

Chippenham Fen NNR

Reserve Report

April 2012 - March 2013

**Michael Taylor
Reserve Manager**



Reserve Management

Staff

Management work was carried out by Reserve Manager Mike Taylor and Senior Reserve Manager Chris Hainsworth, assisted at times by a number of volunteers.

Grazing

Buffalo

The seven water buffalo grazed parts of the reserve as follows (grazing units named as on Map 2 Grazing areas) :

Pigeon	5 September – 26 October.
Baxter west	1 April – 11 April; 28 June – 15 August ; 26 October – 31 March.
East meadows	22 May – 28 June; 15 August – 5 September.
North meadows east	11 April – 22 May.

The 2012-13 winter was long with several cold snaps and periods with lying snow. Spring was late and March was the second coldest on record. As a result it was again necessary to supplementary feed the animals with barley straw from mid-January - as last year the animals were fed at Bullock Hill. Three bales per day were given, and in all 274 bales were given to the animals, compared with 206 in 2011-12 and 212 bales during the harsh winter of 2009-10. From early March the straw was supplemented with one 15kg bag of carrots per day (a total of around 50 bags). Feeding continued until 17 April, and on 18 April the buffalo were moved to the north meadows. The extra feeding this winter did seem to benefit the animals and they maintained reasonable condition despite the weather. However, following the very wet year in 2012 there was considerable poaching in the Baxter west enclosure, particularly in the Bullock Hill area but also elsewhere.

From late summer buffalo 54 (Mike) developed patches of un-pigmented skin. Research on the internet suggested that this might be a condition called vitiligo, which can result from a copper deficiency. After consultation with the vet, we hung high copper mineral licks in the enclosure and by March the condition had improved markedly.

As usual during the winter most of the buffalo became infested by lice to some degree, with Mike being the worst affected. He was treated with Flypor on 27 March.

The electric fence around the Baxter west grazing compartment was strimmed twice: in late June and October; the fence around Pigeon grazing compartment

was strimmed once, in mid-July . Fences were checked several times per week when buffalo were grazing, and any repairs made as necessary. Several fallen or dangerous leaning trees were removed along the fence-lines during the year.

The weekend buffalo checking rota, involving NE staff and volunteers, continued throughout the year. For most of the year checking was done only once per weekend, but each day in January-April when we were feeding the animals.

A temporary electric fence was erected along the river in compartment 1 in March 2012 in readiness for buffalo grazing in April. This was taken down when the buffalo were removed in May. The fence was put up again in late November as we were considering putting the buffalo into the north meadows for a short time after the cattle had been taken off – however, due to the very wet and cold conditions we did not do this, but left the fence up throughout the winter in readiness for the buffalo in April 2013.

A temporary electric fence was erected in compartment 10 in June to protect the main Cambridge milk-parsley area from buffalo grazing until flowering was over.

Cattle

Grazier Roger Beecroft brought 20 cattle on to compartment 1 on 10 July. They remained in this compartment until 27 September, when we moved them across the footpath into compartment 2. The cows were moved back into compartment 1 on 20 October. The animals were removed from the site gradually between 5 and 26 November. Unfortunately Roger was involved in a road accident near Red Lodge on 6 November, having just left the reserve with the second load of four animals. Luckily no animals or persons were hurt, but the trailer was badly damaged, delaying the removal of the remaining cows.

As usual, an electric fence was maintained along the eastern boundary of compartment 1, to separate Beecrofts cattle from any cattle that may be grazing in the neighbouring SSSI meadows.

Rides/ Ride-Cutting (Map 3)

All main rides were cut regularly from 15 May until early October, using the Gator and flail mower or BCS pedestrian mower. The very wet conditions throughout the summer made ride management difficult at times.

It was not possible to carry out 45 degree cuts using the tractor this year due to the wet conditions. Instead, the sides of certain rides (eg Main ride, Pigeon, Ash and the ride to East meadow) were cut back by strimmer between late August and late October, with the cut material raked and piled by hand.

The bridge at the main spring was showing signs of rot, so was dismantled on 10 October. Several encroaching trees had already been cleared in September, to allow a new bridge to be constructed. This was completed on 18 October.

Any windblown trees/branches were promptly cleared from rides.

Topping/Cut and gather (Map 4)

A rectangular block of *Phalaris* dominated vegetation in compartment 11, just south of Baxter east, was cut on 2 July. This was partially raked by Moulton Scout group on 3 July, with the raking subsequently completed by NNR staff and volunteers.

An area at the east end of compartment 2 was cut with the BCS on 2 August, then raked and gathered off by Fay Jones and Nowton Park volunteers on 7 August.

Several small blocks were cut in compartments 9 and 10 using the Ryetec or BCS between 18 September and 4 October – about the only period during the whole summer when conditions were dry enough for mechanical management in these compartments. Cut material was gathered off using the Ryetec or, mostly, raked and piled by hand.

A large rectangular block was cut in the ungrazed part of compartment 8 using the BCS on 18 September. This was gathered and piled using the tractor front loader on 19 September.

The glade near the shed, the ungrazed margins of Baxter East and 'Ian McLeans plot' in compartment 5 were cut/strimmed on 16 August. Cambridge Conservation Volunteers raked and piled on 19 August.

The main bogbean area, the chalk bank and a block between Malcolms Pond and Boundary ride were cut/strimmed on 30 August and raked and piled by CCV on 2 September.

Areas of *Phalaris* in compartment 11 were strimmed during the brushcutter course on 19-20 February. The material was raked and piled on 28 February.

Sedge Cutting (Map 4)

Marcus Setchell carried out the sedge cutting this year, in compartment 4, between 24 August and 22 October. In all 1400 bundles were cut – less than in previous years, although the bundles were larger than usual.

Woodland/Scrub

Willows and other encroaching tree growth along the ride on the chalk bank in compartment 4 were cut back on 27 September.

Phil Brown carried out his woodland breeding bird survey in compartments 3 and 12. To aid access between the two transect routes, a bridge was constructed over the ditch at the south-western end of compartment 3 on 8 March.

Water

Much of the country, and East Anglia in particular, was suffering a severe drought in early 2012 after two very dry years. Winter 2011-12 produced very little rainfall to recharge the aquifer and as a result water levels on the Fen were very low at the beginning of March 2012. In view of the drought and uncertainty over whether we would be able to use the Lodes Granta scheme, it was decided to raise water levels on the Fen as high as possible using the system of collar dams. This was done in mid March, and within days water levels in some of the dykes were higher than for some years. The level at the main spring was particularly high, reaching 12.66m on the gauge board in early April 2012. However, almost as soon as we had raised the water levels in the ditches the drought ended and by 3 May we removed most of the collars in an effort to dry the fen sufficiently for summer management works.

Bury Pumps, contractors for the EA, visited several times in April to repair/replace water meters on the three Lodes Granta inflow points. It was hoped to critically test the operation of the system during the summer of 2012, but as the summer was so wet this was not possible.

The wet summer also prevented us installing our dipwell data-loggers – hopefully this will be done in 2013.

Chris Hainsworth and John Taylor (NE) took GPS measurements of all collar dams on 10 September.

Tracks to our dipwells, and the EA dipwells on the north meadows and in compartment 8 were periodically strimmed for ease of access. The rain gauge enclosure in compartment 2 was strimmed and raked on 17 September.

Deer/Pest control

Deer control was carried out by Jim Riley, and during the year 21 Muntjac (9 males and 12 females) and 6 Roe (2 male and 4 female) were shot on the reserve.

The bird feeders that had been installed in front of the office in early spring 2012 proved very attractive to a variety of birds, but also to the local grey squirrels. CH began a programme of trapping and in all 18 squirrels were controlled during the year.

NNR Workbase

The office, lobby and w.c/shower were cleaned every two weeks by Mark Day on contract. The workshop and tractor area were swept/tidied by NE staff when time allowed.

Aztek Ltd carried out a fire alarm service on 7 February, also replacing the faulty device in the garage area. NE staff tested the fire alarms on a monthly basis. Fire extinguishers were serviced on 7 March. Cliff Dowling of Swift carried out a fire risk assessment at the workbase on 22 January – mostly all was satisfactory, but more Fire Action signs were needed – these have now been put up.

The septic tank was emptied by Redstripe on 20 and 25 February, taking away a total of 4300 gallons of waste. Willow Pumps serviced the septic tank pump on 23 July.

All portable electrical appliances were tested 8 February.

