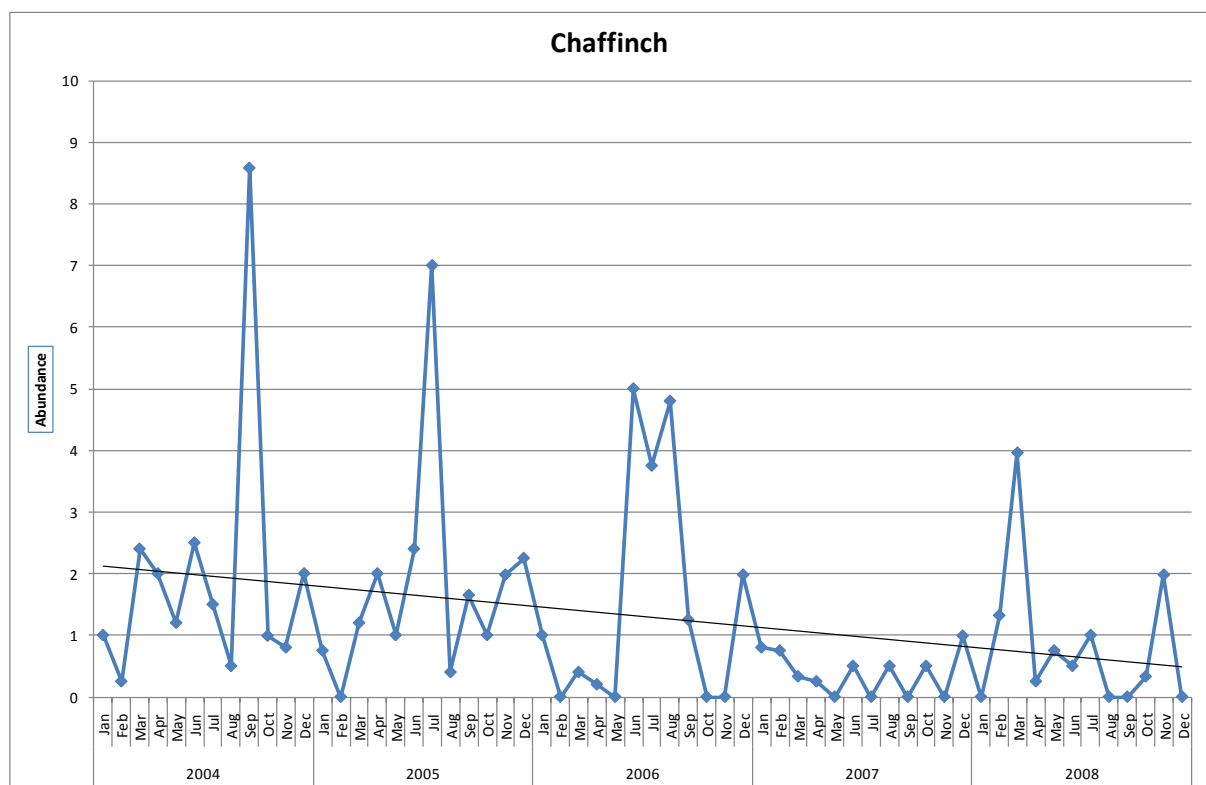
Starlings are recorded primarily only in the autumn. Starlings are found commonly in the nearby housing estates of Woodloes Park and Spinney Hill. Large flocks occur each year gathering on the power lines that run across the site and occasionally feeding on the main field.

### **House Sparrow (*Passer domesticus*)**

Despite the close proximity to the Spinney Hill housing estate House Sparrows have only been recorded in small numbers in 2004.

### **Chaffinch (*Fringilla coelebs*)**

Chaffinches are traditionally a very common bird but occur at the Saxon Mill in smaller numbers than one may expect. They are seen in low numbers throughout the year. Most are females and they tend to be seen at the far end of the site. In the winter they are often part of other finch flocks.

