



***Eve Tigwell Consultancy Ltd***

## **Rodden Nature Reserve (Asda)**

### **Five-Year Report**

**Asda Walmart Supermarket, Frome  
Frome Area Wildlife Group**

Compiled by Eve Tigwell FI Hort BSc (Hons)

January 2013

***Hawthorne Cottage, 3 Friggle Street, Near Frome, Somerset, UK, BA11 5LP***

***Telephone: UK + (0) 1373-451-630: Facsimile: UK + (0) 1373-453-255***

***E-mail: [eve.tigwell@zen.co.uk](mailto:eve.tigwell@zen.co.uk)***

Registered in England and Wales No. 4875451

## Contents

		<b>Page</b>
1.0	Summary	2
2.0	Introduction	2
3.0	Survey Inputs	2
4.0	Management Activities	3
4.1	Original Management Plan aims	3
4.2	2006 Management Plan Aims	3
4.3	Management Activities on Site	4
4.3.1	Single-occurrence Management Activities	4
4.3.2	On-going Management Activities	5
5.0	Base-line Data	6
5.1	Plants	6
5.2	Planted Species	7
5.3	2006 surveys	7
6.0	Changes to Flora & Fauna over Five-Year Period	8
6.1	Terrestrial Invertebrates	8
6.2	Aquatic Invertebrates	10
6.3	Birds	10
6.4	Mammals	11
6.5	Other Vertebrates	12
6.6	Fungi & Algae	13
6.7	Flora	13
6.8	Photographic Records	16
7.0	Recommendations	18
8.0	Acknowledgements	19
9.0	Appendices	20
9.1	Site Layout	20
9.2	Planting List	21
9.3	Bird Records – 2006	22
9.4	Butterfly & Moth Records – 2006	24
9.5	Invertebrate Surveys (2008 – 2011)	24
9.6	Other Invertebrate Records	34
9.7	Other Animal Records Since 2006	34
9.8	Plant Records	41
10.0	References	45



## **1.0 Summary**

Rodden Nature Reserve has increased in species richness of all taxa since its creation. However, Water Voles have not been recorded on the site since 2000.

## **2.0 Introduction**

Rodden Nature Reserve was created in 2004 by the supermarket chain Asda Walmart from an area of previously agricultural land adjacent to the A362 (Warminster Road). The extensive work included: re-profiling a hill; diverting the Rodden Brook; rerouting a private road; and creating two main pool areas. This resulted in an 8.7hectare wetland habitat, which is part of the flood mitigation scheme for Frome. During this work various plantings were made of tree, shrub, herbaceous, grassland, and aquatic species.

The reserve is open to the public from September to February; access is restricted to the field adjacent to the A362 for the remaining months of the year in order to reduce disturbance in the main breeding season.

The reserve is managed by Frome Area Wildlife Group (FAWG), whilst remaining the property of Asda Walmart. FAWG is made up of local naturalists, ecological managers, and volunteers who undertake maintenance and monitoring work. Professional surveys have been commissioned when required. The work is guided by management plans (Rutty, 2006, Tigwell, 2008, 2009, 2010, 2011, 2012). The main aims of these plans have been to:

- Encourage species diversity
- Encourage the return of previously resident species such as Water Voles.
- Provide a link between other wildlife sites
- Provide a resource for the community

The site includes two of the UK priority habitats which occur in Somerset as follows:

- Lowland mixed deciduous woodland
- Lowland meadows

There is no intent to repeat the detailed information about the site that was provided in the original management plan, and which is still available for reference.

## **3.0 Survey Inputs**

There was no detailed initial survey before this area was created. Wessex Ecological Consultancy (Lawrence, 2000) put forward the first known management plan, as part of the Frome Flood Mitigation Scheme, providing information on the existing flora and fauna.

Somerset Environmental Records Centre (SERC) provided a list of notable species recorded within 1km of the site.

Volunteers surveyed the flora and fauna in 2006 for the next management plan (Rutty, 2006).

Since 2006 various taxa have been surveyed both professionally and by volunteers. The majority of species is listed on the website: ([www.roddeinnaturereserve.org.uk](http://www.roddeinnaturereserve.org.uk)).

Professional surveys of the invertebrates were commissioned (Pinchen, 2008, 2009, 2010, 2011), along with an aquatic invertebrate survey (Thomas, 2010). A full survey of the flora has been carried out (Tigwell, 2008) with ongoing up-dates.

## **4.0 Management Activities**

The original management plan (Lawrence, 2000) has been used as the basis of the management plans and activities to date (Rutty, 2006, Tigwell, 2008, 2009, 2010, 2011, 2012). Results of the various surveys were fed into these management plans and have led to modifications.

### **4.1 Original Management Plan Aims:**

- Maintain and enhance the wetland area, so that they become and remain capable of supporting a wide range of aquatic and riparian species
- Maintain and enhance the Water Vole population
- Maintain and enhance the populations of other protected species
- Maintain and enhance the areas of damp and dry grassland, so that they become and remain capable of supporting a wide range of plants and invertebrates
- Maintain and enhance the areas of woodland, so that they become and remain capable of supporting a wide range of secondary woodland species
- Monitor at least the first five years of colonisation, so as to enable adjustments to be made to the management plan if necessary
- Accommodate controlled public access for quiet enjoyment of the wildlife and natural surroundings of the site.

All the management plans have provided prescriptions for the various sections of the site. A site map is given in Appendix 1 and should be referred to as necessary.

### **4.2 2006 Management Plan Aims:**

- Manage the wet and dry grassland to maintain and enhance floral diversity to encourage invertebrate diversity and abundance
- Minimise spread and dominance of invasive native and non-native species
- Maintain and encourage submerged aquatic vegetation, marginal vegetation and reed bed fringes around the pools and along the riparian habitat
- Maintain the new hedges and woodland patches to encourage invertebrates, general fauna and nesting birds on the site
- Create and maintain areas of low, dense scrub to encourage passerine bird species, but minimise further scrub encroachment
- Maintain suitable water levels in the pools throughout the year
- Enhance the habitat at the site for mammals such as bats and Water Voles
- Enhance the island habitat for flora, invertebrates and birds
- Carry out regular botanical, invertebrate, and fauna species monitoring at the site to appraise the effectiveness of management
- Create and enhance habitats within the scrubby field to the north of the site
- Involve the local community and educational groups in management and educational activities.

Included in the original management plan, and that of 2006, were prescriptions for grazing. These have not been carried out due to difficulties in obtaining suitable grazing animals which could be moved flexibly on and off site. However, unauthorised grazing by up to five horses has taken place, mainly on the North Meadow, but also on the Upper Area.

### **4.3 Management Activities on the Site:**

The management activities for the site fall into two categories: those which are single-occurrence and those which are ongoing; although not necessarily taking place every year.

#### **4.3.1 Single-occurrence Management Activities**

- Add gravel to the island to attract bare-ground nesting birds
- Plant a hedge to increase privacy for the house immediately adjacent to the North Meadow
- Plant loose hedge along the North Meadow side of Rodden Brook to provide a visual screen between the North Meadow and the more sensitive wildlife area:
- Plant individual and groups of trees in the North Meadow. This was recommended in the Insect Survey as a means of increasing the diversity of the North Meadow
- Plant Blackthorn (*Prunus spinosa*) hedging to deter human access to the weir
- Remove fencing from around the copse plantations in the Upper Grassland. Some fence posts were left in place and holes drilled to increase the invertebrate breeding habitat
- Plant a mixed native hedge and individual trees around the road and field edges of the Upper Grassland
- Remove part of the hedge from the Upper Grassland. This formed a barrier between the two sections of the Upper Grassland area. Two uneven gaps enable insects to move more freely between the two sections
- Dig a large scrape. This provides a feeding ground for a range of bird species in winter and further areas of nectar-rich flora
- Erect second screen. This allows people to watch birds on the feeders
- Remove tree and hedge guards as appropriate
- Construct and install two otter holts
- Create a beetle bank with approximately 50% bare earth
- Install a large floating island
- Add emergent poles in the Large Western Pool
- Lay the hedge along the road-edge of the North Meadow, including the suckering Common Elms (*Ulmus procera*)
- Lay other hedges as appropriate



Erecting bird boxes 03.2007



Willow screen for viewing bird feeding area 06.2012



Installing perches for Kingfishers in the main pool 07.2008



Bare earth on beetle bank 06.2012

#### 4.3.2 On-going Management Activities:

- Close the Western Pool and Upper Grassland areas for public access from the beginning of February to the beginning of September (i.e. the main breeding season)
- Erect and regularly replace signs to deter dog-walkers, fishermen, horses, etc.
- Maintain fencing, gates, bridges and the dam
- Thin and/or coppice woodland areas. These plants developed well and the areas were becoming overgrown. They were coppiced; all cut material being left on-site as additional habitat
- Maintain a low tree canopy under electricity wires
- Remove tree seedlings as necessary from the edges of the pools, Rodden Brook and River Frome, and from grassland areas where they create undesirable habitat changes
- Remove areas of vegetation in Upper Grassland for seeding with native species
- Maintain approximately 50% bare earth on the beetle bank
- Mow the North Meadow and Upper Grassland, leaving a 3m margin. This has assisted in reducing the vigour of the agricultural grasses in these areas, so that the native flora thrives, supporting more invertebrates and other animals
- Bale mowings and leave, unwrapped, on site. This has created extra habitats for small mammals and reptiles