The two tractors, Gator, Wessex flail mower, Votex flail and BCS were serviced by Stephen Eyles on 28 February and 6 March. Stephen Eyles also fixed an oil leak on the BCS on 10 August.

Browns of Burwell delivered 600 litres of red diesel on 8 March.

An engineer from OKI came to install a new printer in the office on 23 January.

Two bird feeders were positioned in front of the workbase and kept filled throughout the year, one with peanuts and the other with sunflower hearts

In November the telephone line to the workbase developed a fault, making outgoing phone calls impossible and also affecting broadband connectivity. A BT engineer found two faults on the underground line on the edge of Park Farm concreted yard on 11 December – repair would necessitate digging up the line along a length of about 100m. Initially the vicinity of the faults was flooded, making excavation impossible. Subsequently, there was further delay caused by failure of BT to obtain the necessary permissions from the landowner. At the time of writing the issue still has not been resolved.

Health and safety

Access structure checks carried out quarterly. A tree safety assessment of zone 1 areas was carried out by SP Landscapes on 13 March.

Volunteers

We are extremely grateful to a large number of volunteers who contributed greatly to the management and surveying of the reserve this year. In all, a total of 148 man-days were worked by volunteers, and this can be broken down into 90 days of practical management and 58 days of survey work.

With thanks to:

Bruce and Gwen Martin, Phil Brown, Terry and Glen Riley, Nick Sibbett, Owen and Monica Marks.	Woodcock survey (3 days)
Cambridge Conservation Volunteers	Spent two days assisting with practical management works (13 days)
Phil Brown	Breeding bird survey (6 days)
Terry and Helen Moore	Amphibian and orchid surveys (7 Days)
David Overton, Kate Jackson Matt Ginn, Alex Nichols, Dale Hing, Natasha Rooney	Weekend buffalo checks (9 days)
Jim Hodgkinson, Natasha Rooney Phil Brown, Alastair Sibbett	Practical management (57 days)
Alan Leslie	Plant recording (6 days)
Mike Holdsworth et al	Bird ringing (5 days)

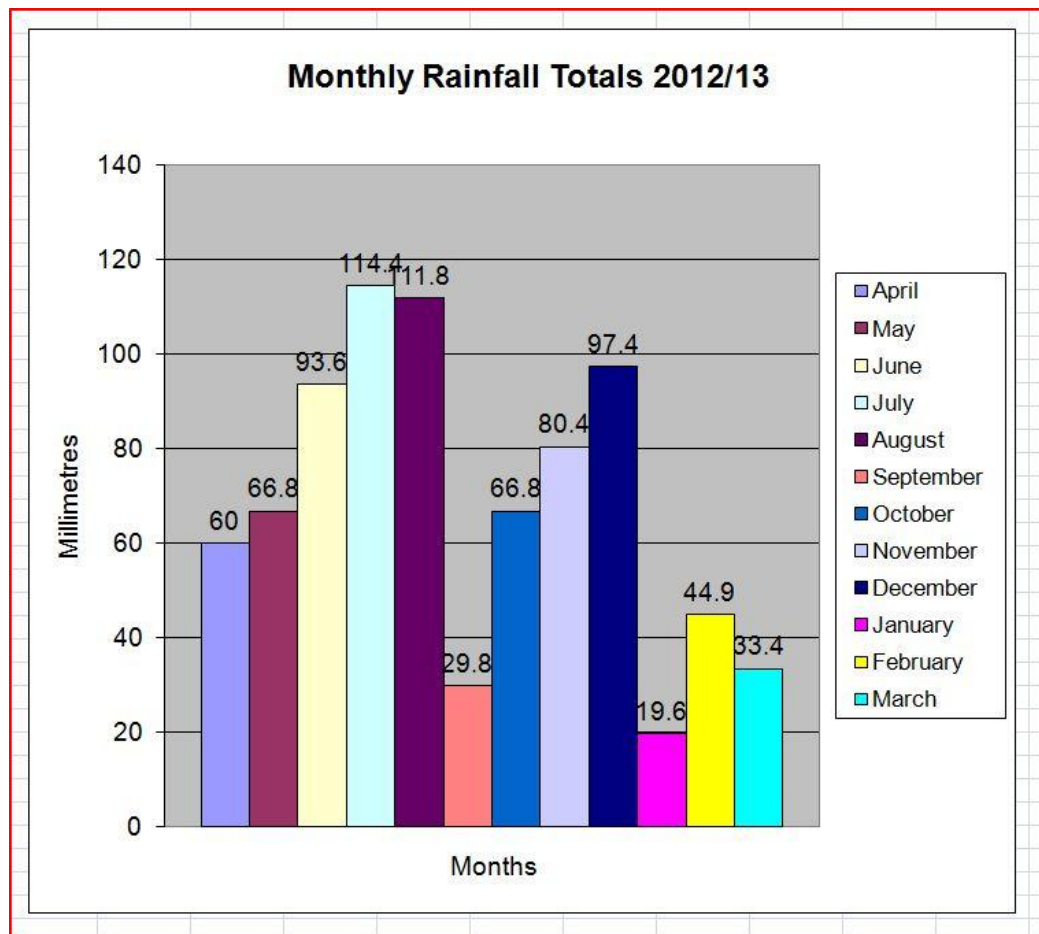
Moulton Scouts	Practical management (1 day)
Jim Hodgkinson, Natasha Rooney	Hydrological recording / Butterfly transect (6 days)
Louise Bacon, Vince Lea, Ian Barton, Kathleen Rosewarne, Jim Hodgkinson et al	Moth recording (25 days)
Fay Jones and Nowton Park Volunteers	Practical management (10 days)

Survey and Monitoring

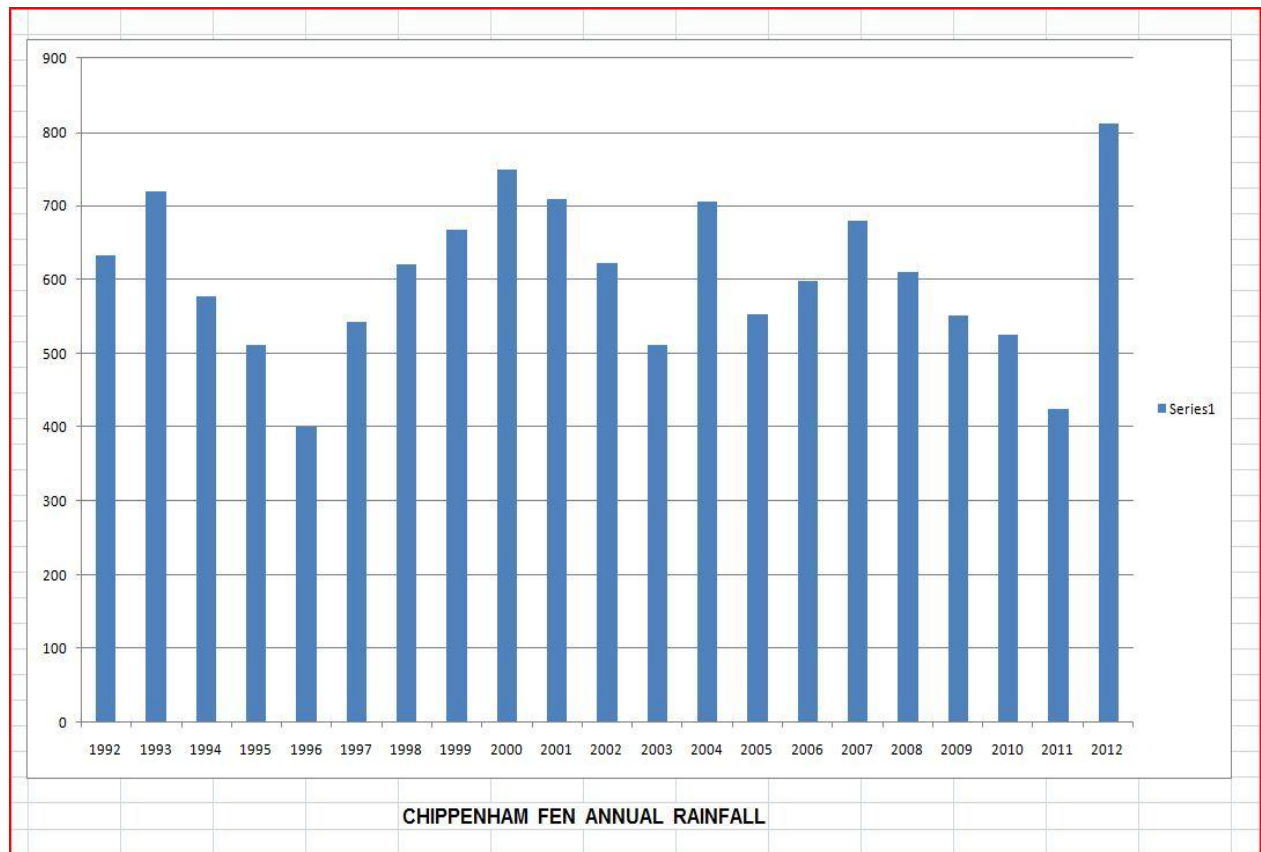
Water levels/Rainfall

Dipwell readings were taken every two weeks, and rainfall readings weekly. All data was entered onto the dipwell spreadsheet. A new electronic rain gauge was purchased and installed on 11 April 2012, but manual readings continued to be taken.