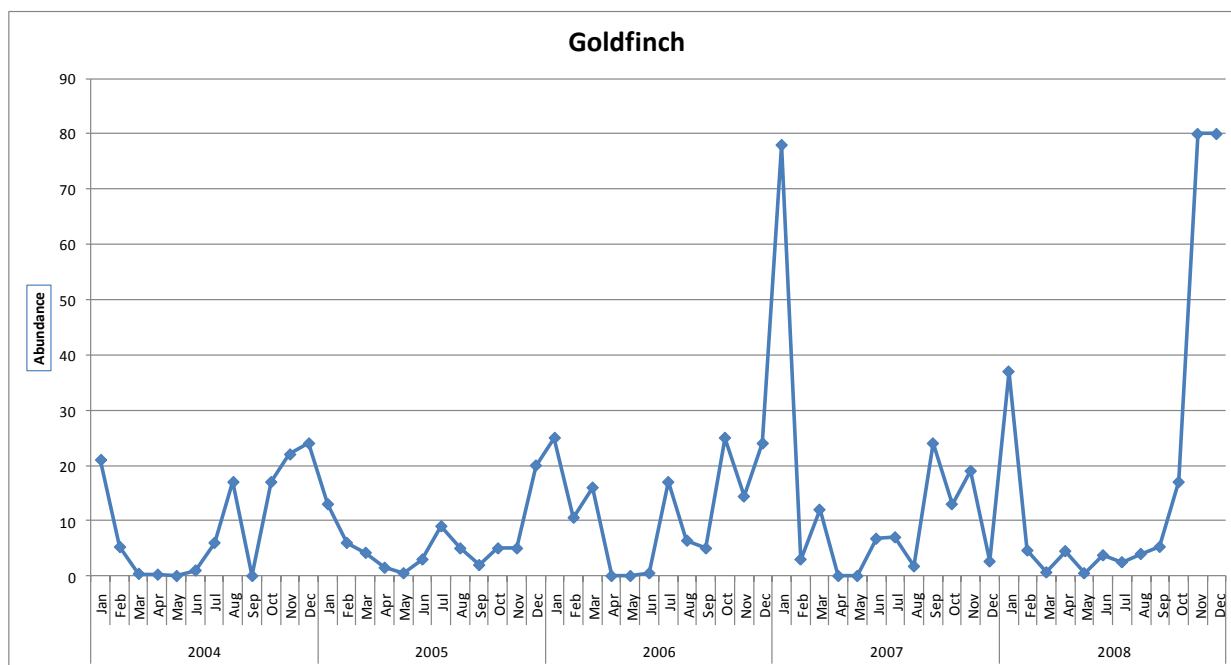


### **Linnet (*Carduelis cannabina*)**

The winter of 2004 was particularly colder than the others in the survey period and at the close of that winter in March a small flock of Linnet were recorded up river from the Saxon Mill.

## Goldfinch (*Carduelis carduelis*)

Goldfinches are by far the most abundant finch species on the site. They occur all year round with lower abundance values in the breeding season. In winter flock sizes can reach into the seventies as numbers are swelled by large numbers of juveniles recruited that season. The trend for goldfinch is of increasing abundance.



## Greenfinch (*Carduelis chloris*)

Greenfinches occur all year round in small numbers. They tend to prefer the large tree by the backwater and the trees on the opposite bank. Breeding has been confirmed on the site as juveniles have been recorded.

## Siskin (*Carduelis spinus*)

Siskins are a winter visitor. They were seen in numbers between eleven and twenty three in the winters of 2004, 2005/6 and in smaller numbers in 2008.

## Bullfinch (*Pyrrhula pyrrhula*)

Bullfinches have been recorded in 2004, 2005 and 2006 in small numbers. The birds were always males and seen in fruit trees beneath the main Guy's Cliffe House.

## Reed Bunting (*Emeriza schoeniclus*)

Despite the lack of extensive reed beds Reed Buntings have been recorded in 2005 and 2006. Both occasions were in spring and summer as opposed to winter when it is expected that buntings will move to farmland. It is expected therefore that pairs are breeding in the small areas of reed up river of the bridge before the river passes beneath the railway.

## Fish

The River Avon passes directly through the site and is the dominant feature. The river is particularly abundant with fish of several types. These are preyed upon by a variety of species and the abundance of these fish eating specialists such as Grey Heron, Cormorant and Kingfisher indicates that these fish species occur in adequate enough numbers to support these predators.

No in depth studies or recording of fish have been undertaken and only notes have been made regarding some observation or anecdotal references. Beneath the Saxon Mill balcony is a large stone slab under the water's surface. In the summer months several species congregate here where it is easy to photograph and identify them, from these observations, Roach, Perch and an unidentified bottom feeding species.

On one survey session a pair of pike was found discarded beside a fishing post. It is suspected these were caught by a fisherman who left on the bank rather than return them.

During the summer months in the slower parts of the river and where the river bends it is possible to see large fish coming up to feed it is likely these are Carp. There are also numerous shoals of small fish and fry with bullheads in the muddier shallow stretches.