- Remove invasive and unwanted plants as necessary. Himalayan Balsam (*Impatiens glandulifera*) has been removed regularly, especially from along the River Frome. Orange Balsam (*Impatiens capensis*) appeared in 2010 and was also removed. The following are also controlled as necessary, retaining sufficient plants to benefit the wildlife: Common Nettle (*Urtica dioica*), Creeping Thistle (*Cirsium arvense*), rushes (*Juncus* spp.) and ragwort (*Senecio* spp.)
- Control Brambles (*Rubus fruticosus* agg.) near the bridge between the North Meadow and the Western Pools to facilitate human access
- Top up brash in screens as necessary using on-site materials
- Strim access paths as necessary
- Erect, maintain and monitor nest boxes (hole-nesting, open-fronted, kestrel and owl boxes)
- Install bird feeders. The feeding area can be viewed through one of the screens: feed is topped up on a regular basis and the vegetation strimmed to allow access for this purpose
- Strip-strim the more vigorous vegetation around the Western Pools: alternate strips each year
- Remove tree seedlings and invasive vegetation from the island
- Maintain mammal covers and check regularly
- Litter removal and disposal

## 5.0 Base-line Data

The Wessex Ecological Consultancy (Lawrence, 2000) report indicated that the existing fields were all improved pasture, but with some increase in the species-richness on the upper slope and the then-existing floodplain. The species noted in this report were:

### 5.1 Plants:

Alder	<i>Alnus glutinosa</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i> agg.
Brooklime	<i>Veronica beccabunga</i>
Buttercup – Meadow	<i>Ranunculus acris</i>
Elder	<i>Sambucus nigra</i>
Hawthorn	<i>Crataegus monogyna</i>
Pignut	<i>Conopodium majus</i>
Rush – Hard	<i>Juncus inflexus</i>
Ryegrass – Perennial	<i>Lolium perenne</i>
Sorrel - Common	<i>Rumex acetosa</i>
Water-dropwort - Corky-fruited	<i>Oenanthe pimpinelloides</i>
Water-pepper	<i>Persicaria hydropiper</i>
Willow - Crack	<i>Salix fragilis</i>
Yellow-cress - Marsh	<i>Rorippa palustris</i>

### Mammals:

Badger	<i>Meles meles</i>	Transient
Otter	<i>Lutra lutra</i>	Transient
Water Vole	<i>Arvicola terrestris</i>	Resident

**Birds:**

Kingfisher	<i>Alcedo atthis</i>	Transient
------------	----------------------	-----------

Somerset Environmental Records Centre (SERC) provided a list of notable species recorded within 1km of the site from 1989 to 2002. These were:

**Mammals:**

Otter	<i>Lutra lutra</i>	Frome town
Pipistrelle Bat	<i>Pipistrellus pipistrellus</i>	Frome town
Water Vole	<i>Arvicola terrestris</i>	Resident

**Birds:**

Kingfisher	<i>Alcedo atthis</i>	Resident
Peregrine	<i>Falco peregrinus</i>	Over Frome
Red Kite	<i>Milvus milvus</i>	Over Frome
Tree Sparrow	<i>Passer montanus</i>	In Frome

**Reptiles:**

Slow Worm	<i>Anguis fragilis</i>	N.E. Frome
-----------	------------------------	------------

Slow Worms were also introduced to the site in 2007. This was a translocation from another site in Frome; probably the above site.

**5.2 Planted Species**

A wide range of species was planted when the Flood Mitigation Scheme was created. These are listed in Appendix 2.

**5.3 2006 Surveys**

The 2006 Management Plan (Rutty, 2006) contained records from a combination of professional and volunteer surveys carried out during that year.

This did not include full records from a survey of vascular plants, although three species of note for Somerset were listed:

Blunt-flowered Rush	<i>Juncus subnodulosus</i>	Rare: recorded in 5% or fewer of tetrads
Blue water-speedwell	<i>Veronica anagallis-aquatica</i>	Uncommon: recorded in 5 – 20% of tetrads
Wild Pansy	<i>Viola tricolor</i>	Rare: recorded in 5% or fewer of tetrads

Whilst none of these species were planted on the site during construction it is most probable that, due to their rarity status, they were already present on or near the site. The first two are likely to be associated with the River Frome; Wild Pansy could have occurred in the agricultural land.

Bird species were recorded on a regular basis by several volunteers, therefore the list provided in Appendix 9.3 can be regarded as comprehensive for 2006. No information was collected on breeding status. Clearly many of these species could well have been visiting the site whilst it was still mainly agricultural land, with Rodden Brook flowing through and the River Frome along one side. Those that are linked to wetland habitats and are therefore most likely to have moved onto the site as a result of the changes are marked in Appendix 9.3.

The majority of insect records were of butterflies: Species of note were:

Brown Argus	<i>Aricia agestis</i>	Somerset Notable
Banded Demoiselle	<i>Calopteryx splendens</i>	Somerset Notable
Black Tailed Skimmer	<i>Orthetrum cancellatum</i>	Somerset Notable
Common Hawker	<i>Aeshna juncea</i>	Somerset Notable
Ruddy Darter	<i>Sympetrum sanguineum</i>	Nationally Scarce

A full list of the butterflies and moths recorded on the site in 2006 is given in Appendix 9.4.

Many of the insect species with aquatic life-stages could have been visiting the site previously, using the River Frome and Rodden Brook as their main habitats. However, it is unlikely that the site supported such a wide range of butterfly species.

## 6.0 Changes to Flora & Fauna over the Five-year Period

Informal records of species from a range of taxa were gathered in 2007 onwards. Formal surveys and record collection began in 2008 with both vascular plants (Tigwell, 2008) and invertebrates (Pinchen, 2008, 2009, 2010, 2011) being fully surveyed. Aquatic invertebrates were also surveyed (Thomas, 2010). A further survey of vascular plants was carried out in 2012 as part of the data gathering for this report.

### 6.1 Terrestrial Invertebrates

The series of terrestrial invertebrate surveys (Pinchen, 2008, 2009, 2010, 2011) has shown that a remarkable range of species is using the Reserve, with an increase in species richness over the years. Species were recorded by the area of the Reserve that they were using at the time of the survey. By the end of 2011 there were 365 species had been recorded, of which 21 species were either Red Data Book or Nationally Scarce, with several being first records for Somerset or for East Somerset.

The full list of invertebrate species, by year, is given in Appendix 9.5. The presence of individuals of other taxa was noted; these records have been incorporated into the overall database for the Reserve.

The information from these surveys was used to guide the annual management plans, within the constraints of working with owners of the adjacent farmland.

Several volunteers also gathered casual records of other terrestrial invertebrates: these were mainly of butterflies, moths, damselflies and dragonflies. Occasional moth trapping was carried out in 2010 and 2011. Lists of additional species recorded by these volunteers since 2006 are in Appendix 9.6.



With no base-line data for invertebrates, except butterflies and one moth species, it is difficult to estimate the effect of creating the Reserve on these taxa. However, with species richness increasing every year and with so many of the species being specialists, it has to be concluded that the majority would not have been present previously. It must be concluded that the creation of Rodden Nature Reserve has greatly contributed to the diversity of invertebrate species in the Frome and East Somerset areas.



Speckled Wood (*Pararge aegeria*) on Great Willowherb (*Epilobium hirsutum*) 07.2010



Brown Argus (*Aricia agestis*) on Silverweed (*Potentilla anserina*) 07.2011



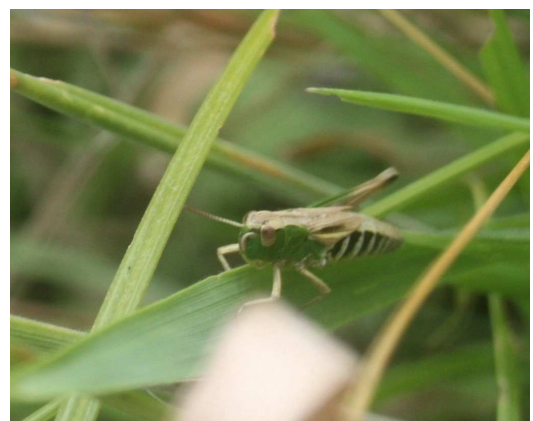
Gatekeeper (*Pyronia tithonus*) 07.2011



Brown Argus (*Aricia agestis*) on Silverweed (*Potentilla anserina*) 07.2011



Marbled White (*Melanargia galathea*) on Hemlock Water Dropwort (*Oenanthe crocata*) 06.2012



Meadow Grasshopper (*Chorthippus parallelus*) 30.07.2008





Caterpillars of Cinnabar Moth (*Tyria jacobaeae*) on Common Ragwort (*Senecio jacobaea*) 07.2010

## 6.2 Aquatic Invertebrates

The aquatic invertebrate survey proved to be unsatisfactory, partly due to weather constraints. The species identified are listed in Appendix 9.5. The results from it suggested that the only means by which species richness and abundance could be increased would be through drastically increasing the vegetation in the Large Western Pool: this would be in contravention of the Environment Agency's requirement for open water as a means of flood mitigation.

## 6.3 Birds

Birds were recorded by sight or sound by several volunteers; the British Trust for Ornithology provided further data. Breeding status was recorded where possible. A list of those species recorded since 2006 are in Appendix 9.7: those new since 2006 are highlighted. The national designations for bird species are repeated.

Many of the bird species recorded in 2006 and the majority of the 28 new bird-species recorded since then require a wetland habitat: whether this is a large body of open water, or marshy areas. It is very unlikely that they would have been recorded in the absence of the Reserve.