Staff from Environment Agency and the Met Office carried out a routine inspection of the rain gauge on 20 September.



The first three months of 2012 continued the theme of 2011, with below average rainfall, and by the end of March serious drought conditions had developed throughout East Anglia, and much of southern England. However from April onwards it rained, and continued to rain throughout the summer, to the extent that 2012 was the wettest year recorded at Chippenham since at least 1992, with annual rainfall nearly double that of 2011.



Birds

It is hoped that the results of the 10 year bird survey will be published soon.

Woodland CBC

Phil Brown started a modified woodland CBC in March 2012. A report of the first years results can be found at:

<..\Survey & Monitoring\Birds\Chippenham Bird survey - Brown>

Woodcock survey

The annual dusk survey was carried out on 23 May. A minimum of 7 roding woodcock were recorded in the air at any one time; also recorded on the evening were 5 grasshopper warblers, 1 barn owl, 2-3 tawny owls, hobby, marsh harrier and one calling quail.

Bird ringing

At a meeting at Kingfisher Bridge, Chris Hainsworth met local bird ringer Mike Holdsworth, who does a lot of ringing at Wicken Fen. He expressed an interest in ringing at Chippenham, and carried out three sessions in March and more in April

2013. Initially the mist nets were set up near the feeders at the workbase, but the intention is to trap more widely across the reserve later in the year.
The first trapping session produced the following catch:

Printed on: 04-Mar-13

	Full grown	Pulli	Retraps/ Recoveries	Total
Great Spotted Woodpecker	2	0	0	2
Robin	1	0	0	1
Blackbird	2	0	0	2
Long-tailed Tit	10	0	0	10
Marsh Tit	2	0	0	2
Coal Tit	14	0	0	14
Blue Tit	80	0	0	80
Great Tit	44	0	2	46
Nuthatch	2	0	0	2
Chaffinch	1	0	0	1
Total:	158	0	2	160

Full results of the initial ringing sessions can be found at:

<..\..\Survey & Monitoring\Birds\Chippenham bird ringing>

Amphibians

Dr Terry Moore and wife Helen carried out an amphibian survey of the Fen. Terry and Helen made several evening visits to the reserve in March and April 2012 and found several smooth newts and larger numbers of toads.

Their report and summary table can be found at :

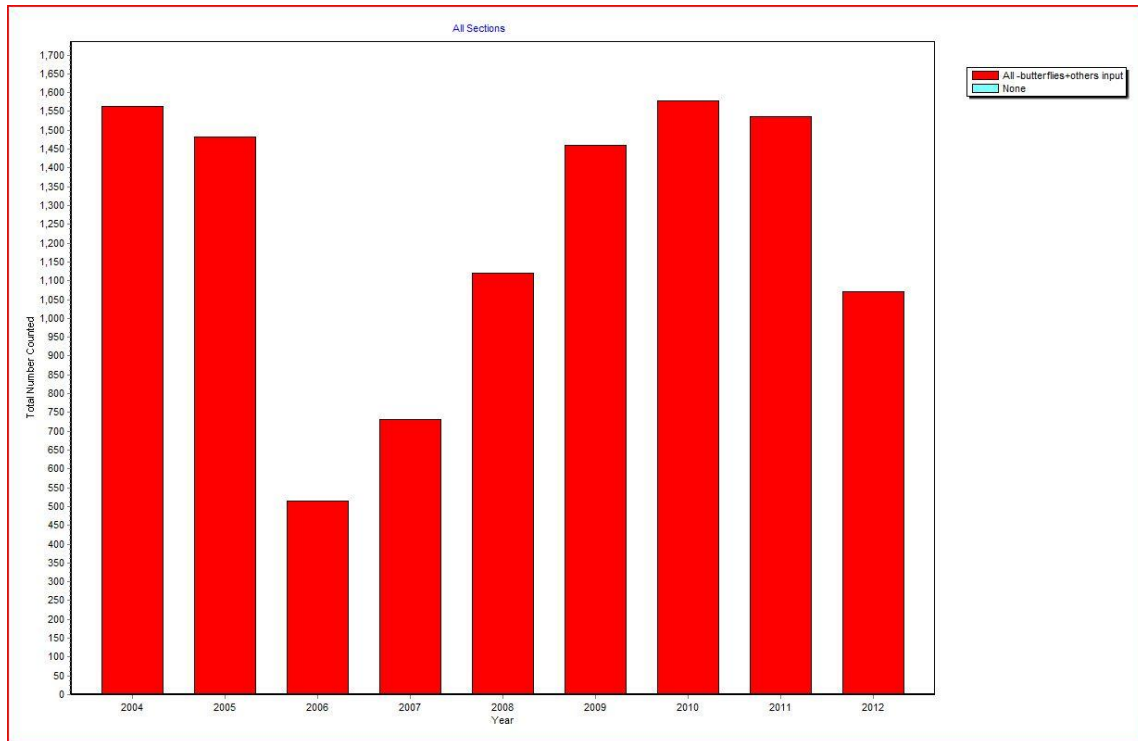
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Invertebrates

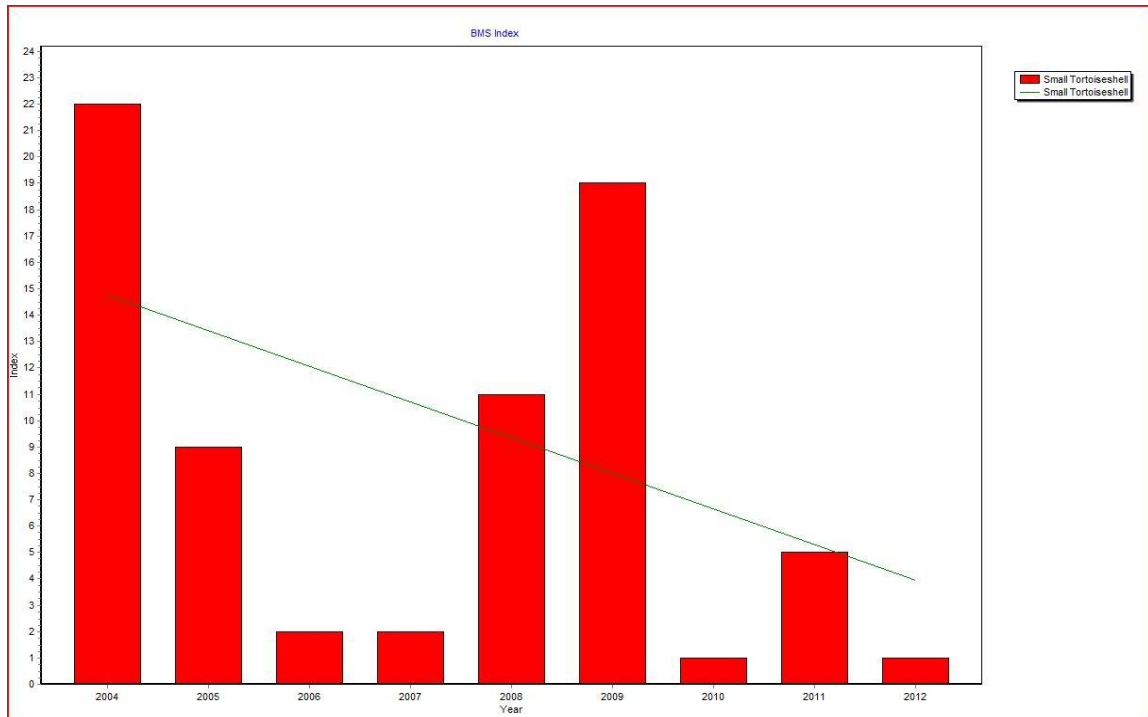
Butterflies

The butterfly transect was carried out weekly between April and September. Data was entered onto Transect Walker and sent to the National Butterfly Monitoring Scheme.

