

Chippenham Fen NNR

Reserve Report

April 2013 - March 2014

**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. Chris sustained a broken leg on 11 August, and during his time in recovery Paul Lacey (formerly Breckland NNRs field staff, but office based since 2000) was allowed by his team to help out on the reserves for two days per week. This arrangement continued until the end of the financial year, when Paul took the opportunity to transfer full-time to NNR work during Natural England re-structuring. In all, Paul spent around 42 days working with us on the Breckland NNRs and his contribution was invaluable.

Grazing

Buffalo

The seven (later sadly six –see below) water buffalo grazed parts of the reserve as follows (grazing units named as on Map 2 Grazing areas) :

| | |
|--------------------|--|
| Pigeon | 28 – 30 May; 23 August – 26 September; 11 – 23 October. |
| Baxter west | 1 April – 18 April; 8 – 23 August; 26 September – 11 October; 31 October – 31 March. |
| East meadows | 30 May – 8 August; 23 – 31 October. |
| North meadows east | 18 April – 28 May. |

On 20 September we took routine dung samples, to be tested for worms and fluke. During this process it was observed that Koo (no: 131 and the herd leader) did not seem quite right – he produced only a small quantity of hard pellets, covered in mucus and traces of blood. We kept him under observation and as he was not behaving normally the vet was called, and gave Koo an antibiotic injection in the field. For the next few days we continued to monitor his condition – sometimes he seemed reasonably normal, at other times he was obviously not right. The most worrying aspect was that he grazed only fitfully. Finally, on 27 September we called the vet again. David Scott, head of the Isle veterinary practice, who has known our buffalo since their arrival in 2001, attended and tranquilised Koo in the field before giving him a full examination, including an ultrasound scan. It revealed that Koo had an intassusception of the small intestine into the spiral colon forming a blockage. As Koo was not showing any sign of pain or distress, David recommended we monitor his condition. In about 25% of cases the gut re-canalises and the animal recovers – surgery would not

be possible. Sadly, the next day NNR volunteer Dale Hing rang MT to say that one of the buffalo was behaving oddly – MT rang CH, who was due to check the animals that weekend and he went straight to the reserve to find Koo dead. CH and PL removed Koo from the grazing compartment, for collection by Anglian fallen stock on 30 September.

In contrast to recent winters, 2013-14 remained relatively mild throughout, but was very stormy as a succession of deep low pressure systems swept across the country between December and February. Despite the mild weather it was again necessary to supplementary feed the animals with barley straw from 20 January until early April - as last year the animals were fed at Bullock Hill. Two bales per day were given, and in all 150 bales were given to the animals, compared with 274 in 2012-13, 206 in 2011-12 and 212 bales during the harsh winter of 2009-10. The straw was supplemented with one 15kg bag of carrots per day (a total of around 75 bags). A new gate was inserted into the perimeter fence near the main spring on 19 November to allow easier provisioning of the feeding area.

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 5 March.

The electric fence around the Baxter west grazing compartment was strimmed twice: in July and November; the fence around Pigeon grazing compartment was strimmed once, in August. 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 gate at the west end of Baxter west was completely demolished by a large ash tree, blown down during a severe gale in mid-December. The tree was cleared, and the gateway temporarily blocked with three strands of barbed wire for the rest of the winter.

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.

With the buffalo being in compartments 9 and 10 all winter, some areas became badly poached. The worst areas were rotovated on 22 April to level the ground.

Cattle

Grazier Roger Beecroft brought 16 cows and calves on to compartment 1 on 13 June. A bull and more cows and calves were added by 25 June. The bull's stay was short lived due to lameness – he was taken off on 3 July, leaving 26 cows and calves. They remained in this compartment until 9 July, when we moved them across the footpath into compartment 2. The cows were moved back into

compartment 1 on 2 August. Six heifers were removed in mid-September, leaving 18 animals in compartment 1. They were moved across the footpath into compartment 2 again on 20 September, before returning to compartment 1 on 2 October. The cows were taken off site in small groups between 25 October and 5 November.

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 late May until early October, using the Gator and flail mower or BCS pedestrian mower.

It was not possible to carry out 45 degree cuts using the tractor this year due to pressure of other work. Instead, the sides of certain rides (eg Main ride, Pigeon, Ash and the ride to East meadow) were cut back by strimmer between mid September 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)

Areas of *Phalaris* dominated vegetation in East Meadow were cut with the Ryetec on 19 July.

A rectangular block of *Phalaris* dominated vegetation in compartment 11, just south of Baxter east, was cut with the tractor and Ryetec in early October.

Extensive areas of East Meadows and North Meadows (compartment 2) were cut using the Ryetec over 8 days between 30 September and mid October. Cut material was piled on site.

A large rectangular block was cut in the ungrazed part of compartment 8 using the BCS on 19 August. This was raked and gathered off by Fay Jones and Nowton Park volunteers on 20 August.

The glade near the shed, the ungrazed margins of Baxter East and 'Ian McLeans plot' in compartment 5 were cut/strimmed on 14 August. Cambridge Conservation Volunteers raked and piled on 18 August .

The main bogbean area and the chalk were cut/strimmed on 27/28 August and raked and piled by CCV on 1 September.

An area in compartment 11 was cut with the BCS on 17 October. This was gathered off by hand by NE staff and volunteers. The area around dipwell 9 was cut and gathered by NE staff and volunteers on 5 December.

NE staff carried out two days cutting for Forest Heath district council on Red Lodge heath on 16/17 April. The Ryetec was loaned to the NE Collyweston base between 26 November and 14 January, and to the NE Suffolk coast reserves between 18 February and mid March.

Sedge Cutting (Map 4)

Marcus Setchell carried out the sedge cutting this year, in compartment 4, between 13 and 15 August. In all 1400 bundles were cut, and these were carted off between 27 August and 2 September.

Woodland/Scrub

Phil Brown carried out his woodland breeding bird survey in compartments 3 and 12. To aid access along the transect route in compartment 12, a small bridge was installed over the ditch between compartments 10 and 12 on 18 March.

Some of the alder along the edge of the ride to East Meadows was high coppiced (about 1.5m off the ground) on 1 July. The cut material was cleared and piled by two NE teams on a meeting/work day at the Fen on 4 July.

Water

After the very wet summer in 2012, it was hoped to test the operation of the Lodes Granta system in 2013. Helen Stockham and Dave Gasker-Tucker of Atkins, together with staff from Bury Pumps, visited on 27 September with the intention of running a trial, but none of the three inflow points were operating properly. On 19 December, three Environment Agency field staff turned up unannounced, but seemingly with knowledge of the system, including whereabouts and operation of critical valves. All three inflow points were working correctly. It is now hoped to fully test the Lodes Granta system during the summer of 2014.

Andrew Dixon, accompanied by his son, of Groundwater Monitoring and Drilling Ltd worked with NE staff on 11/12 July to install data loggers adjacent to the three gauge boards. These were fitted into lengths of scaffolding pipe, driven deep into the substrate. Also, data loggers were installed in two dipwells – for

security reasons dipwell pipes were enclosed within custom made lockable metal covers, which were concreted into the ground. Between 13 and 24 July NE staff completed similar installation of data loggers in the remaining dipwells – adjustments had to be made to reduce the height of some of the dipwells in order to accommodate them within the metal covers – these were then re-measured.

Tracks to our dipwells, and the EA dipwells on the north meadows and in compartment 8 were periodically strimmed/mown for ease of access. The rain gauge enclosure in compartment 2 was strimmed and raked on 29 November.

Andy Copsey of Capel Manor College brought seven students to the reserve on 27 January to carry out some basic water quality testing.

Access

The route through the kissing gate at the main entrance had become eroded over the years – the path was made up and levelled using soil from the nearby bund on 4 April.

Numerous fallen trees were cleared from rides around the reserve during the year.

Two new lectern style information boards were installed at either end of the footpath on 5 April.

A new stile into compartment 1, just north of the river, was installed on 25 April.

Deer/Pest control

Deer control was carried out by Jim Riley, and in 95 visits made during the year 22 Muntjac (10 males and 12 females) and 6 Roe (all male) were shot on the reserve.

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.

The fire alarm system were serviced to schedule. NE staff tested the fire alarms on a monthly basis. Fire extinguishers were serviced on 26 February.

The septic tank was emptied by Redstripe on 11 November and 7 March, taking away a total of 4000 gallons of waste. Willow Pumps serviced the septic tank pump on 19 June.

All portable electrical appliances were tested 28 February.

The two tractors, Gator, Wessex flail mower, Votex flail, rotovator, Ryetec and BCS were serviced by Stephen Eyles on 12 and 18 March. Stephen Eyles also repaired the Gator in August, when the engine became unbolted from its mountings.