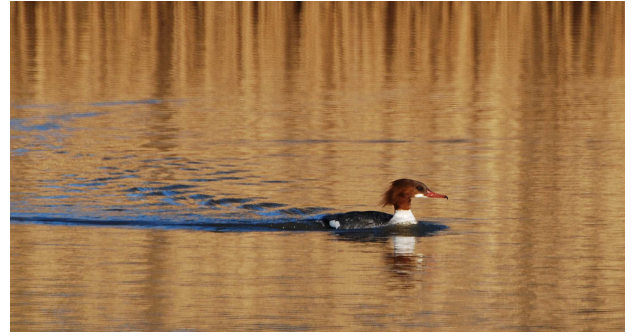
The Bittern is a reedbed specialist, as is Cetti's Warbler, both are very rarely seen away from this habitat. Reed and Sedge Warblers and Reed Buntings also fall into this category. Moorhen, Goosander and Kingfisher are linked to areas of open water.

The presence of Barn Owl and Kestrel is probably due to the areas of rough grassland that have allowed populations of small mammals to build up to such a level as to attract this predator. The addition of bird feeders has probably driven the increase in the presence of the smaller passerines.

It is of note that over half of the bird species recorded have an Amber or Red designation: i.e. they are Birds of Conservation Concern. Their presence since the creation of the Reserve is therefore very important in terms of conservation.



Bittern *Botaurus stellaris* 03.2012  
© Bruce Taylor



Female Goosander (*Mergus merganser*) 02.2013  
© J. Vickers

## 6.4 Mammals

Mammals were recorded by a combination of tracks, other signs (e.g. spraints for Otter), checking under sheets of corrugated iron and roofing felt, and through the occasional use of Longworth traps. Breeding status was also recorded where possible. A list of those species recorded since 2006 are in Appendix 9.7: those new since 2006 are highlighted, although some were likely to have been present, but unrecorded.

The number of mammal species recorded has also increased. Of the Red Data Book species, both Otter and Badger continue to be recorded, whilst Water Shrew is an addition. Some of the species listed as 'new' would almost undoubtedly have been present before the creation of the Reserve: e.g. Rabbit (*Oryctolagus cuniculus*) and Roe Deer (*Capreolus capreolus*), which are both very common in the area.

Despite extensive searches, no evidence of Water Voles has been found since the construction of the Reserve.

Whilst the creation of the Reserve has undoubtedly been to the benefit of several species of mammal, it is disappointing that a key target species (Water Vole) appears to have become extinct on the site.





Otter (*Lutra lutra*) prints 05.2012



Bank Vole (*Myodes glareolus*) nest  
06.2012



Otter (*Lutra lutra*) from camera-trap  
01.2013 © FAWG

## 6.5 Other Vertebrates

Of the amphibian and reptile species recorded over the last five years (Appendix 9.7), it is possible that all were present before the construction of the Reserve. With no base-line data it has not proved possible to monitor any changes in abundance, but it is very likely that they are more common in the increasingly wet and complex habitats that are now available on the site.



Slow Worm (*Anguis fragilis*) 06.2012



Toad (*Bufo bufo*) 05.2012

## 6.6 Fungi and Algae

Fungi and algae have also been recorded on the Reserve. They are listed in Appendix 9.7.

## 6.7 Flora

A full plant survey was carried out in 2008 (Tigwell): additions were made to this list in 2009 and 2012, with casual records in all other years.

As a result of recommendations in the original management plans, species additional to those on the initial planting list were introduced to the site. This was mainly to increase the range of nectar and larval food-plants for invertebrates:

Basil	<i>Clinopodium vulgare</i>
Betony	<i>Stachys officinalis</i>
Fleabane – Common	<i>Pulicaria dysenterica</i>
Knapweed – Greater	<i>Centaurea scabiosa</i>
Rattle – Yellow	<i>Rhinanthus minor</i>
Reed – Common	<i>Phragmites australis</i>

The plants recorded on the Reserve are listed in Appendix 9.8. This includes those plants known to have been planted or presumed to have been retained on the site: e.g. Alder: these species are highlighted in the list in order to identify those that have colonised the site naturally since 2005.

The increase in the number of plant species on the Reserve is excellent and has undoubtedly added to the overall biodiversity of the site, especially for invertebrate species and their predators.

Several rare or uncommon plant species are now recorded on the Reserve; the majority of which have occurred naturally, including the orchid species. The most important plant for the area is the Corky-fruited Water Dropwort: this was present in 2000 and continues to be found on the site. Originally it was mainly recorded in an area to the south of the pools, but was probably shaded out by some Alder seedlings (since coppiced). In 2011 it was first noted in the North Meadow, where it was the dominant flowering plant in 2012. This latter abundance was probably due to an increase in illegal grazing by horses. The plant is noted for its preference for this type of grazing.





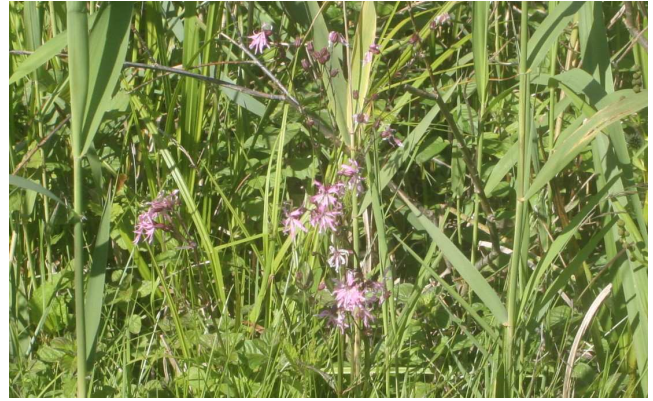
General view of flora on the Reserve  
07.2011



Branched Bur-reed (*Sparganium erectum*)  
07.2008



Marsh Ragwort (*Senecio aquaticus*)  
07.2008



Ragged Robin (*Lychnis flos-cuculi*) 06.2012



Marsh Marigold (*Caltha palustris*) 04.2008



Goatsbeard (*Tragopogon pratensis*)  
06.2012





Pyramidal Orchid (*Anacamptis pyramidalis*)  
07.2011



Bee Orchid (*Ophrys apifera*) 06.2007 Cley  
Hill



Common Spotted Orchid (*Dactylorhiza fuchsii*) 06.2012



Lady's Smock (*Cardamine pratense*)  
04.2008





Angelica (*Angelica sylvestris*) 07.2010



Curled Dock (*Rumex crispus*) 06.2012



Curled Pondweed (*Potamogeton crispus*)  
06.2012



North Meadow 06.2012



Corky-fruited Water Dropwort (*Oenanthe pimpinelloides*) 06.2012

## 6.8 Photographic Records

A photographic record of the site was made in March 2007 (upper photograph) and can be compared to a repeat made in 2012 (lower photograph).





Small Western Pool



Woodland Areas



Large Western Pool



Pathway alongside woodland area





Dam after completion



Across Large Western Pool

## 7.0 Recommendations

The current management regime appears to be improving species richness on the site; consequently no major changes are recommended.

The key factors in the management of this Reserve are to:

- Control alien invasive plants: e.g. Himalayan Balsam
- Reduce the impact of potentially dominant native species: e.g. coarse grasses, Alder, Common Nettle, rushes, ragwort, Creeping Thistle
- Close the Reserve between February and August
- Maintain, increase and monitor bird boxes
- Provision of a bird-feeding area
- Maintain areas of rough grass for mammals and their predators
- Retain mowings on-site to provide mammal habitat
- Maintain wetland and open-water areas for a range of animal species
- Manage the habitat for Corky-fruited Water-dropwort and other important plant species
- Increase the floral diversity to the benefit of invertebrate species
- Maintain areas of bare ground for certain invertebrates

In order to continue to monitor the Reserve, the following are recommended:

- Terrestrial invertebrate surveys – annual
- Aquatic invertebrate surveys – annual
- Flora surveys - biennial
- Monitoring nocturnal species (principally moths and bats) - annual
- Monitoring bird species – annual
- Monitoring mammal, amphibian and reptile species – annual

## **8.0 Acknowledgements**

The management, maintenance and monitoring of the Rodden Nature Reserve is a success due to the dedication of members of the Frome Area Wildlife Group; especially Bruce Douglas, Carl Griffin, Mick and Val Ridgard, Jim Rosser, Bruce Taylor, and Jenny Vickers.

The existence of and funding for the Reserve is due to Asda Walmart and we thank them for their support, especially Alex Novell as their representative, and the various Store Managers in Frome.

Many members of the FAWG have provided the records cited in this report, whilst Bryan Pinchen has carried out the professional surveys and provided expert advice on an *ad hoc* basis.

All photographs taken on-site and are copyright © Eve Tigwell, 2013, except where indicated.

*In memoriam:* Peter Bardgett (1936 - 2013) who provided much valued support and advice to FAWG until 2012.

9.0 Appendices

9.1 Site Layout



## 9.2 Planting List

Plants introduced to the site in 2004/05.