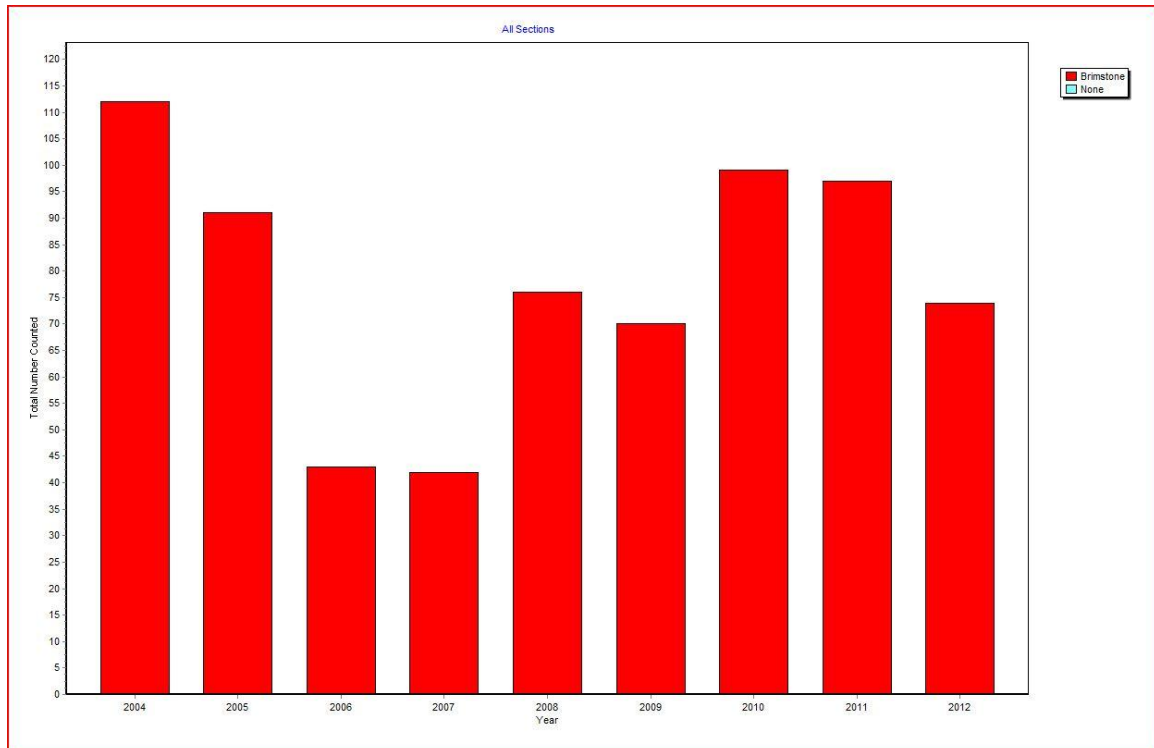
Despite the cool wet summer, 2012 was average in terms of overall butterfly numbers.



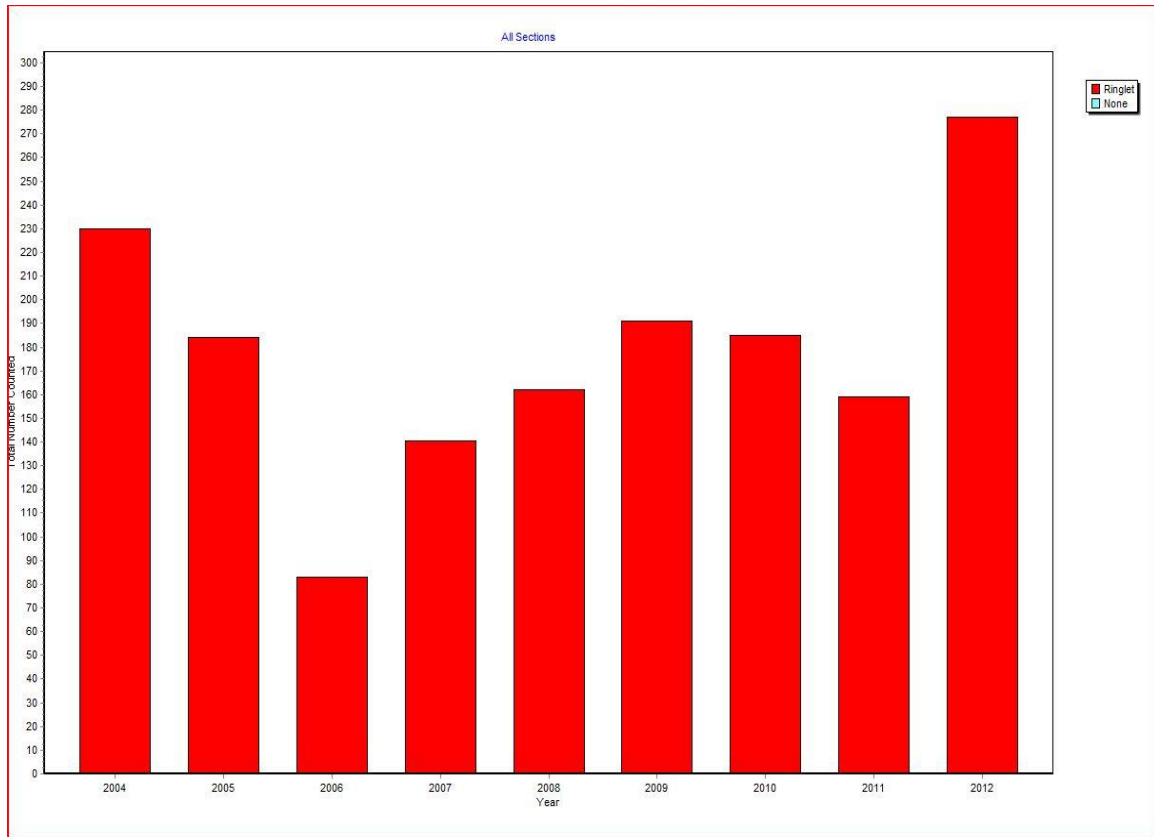
However, some species fared badly, and there were no brown argus, common blue or holly blues recorded on the transect this year. Small white, gatekeeper and meadow brown are all showing downward population trends over the last few years, although the meadow brown had a reasonable year in 2012. The small tortoiseshell has also shown a worrying downward trend in recent years:



Several species appear relatively stable, for example large and green-veined whites (although both had poor years in 2012), peacock and brimstone:

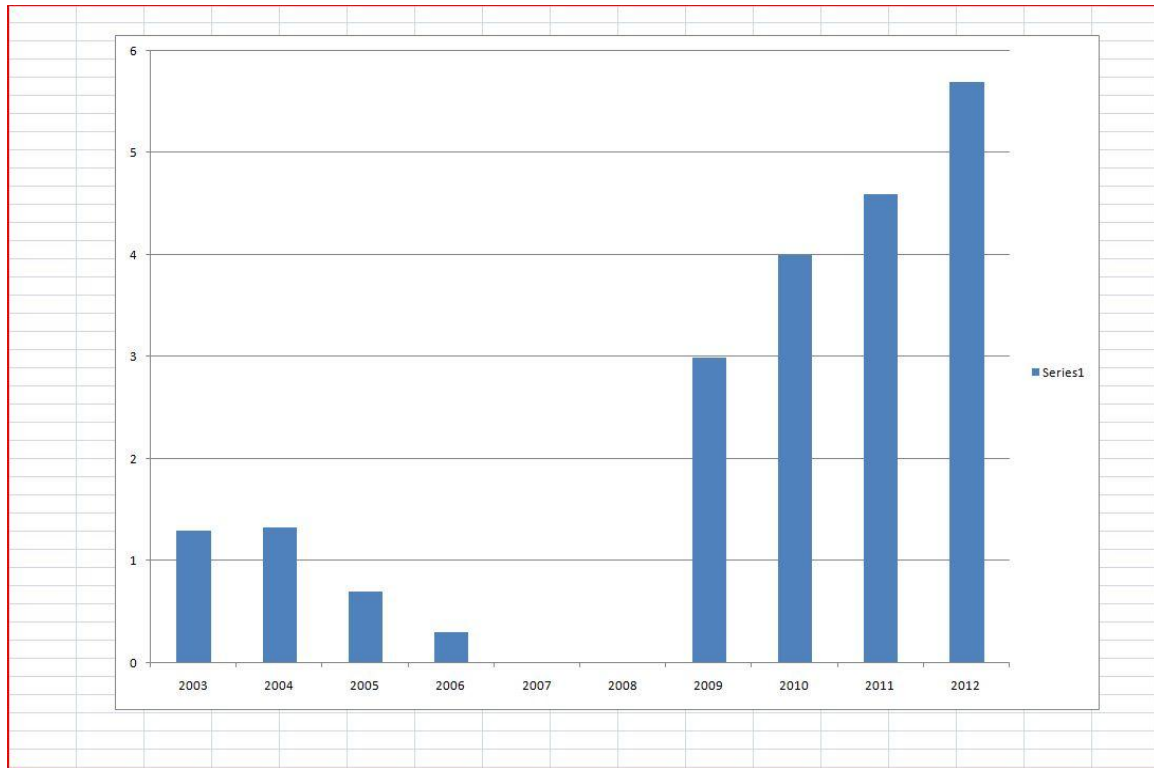


On the positive side, several species are showing an upward trend in numbers on the fen: small and large skippers, orange tip, red admiral and speckled wood (despite a poor year in 2012). Ringlet is also increasing, and in 2012 this species had its best year since 2004 at least:



Moths

The first silver barred moth appeared quite late this year, on 22 May on Baxter east. The silver barred transect was carried out weekly between mid May and mid July. It proved to be another record year for this species, with the highest annual index yet recorded and steady increases in numbers annually since 2009. 11 moths were recorded on the transect on 26 June.



Silver barred moth annual indices

The index in the above table is the total number of moths recorded divided by the number of transects walked during the season.

Louise Bacon co-ordinated a group of volunteers to carry out regular monthly light trapping from the beginning of October 2011. Trapping continued throughout 2012, usually one session per month (except December – February). The night of 25/26 July was particularly noteworthy, with ideal conditions at the height of the season producing over 1000 individuals of at least 125 macro-moth species. A spreadsheet of the results so far can be found at:

<..\Survey & Monitoring\Moths>

Terrestrial invertebrate monitoring

This year we bid for, and received, funding to repeat the work of Derek Lott in 2005, where he sampled certain representative invertebrate taxa inside and outside the buffalo grazing area in compartments 8 and 11, to compare the effects of grazing and cutting management regimes.

After a tender process Paul Lee was awarded the contract and he carried out fieldwork on several visits between 23 May and 20 August.

Below is the summary of Paul's work, copied from his report:

Summary

1. The following taxonomic groups and families were selected as potential target groups for a programme to monitor the effect of the introduction of buffalo grazing on invertebrates at Chippenham Fen NNR:
 - a. beetles (Coleoptera) in the families Carabidae and Staphylinidae,
 - b. two-winged flies (Diptera) in the families Dolichopodidae and Sciomyzidae and the Tipuloidea and larger Brachycera family groups
 - c. hoppers (Auchenorrhyncha)
 - d. spiders (Araneae).
2. The survey conducted in 2012 recorded 38 species of beetles, 33 species of two-winged flies and 24 species of hoppers and 40 species of spider within the target families. The species richness of beetles and flies recorded was significantly lower than during the baseline survey, in part due to the cold, wet summer. Two RDB and 16 nationally scarce species from the target families, and a further RDB and two nationally scarce species from other families were recorded.
3. A depression in the species richness of fly assemblages in cut areas when compared with grazed areas was detected ($U=6$, $p<0.05$). This may not equate to a decrease in conservation quality in cut areas if the grazed areas support few fen specialist species and more generalist species. Sample sizes were insufficient to investigate this further.
4. The use of a General Disturbance Index, based on species indicator scores generated from an external database of wetland beetles, detected a significant response of beetle assemblages to grazing ($U=12.5$, $p<0.05$) and characterised it as an increase in the proportion of species characteristic of higher levels of general disturbance. A Cutting Regime Index based on hoppers did not detect any response to grazing.
5. Analysis using ISIS indicates a possible decline in the importance, as measured by representation score, of the W3 permanent wet mire assemblage in grazed areas. The conservation value of the W3 assemblage in grazed areas also appeared to decline but an influx of non-specialist species into a grazed area could cause a decline in ISIS rarity score and the true situation can be verified only by continuing the monitoring programme.
6. The W314 reed fen and pool and the W313 moss and tussock fen assemblages appear to have either remained the same or declined in species richness between 2005 and 2012. However, this is true for both cut

- and grazed compartments. An indication of a slightly greater decline in the grazed compartments requires further monitoring.
7. Use of ISIS representation and rarity scores is recommended for monitoring the ecological impact of different management regimes and the conservation quality of four target groups, which should comprise beetles (Carabidae and Staphylinidae), hoppers (Auchenorrhyncha), two-winged flies (Dolichopodidae, Sciomyzidae, Tipuloidea and larger Brachycera) and spiders (Araneae).
 8. Use of GDI as an analytical tool is likely to be a useful adjunct to ISIS for monitoring the ecological impact of different management regimes on the beetle families Carabidae and Staphylinidae.

The full report and species lists can be found at:

<..\..\Survey & Monitoring\Inverts\Paul Lee - 2012 invert project>

Plants

Cambridge milk parsley

Chris Hainsworth and Mike Taylor carried out the annual Cambridge milk parsley census between 15 and 23 August. 4579 flowering plants were counted, probably the highest count since 1996. The number of non-flowering plants was very low however, although this was due in large part to the fact that these were not counted in the main areas due to the huge number of very small plants present. The milk parsley seems to survive well within the buffalo grazed compartments, indeed it is prolific on the higher, drier areas in compartment 10, although the plants are generally smaller than those in wetter, more lightly grazed or un-grazed areas.

A spreadsheet of the annual counts can be found at:

<..\..\Survey & Monitoring\Plants>

M13 monitoring

Sue Shaw came to the reserve to monitor quadrats in M13 areas on 6 July. Reports of previous years monitoring can be found at:

<..\..\Survey & Monitoring\Plants\Shaw M13 reports>

Botanical recording

Alan Leslie, the botanical recorder for Cambridgeshire, made numerous visits to the Fen through the year, compiling an up to date species list for the reserve. Alan summarises this years recording highlights as follows:

The refinding of the *Sparganium natans*, not only in abundance in one ditch, but in a second site as well (in that shaded ditch in compartment 12)

The extension of the distribution of *Salix myrsinifolia* along the wet woodland by the 'river' in compartment 3 and the detection of hybrids in several places in other compartments

The discovery of a plant that has been accepted as *Salix aurita x cinerea* (in compartment 2);, the *S. aurita* parent never having been found on the site and now very rare in Cambs. This hybrid has been tentatively claimed before but does not seem to have been confirmed

The discovery of *Rosa micrantha* in many more sites over the Fen (and a new site for *R. canina x R. micrantha*)

A large population of *Carex paniculata* in alder carr in compartment 12 and one plant along the 'river' in compartment 3. Not previously reported from the Fen and a rare plant in Cambs. *Carex disticha*, *remota*, *sylvatica* and *pendula* have all been added to the fen list.

The abundance of *Carex hostiana x C. lepidocarpa* in compartment 10

The discovery of *Viola hirta* in two places in compartment 11, a rather unlikely plant for the Fen

The discovery of *Crataegus laevigata x C. monogyna* and *Cotoneaster dielsianus* in woodland along the 'river' in compartment 4. Both presumed bird-sown. Pure *C. laevigata* has not been recorded from the Fen

In all 43 species have been added in 2012/2013 to the 1980 list produced by Musgrave. These, together with other records in recent years made by the Cambridge Flora Group and a trawl through other historical sources, have added in the region of 140 names to the list: many of the historical records have not been repeated recently.