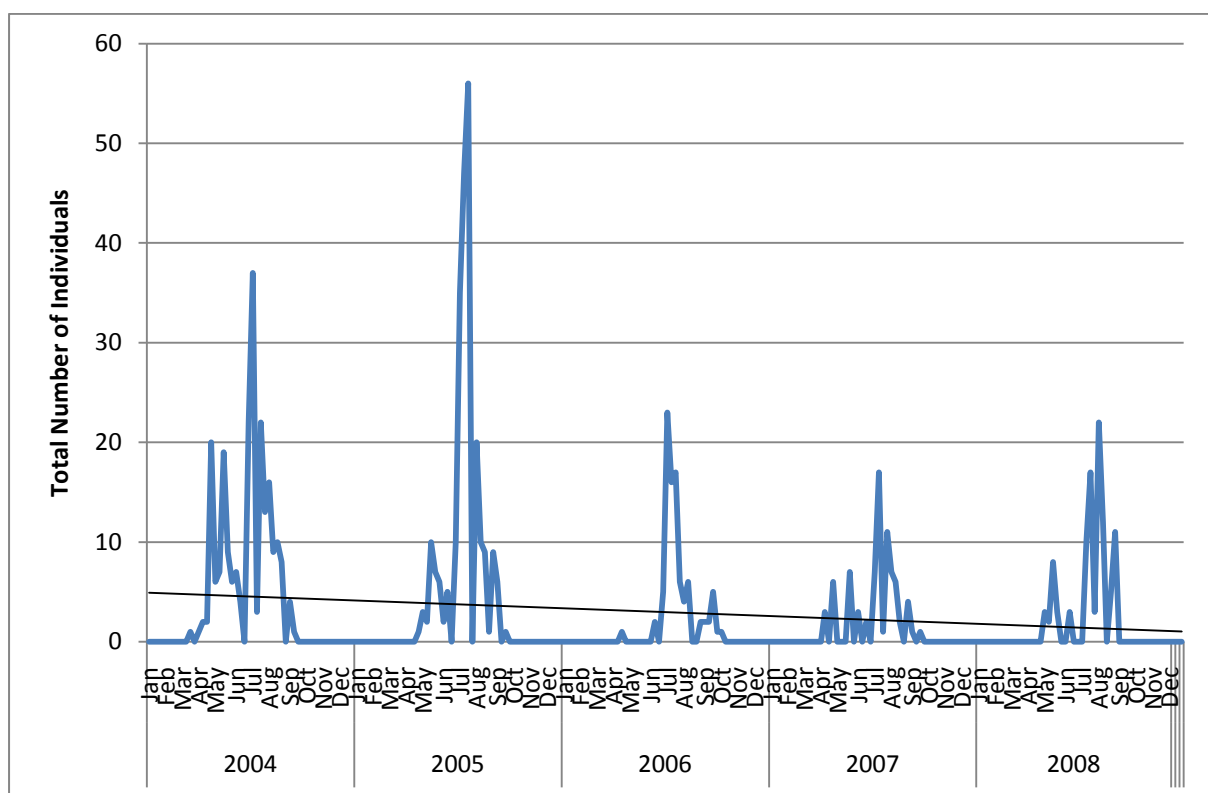
Discussions with local fisherman have revealed that Dace, Eels and Chub are also present.



## Butterflies

The graphs below illustrating the number of individuals indicates a steady decline in numbers over the study period. This decline is not correlated to temperature and is more likely a result of vegetation changes in the time period. In 2004 the main flood meadow was predominantly grassland with masses of buttercups. This vegetation slowly transformed in to shrub over the intervening years so that by 2008 the majority of the site was dominated by nettles and umbellifers.