Common Name	Botanical Name
Apple *	<i>Malus pumila</i>
Bent – Common	<i>Agrostis capillaris</i>
Birch – Silver	<i>Betula pendula</i>
Blackthorn	<i>Prunus spinosa</i>
Bladderwort **	<i>Utricularia species</i>
Brooklime	<i>Veronica beccabunga</i>
Bur-reed - Branched	<i>Sparganium erectum</i>
Cherry – Wild	<i>Prunus avium</i>
Crested Dog's Tail	<i>Cynosurus cristatus</i>
Dropwort - Water ***	<i>Oenanthe species</i>
Elder	<i>Sambucus nigra</i>
Fescue – Meadow	<i>Festuca pratensis</i>
Fescue – Red	<i>Festuca rubra</i>
Field Maple	<i>Acer campestre</i>
Forgetmenot - Water ****	<i>Myosotis species</i>
Gipsywort	<i>Lycopus europaeus</i>
Guelder-rose	<i>Viburnum opulus</i>
Hair-grass – Tufted	<i>Deschampsia cespitosa</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hornwort - Rigid	<i>Ceratophyllum demersum</i>
Iris – Yellow	<i>Iris pseudacorus</i>
Ivy	<i>Hedera helix</i>
Loosestrife – Purple	<i>Lythrum salicaria</i>
Marsh Marigold	<i>Caltha palustris</i>
Meadow-grass - Rough-stalked	<i>Poa trivialis</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Mint – Water	<i>Mentha aquatica</i>
Plantain – Water	<i>Alisma plantago-aquatica</i>
Privet – Wild	<i>Ligustrum vulgare</i>
Reed – Common	<i>Phragmites australis</i>
Rose – Dog	<i>Rosa canina</i>
Rush – Hard	<i>Juncus inflexus</i>
Rush – Soft	<i>Juncus effusus</i>
Starwort – Water	<i>Callitriche truncata</i>
Watercress	<i>Rorippa nasturtium-aquaticum</i>
Fool's Watercress	<i>Apium nodiflorum</i>
Water Milfoil – Spiked	<i>Myriophyllum spicatum</i>
Water Parsnip – Lesser	<i>Berula erecta</i>
Wayfaring-tree	<i>Viburnum lantana</i>
Willowherb - Great	<i>Epilobium hirsutum</i>
Yorkshire Fog	<i>Holcus lantana</i>

\* Apple: *Malus sylvestris* or *domestica*?

\*\* Greater Bladderwort: *Utricularia vulgaris*?

\*\*\* Hemlock Water Dropwort: *Oenanthe crocata*?

\*\*\*\* Water Forgetmenot: *Myosotis scorpioides*?

### 9.3 Bird Records - 2006

Common Name	Scientific Name	National Designation	Somerset Designation
Little Egret *	<i>Egretta garzetta</i>	Amber	B
Grey Heron	<i>Ardea cinerea</i>		B
Mute Swan *	<i>Cygnus olor</i>		
Canada Goose * **	<i>Branta canadensis</i>		
Mallard	<i>Anas platyrhynchos</i>	Amber	
Garganey *	<i>Anas querquedula</i>	Amber: LP	AB
Tufted Duck *	<i>Aythya fuligula</i>	Amber	
Common Buzzard	<i>Buteo buteo</i>		
Sparrowhawk	<i>Accipiter nisus</i>		
Kestrel	<i>Falco tinnunculus</i>	Amber	D
Peregrine Falcon	<i>Falco peregrinus</i>	Amber: LP: Annex 1	B
Pheasant	<i>Phasianus colchicus</i>		
Moorhen	<i>Gallinula chloropus</i>		
Little Ringed Plover *	<i>Charadrius dubius</i>	Red: LP	AB
Dunlin *	<i>Calidris alpina</i>	Red	BC
Snipe *	<i>Gallinago gallinago</i>	Amber	BC
Jack Snipe *	<i>Lymnocyrtus minimus</i>	Amber	C
Green Sandpiper *	<i>Tringa ochropus</i>	Red: LP	AC
Common Sandpiper *	<i>Actitis hypoleucos</i>	Amber	
Black-headed Gull *	<i>Larus ridibundus</i>	Amber	
Bonaparte's Gull *	<i>Larus philadelphia</i>	Amber	
Common Gull *	<i>Larus canus</i>	Amber	C
Herring Gull *	<i>Larus argentatus</i>	Red	B
Yellow-legged Gull *	<i>Larus cachinnans</i>	Amber	
Lesser Black-backed Gull *	<i>Larus fuscus</i>	Amber	B
Wood Pigeon	<i>Columba palumbus</i>		
Collared Dove	<i>Streptopelia decaocto</i>		
Cuckoo	<i>Cuculus canorus</i>	Red	
Swift	<i>Apus apus</i>	Amber	
Kingfisher	<i>Alcedo atthis</i>	Amber: LP	AB
Green Woodpecker	<i>Picus viridis</i>	Amber	D
Great Spotted Woodpecker	<i>Dendrocopus major</i>		
Sand Martin *	<i>Riparia riparia</i>	Amber	
Barn Swallow	<i>Hirundo rustica</i>	Amber	D
House Martin	<i>Delichon urbica</i>	Amber: LP	D
Meadow Pipit	<i>Anthus pratensis</i>	Amber	
Pied Wagtail	<i>Motacilla alba</i>		
Yellow Wagtail *	<i>Motacilla flava</i>	Red	BD
Grey Wagtail	<i>Motacilla cinerea</i>	Amber	
Wren	<i>Troglodytes troglodytes</i>		
Dipper	<i>Cinclus cinclus</i>		
Dunnock	<i>Prunella modularis</i>	Amber	D
Robin	<i>Erithacus rubecula</i>		
Redstart	<i>Phoenicurus phoenicurus</i>	Amber	BC



Wheatear	<i>Oenanthe oenanthe</i>	Amber	
Stonechat	<i>Saxicola torquata</i>		
Song Thrush	<i>Turdus philomelos</i>	Red: P	CD
Redwing	<i>Turdus iliacus</i>	Red: LP	C
Mistle Thrush	<i>Turdus viscivorus</i>	Amber	
Fieldfare	<i>Turdus pilaris</i>	Amber: LP	C
Blackbird	<i>Turdus merula</i>		D
Blackcap	<i>Sylvia atricapilla</i>		
Common Whitethroat	<i>Sylvia communis</i>	Amber	
Sedge Warbler *	<i>Acrocephalus schoenobaenus</i>		
Reed Warbler *	<i>Acrocephalus scirpaceus</i>		
Willow Warbler	<i>Phylloscopus trochilus</i>	Amber	
Chiffchaff	<i>Phylloscopus collybita</i>		
Goldcrest	<i>Regulus regulus</i>		
Spotted Flycatcher	<i>Muscicapa striata</i>	Red: P	D
Great Tit	<i>Parus major</i>		
Blue Tit	<i>Parus caeruleus</i>		
Long-tailed Tit	<i>Aegithalos caudatus</i>		
Treecreeper	<i>Certhia familiaris</i>		
Magpie	<i>Pica pica</i>		
Jackdaw	<i>Corvus monedula</i>		
Rook	<i>Corvus frugilegus</i>		
Carrion Crow	<i>Corvus corone corone</i>		
Raven	<i>Corvus corax</i>		
Starling	<i>Sturnus vulgaris</i>		
Chaffinch	<i>Fringilla coelebs</i>		
Linnet	<i>Carduelis cannabina</i>	Red: P	CD
Lesser Redpoll	<i>Carduelis flammea</i>	Red	
Goldfinch	<i>Carduelis carduelis</i>	Amber	CD
Greenfinch	<i>Carduelis chloris</i>		
Siskin	<i>Carduelis spinus</i>		
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber: P	D
Reed Bunting	<i>Emberiza schoeniclus</i>	Amber: P	D

\* Linked to larger water-body and wetland habitats

\*\* Invasive species, which may be a 'conservation problem'

### National Designations (as at 2012):

**Birds of Conservation Concern: Red: Amber:** Full details at:

[www.bto.org/sites/default/files/u12/bocc3.pdf](http://www.bto.org/sites/default/files/u12/bocc3.pdf)

**LP:** Legally protected by Wildlife and Countryside Act (1981)

**P:** Biodiversity Action Plan Priority species

**Annex I:** Species protected under Annex I of the EU Birds directive

### Somerset Designations (2000):

**A:** Notable sightings: this category includes birds with low national populations (fewer than 10,000 individuals) at any time of year. A sighting of a bird in this category at any time of year constitutes a notable record

**B:** Breeding notable, this category includes species which are uncommon breeders at a national scale and which breed or have bred in Somerset or the South West. For a record to be notable a bird must be showing some evidence of breeding

**C:** Wintering notable, this category includes species which are uncommon winterers or which winter in internationally important numbers, a sighting of this bird in autumn or winter constitutes a notable record, providing it is not simply flying over a site on its migratory route

**D:** Declining breeder, this category includes species which breed in too large a number to be selected for category B, but which have declined in breeding numbers. For a sighting to be a notable record, birds must be exhibiting some evidence of breeding

#### 9.4 Butterfly & Moth Records - 2006

Common Name	Scientific Name
Small Skipper	<i>Thymelicus sylvestris</i>
Large Skipper	<i>Ochlodes venata</i>
Clouded Yellow	<i>Colias croceus</i>
Large White	<i>Pieris brassicae</i>
Small White	<i>Pieris rapae</i>
Small Copper	<i>Lycaena phlaeas</i>
Brown Argus *	<i>Aricia agestis</i>
Common Blue	<i>Polyommatus icarus</i>
Red Admiral	<i>Vanessa atalanta</i>
Painted Lady	<i>Cynthia (Vanessa) cardui</i>
Small Tortoiseshell	<i>Aglais urticae</i>
Peacock	<i>Inachis io</i>
Speckled Wood	<i>Pararge aegeria</i>
Wall	<i>Lasiommata megera</i>
Marbled White	<i>Melanargia galathea</i>
Gatekeeper	<i>Pyronia tithonus</i>
Meadow Brown	<i>Maniola jurtina</i>
Ringlet	<i>Aphantopus hyperantus</i>
Small Elephant Hawkmoth	<i>Deilephila porcellus</i>

\* Somerset Notable Species

#### 9.5 Invertebrate Surveys (2008 – 2011)

The main invertebrate surveys produced an excellent list of species, some of which were Red Data Book, Nationally Scarce or Somerset Notable species: these are marked in the table below.