Two bird feeders in front of the workbase, and later two more near the buffalo pen, were kept filled throughout the year, two with peanuts and two with sunflower hearts.

In November 2012 the telephone line to the workbase developed a fault, making out-going 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. This long-running fault was finally fixed on 3 June.

Mark Day, our office cleaner, painted all the exterior woodwork between 23 and 29 October.

Health and safety

Access structure checks carried out quarterly.

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 266.5 man-days were worked by volunteers, and this can be broken down into 82.5 days of practical management and 184 days of survey work.

With thanks to:

Bruce and Gwen Martin, Phil Brown,
Terry and Glen Riley, Nick Sibbett, Owen
and Monica Marks, Dale Hing.

Woodcock survey (4 days)

Cambridge Conservation Volunteers

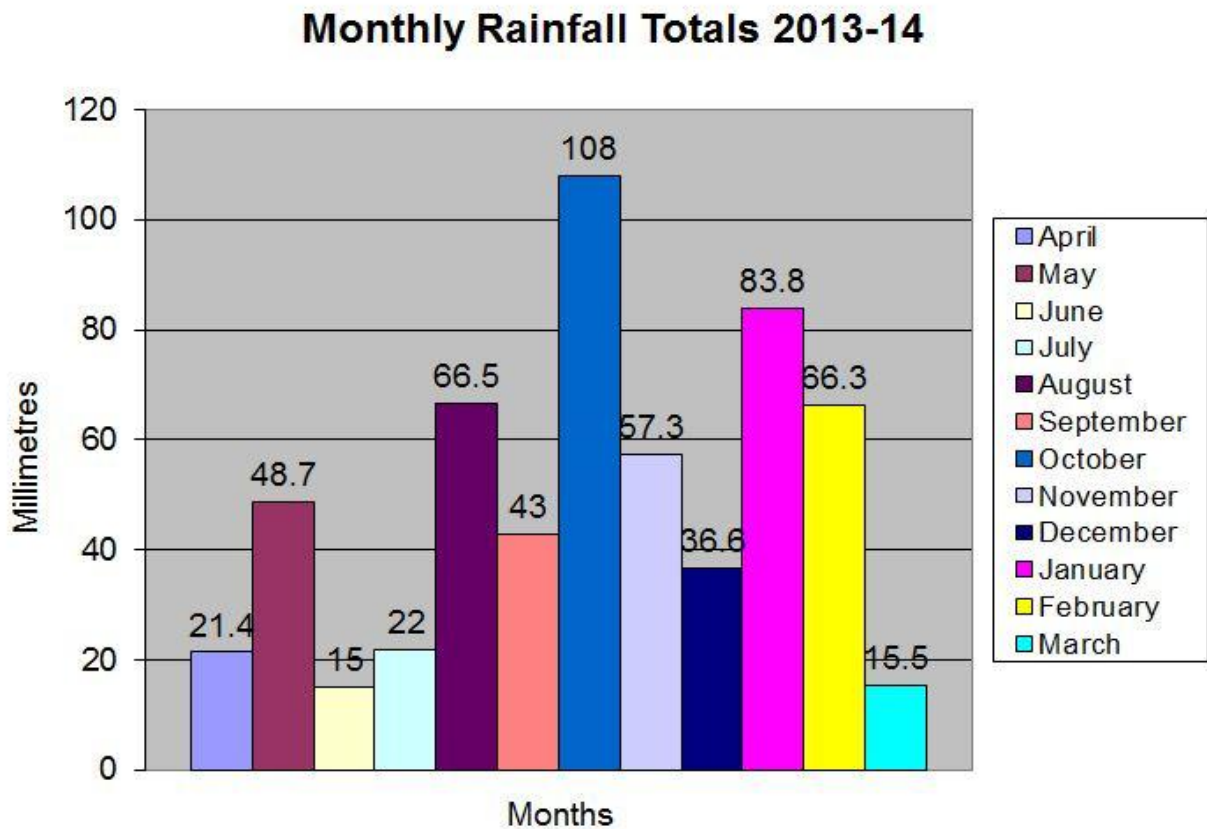
Spent two days assisting
with practical management
works (9.5 days)

| | |
|---|---|
| Phil Brown | Breeding bird survey (3 days) |
| Terry and Helen Moore | Amphibian and orchid surveys (5 Days) |
| Valerie Brookes, Phil Brown Dale Hing, Natasha Rooney | Weekend buffalo checks (6 days) |
| Valerie Brookes, Natasha Rooney Phil Brown, Alastair Sibbett | Practical management (53 days) |
| Alan Leslie | Plant recording (15 days) |
| Mike Holdsworth et al | Bird ringing (24 days) |
| NE Eastbrook based teams | Assisting with management tasks on 4 July (3 man days) |
| Valerie Brookes, Natasha Rooney | Hydrological recording (6 days) |
| Louise Bacon, Vince Lea, Ian Barton, Kathleen Rosewarne, Jim Hodgkinson et al | Moth recording (7 days) |
| Fay Jones and Nowton Park Volunteers | Practical management (6 days) |
| Many NE staff and others | LTMN quadrats (c 120 days) |
| Annabel Osborn | Various help during work experience (5 days) |

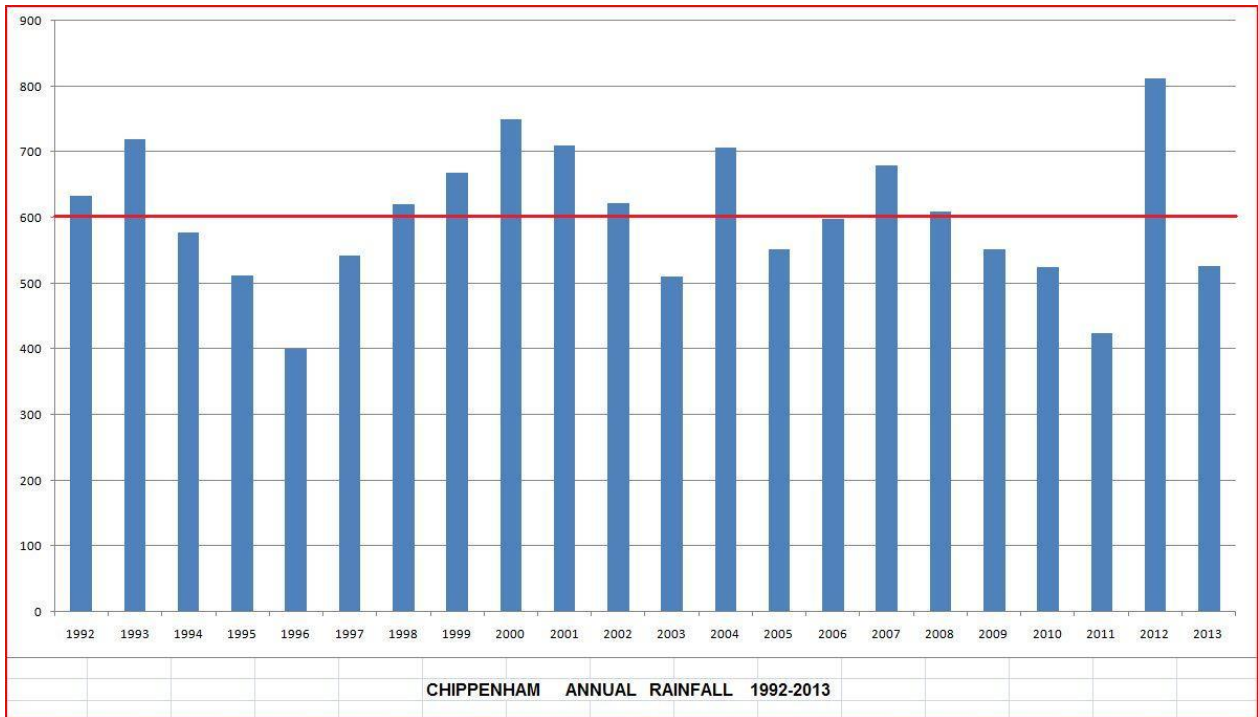
Survey and Monitoring

Water levels/Rainfall

Dipwell readings were taken every two weeks, and rainfall readings weekly. All data was entered onto the dipwell spreadsheet.



In contrast to the previous very wet year, rainfall in 2013 was somewhat below the recent average (red line in the chart below). In particular, June and July were drier than normal. October, however, was considerably wetter than average.



Birds

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

Woodland CBC

Phil Brown continued a modified woodland CBC in compartments 3 and 12. A draft report of the first two years results can be found at:

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

Woodcock survey

The annual dusk survey was carried out on 21 May. A minimum of 7 roding woodcock were recorded in the air at any one time; also recorded on the evening were 3 grasshopper warblers, 1 barn owl, 4 tawny owls and 2 marsh harriers. Numbers of roding woodcock appear to have remained stable over the last few years. A table summarising the results of the dusk survey since 2001 can be found at:

<S:\DesignatedSites\NNRs\ChippenhamFen\Survey&Monitoring\Birds\Chippenham woodcock dusk survey.xlsx>

Chris Hainsworth participated in the BTO national woodcock survey, counting birds at dusk on three occasions in May and June from a point in Poors Fen.