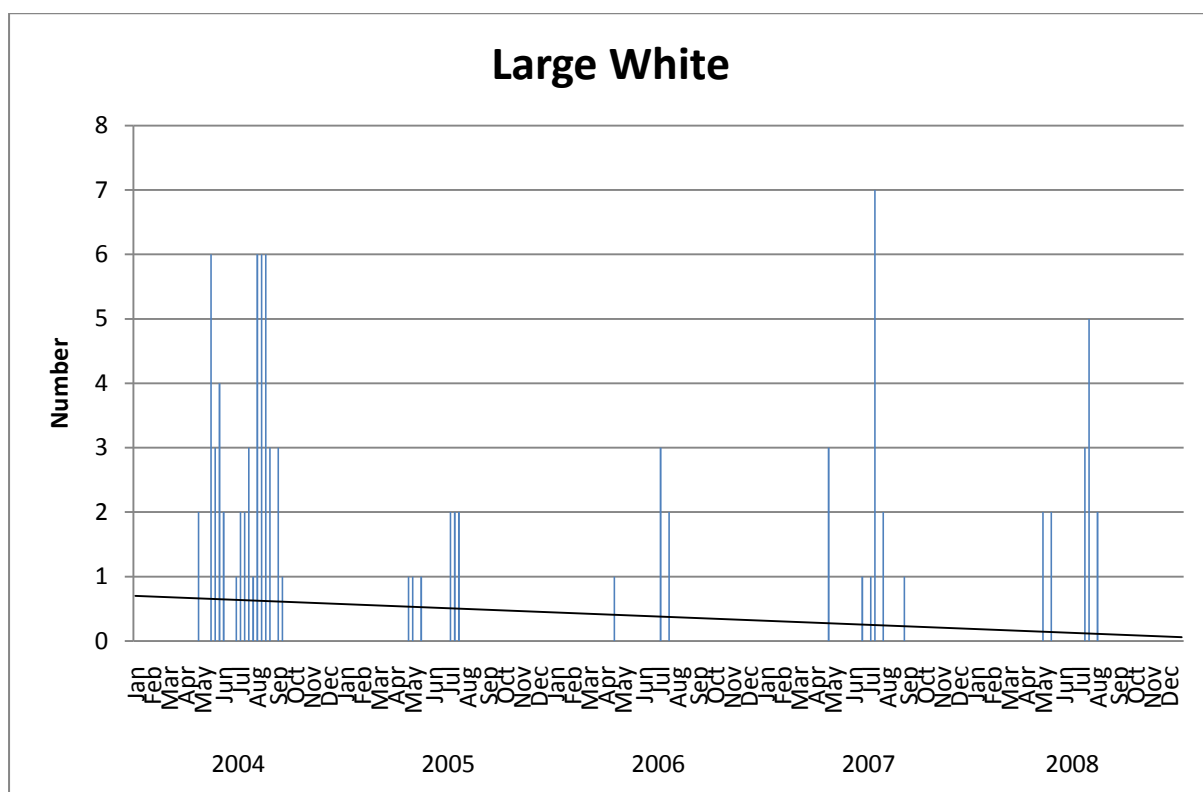
Given the increase in nettle growth it is therefore unusual that small tortoiseshell numbers continued to fall perhaps suggesting a lack of adult foodplants.



## Large White

Large Whites are a very common species in the meadow. They occur right across the spring and summer season and occur within the standard univoltine flight period. Despite being the commonest species the general trend is one of decline.

			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Large White	2003	158										4	5	2	1	1				14	21	24	12	11	17	7	16	4	6	4	6	3				
	2004	51								2		6	3	4	2			1	2	2	3	1	6	6	6	3		3	1							
	2005	123									1	2	4	2	4	2	1		1	12	20	33		11	9	8	1	6	6							
	2006	17															2		1	2		2	2			2	2	2	1	1						
	2007	34								1		5		1					6	5	6	4	2		3	1										
	2008	36											1		2							12	6		4	11										



## Small White

Less common than Large Whites they also occur well within their established flight period. The low recording of this species could be due to identification errors. Interestingly the flight period in 2006 was much later than any other year.

			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Small White	2003	18								1		3				1	2		1	4	2		2					2								
	2004	30								4	2	3	2	1	1	1					4	8	3	1												
	2005	15									1		3	3			2			1	5															
	2006	4																						1				3								
	2007	3													1	2																				
	2008	2													1												1									

## Green-veined White

Green-veined Whites were a relatively common site between 2003 and 2005 in their second flight period, with only usually a single individual in their first flight period. This change in abundance is undoubtedly linked to the changes in the habitat in this period. Nettle encroachment by 2006 had reached such a state that many of this species larval food plant were now severely restricted or absent.

			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Green Veined White	2003	11														1								1	3	1	3	1	1							
	2004	4														1						1			1	1										
	2005	4													1							2		1												
	2006	0																																		
	2007	0																																		
	2008	0																																		

## Orange Tip

Orange Tips tend to be among the first species seen each year. 2004 and 2005 were good years but like the Green-veined White numbers substantially fell from 2006 onwards.

			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Orange Tip	2003	2								1						1																				
	2004	21								3	4	3	7	2	2																					
	2005	5											2	1	1	1																				
	2006	0																																		
	2007	1																					1													
	2008	2												2																						

## Brimstone

Brimstones have been only a rare occurrence prior to 2005. They were always observed in their first flight period.

			March				April				May				June				July				August				September				October					
	Week No.		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Brimstone	2003	1									1																									
	2004	3									2	1																								
	2005	0																																		
	2006	0																																		
	2007	0																																		
	2008	0																																		

## Small Copper

The Small Copper occurred in only two years and on both occasions in their second of three flight periods.

			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Small Copper	2003	2																			1			1												
	2004	0																																		
	2005	4																					4													
	2006	0																																		
	2007	0																																		
	2008	0																																		

## Common Blue

Single individuals of the Common Blue species have been sighted in 2003 and 2004 only. It is unclear whether these species were laid and hatched there or whether they moved to the site due to winds.