Year		08	09	10	11
Latin Name	Common Name (Where available)				
<b>Mecoptera</b>	<b>Scorpion Flies</b>				
<i>Panorpa cognata</i>		Y			
<i>Panorpa communis</i>	Common Scorpion Fly	Y	Y	Y	Y
<i>Panorpa germanica</i>		Y	Y		

<b>Neuroptera</b>	<b>Lacewings</b>				
<i>Chrysopa perla</i>			Y	Y	Y
<i>Chrysoperla carnea</i>	Green Lacewing		Y	Y	Y
<i>Chrysopidia ciliata</i>					Y
<i>Dichochrysa prasina</i>					Y
<i>Micromus variegatus</i>			Y		Y
<b>Odonata</b>	<b>Damselflies</b>				
<i>Calopteryx virgo</i> **	Beautiful Demoiselle	Y		Y	Y
<i>Calopteryx splendens</i> **	Banded Demoiselle	Y	Y	Y	Y
<i>Lestes sponsa</i>	Emerald Demoiselle				Y
<i>Pyrrhosoma nymphula</i>	Large Red Damselfly	Y		Y	Y
<i>Platycnemis pennipes</i> *	White-legged Damselfly	Y	Y	Y	Y
<i>Coenagrion puella</i>	Azure Damselfly	Y	Y	Y	Y
<i>Coenagrion pulchellum</i> *	Variable Damselfly			Y	
<i>Enallagma cyathigerum</i>	Common Blue Damselfly	Y	Y	Y	Y
<i>Ischnura elegans</i>	Blue-tailed Damselfly	Y	Y	Y	Y
<i>Erythromma najas</i> **	Red-eyed Damselfly		Y	Y	Y
	<b>Dragonflies</b>				
<i>Aeshna juncea</i> **	Common Hawker	Y	Y		Y
<i>Aeshna cyanea</i>	Southern Hawker		Y	Y	Y
<i>Aeshna grandis</i>	Brown Hawker	Y			Y
<i>Anax imperator</i>	Emperor Dragonfly	Y	Y	Y	
<i>Libellula quadrimaculata</i>	Four-Spotted Chaser	Y			
<i>Libellula depressa</i>	Broad-bodied Chaser	Y	Y	Y	Y
<i>Orthetrum cancellatum</i> **	Black-tailed Skimmer		Y		
<i>Sympetrum striolatum</i>	Common Darter	Y	Y		Y
<i>Sympetrum sanguineum</i> *	Ruddy Darter		Y		Y
<b>Orthoptera</b>	<b>Bush Crickets</b>				
<i>Conocephalus discolor</i> *	Long-winged Conehead	Y			
<i>Conocephalus dorsalis</i>	Short-winged Conehead	Y			
<i>Pholidoptera griseoaptera</i>	Dark Bush-cricket	Y			
<i>Leptophyes punctatissima</i>	Speckled Bush-cricket	Y			
<b>Groundhoppers</b>	<b>Groundhoppers</b>				
<i>Tetrix subulata</i> **	Slender Groundhopper	Y	Y	Y	Y
<i>Tetrix undulata</i>	Common Groundhopper	Y	Y	Y	Y
	<b>Grasshoppers</b>				
<i>Omocestus viridulus</i>	Common Green Grasshopper	Y	Y		Y
<i>Chorthippus brunneus</i>	Common Field Grasshopper	Y	Y	Y	Y
<i>Chorthippus parallelus</i>	Meadow Grasshopper	Y	Y	Y	Y
<b>Dermaptera</b>	<b>Earwigs</b>				
<i>Forficula auricularia</i>	Common Earwig	Y	Y	Y	Y
<i>Forficula lesnei</i> *	Lesne's Earwig	Y	Y	Y	Y



<b>Heteroptera</b>	<b>True Bugs</b>				
<i>Saldula c-album</i>		Y	Y	Y	
<i>Tingis ampliata</i>			Y		
<i>Tingis cardui</i>			Y	Y	Y
<i>Dicyphus epilobii</i>		Y	Y	Y	Y
<i>Dicyphus errans</i>		Y			
<i>Deraeocoris ruber</i>		Y	Y	Y	Y
<i>Adelphocoris lineola</i>		Y			
<i>Adelphocoris lineolatus</i>			Y		
<i>Calocoris roseomaculatus</i>		Y	Y		Y
<i>Calocoris norvegicus</i>	Potato Capsid	Y	Y	Y	Y
<i>Capsus ater</i>		Y	Y	Y	Y
<i>Liocoris tripustulatus</i>		Y	Y	Y	Y
<i>Lygocoris lucorum</i>		Y	Y	Y	Y
<i>Lygocoris spinolae</i>			Y	Y	Y
<i>Lygocoris pabulinus</i>	Common Green Capsid		Y	Y	Y
<i>Lygocoris contaminatus</i>		Y	Y		
<i>Lygocoris viridis</i>			Y		
<i>Lygus rugulipennis</i>	Tarnished Plant Bug	Y	Y	Y	Y
<i>Miridius quadrivirgatus</i>			Y		Y
<i>Orthops campestris</i>		Y	Y	Y	Y
<i>Pantilius tunicatus</i>				Y	Y
<i>Phytocoris varipes</i>		Y	Y	Y	Y
<i>Stenotus binotatus</i>		Y	Y	Y	Y
<i>Leptopterna dolabrata</i>		Y	Y	Y	Y
<i>Notostira elongata</i>		Y	Y	Y	Y
<i>Stenodema calcarata</i>		Y	Y	Y	Y
<i>Stenodema laevigatum</i>			Y	Y	Y
<i>Heterotoma planicornis</i>					Y
<i>Trignotylus ruficornis</i>		Y	Y	Y	
<i>Blepharidopterus angulatus</i>	Black-kneed Capsid	Y	Y		
<i>Heterotoma planicornis</i>		Y	Y		Y
<i>Plagiognathus arbustorum</i>		Y	Y	Y	Y
<i>Plagiognathus chrysanthemi</i>		Y	Y	Y	Y
<i>Himacerus apterus</i>		Y	Y	Y	
<i>Nabis flavomarginatus</i>			Y	Y	Y
<i>Nabis rugosus</i>	Common Damsel Bug	Y	Y	Y	Y
<i>Anthocoris nemoralis</i>		Y	Y	Y	Y
<i>Anthocoris nemorum</i>	Common Flower Bug	Y	Y	Y	Y
<i>Brachysteles parvicornis</i>			Y		
<i>Heterogaster urticae</i>		Y			Y
<i>Kleidocerys resedae</i>				Y	Y
<i>Cymus melanocephalus</i>			Y	Y	Y
<i>Ischnodemus sabuleti</i>	European Chinchbug		Y		Y
<i>Chilacis typhae</i>				Y	Y
<i>Scolopostethus thomsoni</i>				Y	
<i>Trapezonotus arenarius</i>				Y	
<i>Taphropeltus contractus</i>		Y			Y

<i>Coreus marginatus</i>	Squash Bug	Y	Y	Y	Y
<i>Corizus hyoscyami</i>					Y
<i>Rhopalus subrufus</i>		Y	Y	Y	Y
<i>Myrmus miriformis</i>					Y
<i>Stictopleurus punctatonevrosus</i>					Y
<i>Scolopostethus affinis</i>			Y		
<i>Peritrechus geniculatus</i>			Y		
<i>Sehirus bicolor</i>	Pied Shieldbug		Y		
<i>Eurygaster testudinaria</i>		Y	Y	Y	Y
<i>Podops inuncta</i>					Y
<i>Aelia acuminata</i>	Bishop's Mitre	Y	Y		Y
<i>Dolycoris baccarum</i>		Y	Y	Y	Y
<i>Eysarcoris fabricii</i>		Y	Y	Y	Y
<i>Palomena prasina</i>	Green Shieldbug	Y	Y	Y	Y
<i>Piezodorus lituratus</i>	Gorse Shieldbug			Y	
<i>Pentatoma rufipes</i>	Forest Bug			Y	Y
<i>Picromerus bidens</i>			Y	Y	
<i>Troilus luridus</i>		Y	Y	Y	
<i>Acanthosoma haemorrhoidale</i>	Hawthorn Shieldbug	Y	Y	Y	Y
<i>Elasmotethus interstinctus</i>				Y	
<i>Eurydema oleracea</i>					Y
<i>Zicrona caerulea</i>	Blue Bug	Y	Y	Y	Y
<b>Lepidoptera</b>	<b>Butterflies</b>				
<i>Thymelicus sylvestris</i>	Small Skipper	Y	Y	Y	Y
<i>Thymelicus lineola</i>	Essex Skipper	Y	Y	Y	Y
<i>Ochlodes venata</i>	Large Skipper	Y	Y	Y	Y
<i>Gonepteryx rhamni</i>	Brimstone	Y	Y		
<i>Pieris brassicae</i>	Large White	Y	Y	Y	Y
<i>Pieris rapae</i>	Small White	Y	Y	Y	Y
<i>Pieris napi</i>	Green-veined White	Y	Y	Y	Y
<i>Anthocharis cardamines</i>	Orange-tip	Y	Y	Y	Y
<i>Lycaena phlaeas</i>	Small Copper	Y	Y	Y	Y
<i>Arícia agestis</i> *	Brown Argus				Y
<i>Polyommatus icarus</i>	Common Blue	Y	Y	Y	Y
<i>Celastrina argiolus</i>	Holly Blue				Y
<i>Aglais urticae</i>	Small Tortoiseshell	Y	Y	Y	Y
<i>Inachis io</i>	Peacock	Y	Y	Y	Y
<i>Polygonia c-album</i>	Comma	Y	Y	Y	Y
<i>Vanessa atalanta</i>	Red Admiral	Y	Y		Y
<i>Cynthia cardui</i>	Painted Lady	Y	Y		
<i>Pararge aegeria</i>	Speckled Wood	Y	Y	Y	Y
<i>Lasiommata megera</i>	Wall	Y			
<i>Melanargia galathea</i>	Marbled White	Y		Y	Y
<i>Pyronia tithonus</i>	Gatekeeper	Y	Y	Y	Y
<i>Maniola jurtina</i>	Meadow Brown	Y	Y	Y	Y
<i>Aphantopus hyperantus</i>	Ringlet	Y		Y	Y
<i>Coenonympha pamphilus</i>	Small Heath				Y