Bird ringing

Mike Holdsworth continued to ring birds at the Fen through the year; mostly near the feeders in the shed area in winter and spring, moving out into Poors Fen later in the summer to concentrate on warblers. The table below summarises ringing totals for 2013:

| | Full grown | Pulli | Retraps/ Recoveries | Total |
|--------------------------|------------|----------|------------------------|------------|
| <u>Sparrowhawk</u> | 1 | 0 | 1 | 2 |
| Water Rail | 1 | 0 | 0 | 1 |
| Kingfisher | 2 | 0 | 0 | 2 |
| Great Spotted Woodpecker | 4 | 0 | 1 | 5 |
| Meadow Pipit | 1 | 0 | 0 | 1 |
| Wren | 32 | 0 | 3 | 35 |
| <u>Dunnock</u> | 5 | 0 | 0 | 5 |
| Robin | 21 | 0 | 1 | 22 |
| Blackbird | 6 | 0 | 1 | 7 |
| Song Thrush | 2 | 0 | 0 | 2 |
| Grasshopper Warbler | 11 | 0 | 1 | 12 |
| Sedge Warbler | 32 | 0 | 3 | 35 |
| Reed Warbler | 93 | 0 | 3 | 96 |
| Garden Warbler | 1 | 0 | 0 | 1 |
| Blackcap | 24 | 0 | 1 | 25 |
| Chiffchaff | 33 | 0 | 1 | 34 |
| Willow Warbler | 5 | 0 | 0 | 5 |
| <u>Goldcrest</u> | 23 | 0 | 3 | 26 |
| Bearded Tit | 2 | 0 | 0 | 2 |
| Long-tailed Tit | 19 | 0 | 19 | 38 |
| Marsh Tit | 9 | 0 | 5 | 14 |
| Coal Tit | 45 | 0 | 5 | 50 |
| Blue Tit | 199 | 0 | 40 | 239 |
| Great Tit | 106 | 0 | 33 | 139 |
| Nuthatch | 5 | 0 | 0 | 5 |
| <u>Treecreeper</u> | 6 | 0 | 1 | 7 |
| Magpie | 1 | 0 | 0 | 1 |
| Chaffinch | 9 | 0 | 0 | 9 |
| Goldfinch | 1 | 0 | 0 | 1 |
| Siskin | 4 | 0 | 0 | 4 |
| Lesser Redpoll | 4 | 0 | 0 | 4 |
| Reed Bunting | 2 | 0 | 0 | 2 |
| Total: | 709 | 0 | 122 | 831 |

Full results of ringing sessions can be found at:

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

Amphibians

Dr Terry Moore and wife Helen continued to look at amphibians on the Fen. Their 2012 report and summary table can be found at :

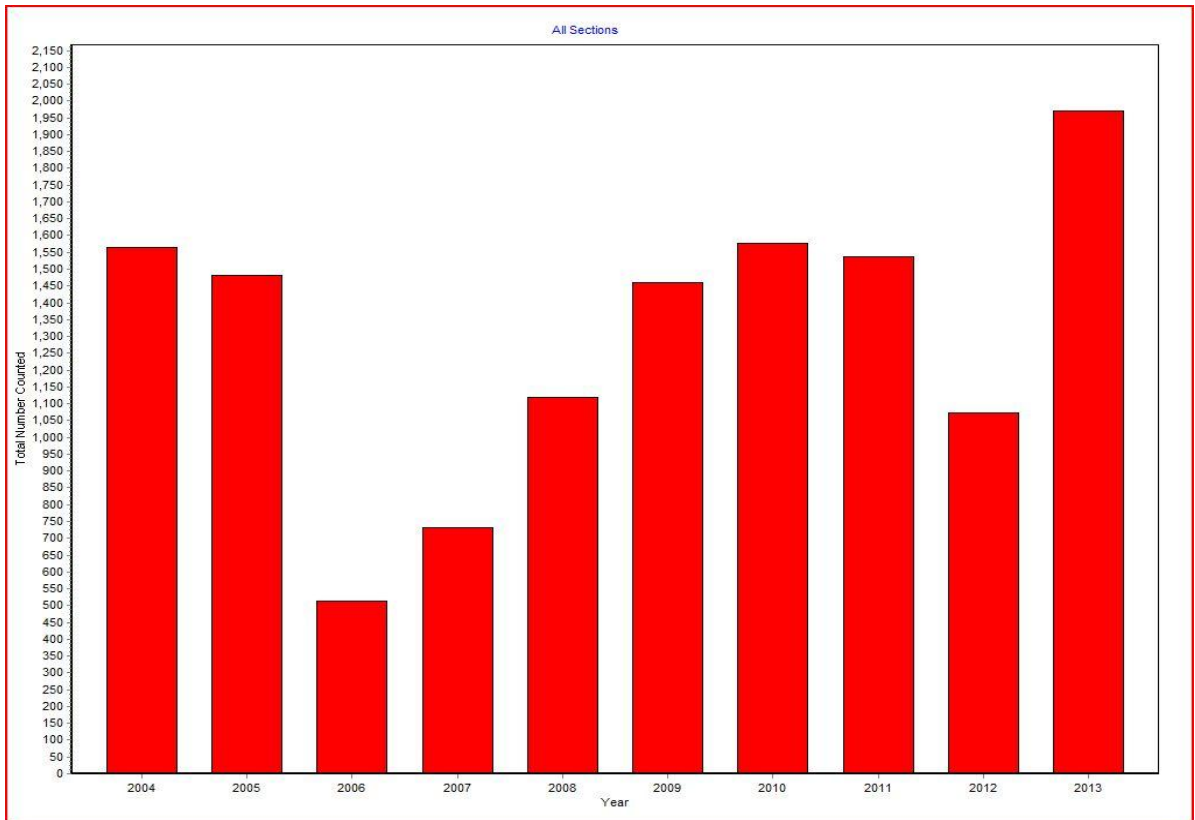
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Invertebrates

Butterflies

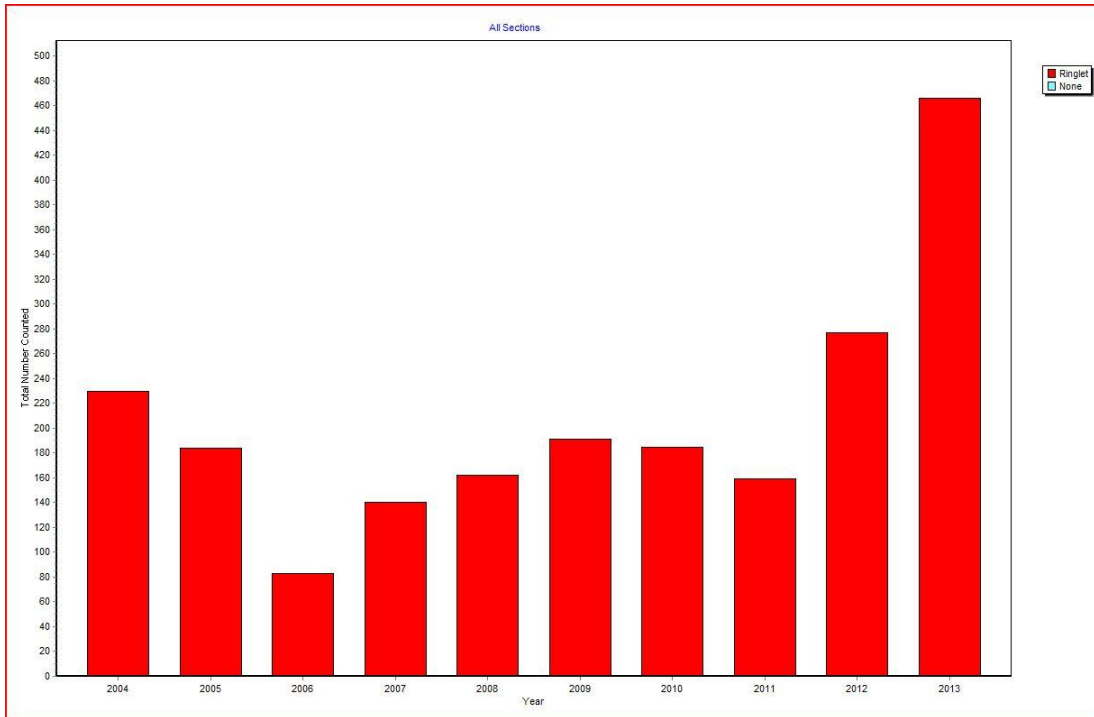
The butterfly transect was carried out weekly between April and September. Data was entered onto Transect Walker and sent to the National Butterfly Monitoring Scheme.