Orchid survey

NNR volunteers Terry and Helen Moore spent a considerable amount of time surveying and studying orchids on the reserve. The following is an extract from their report:

Our orchid count for the spring and summer of 2012 was 1064 which includes the extra bee orchids reported by Mike Taylor and the extra twayblades found by Chris Hainsworth. This figure must be treated as a minimum number. The predominant species is the southern marsh orchid (*Dactylorhiza praeterissima*) including a few plants of the variant *junialis*

(leopard marsh orchid) as well as the ring-spotted hybrids. The variant *macrantha* may also be present (see Discussion). Nevertheless it has been clear that there are many crosses in Chippenham Fen of which the southern marsh orchid hybrids with the common spotted orchid and pugsley's marsh orchid are known to be distributed most commonly in mixed marsh orchid communities and are fully fertile, so crosses and crosses of crosses are likely to be common; a similar situation to that found at Beeston Regis in Norfolk. We found many marsh fragrant orchids (*Gymnadenia densiflora*) and common twayblades (*Neottia ovata*) and a good number of bee orchids (*Ophrys apifera*) and some but few, 'definite' pugsley's marsh orchids (*Dactylorhiza traunsteineri*) as well as early marsh orchids (*Dactylorhiza incarnata*) but sadly no variant *ochroleuca*. The early marsh orchid only rarely forms hybrids and any formed are sterile, but of these the most common in Britain and Ireland is the hybrid with the common spotted orchid. However the pugsley's marsh orchid crosses readily with the southern marsh orchid and is fully fertile. It has been found commonly in Norfolk, Suffolk and Cambridgeshire such that finding a pure form can be difficult (again reference Beeston Regis), a situation we think is present here. We found common spotted orchids (*Dactylorhiza fuchsii*) in numbers around the bog bean area with very few other types of orchid with which to cross but in other areas (mainly the sides of pathways) we did find orchids which seemed to qualify as hybrids with southern marsh orchids where there were large numbers of the latter.

Notable species counts from the survey, with additional records from Chris Hainsworth, Mike Taylor and Alan Leslie were: 29 bee orchids in compartment 1 and 10 on the higher ground in compartment 10, plus several in East meadow, on 22 June; 32+ common twayblades in East meadow in June; 3 marsh helleborine on Baxter East on 28 June and up to 20 in compartment 2 in early July; 11 fragrant orchids on Baxter East on 12 July.

Many orchids seemed to be eaten by unknown herbivores (probably deer), as noted by Terry and Helen:

We found much evidence that the marsh helleborines were eaten by a herbivore, almost certainly deer, just before they flowered so we may have badly underestimated the numbers of these plants. It is our recommendation that next year the marsh helleborines are protected by a vertical tunnels of chicken wire as they are discovered. The damage is greater with the marsh helleborines than with the marsh fragrant orchids although both seem to be targeted. There are, of course many more marsh fragrant orchids. The bee orchids were also grazed which may be caused by deer but on the drier areas rabbits are likely to be the principal suspects.

The full report of the 2012 orchid survey can be found at:

<..\Survey & Monitoring\Plants>

Bogbean

The bogbean in compartment 4 was first coming in to leaf on 22 April, with the first flowers noted on 8 May. For the first time, this year a count of flowering plants was made – Chris Hainsworth counted 56 flowers on 18 May.

Ash die-back

From an NE briefing document in October 2012:

Chalara dieback of ash trees (*Chalara fraxinea*) is a fungal disease which kills trees of the *Fraxinus* (ash) genus. The disease is expressed through a wide range of symptoms, the most conspicuous being necrotic lesions and cankers on the bark although these are less evident on saplings and young trees. The pathogen also causes symptoms on leaves of ash. Following infection, the death of older trees can take several years, while rapid mortality is frequently observed in young trees between 2 and 10 years old.

The disease has spread rapidly across Europe in recent years. In England it was initially identified in February 2012 in a tree nursery – where stock had been imported from the continent. Its presence in the wider environment in England is confirmed on 16 sites in Norfolk and Suffolk. These include stands of mature trees not obviously associated with any new planting, which may indicate that the disease has naturally crossed into Britain, carried on the wind, but this has not been confirmed. In October a small number of infected sites in east Kent were also discovered.

On 6 November Stephen Wahl of Forest Research checked the long term woodland monitoring plot at Chippenham for signs of *Chalara* infection – none were found. NE instructed all NNR managers with reserves having significant populations of ash to carry out a survey for the disease, following Forestry Commission guidelines. Chris Hainsworth and Mike Taylor carried out a survey at Chippenham on 7 November, and no obvious signs of infection were found. However, with the rapid onset of autumn, many trees were already losing their leaves making surveying difficult. Over the winter of 2012/13 we have learnt of several nature reserves in Suffolk and Cambridgeshire where the disease has been confirmed, and it seems almost inevitable that Chippenham will become infected. Indeed, recent information from FC states that the disease has been confirmed within one mile from Chippenham.

CEH/NE long term monitoring network

During 2012 Chippenham Fen was confirmed as one of the NNRs to be included in the CEH/NE long term monitoring network. This will involve the regular

collection of data on weather, air pollution, vegetation and butterfly and bird populations. The required butterfly transect is already carried out, but a new breeding bird survey (using BTO BBS methodology) has been initiated from April 2013. In addition a new weather station will be installed during 2013 and a series of around 50 permanent vegetation quadrats (installed by contractor Matthew Denney between late March and mid-May 2013) will be sampled for the first time in a week long recording blitz in late July 2013.

Miscellaneous species records

Plants

Several specimens of adders-tongue *Ophioglossum* were found: on the chalk bank in compartment 2 and on Baxter East by Terry and Helen Moore, and several in compartment 11 by Chris Hainsworth.

Water violet was in flower in the ditch along Pigeon Ride on 11 May.

Moths

60+ silver y moths were in compartment 2 on 3 September.

Butterflies

The first butterfly of 2012 and 2013 was brimstone, on 22 February 2012 and 5 March 2013. The latest recorded butterfly of 2012 was a red admiral on 2 November.

Odonata

The first large red damselfly emerged on 30 April, with the first broad bodied chaser on 18 May. A hairy dragonfly was seen on Ash Ride on 17 May. A possible red-eyed damselfly was noted by Jim Hodgkinson on Malcolms Pond on 14 June. The last dragonfly of the year was a common darter on 7 November.

Visitors/Meetings

The new Responsible Officer for the reserve, Nigel Russell , visited on 11 May.

Chris Hainsworth led a walk for 10 local people on 17 June. This walk resulted from an article in the local press about the drought and water buffalo.

Brian Levey visited the site on 25 June to search for beetles, particularly those associated with scabious. A species list was later received and filed electronically.

As part of the production of a woodland management plan for Chippenham Park Estate, the woodland on the NNR was assessed on 11 July.

Robin Sparrow of Fentons came on 14 August to fix a leak in the hydraulics of the Ryetec.

Peter Leverton and Dagmar Junghans, both NE NNR team leaders, visited on 16 August.

MT led guided walk for Capel Manor College on 13 September – 3 mini-buses with 30+ students and staff.

Staff from Kingfisher Bridge nature reserve came to visit on 17 October.

Scott Pedley of UEA was filmed on site by TV news regarding the recently published Fen Biodiversity Audit document on 9 November (done without our prior knowledge)

Caroline Yeo, on a short contract with NE, visited on 14 February and 11/12 March, to scope NNR records.

On 19-20 March the reserve hosted a two day brushcutter course. NNR volunteers Jim Hodgkinson and Natasha Rooney attended together with others from Kingfisher Bridge and Forest Heath DC.