<b>Diptera</b>	<b>Hoverflies</b>				
<i>Anasimyia contracta</i>		Y		Y	
<i>Anasimyia transfuga</i>				Y	
<i>Cheilosia albitarsus</i>		Y	Y	Y	Y
<i>Cheilosia bergenstammi</i>		Y	Y		Y
<i>Cheilosia lasiopa</i>					Y
<i>Cheilosia illustrata</i>		Y	Y	Y	
<i>Cheilosia mutabilis</i> *		Y			
<i>Cheilosia pagana</i>		Y	Y	Y	Y
<i>Cheilosia variabilis</i>			Y	Y	
<i>Cheilosia proxima</i>		Y			
<i>Cheilosia vernalis</i>		Y	Y		
<i>Chrysogaster semiteriorum</i>					Y
<i>Chrysotoxum bicinctum</i>		Y	Y	Y	Y
<i>Criorhina ranunculii</i> *			Y		
<i>Chrysotoxum festivum</i>		Y			
<i>Chrysotoxum cautum</i>				Y	
<i>Epistrophe eligans</i>		Y	Y		Y
<i>Episyrphus balteatus</i>		Y	Y	Y	Y
<i>Eristalis arbustorum</i>		Y	Y	Y	Y
<i>Eristalis interrupta</i>		Y	Y	Y	Y
<i>Eristalis intricarius</i>		Y	Y	Y	Y
<i>Eristalis pertinax</i>		Y	Y	Y	Y
<i>Eristalis tenax</i>	Drone-fly	Y	Y	Y	Y
<i>Eumerus strigatus</i>		Y	Y		
<i>Eumerus funeralis</i>				Y	Y
<i>Eupeodes corollae</i>		Y	Y	Y	Y
<i>Eureodes luniger</i>			Y	Y	Y
<i>Helophilus hybridus</i>		Y	Y		
<i>Helophilus pendulus</i>		Y	Y	Y	Y
<i>Helophilus trivittatus</i>		Y	Y	Y	
<i>Lejogaster metallina</i>		Y	Y	Y	
<i>Leucozona laternaria</i>					Y
<i>Leucozona leucorum</i>			Y	Y	Y
<i>Melanogaster hirtella</i>		Y	Y	Y	Y
<i>Melanostoma mellinum</i>		Y	Y	Y	Y
<i>Melanostoma scalare</i>		Y	Y	Y	Y
<i>Meliscaeva auricollis</i>			Y		
<i>Meliscaeva cintella</i>					Y
<i>Merodon equestris</i>	Narcissus-fly	Y			
<i>Myathropa florea</i>		Y	Y	Y	Y
<i>Neoascia meticulosa</i>			Y	Y	
<i>Neoascia podagrica</i>		Y	Y		Y
<i>Neoascia tenur</i>			Y		
<i>Paragus haemorrhous</i>		Y	Y	Y	
<i>Pipizia viduata</i>			Y		Y
<i>Pipizia noctiluca</i>				Y	Y
<i>Parasyrphus lineola</i>			Y		
<i>Parhelophilus versicolor</i>			Y		

<i>Platycheirus albimanus</i>		Y	Y	Y	Y
<i>Platycheirus clypeatus</i>		Y	Y	Y	Y
<i>Platycheirus granditarsus</i>		Y	Y	Y	
<i>Platycheirus manicatus</i>				Y	Y
<i>Platycheirus occultus</i>					Y
<i>Platycheirus peltatus</i>		Y	Y	Y	Y
<i>Platycheirus rosarum</i>		Y	Y	Y	Y
<i>Rhingia campestris</i>		Y	Y	Y	Y
<i>Ripponensia splendens</i>				Y	
<i>Scaeva pyrastris</i>		Y	Y	Y	Y
<i>Sphaerophoria interrupta</i>		Y	Y	Y	Y
<i>Sphaerophoria scripta</i>		Y	Y	Y	Y
<i>Syrirta pipiens</i>		Y	Y	Y	Y
<i>Syrphus ribesii</i>		Y	Y	Y	Y
<i>Syrphus vitrepennis</i>			Y	Y	
<i>Trichopsomyia flavitarsis</i>		Y		Y	
<i>Volucella bombylans</i>	Bumblebee Mimic	Y	Y	Y	Y
<i>Volucella pellucens</i>				Y	Y
<i>Volucella zonaria</i> *		Y		Y	Y
<i>Xanthogramma pedissequum</i>		Y			
	<b>Larger Brachyra</b>				
<i>Chrysopilus asiliformis</i>		Y		Y	Y
<i>Chrysopilus cristatus</i>		Y	Y	Y	Y
<i>Rhagio scolopaceus</i>	Snipe-fly	Y	Y	Y	Y
<i>Rhagio tringarius</i>		Y	Y	Y	Y
<i>Haematopota crassicornis</i>					Y
<i>Haematopota pluvialis</i>		Y	Y	Y	Y
<i>Beris chalybata</i>		Y	Y	Y	
<i>Beris geniculata</i>				Y	
<i>Beris vallata</i>		Y	Y	Y	Y
<i>Oxycera morrisii</i> *					Y
<i>Oxycera rara</i>				Y	Y
<i>Oxycera trilineata</i>			Y	Y	Y
<i>Vanoyia tenuicornis</i> *				Y	
<i>Nemotelus pantherinus</i>				Y	
<i>Pachygaster atra</i>					Y
<i>Pachygaster leachii</i>				Y	
<i>Chloromyia formosa</i>		Y	Y	Y	Y
<i>Odontomyia argentata</i> *				Y	Y
<i>Oplodontha viridula</i>			Y	Y	Y
<i>Microchrysa flavicornis</i>					Y
<i>Microchrysa polita</i>		Y		Y	
<i>Machimus atricapillus</i>	Robber-fly				Y
<i>Leptogaster cylindrica</i>					Y
<i>Stratomys potamida</i> *	Soldier-fly		Y		
<i>Bombylius major</i>	Bee-fly			Y	
<i>Dioctria atricapilla</i>		Y	Y	Y	Y
<i>Dioctria linearis</i>					Y

	<b>Snail-killing Flies</b>				
<i>Pherbellia cinerella</i>		Y	Y	Y	Y
<i>Pherbellia griseola</i> *		Y	Y	Y	Y
<i>Pherbellia nana</i> *			Y		
<i>Pherbellia schoenherri</i>		Y	Y	Y	Y
<i>Pherbellia ventralis</i>		Y	Y	Y	Y
<i>Coremacera marginata</i>			Y	Y	Y
<i>Dichetophora obliterata</i>			Y		
<i>Elgiva cucularia</i>		Y	Y	Y	
<i>Hydromya dorsalis</i>		Y	Y		
<i>Ilione albiseta</i>		Y	Y	Y	
<i>Limnia unguicornis</i>		Y	Y	Y	Y
<i>Pherbina coryleti</i>		Y	Y	Y	Y
<i>Sepedon sphegea</i>		Y	Y	Y	Y
<i>Tetanocera arrogans</i>		Y	Y	Y	Y
<i>Tetanocera elata</i>			Y	Y	Y
<i>Tetanocera ferruginea</i>					Y
<i>Tetanocera punctifrons</i> *		Y	Y	Y	Y
<i>Trypetoptera punctulata</i>		Y	Y	Y	Y
	<b>Picture-winged Flies</b>				
<i>Urophora cardui</i>		Y	Y	Y	Y
<i>Urophora jaceana</i>					Y
<i>Urophora stylata</i>		Y	Y	Y	Y
<i>Dioxya bidentis</i> *					Y
<i>Sphenella marginata</i>		Y			Y
<i>Merzomyia westermanni</i> *					Y
<i>Tephritis bardanae</i>		Y	Y	Y	Y
<i>Tephritis cometa</i>				Y	Y
<i>Tephritis leontodontis</i>					Y
<i>Tephritis neesi</i>			Y		Y
<i>Tephritis formosa</i>		Y			
<i>Terellia colon</i>		Y			Y
<i>Terellia longicauda</i>				Y	
<i>Terellia ruficauda</i>			Y	Y	Y
<i>Terellia serratulæ</i>		Y	Y		Y
<i>Terellia tussilaginis</i>					Y
<i>Xyphosia miliaria</i>			Y		Y
<i>Anomoia permunda</i>		Y	Y	Y	Y
<i>Euleia heracleii</i>					Y
<i>Herina frondescentiae</i>				Y	Y
<i>Herina lugubris</i>				Y	Y
	<b>Conopid Flies</b>				
<i>Conops ceriaeformis</i>					Y
<i>Physocephala rufipes</i>		Y	Y		Y
<i>Myopa extricata</i> *		Y			
<i>Sicus ferrugineus</i>		Y	Y	Y	Y