After a late spring, with very cold conditions well into April, summer 2013 turned out to be the best weather-wise for a number of years, with long periods of settled warm weather.

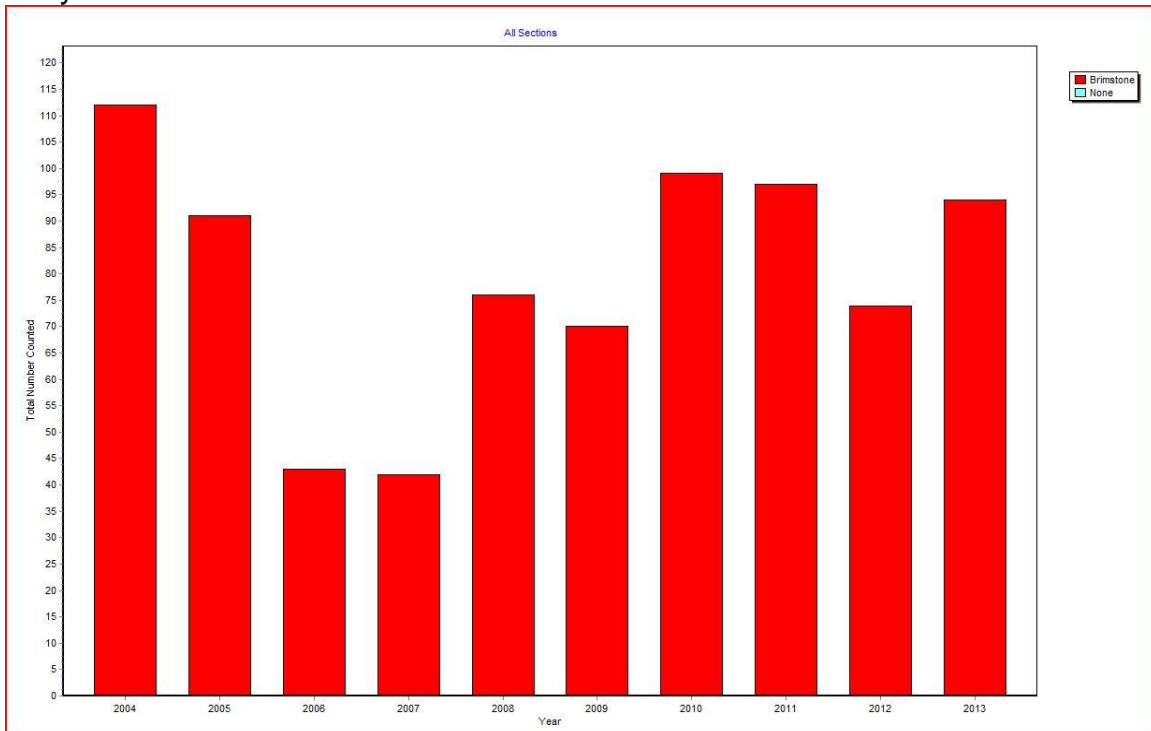


The generally favourable conditions meant that, overall, 2013 was the best butterfly year since 2003.

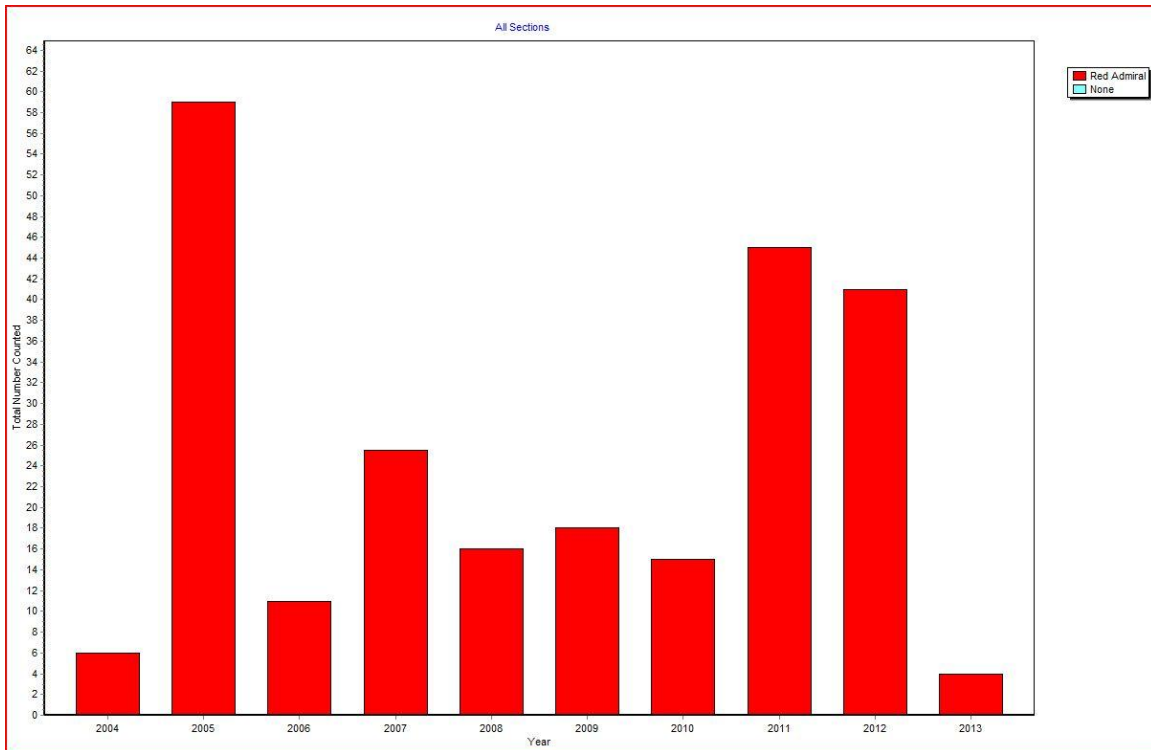
Several species had excellent years, for example peacock and meadow brown, and it was encouraging to record good numbers of small tortoiseshell after several very poor years. Ringlet had a record-breaking year:



Some species appear relatively stable, for example green-veined white and brimstone. Both were probably affected by the cold spring, but recovered later in the year.

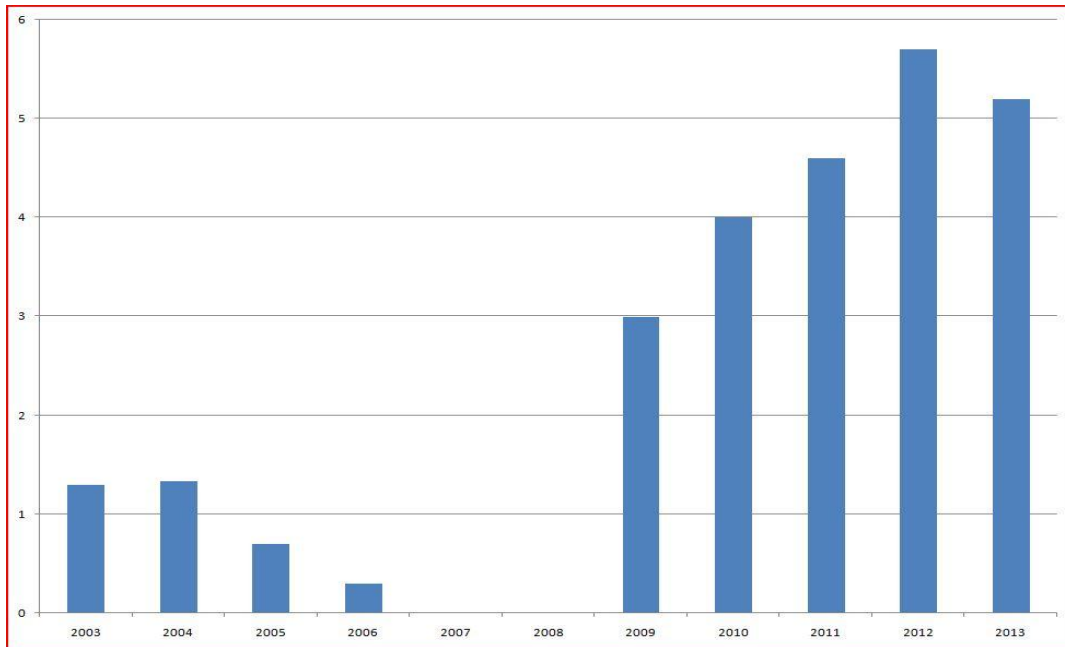


A few species bucked the trend and did not fare so well. No hairstreaks were seen at all at Chippenham in 2013 and red admiral numbers were very low:



Moths

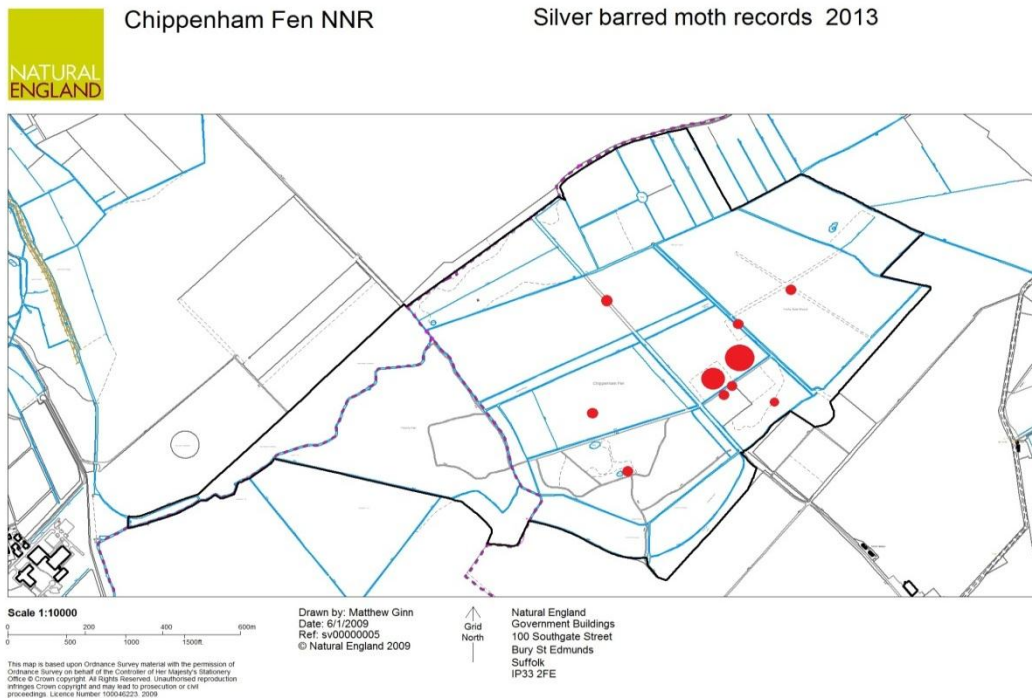
The cold spring obviously had an impact on silver barred moth, with the first being seen very late, on 4 June. By 11 June only one individual had been recorded, but thereafter numbers recovered and it was another good year overall. 14 moths were recorded on two transect walks – the highest single transect totals on record.



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.

In 2013 there were several sightings away from the species stronghold in compartments 8 and 11:



Louise Bacon again co-ordinated a group of volunteers to carry out light trapping on the reserve, although there were fewer sessions in 2013. A spreadsheet of the results so far can be found at:

<..\Survey & Monitoring\Moths>

Odonata

Fourteen year old Cadell Beckman carried out a survey of odonata on the reserve in May and June, identifying species from the exuviae found along various ditch margins. In all, he identified 13 species:

Azure damselfly (*coenagrion puella*) 16
Blue tailed damselfly (*ischnura elegans*) 17
Common blue (*enallagera cyathigerum*) 4
Emerald damselfly (*Lestes sponsa*) 6
Emperor dragonfly (*anax intepretor*) 3
Hairy dragonfly (*Brachytron pratense*) 2
Large red damselfly (*pyrrhosma nymphyla*) 5
Red eyed damselfly (*erythoma najas*) 4
Scarce emerald (*lestes dryas*) 7
Small red damselfly (*Ceriagrion tenellum*) 1
Southern damsel (*coenagrion mercuriale*) 3
Southern hawker (*Aeshna cyanea*) 5
White legged (*platycnemis pennipes*) 2

One or two of these (notably southern damselfly) may need expert confirmation.

Plants

Cambridge milk parsley

Chris Hainsworth and Mike Taylor, together with Val Brookes and Tasha Rooney carried out the annual Cambridge milk parsley census on 7/8 August. Only flowering plants were counted, and this year numbers were well down on last year with 1494 recorded.

A spreadsheet of the annual counts can be found at:

<..\Survey & Monitoring\Plants>

A student at Cambridge University carried out a dissertation project looking at soils on the fen in relation to Cambridge milk parsley distribution – at the time of writing we await the results.

M13 monitoring

Sue Shaw came to the reserve to monitor quadrats in M13 areas on 6 June. 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, continuing to compile an up to date species list for the reserve.

Orchid survey

NNR volunteers Terry and Helen Moore spent some time studying orchids on the reserve.

2013 was generally quite a poor year for marsh orchids, and no bee orchids at all were seen. There were 17 Fragrant orchids on Baxter east on 12 July, together with 2 marsh helleborines. There were about 7 marsh helleborines near the 'bridge to nowhere' in compartment 2, but most were eaten off.

No *ochroleuca* Early Marsh orchids were found this year – the last flower was seen in 2004.

<..\Survey & Monitoring\Plants>

Bogbean

The bogbean at the main site in compartment 4 was first seen in flower on 13 May, when 31 were counted. On 29 May 331 flower spikes were counted – a massive increase on last years inaugural count. Presumably the wet summer of 2012 was favourable for this species, and a recent change in management suggested by CH (not cutting the bogbean plants in the annual cut and gather of the area) may also be a contributory factor.

Ash die-back

During the LTMN week at the end of July, Patrick Robinson of NE found evidence of the disease at Chippenham for the first time.

CEH/NE long term monitoring network (LTMN)

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 vegetation and butterfly and bird populations. The required butterfly transect is already carried out.

Between 2 April and 29 May, contractor Matthew Denney installed 50 randomly generated vegetation quadrats in the open fen areas of the reserve. Each 2x2 metre quadrat has a permanent metal marker at its south western corner. The initial recording of the quadrat vegetation was carried out in an intensive four day period between 29 July and 1 August, organised by Helen Michell and Christoph Kratz. Prior to the week there was considerable preparation for the event by NNR staff: purchase of straw bales for informal seating, portaloos hire, etc. CH and MT received some training on identification of potentially problematic groups: bryophytes provided by MO Hill on 12 June and grasses and sedges by Monica O'Donnell (NE) on 17 July. The quadrating week consisted of an initial training day on 29th July, attended by around 50 NE staff and volunteers, together with some participants from other organisations, followed by three days of recording involving around 30 people each day, split into groups of 3-4, each group assigned certain quadrats. On one evening, participants were invited to a barbeque and moth trapping night on the reserve. Overall, the week was very successful, with 48 of the 50 quadrats completed (MT and CH completed the last two on 2 August). It is intended to repeat the exercise every four years, and to help re-finding the quadrats, all were marked with wooden posts in early September. A map showing the position of the quadrats can be found at the end of this report.

MT set up a breeding bird survey (BBS), using the BTO breeding bird methodology, and the required two visits were made on 20 April and 5 June. A map of the BBS route is included at the end of this report.

Initially we were anticipating a weather station being installed on site, but due to the proximity of other stations in the area, and in order to reduce project costs, Chippenham will not now be having one. We will, however, monitor air pollution here, and this should start later in 2014.

Species surveillance

To help meet NEs biodiversity responsibilities, a suite of rare species (listed in section 41 of the NERC Act) are now being closely monitored on NNRs. At Chippenham, the species involved are the grey carpet moth, the spider *Clubiona rosserae* (Rossers Sac spider) and *Dactylorhiza incarnata* subsp *ochroleuca*.

Standard monitoring protocols are being developed for all section 41 species. For the moth, monitoring consists of routine light trapping – already carried out at Chippenham. For the orchid (only known from one small area on the reserve) a visual search during the flowering period is required – none were found in 2013.

Rossers sac spider is perhaps the most difficult species to monitor – very little is known of its ecology, and it has only been recorded from two sites in the UK (Chippenham and one recent record from Lakenheath Fen). To assist in the identification of the species and potential search methods, Cambridgeshire spider recorder Ian Dawson (who re-found the species in litter piles in 2010) agreed to provide a training day for CH and MT on 15 October. Searches of litter piles on that day, and on 12 November with Duncan Allen and Mark Gurney of the RSPB proved unsuccessful in finding identifiable adult *rosserae*, although some potentially interesting immature spiders were found. We are currently working on a monitoring protocol, which will probably involve a variety of search methods: sieve and sort, sweep netting, ‘grubbing about’ and possibly pitfall trapping. Regular quantitative monitoring of the species is probably unrealistic owing to its rarity, but confirmation of its continued presence on the site is achievable, and in the process we may add to what is known of its ecology and distribution on the site.

Miscellaneous species records

Plants

Alan Leslie added rowan to the reserve species list on 13 September.