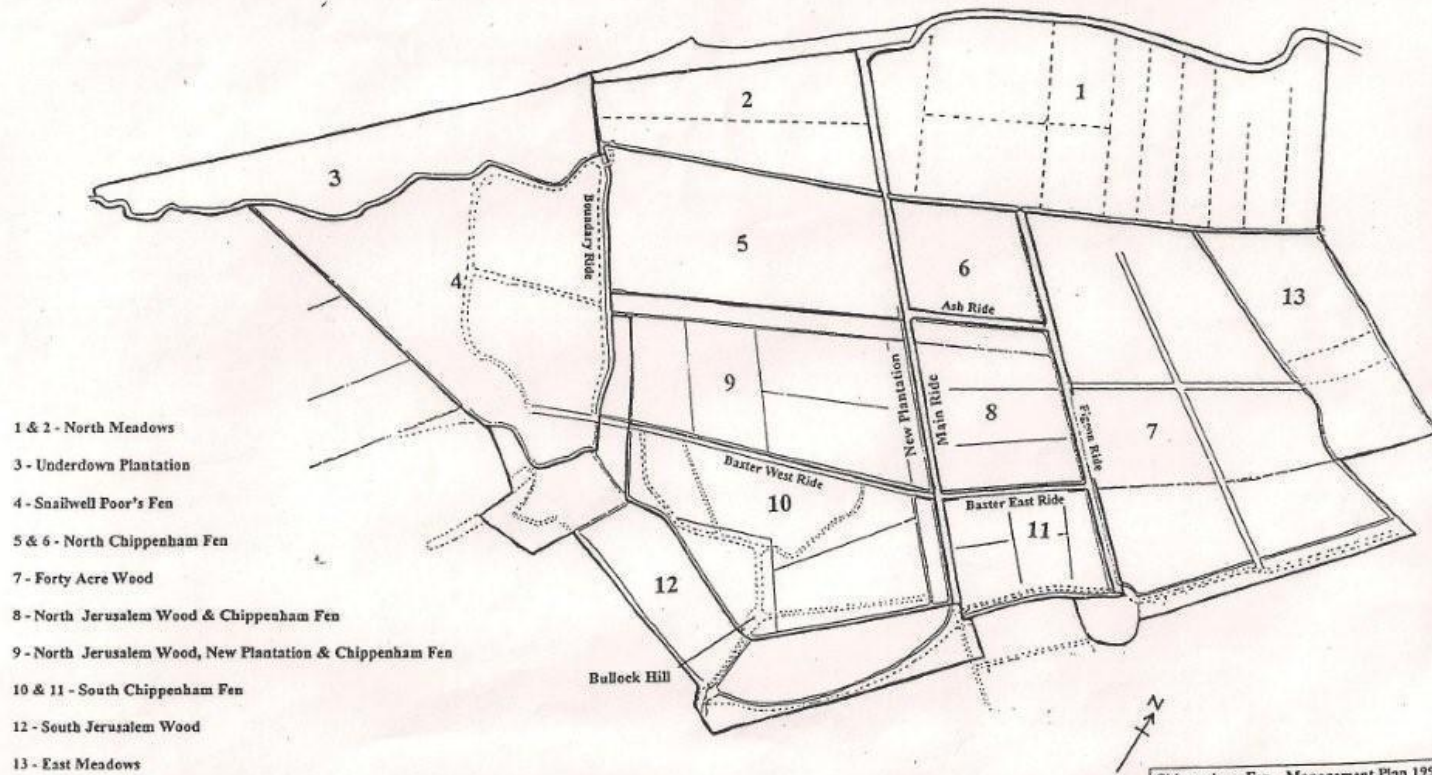
CH met beetle expert from Belgium on site on 23 March.

The NE performance and business management team, led by David Overton, held a team meeting at the workbase on 18 September. This included training in wildlife incident training provided by Peter Karner.

As part of their anniversary year celebrations several members of Cambridge Conservation Volunteers had a moth trapping session and camped overnight at the fen on 1 September, prior to their raking task the following day.