	<b>Tachinid Flies</b>				
<i>Eriothrix rufomaculata</i>		Y	Y	Y	
<i>Cistogaster globosa</i> *			Y		
<i>Phasia pusilla</i>				Y	
<i>Phasia obesa</i>		Y	Y	Y	
<i>Dexiosoma caninum</i>		Y		Y	
<i>Tachina fera</i>		Y		Y	
<i>Nowickia ferox</i>		Y	Y	Y	
<b>Aculeate Hymenoptera</b>	<b>Jewel Wasps</b>				
<i>Chrysis ignita</i> agg.	Ruby-tailed Wasp		Y	Y	Y
<i>Trichrysis cyanea</i>				Y	Y
	<b>Ants</b>				
<i>Myrmica rubra</i>	Red Ant	Y	Y	Y	Y
<i>Myrmica ruginodis</i>	Red Ant	Y	Y	Y	Y
<i>Lasius niger</i>	Black Ant	Y	Y	Y	Y
	<b>Spider-hunting Wasps</b>				
<i>Anoplius nigerrimus</i>				Y	Y
	<b>Potter Wasps</b>				
<i>Gymnomerus laevipes</i>				Y	Y
<i>Ancistrocerus gazella</i>					Y
<i>Ancistrocerus parietum</i>				Y	
	<b>Social Wasps</b>				
<i>Dolichovespula media</i>			Y		Y
<i>Dolichovespula sylvestris</i>	Tree Wasp		Y	Y	
<i>Vespula rufa</i>	Red Wasp		Y		
<i>Vespula germanica</i>	German Wasp			Y	Y
<i>Vespula vulgaris</i>	Common Wasp	Y	Y	Y	Y
<b>Solitary Wasps</b>	<b>Solitary Wasps</b>				
<i>Trypoxylon attenuatum</i>		Y			
<i>Trypoxylon figulus</i>		Y		Y	Y
<i>Crossocerus annulipes</i>			Y		
<i>Crossocerus podagricus</i>				Y	Y
<i>Ectemnius cavifrons</i>			Y		
<i>Ectemnius cephalotes</i>			Y	Y	Y
<i>Ectemnius continuus</i>				Y	
<i>Ectemnius lituratus</i>		Y			Y
	<b>Solitary Bees</b>				
<i>Hylaeus pictipes</i> *		Y			
<i>Hylaeus confusus</i>			Y		Y
<i>Hylaeus communis</i>				Y	Y
<i>Andrena barbilabris</i>					Y
<i>Andrena bicolor</i>					Y
<i>Andrena chrysosceles</i>			Y	Y	Y
<i>Andrena cineraria</i>		Y	Y	Y	Y
<i>Andrena flavipes</i>		Y		Y	Y
<i>Andrena fulva</i>	Tawny Mining Bee	Y			Y
<i>Andrena haemorrhoa</i>		Y	Y	Y	Y
<i>Andrena nigroenaea</i>			Y		

<i>Andrena pubescens</i>		Y	Y		Y
<i>Andrena semilaevis</i>					Y
<i>Andrena subopaca</i>		Y	Y	Y	Y
<i>Andrena thoracica</i>		Y			
<i>Andrena varians</i> *					Y
<i>Andrena wilkella</i>		Y			Y
<i>Halictus tumulorum</i>			Y	Y	Y
<i>Lasioglossum albipes</i>			Y	Y	Y
<i>Lasioglossum calceatum</i>		Y	Y	Y	Y
<i>Lasioglossum morio</i>		Y	Y	Y	Y
<i>Lasioglossum pauxillum</i> *		Y			
<i>Lasioglossum parvulum</i>			Y		
<i>Sphecodes ephippius</i>			Y		Y
<i>Sphecodes geofrellus</i>		Y	Y		
<i>Nomada fabriciana</i>					Y
<i>Nomada flava</i>			Y		Y
<i>Nomada fucata</i> *					Y
<i>Nomada goodeniana</i>					Y
<i>Nomada sheppardana</i>					Y
<i>Nomada flavoguttata</i>			Y		
<i>Nomada lathburiana</i> *			Y		
<i>Nomada panzeri</i>				Y	
<i>Megachile centuncularis</i>	Leaf-cutter Bee			Y	
<i>Megachile versicolor</i>			Y		
<i>Megachile willughbiella</i>					Y
<i>Osmia leaiana</i>				Y	
<i>Osmia rufa</i>			Y	Y	Y
<i>Anthophora plumipes</i>	Flower Bee	Y	Y		
	<b>Social Bees</b>				
<i>Bombus hortorum</i>	Garden Bumblebee	Y	Y	Y	Y
<i>Bombus hypnorum</i>	Tree Bumblebee				Y
<i>Bombus lapidarius</i>	Red-tailed Bumblebee	Y	Y	Y	Y
<i>Bombus lucorum</i>	White-tailed Bumblebee	Y	Y	Y	Y
<i>Bombus pascuorum</i>	Common Carder Bumblebee	Y	Y	Y	Y
<i>Bombus pratorum</i>	Early Bumblebee	Y	Y	Y	Y
<i>Bombus ruderalis</i>	Red-shanked Carder Bee				Y
<i>Bombus rupestris</i> *	Hill Cuckoo Bee			Y	Y
<i>Bombus terrestris</i>	Buff-tailed Bumblebee	Y	Y	Y	Y
<i>Bombus vestalis</i>	Vestal Cuckoo Bumblebee	Y	Y	Y	
<i>Apis mellifera</i>	Honey Bee	Y	Y	Y	Y
<b>Coleoptera</b>	<b>Ladybirds</b>				
<i>Coccidula rufa</i>		Y	Y	Y	Y
<i>Calvia 14-guttata</i>	Cream 14-spot Ladybird	Y		Y	
<i>Propylea 14-punctata</i>	14-spot Ladybird	Y	Y	Y	Y
<i>Harmonia axyridis</i> *	Harlequin Ladybird	Y	Y	Y	Y
<i>Adalia 2-punctata</i>	2-spot Ladybird	Y	Y	Y	Y

<i>Adalia 10-punctata</i>	10-spot Ladybird			Y	
<i>Coccinella 7-punctata</i>	7-spot Ladybird	Y	Y	Y	Y
<i>Coccinella 11-punctata</i>	11-spot Ladybird		Y		
<i>Anisosticta 19-punctata</i>	Water Ladybird		Y		Y
<i>Psyllobora 22-punctata</i>	22-spot Ladybird		Y	Y	Y
<i>Adonia variegata</i>	Adonis Ladybird	Y			
<i>Tytthaspis 16-punctata</i>	16-spot Orange Ladybird	Y	Y	Y	Y
<i>Chilocorus renipustulatus</i>	Kidney-spot Ladybird				Y
<i>Subcoccinella 24-punctata</i>	24-spot Ladybird		Y		Y
	<b>Longhorn Beetles</b>				
<i>Grammoptera ruficornis</i>			Y	Y	Y
<i>Leptura melanura</i>			Y		
<i>Rutpela maculate</i>					Y

\* Red Data Book or Nationally Scarce species

\*\* Somerset Notable species

### Aquatic Invertebrate Survey:

#### Molluscs

Ear Pond Snail	<i>Lymnaea auricularia</i>
Great Pond Snail	<i>Lymnaea stagnalis</i>

#### Worms

Ribbon Worm	<i>Prostoma graecense</i>
Fish Leech	<i>Piscicola geometra</i>

#### Diatoms

Diatom	<i>Navicula</i> species
Diatom	<i>Nitzschia</i> species

#### Copepods

Copepod	<i>Cyclops</i> species
---------	------------------------

#### Crustacea

Daphnia	<i>Daphnia</i> species
Daphnia	<i>Ceriodaphnia</i> species
Polyphemus	<i>Polyphemus</i> species



## 9.6 Other Invertebrate Records Since 2006

### Moths

Cinnabar Moth (larvae)	<i>Tyria jacobaeae</i>
Ruby Tiger	<i>Phragmatobia fuliginosa</i>
White Ermine	<i>Spilosoma lubricipeda</i>
Scarlet Tiger	<i>Callimorpha dominula</i>
Mother Shipton	<i>Callistege mi</i>

### Spiders

Garden Spider	<i>Araneus diadematus</i>
Four-spot Orb-spider	<i>Araneus quadratus</i>
Harvestman	<i>Leiobunum rotundatum/blackwalli</i>

### Molluscs

Swan Mussel	<i>Anodonta cygnea</i>
Amber Snail	<i>Succinea putris</i>
White-lipped Snail	<i>Cepaea hortensis</i>
Slug	<i>Arion ater</i> agg.

## 9.7 Other Animal Records Since 2006

### Birds

Year		07	08	09	10	11	12	Comments: National Designation
Great Crested Grebe *	<i>Podiceps cristatus</i>	x					x	Uncommon visitor
Cormorant *	<i>Phalacrocorax carbo</i>		x	x	x	x		Regular visitor
Bittern *	<i>Botaurus stellaris</i>						x	Red
Little Egret	<i>Egretta garzetta</i>	x	x	x				Occasional visitor: Amber
Grey Heron	<i>Ardea cinerea</i>	x	x	x	x	x	x	One or two present most days
Mute Swan	<i>Cygnus olor</i>	x	x	x		x		Common visitor, attempted breeding one year
Greylag Goose *	<i>Anser anser</i>					x	x	Uncommon visitor: Amber (probably feral)