			March				April				May				June				July				August				September				October									
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43				
Common Blue	2003	1											1																											
	2004	1											1																											
	2005	0																																						
	2006	0																																						
	2007	0																																						
	2008	0																																						

## Holly Blue

Of the blue Butterflies the Holly Blue is by far the more common. With sightings in 2004, 2005 and 2007. Like the other species there is a decline from 2006 and they only appeared in the species second flight period.

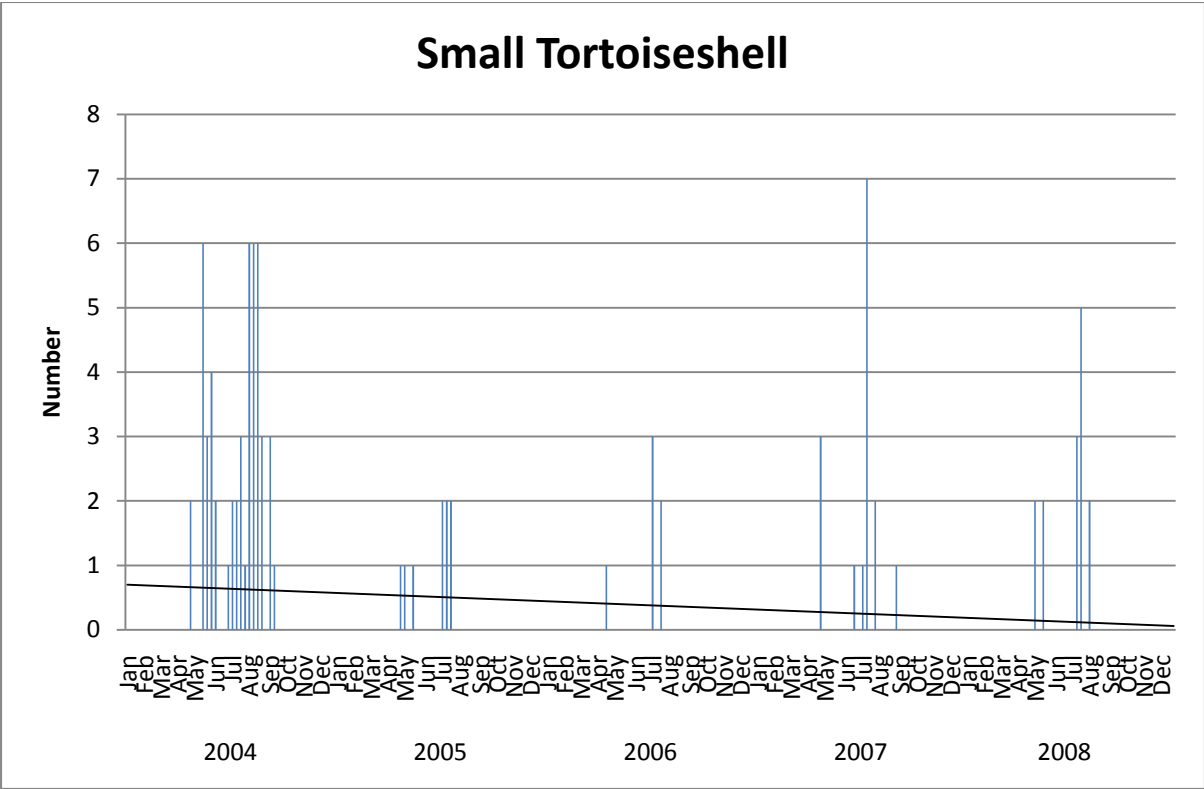
			March				April				May				June				July				August				September				October					
	Week	No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Holly Blue	2003	0																																		
	2004	6																																		
	2005	2																																		
	2006	0																																		
	2007	1																																		
	2008	0																																		

## Small Tortoiseshell

Small Tortoiseshells are usually the first butterflies seen each year. Despite their larval food plant being abundant on the site their numbers have been steadily decreasing and their emergence has got later each year. They occur in both their first and second flight period but almost never in their third.

			March				April				May				June				July				August				September				October								
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43				
Small Tortoiseshell	2003	55	1		3		2								10		5		3		4		1		4		8		5		4		1						
	2004	36					1		1		2		2		7		1		2		2				1		6		8		1		1		1				
	2005	9									1		1		1						2		2		2														
	2006	6									1										3		2																
	2007	15									3										1		1		7		2						1						
	2008	14									2		2												3		5		2										





### Peacock

Peacock butterflies are one of the species that can migrate to the site. They have occurred in low numbers on the site in both their flight periods with their most successful season being in 2008.