Michael Taylor
Reserve Manager
May 2013

MAP 1 COMPARTMENTS

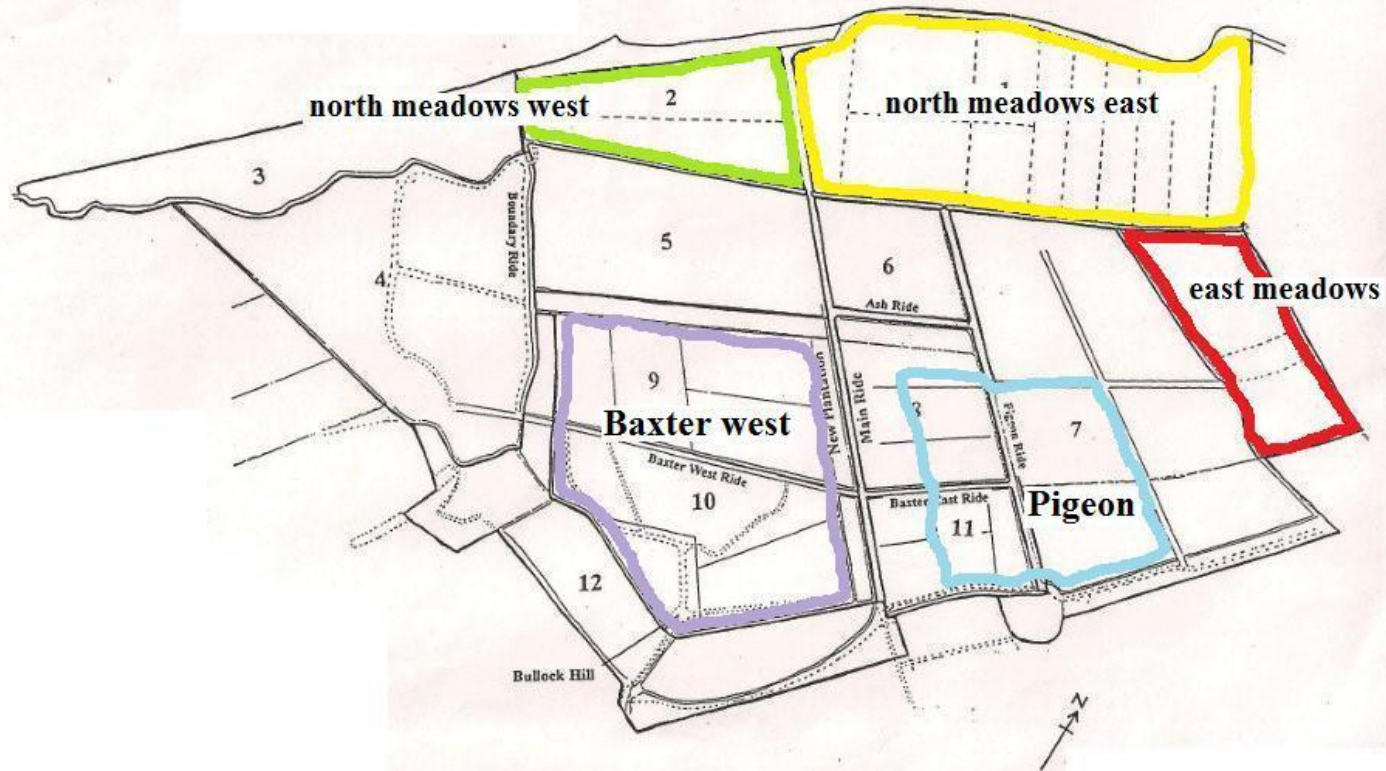


Chippenham Fen - Management Plan 1996

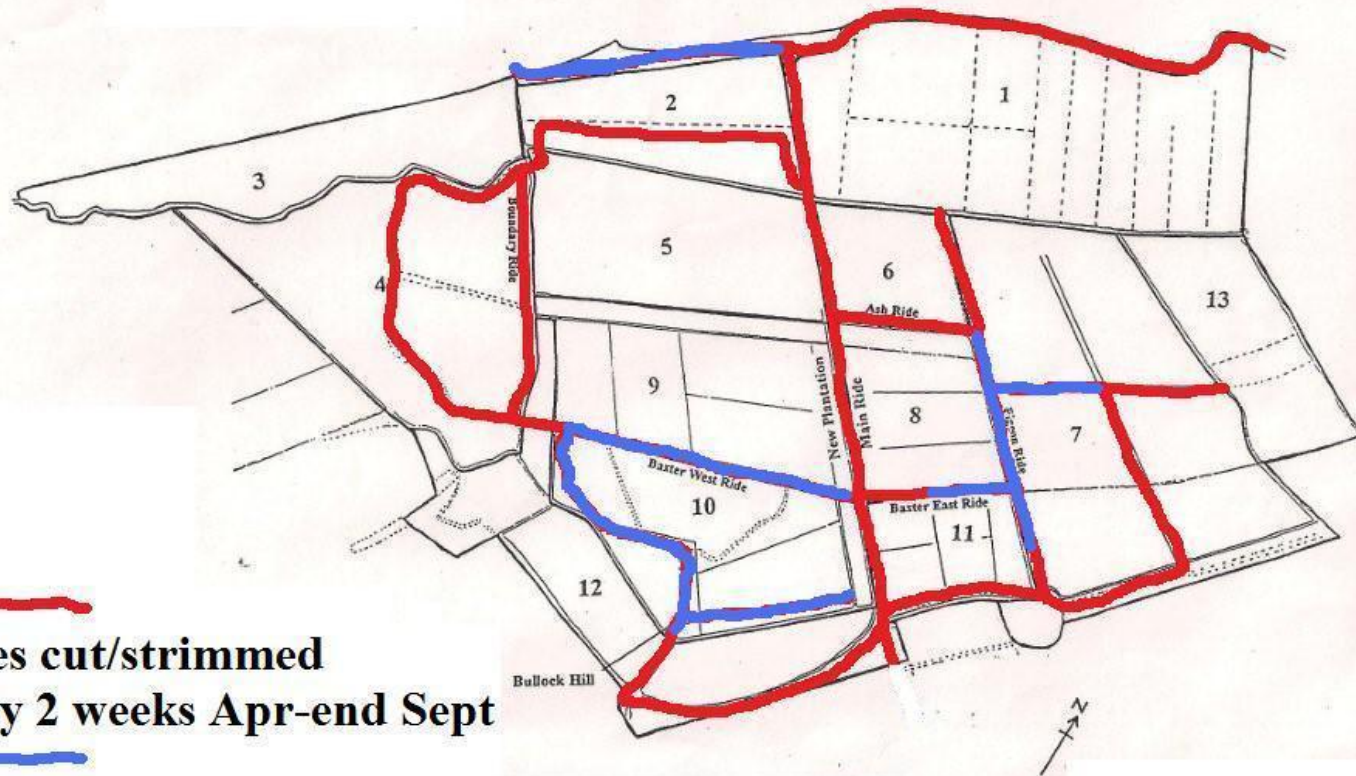
Figure 3 - Compartment Map

East Midlands Environmental Consultants
110 Smeinton Dale, Nottingham, NG3 7DN

MAP 2 GRAZING AREAS



MAP 3 RIDE CUTTING



**Rides cut/strimmed
every 2 weeks Apr-end Sept**

**Rides cut/strimmed less frequently; a few
times during season as necessary**




Chippenham Management areas 2012


Legend


NNR_management_2012

<all other values>

Management

 Cut & gathered 2012

 Rytec 2012

 Sedge cutter 2012

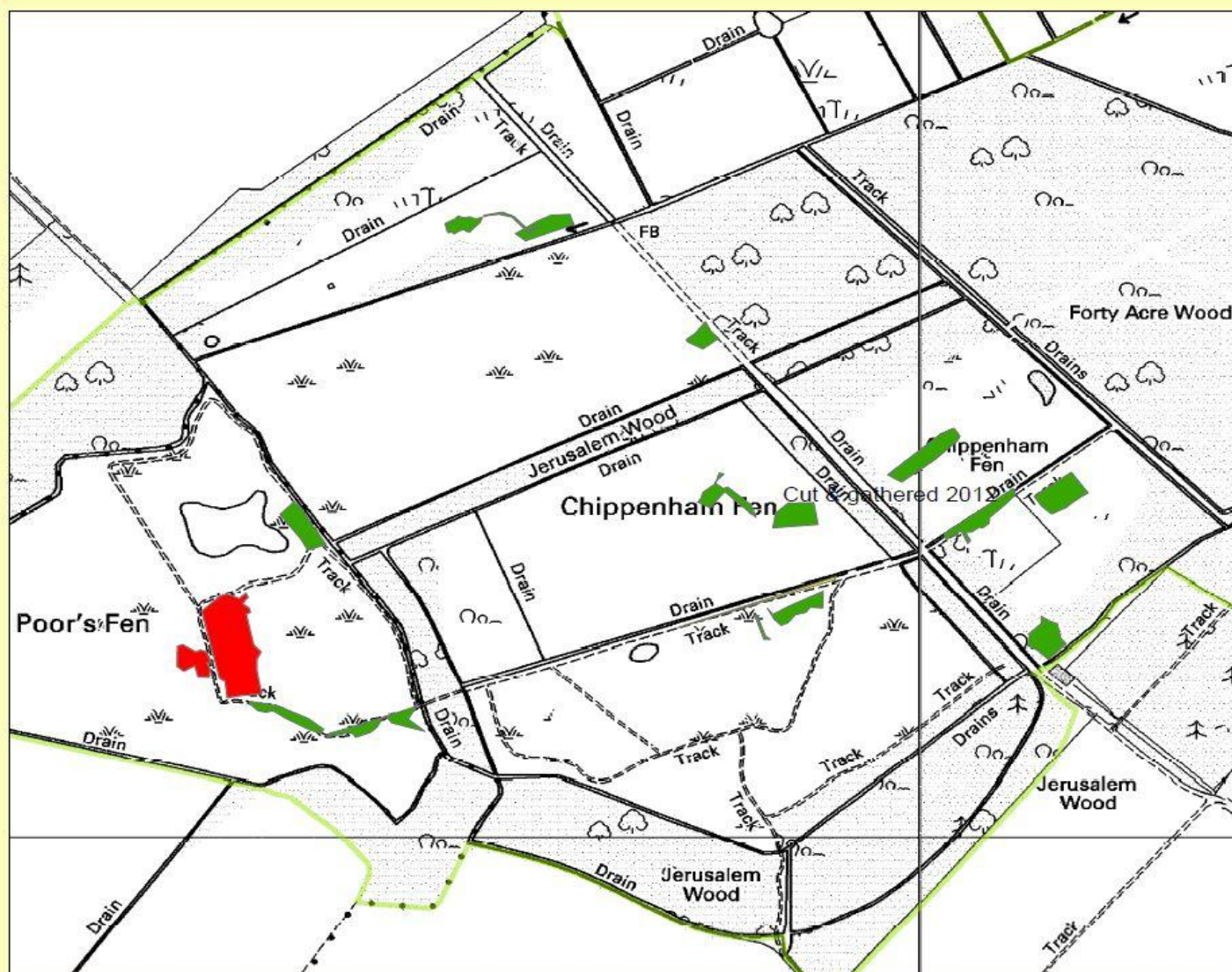
Scale (at A4): 1:5,320

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2011. Ordnance Survey 100022021.

Map produced on DD/MM/2011 by

GI and Analysis Services Team,
Natural England

Map Reference:



Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	Total	Index	Weak Index
Mean Temp	13.00	13.00		13.00	16.00	17.00		21.00	20.00		15.00	20.00	19.00	19.00	18.00	17.00	22.00	17.00	20.00	20.00	22.00	20.00	18.00		16.00	15.00			
Mean Sun	69.00	94.00		50.00	82.00	69.00		100.00	100.00		100.00	56.00	75.00	18.00	75.00	81.00	100.00	40.00	88.00	15.00	94.00	50.00	100.00		100.00	69.00			
Small/Essex Skipper															6	14	15	5	9	5	2						56	56	56
Large Skipper												1	3	17	18	2	13	5	2	1							62	62	62
Clouded Yellow																											0	0	0
Brimstone				1	7	2	4	2	4	5	3	2	3				1		20	8	6	2	7	7	2		70	86	79
Large White															1	1											2	2	2
Small White						1	1		1	1					1	5	3		3		3	3			1		21	23	23
Green-veined White		1	1		2	4	6	2	2	1						8	18	13	9	10	3	5	2	1	2		81	90	89
Orange-tip				1	3	4	5	2																			10	15	15
Green Hairstreak						1																					1	-1	1
White-letter Hairstreak																											0	0	0
Small Copper																					1						1	1	1
Brown Argus																											0	0	0
Common Blue																											0	0	0
Holly Blue																											0	0	0
Red Admiral													2	1	1			1	2	5	8	9	4	3	3	4	40	43	41
Painted Lady																											0	0	0
Small Tortoiseshell																									1		1	1	1
Peacock	2	2	4	10	4	10	11	5	3	1			1						7	17	9	1	3	2			74	92	81
Comma					1	1	1											4		1	1				1	2	11	12	11
Speckled Wood				1		1	1		1	2	3	3	1	3	3					1	2	7	6	5	4	1	37	45	40
Gatekeeper																2	24	9	5	4	1						45	45	45
Meadow Brown										1			1	25	67	40	58	28	15	17	4	6	4	1			263	267	263
Ringlet												2	48	86	42	59	28	8	4								277	277	277
Small Heath																											0	0	0
Total	2	3	5	13	17	24	29	11	11	10	7	6	12	70	140	139	152	138	97	72	56	32	28	22	15	7	1052	1117	1087

Chippenham Fen Butterfly Transect Indices by week 2012