Butterflies

The first butterfly of 2013 was brimstone, on 5 March and in 2014 brimstone peacock and comma were all seen on 7 March. The latest recorded butterfly of 2013 was a red admiral on 24 October.

Odonata

The first large red damselfly emerged on 15 April, with the first broad bodied chaser on 16 May. A hairy dragonfly was seen on 27 May. The last dragonfly of the year was a common darter on 19 November.

Spiders

Several (3+) wasp spiders were found in compartment 10 during the LTMN week on 29-30 July.

Mammals

Two water voles were seen near the bridge in compartment 2 on 17 July.
A bat was flying around outside the shed at dusk on 2 December.

Visitors/Meetings

16 members of the Climate Change Network held a two day meeting at the Fen on 1-2 May.

Peter Karner of NE used the Fen on 9 May to train two staff in wildlife incident investigation.

CH led guided walk on 5 June.

CH led guided walk for 26 members of Ely Wildlife Group on 14 June.

CH and MT met Robert Hawkes of RSPB for stone curlew meeting on 21 June.
CH met Annabel Armstrong of Bidwells to discuss SSSI issues on 25 June.

Pete Stroh visited on 27 June to search (unsuccessfully) for *ochroleuca*.

CH led evening walk for 16 Freckenham villagers on 30 June.

CH showed Robin Upton reserve on 3 July.

Two Cambridge based NE teams held meeting/work day at Fen on 4 July.

Norman Sills came to look at the distribution of meadow rue on 5 July. He returned on 22 July to search (unsuccessfully) for marsh carpet moth larvae.

CH led evening walk for 6 Freckenham villagers on 7 July.

MT led evening walk for 17 members of Cambridge Bird Club on 12 July.

MT led visit by 30 students from Capel Manor college on 21 August.

Annabel Osborn completed a weeks work experience with us between 16 and 20 September.

CH and MT met Robert Hawkes and Tim Cowan of RSPB to discuss stone curlew matters and potential partnership working.

Ian Dawson gave CH and MT a days *Clubiona rosserae* training on 15 October.

Rachel Cawte (Paul Lacey's line manager) visited on 22-23 October.

RSPB ecologists Duncan Allen and Mark Gurney visited on 12 November to help search for *Clubiona rosserae*.

Lynn Rawson carried out workbase H&S assessment on 17 December.

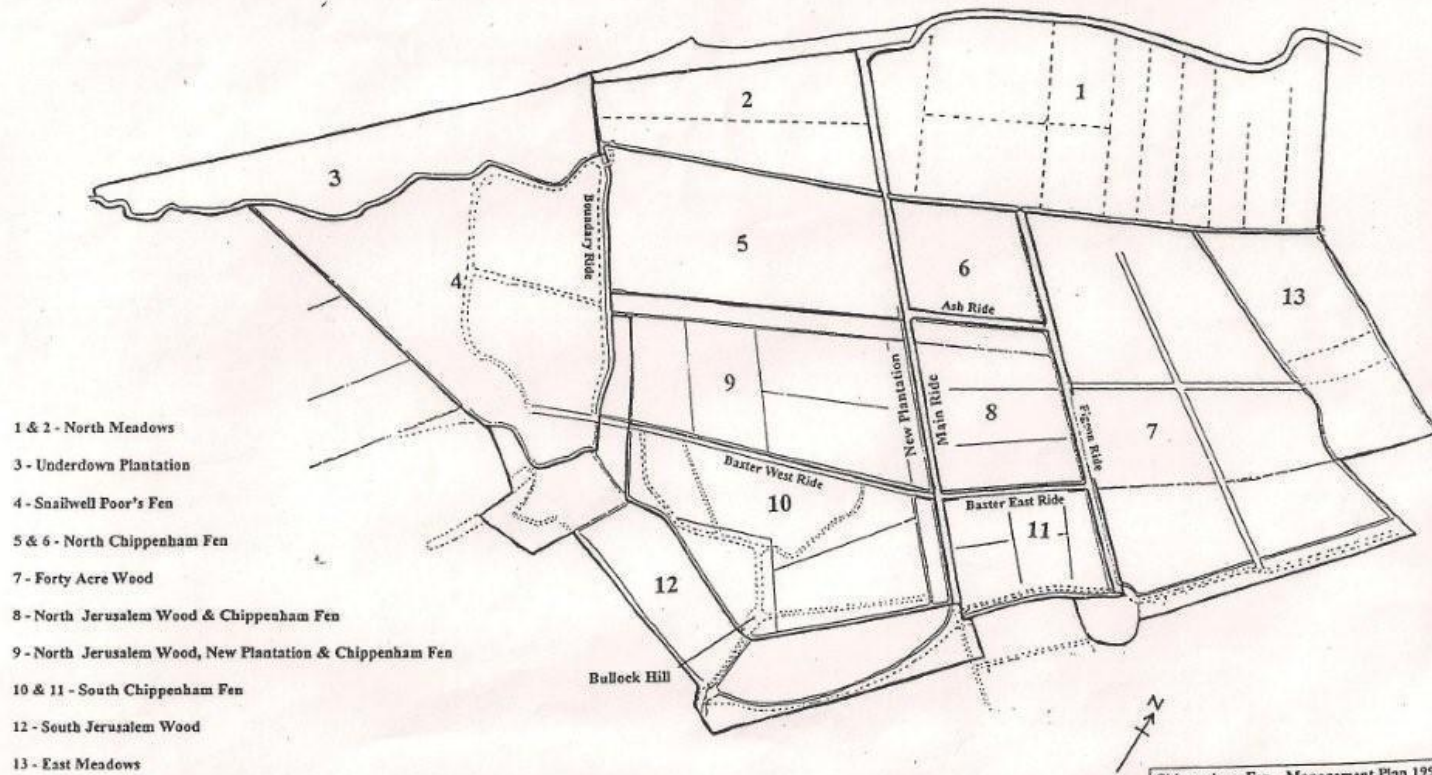
CH and MT had on- site health surveillance check on 10 January.

8 members of NE field staff received in-house manual handling training from Sarah Brachtvogel on 23 January.

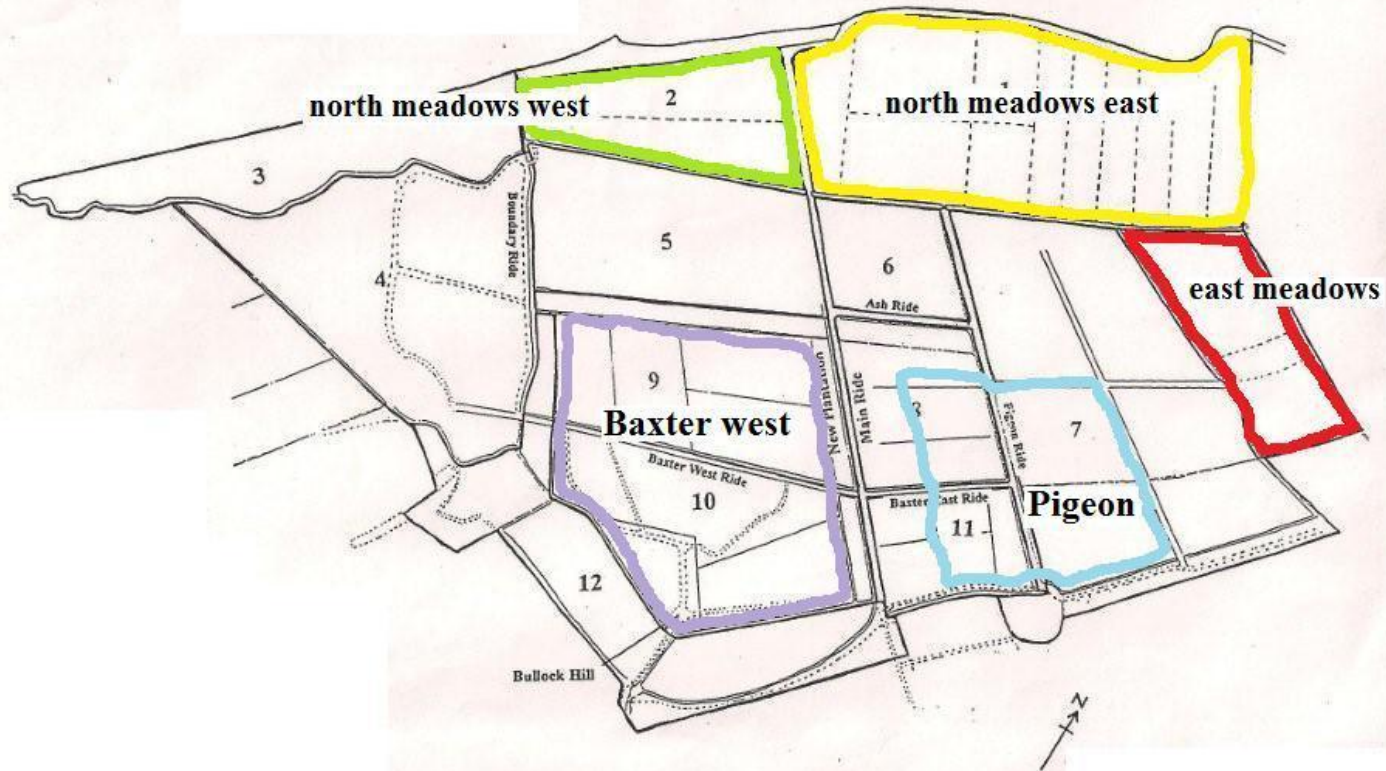
CH and one other NE member of staff received GIS training from John Taylor on 3-4 March