			March				April				May					June				July				August					September				October					
	Week No.		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
Peacock	2003	2																								1 1												
	2004	5											2				1	2																				
	2005	4																1					1	1										1				
	2006	0																																				
	2007	6											2		2		1									1												
	2008	12														1	2	3	2										1	3								

### Red Admiral

Red Admirals occur late into their flight season at the Saxon mill. Numbers are generally low and unusually in 2004 none at all were seen.

			March				April				May				June				July				August				September				October													
	Week No.		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43								
Red Admiral	2003	13																									2	2	1	2	1											2	2	1
	2004	0																																										
	2005	4																		1	1			1	1																			
	2006	8																		1		2	1			3											1							
	2007	1																					1																					
	2008	4																		1			1	1	1	1																		

## Painted Lady

Painted Ladies are a migratory species and this is reflected in their occasional record on the site.

		March				April				May				June				July				August				September				October																							
Week No.		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43																		
Painted Lady	2003	4																						1				1		1		1																					
	2004	1																						1																													
	2005	0																																																			
	2006	0																																																			
	2007	1																						1																													
	2008	0																																																			

## Comma

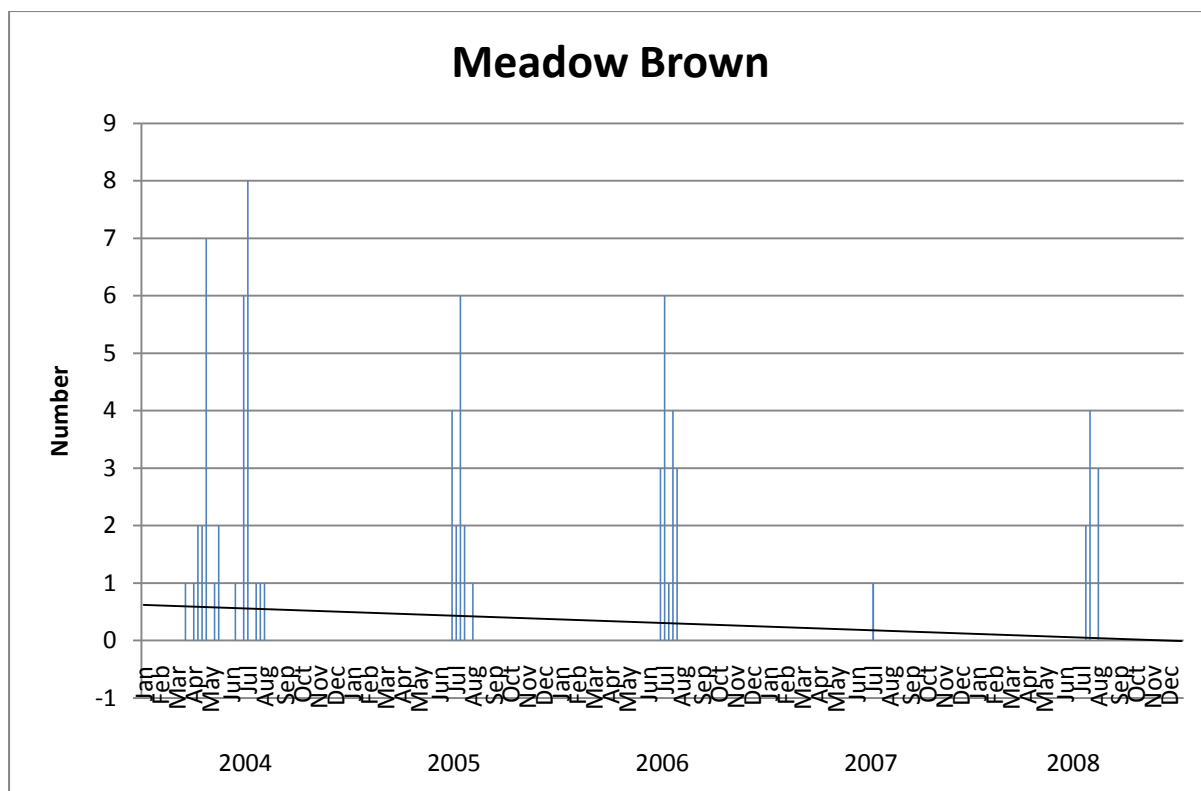
Commas are well represented around the nettle beds of the Mill. They are predominantly a mid-summer species occurring in their second flight period. Comma numbers as with other species of Nymphalidae are relatively stable. The larval food plant of the Comma are nettles and adults feed on *Salix* blossoms.