Michael Taylor
Reserve Manager
May 2014

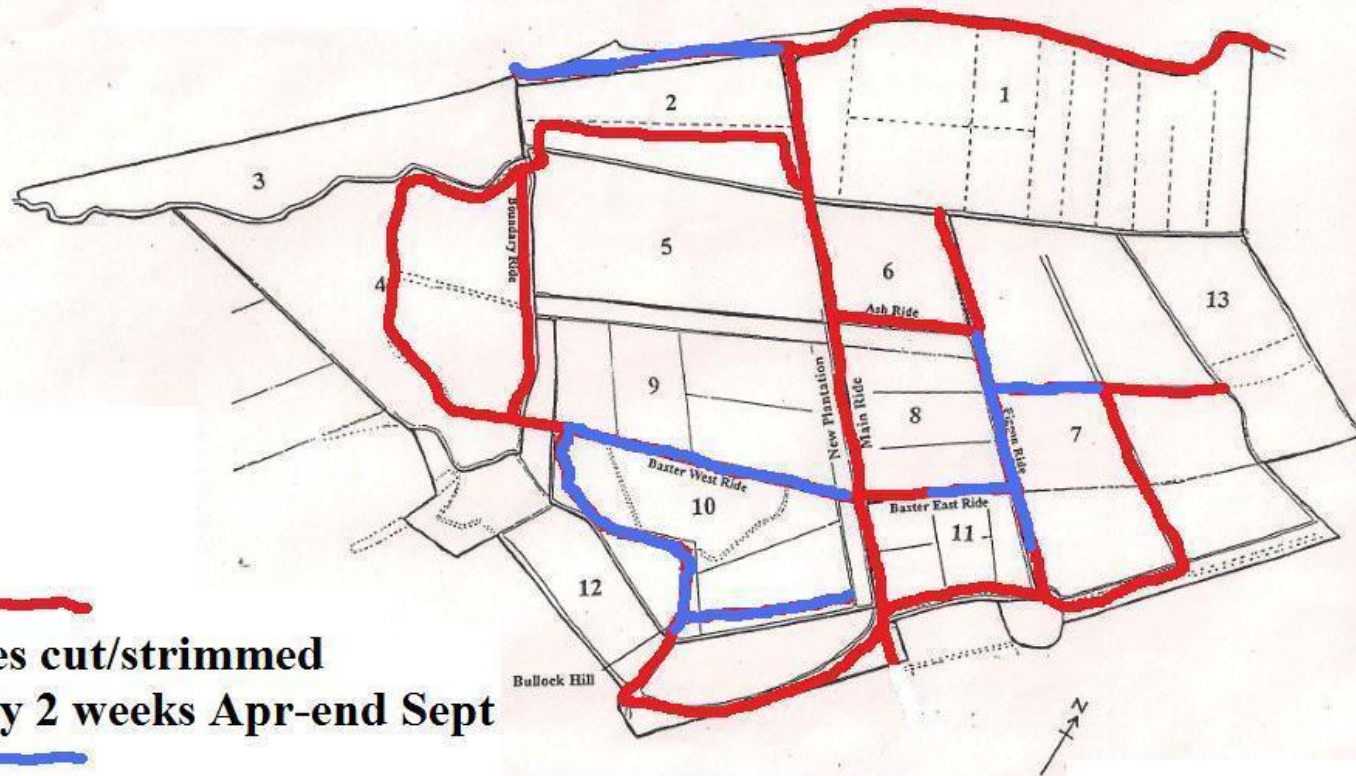
MAP 1 COMPARTMENTS



MAP 2 GRAZING AREAS

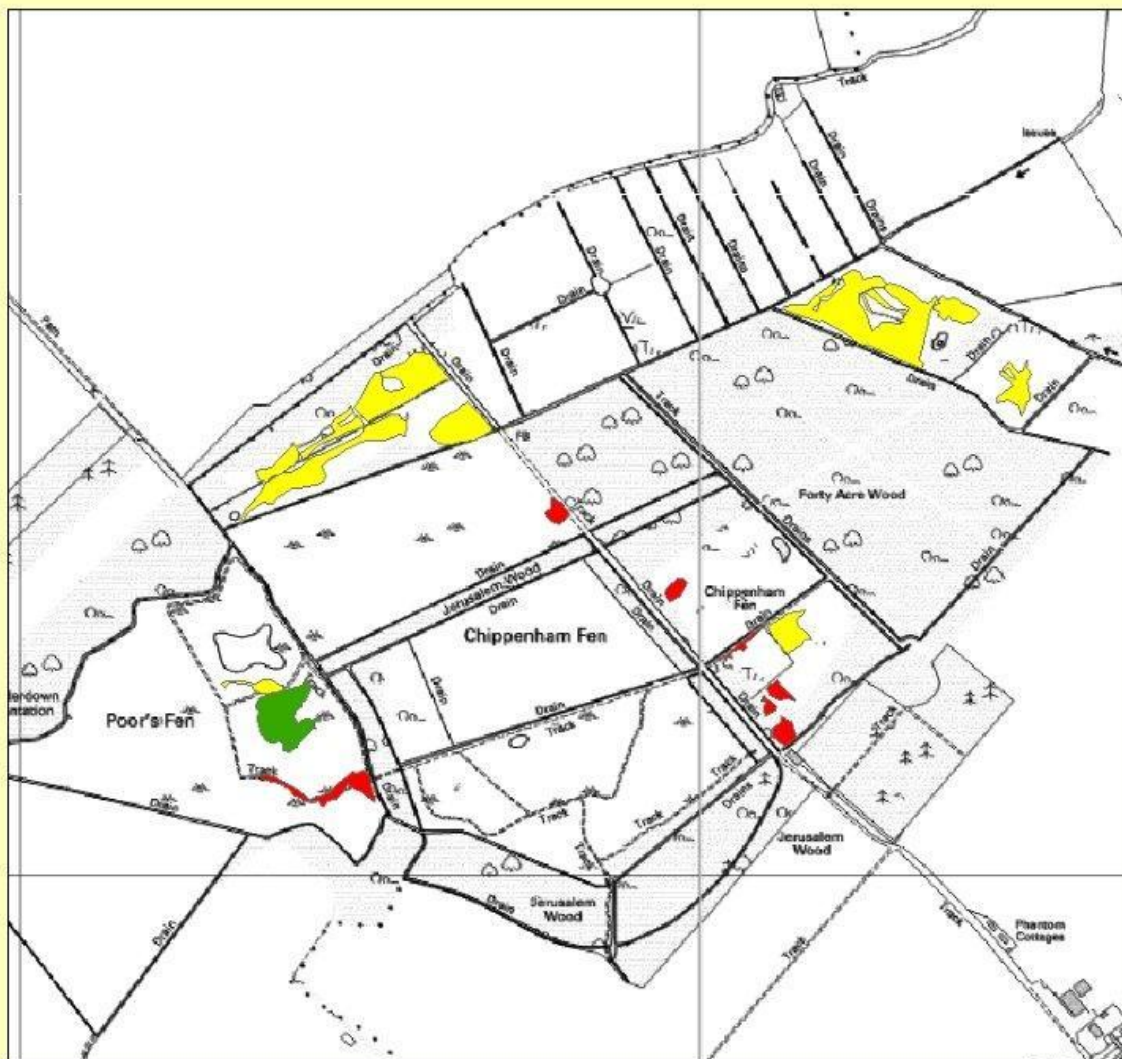


MAP 3 RIDE CUTTING



Red line
Rides cut/strimmed
every 2 weeks Apr-end Sept

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



Chippenham Fen NNR. Management Areas 2013-14

Chippenham 2013 Management

- Cut & Rake
- Rytec
- Saw sedge harvest

Cut & Rake: 0.61ha
Rytec: 4.25ha
Saw Sedge harvest: 0.55ha

Scale (at A4): 1:8,000
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2011. Ordnance Survey 100020021
Map produced on 02/04/2011 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 |
|-------------------------|---|--------|-------|-------|--------|-------|----|-------|--------|--------|-------|-------|-------|----|--------|--------|--------|--------|-------|-------|-------|-------|--------|----|-------|-------|-------|-------|
| Mean Temp | | 13.00 | 17.00 | 16.00 | 16.00 | 18.00 | | 15.00 | 20.00 | 19.00 | 19.00 | 20.00 | 18.00 | | 25.00 | 24.00 | 29.00 | 30.00 | 18.00 | 18.00 | 20.00 | 22.00 | 20.00 | | 14.00 | 17.00 | | |
| Mean Sun | | 100.00 | 50.00 | 94.00 | 100.00 | 50.00 | | 75.00 | 100.00 | 100.00 | 37.00 | 18.00 | 75.00 | | 100.00 | 100.00 | 100.00 | 100.00 | 60.00 | 44.00 | 69.00 | 94.00 | 100.00 | | 63.00 | 40.00 | | |
| Small/Essex Skipper | | | | | | | | | | | | | | 2 | 26 | 13 | 17 | 7 | 4 | | | | | | | | 67 | 69 |
| Large Skipper | | | | | | | | | | | | | 6 | 21 | 28 | 28 | 2 | 3 | 1 | | | | | | | | 68 | 88 |
| Clouded Yellow | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 |
| Brimstone | | | | 5 | 7 | 1 | 1 | 6 | 5 | 4 | 2 | | 2 | 4 | 3 | 1 | 13 | 10 | 3 | 1 | 11 | 11 | 6 | 2 | | 1 | 92 | 99 |
| Large White | | | | | | 1 | 1 | | | 1 | | | | | 2 | | 4 | 13 | 7 | 7 | 7 | 3 | 2 | 1 | 1 | | 48 | 50 |
| Small White | | | | | | | | | 1 | | | | | | | 1 | 12 | 17 | 20 | | 3 | 4 | | | | | 58 | 58 |
| Green-veined White | | | | | 6 | 17 | 22 | 14 | 10 | 2 | 2 | 2 | | | 2 | 26 | 66 | 15 | 29 | 22 | 15 | 4 | 19 | 18 | 3 | 1 | 255 | 295 |
| Orange-tip | | | | | 3 | 2 | 2 | 4 | 2 | | 1 | | | | | | | | | | | | | | | | 12 | 14 |
| Green Hairstreak | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 |
| White-letter Hairstreak | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 |
| Small Copper | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 |
| Brown Argus | | | | | | | | | | | | | | | | | | | | | 3 | 1 | | | | | 4 | 4 |
| Common Blue | | | | | | | | | | | | | | | | | | 4 | 1 | 7 | 9 | 4 | 3 | 1 | | | 28 | 29 |
| Holly Blue | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | 2 | 2 |
| Red Admiral | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | 4 | 4 |
| Painted Lady | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 1 |
| Small Tortoiseshell | | 1 | | | | | | | | | | | | 1 | 3 | | | 2 | 1 | | 4 | 1 | 3 | 2 | | 1 | 16 | 19 |
| Peacock | | 1 | 19 | 13 | 9 | 14 | 8 | 1 | 5 | 3 | 1 | | 1 | 1 | | | 1 | 38 | 59 | 36 | 32 | 5 | | | | | 240 | 249 |
| Comma | | 1 | 10 | 1 | | | | | | | | | | | 1 | 2 | 2 | 2 | | | 1 | | | | 2 | | 22 | 22 |
| Speckled Wood | | | | | | 1 | 2 | 3 | 3 | | 1 | 4 | 20 | 27 | 11 | 17 | 2 | 2 | | 1 | | 7 | 9 | 10 | 9 | 2 | 92 | 131 |
| Gatekeeper | | | | | | | | | | | | | | | | 3 | 11 | 12 | 20 | 13 | 12 | 1 | | | | 72 | 72 | |
| Meadow Brown | | | | | | | | | | | | | 3 | 13 | 40 | 94 | 72 | 52 | 55 | 29 | 25 | 4 | 7 | 4 | | 1 | 382 | 399 |
| Ringlet | | | | | | | | | | | | | | 6 | 93 | 159 | 165 | 26 | 12 | 3 | 2 | | | | | | 460 | 466 |
| Small Heath | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 0 | 1 |
| Total | 0 | 3 | 29 | 19 | 25 | 36 | 36 | 28 | 28 | 10 | 7 | 6 | 32 | 76 | 209 | 344 | 367 | 203 | 217 | 121 | 124 | 45 | 49 | 38 | 15 | 6 | 1923 | 2073 |

Chippenham Fen Butterfly Transect Indices by week 2013

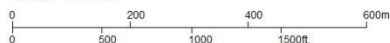


Chippenham Fen NNR

LTMN Breeding Bird Survey Route



Scale 1:10000



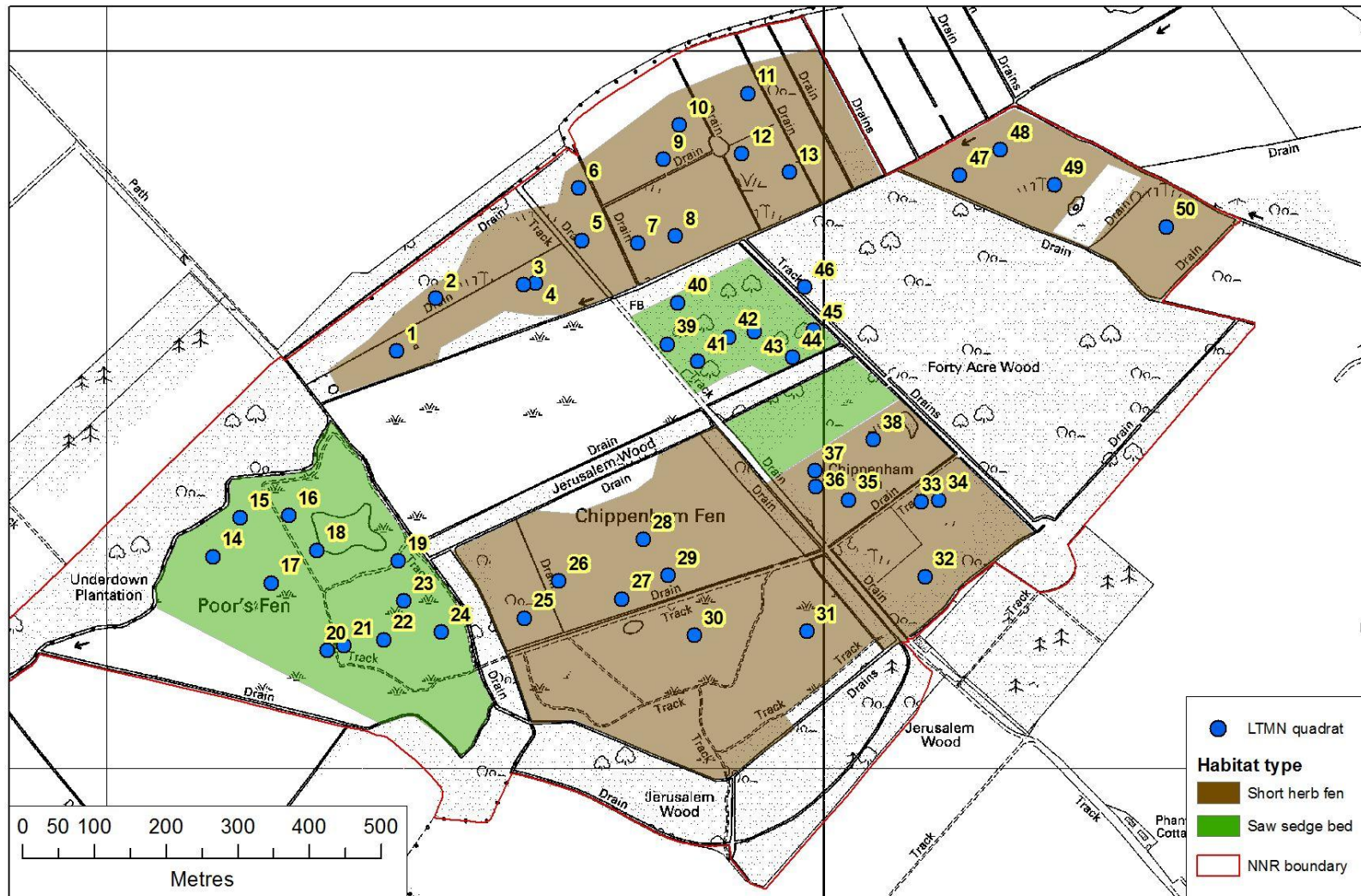
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Date: 6/1/2009
Ref: sv00000005
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Chippenham Fen LTMN Vegetation Quadrats



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