			March				April				May				June				July				August				September				October					
	Week No.		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Comma	2003	3															1				1															
	2004	4											1				1				1				1											
	2005	10											1				2				3				2											
	2006	5															2				2												1			
	2007	1											1																							
	2008	3																			1				1								1			

## Meadow Brown

Meadow Browns rely on grass species for larval feeding and as the nettles have continued to encroach on the site the quantity and quality of grassland has diminished and likewise numbers have steadily fallen year on year. Interestingly the Meadow Browns at the Saxon Mill emerge on average 2.5 weeks earlier than the documented flight period.

				March				April				May				June				July				August				September				October			
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Meadow Brown	2003	26																	4	3	8	9	2												
	2004	26													1	5	14		3	2	1														
	2005	15																	4	2	6	2	1												
	2006	17																	3	6	1	4	3												
	2007	1																	1																
	2008	9																		2	4		3												



## Ringlet

Ringlets are another grassland species and are also in decline. Their flight period is in line with the standard univoltine flight period.

		March				April				May				June				July				August				September				October					
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Ringlet	2003	23																		2	5	10	6												
	2004	26																	9	10	1	6													
	2005	26																	2	13	10	1													
	2006	27																		9	14	3		1											
	2007	5																		4	1														
	2008	12																			3	6	2	1											

## Gatekeeper

Gatekeepers are a much less common species than the Meadow Brown and are recorded generally within their flight period with peaks in late July and Early August. Numbers have declined since 2003 with complete absences in 2005 and 2008.

			March				April				May				June				July				August				September				October				
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Gatekeeper	2003	8																					6	2											
	2004	6																				3	1	1				1							
	2005	0																																	
	2006	2																				1	1												
	2007	4																				1	1	1		1									
	2008	0																																	

## Speckled Wood

With the mix of woodland along the riverside and over the river it is quite common to record Speckled Woods on the site. The lack of larval food-plants in the meadow suggests that they emerge in the woodland over the river. They tend to occur in their third flight period and are often recorded into late September.

				March				April				May				June				July				August				September				October			
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Speckled Wood	2003	10												1							1		1	1	4					2					
	2004	4																					2		2										
	2005	8																	1	1			3		1	2									
	2006	2																		1	1														
	2007	3																1					1						1						
	2008	3																					1	1	1										

## Small Skipper

Small Skippers were once a more common site on the meadow and it is possible that some of these records were of Essex Skipper that has been reported to be present on the site. However no formal identification has yet been made to confirm their presence. Small Skippers are highly dependent on grassland of a specific sward height and by 2004 the encroachment of the nettles into the meadow has made this species functionally extinct on this site.

			March				April				May				June				July				August				September				October				
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Small Skipper	2003	11																	2	2	4	1	2												
	2004	4													1				1		1	1													
	2005	0																																	
	2006	0																																	
	2007	1																					1												
	2008	0																																	

## Large Skipper

Large Skippers like the Small Skippers are grassland specific and numbers have steadily declined but markedly less so than the Small Skipper. The large flight period is on average 3 weeks earlier than the standard flight period with the emergence sometimes in early June, this is the same pattern as the Meadow Brown.

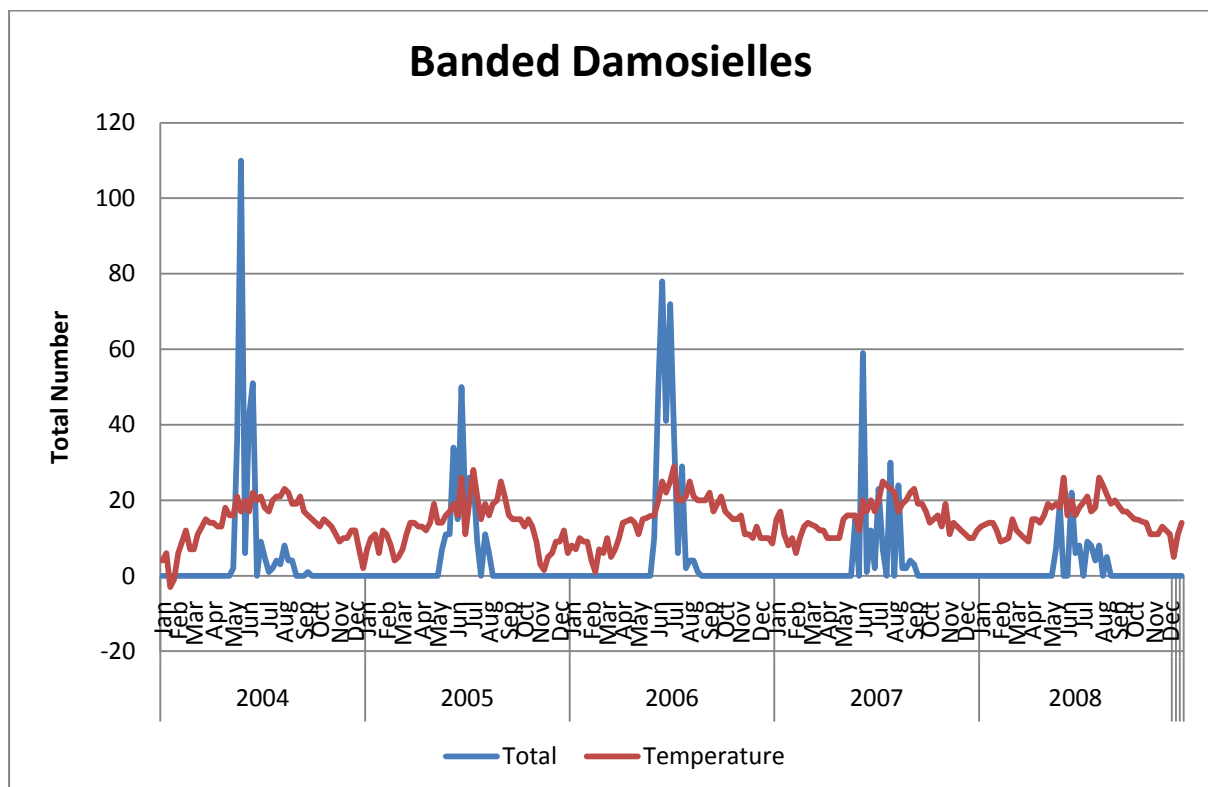
			March				April				May				June				July				August				September				October				
	Week No.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Large Skipper	2003	11																	2	8	1														
	2004	1																	1																
	2005	11														1		1	2	1	6														
	2006	5																2	2			1													
	2007	1																		1															
	2008	2														1					1														

## Damselflies

### Banded Demoiselle

Banded Demoiselles are a common spring and summer spectacle right along the river side. Large numbers of both sexes can occur in May/June time. In the five year study period the peaks of the damselfly emergence have become smaller with 2008 being a very poor year. The length of the flight period is essentially unchanged.

Banded Demoiselles are intolerant of extreme cold however the trend for declining populations is matched with a slight increase in temperature rather than a decrease. Larval development takes two years and so the eggs of those hatched in 2008 were laid in 2006. This period was the second largest population in the study period and so doesn't account for the decline either. The answer may lie in the degree of wet weather that might have affected emergence or the degree of flooding that could have dislodged eggs and washed them downriver.



### **Large Red Damselfly**

The Large Red Damselfly is a common early season visitor most often seen perching on the large flat leaves of the small stand of Japanese Knotweed on the scrub peninsula opposite Guy's Cliffe House. Like the Banded Demoiselle they have a two year lifecycle.



### **Azure Damselfly**

Azure Damselflies emerge at the end of May or very early June. They have been recorded in small numbers each year except for 2008. The most remarkable sighting was in June 2005 when 17 were recorded.

### **Common Blue Damselfly**

Common Blue Damselflies have only been accurately identified on the site on two occasions. 14 individuals in June 2007 and a single male in July 2008.

### **Blue-Tailed Damselfly**

Blue Tailed Damselflies are regularly recorded on the site. Like the Azure Damselflies they emerge at the end of May or early June. They are usually seen beside the path in the nettle beds.

## **Dragonflies**

### **Brown Hawker**

Brown Hawkers are the commonest Dragonflies found on the site. They emerge in the summer months and have a two to four year larval development cycle. They are most active in August where they hunt extensively over the meadow away from the riverside.

### **Southern Hawker**

Southern Hawkers have been seen in small numbers between 2004 and 2006 only. Southern Hawkers are usually associated with shallow still water this however is not present on the meadow or in the river. It is possible the individuals recorded come from the small pond at the top of the hill by Old Milverton Church.



### **Emperor Dragonfly**

Emperor Dragonflies have been seen every summer of the study period. They never occur in greater numbers than two and are usually seen hunting in the backwater.

### **Four-Spotted Chaser**

Four-spotted Chasers have been seen on three occasions on the site twice in 2005 and once in 2007. These have always been immature adults but observed right across their June to August flight period. Chasers are migratory but given that immature are recorded suggests that the individuals are spawned here.

### **Common Darter**

Common Darters are the latest species to emerge on the site. With their earliest emergence being on the 27<sup>th</sup> July in 2008. The Common Darter is cold adapted and can occur between mid-May and early November. At the Saxon Mill they are usually seen up until mid-September and are always the last species of Odonata to be recorded.