Canada Goose	<i>Branta canadensis</i>	x	x	x	x	x	x	Common visitor: feral
Shelduck *	<i>Tadorna tadorna</i>		x	x				Uncommon visitor: Amber
Mandarin Duck *	<i>Aix galericulata</i>						x	Uncommon visitor; feral
Mallard	<i>Anas platyrhynchos</i>	x	x	x	x	x	x	Regular breeder: Amber
Wigeon *	<i>Anas penelope</i>					x		Uncommon winter visitor: Amber
Teal *	<i>Anas crecca</i>					x		Uncommon winter visitor: Amber
Garganey	<i>Anas querquedula</i>	x						Uncommon visitor: Amber
Tufted Duck	<i>Aythya fuligula</i>	x	x				x	Uncommon winter visitor: Amber
Goosander *	<i>Mergus merganser</i>					x	x	Uncommon winter visitor
Common Buzzard	<i>Buteo buteo</i>	x	x	x	x		x	Regular visitor
Sparrowhawk	<i>Accipiter nisus</i>	x	x		x	x	x	Regular visitor
Kestrel	<i>Falco tinnunculus</i>	x	x			x	x	Regular visitor: Amber
Hobby *	<i>Falco subbuteo</i>	x			x			Uncommon summer migrant
Peregrine	<i>Falco peregrinus</i>	x		x				Uncommon visitor: Amber
Red-legged Partridge *	<i>Alectoris rufa</i>					x	x	Breeding: feral
Pheasant	<i>Phasianus colchichus</i>	x	x	x	x	x	x	Two or three most days
Water Rail *	<i>Rallus aquaticus</i>	x			x	x	x	Regular winter visitor
Moorhen	<i>Gallinula chloropus</i>	x	x	x	x	x	x	Regular breeder
Coot *	<i>Fulica atra</i>				x		x	Uncommon visitor
Little Ringed Plover	<i>Charadrius dubius</i>	x						Attempted breeding: Red

Dunlin	<i>Calidris alpina</i>	x						Passage migrant: Red
Green Sandpiper	<i>Tringa ochropus</i>		x	x				Passage migrant: Red
Common Sandpiper	<i>Actitis hypoleucos</i>	x	x	x	x	x	x	Regular passage migrant: Amber
Redshank *	<i>Tringa tetanus</i>		x					Passage migrant: Amber
Greenshank *	<i>Tringa nebularia</i>				x			Passage migrant
Snipe	<i>Gallinago gallinago</i>		x	x	x			Regular visitor: Amber
Jack Snipe	<i>Lymnocyptes minimus</i>	x						Uncommon visitor: Amber
Black-headed Gull	<i>Larus ridibundus</i>	x	x	x	x	x	x	Regular visitor in large numbers: Amber
Bonaparte's Gull	<i>Larus philadelphia</i>	x						Rare: Amber
Mediterranean Gull *	<i>Larus melanocephalus</i>			x				Rare: Amber
Common Gull	<i>Larus canus</i>	x		x	x			Uncommon visitor: Amber
Herring Gull	<i>Larus argentatus</i>	x	x	x	x	x	x	Common visitor: Red
Yellow-legged Gull	<i>Larus cachinnans</i>	x						Rare: Amber
Lesser Black-backed Gull	<i>Larus fuscus</i>	x	x	x	x	x	x	Regular visitor in small numbers: Amber
Wood pigeon	<i>Columbus palumbus</i>	x	x	x	x	x	x	Regular visitor in small numbers
Collared Dove	<i>Streptopelia decaocto</i>	x	x					Uncommon visitor
Cuckoo	<i>Cuculus canorus</i>	x						Summer migrant: Red
Barn Owl *	<i>Tyto alba</i>				x			Rare: Amber
Swift	<i>Apus apus</i>	x		x		x		Summer migrant: Amber

Kingfisher	<i>Alcedo atthis</i>	x	x	x	x	x	x	Regular visitor: Amber
Green Woodpecker	<i>Picus viridis</i>	x	x		x	x	x	Regular visitor: Amber
Great Spotted Woodpecker	<i>Dendrocopos major</i>	x	x	x	x	x	x	Regular visitor, display seen
Sand Martin	<i>Riparia riparia</i>	x	x		x	x		Summer migrant: Amber
House Martin	<i>Delichon urbica</i>	x		x	x	x		Summer migrant: Amber
Barn Swallow	<i>Hirundo rustica</i>	x	x		x	x	x	Summer migrant: Amber
Meadow Pipit	<i>Anthus pratensis</i>	x	x	x	x	x		Regular in small numbers: Amber
Tree Pipit *	<i>Anthus trivialis</i>						x	Red
Pied Wagtail	<i>Motacilla alba</i>	x	x		x	x	x	One or two regularly
Grey Wagtail	<i>Motacilla cinerea</i>	x	x		x	x	x	Regular, bred in early years: Amber
Yellow Wagtail	<i>Motacilla flava</i>	x	x					Uncommon summer migrant: Red
Wren	<i>Troglodytes troglodytes</i>	x	x	x	x		x	Ever present
Dipper	<i>Cinclus cinclus</i>	x					x	Uncommon visitor
Dunnock	<i>Prunella modularis</i>	x	x	x	x	x	x	Ever present: Amber
Robin	<i>Erithacus rubecula</i>	x	x	x	x	x	x	Ever present
Wheatear	<i>Oenanthe oenanthe</i>	x	x					Uncommon visitor: Amber
Stonechat	<i>Saxicola torquata</i>	x	x					Uncommon visitor
Song Thrush	<i>Turdus philomelos</i>	x	x	x	x	x	x	Ever present: Red

Redwing	<i>Turdus iliacus</i>	x	x	x	x	x	x	Regular winter migrant in good numbers: Red
Mistle Thrush	<i>Turdus viscivorus</i>	x	x		x			Uncommon visitor: Amber
Fieldfare	<i>Turdus pilaris</i>	x				x	x	Regular winter migrant: Amber
Blackbird	<i>Turdus merula</i>	x	x	x	x	x	x	Ever present
Blackcap	<i>Sylvia atricapilla</i>	x	x	x	x	x	x	Summer migrant, probable breeding
Garden Warbler *	<i>Sylvia borin</i>		x	x	x			Summer migrant
Lesser Whitethroat *	<i>Sylvia curruca</i>					x		Summer migrant
Common Whitethroat	<i>Sylvia communis</i>	x	x					Summer migrant: Amber
Dartford Warbler *	<i>Sylvia undata</i>				x			Amber
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>			x	x	x		Probable breeding, summer migrant
Reed Warbler	<i>Acrocephalus scirpaceus</i>			x	x	x	x	Probable breeding, summer migrant
Cetti's Warbler *	<i>Cettia cetti</i>					x	x	Singing resident
Willow Warbler	<i>Phylloscopus trochilus</i>		x	x	x	x	x	Probable breeding, summer migrant: Amber
Chiffchaff	<i>Phylloscopus collybita</i>	x	x	x	x	x	x	Breeding, summer migrant
Goldcrest	<i>Regulus regulus</i>	x	x					Uncommon visitor
Spotted Flycatcher	<i>Muscicapa striata</i>	x		x				Uncommon summer migrant: Red

Great Tit	<i>Parus major</i>	x	x	x	x	x	x	Resident breeder
Blue Tit	<i>Parus caeruleus</i>	x	x	x	x	x	x	Resident breeder
Coal Tit *	<i>Parus ater</i>	x	x	x	x	x		Resident
Marsh Tit *	<i>Parus palustris</i>		x					Uncommon visitor: Red
Long-tailed Tit	<i>Aegithalos caudatus</i>	x	x	x	x	x	x	Resident breeder
Treecreeper	<i>Certhia familiaris</i>	x	x			x	x	Regular visitor
Magpie	<i>Pica pica</i>	x	x	x	x	x	x	Regular visitor
Jay *	<i>Garrulus glandarius</i>		x			x		Uncommon visitor
Jackdaw	<i>Corvus monedula</i>	x	x					Uncommon visitor
Carrion Crow	<i>Corvus corone corone</i>	x	x	x	x	x	x	Regular visitor
Raven	<i>Corvus corax</i>	x	x		x	x	x	Regular visitor, seen displaying
Starling	<i>Sturnus vulgaris</i>	x	x					Uncommon visitor
House Sparrow *	<i>Passer domesticus</i>		x					Uncommon visitor: Red
Chaffinch	<i>Fringilla coelebs</i>	x	x	x	x	x	x	Resident, probable breeder
Brambling *	<i>Fringilla montifringilla</i>					x	x	Uncommon winter migrant
Linnet	<i>Carduelis cannabina</i>	x						Uncommon visitor: Red
Lesser Redpoll	<i>Carduelis flammea</i>	x	x	x	x			Regular winter visitor in small numbers: Red
Goldfinch	<i>Carduelis carduelis</i>	x	x	x	x	x	x	Resident: Amber
Greenfinch	<i>Carduelis chloris</i>	x	x	x	x	x	x	Resident
Siskin	<i>Carduelis spinus</i>	x	x	x		x	x	Regular winter visitor in good numbers
Bullfinch	<i>Pyrrhula pyrrhula</i>	x	x	x	x	x	x	Pair seen regularly: Amber

Reed Bunting	<i>Emberiza schoeniclus</i>	x	x	x	x	x	x	Resident, probable breeder: Amber
Yellowhammer *	<i>Emberiza citrinella</i>	x						Uncommon visitor: Red

\* Additional species since 2006

Birds of Conservation Concern: Red: Amber: Full details at:

[www.bto.org/sites/default/files/u12/bocc3.pdf](http://www.bto.org/sites/default/files/u12/bocc3.pdf)

## Mammals

Year		07	08	09	10	11	12	Comments
Fox *	<i>Vulpes vulpes</i>	x	x			x		Sighting
Badger **	<i>Meles meles</i>		x	x			x	Prints/latrine
Otter **	<i>Lutra lutra</i>	x	x	x	x	x	x	Prints/spraint
Weasel *	<i>Mustela nivalis</i>				x	x		Sighting
Roe Deer *	<i>Capreolus capreolus</i>			x	x	x	x	Sighting
Mole *	<i>Talpa europaea</i>					x		Hills
Common Shrew *	<i>Sorex araneus</i>				x	x		Sighting
Pygmy Shrew *	<i>Sorex minutus</i>				x			Sighting
Water Shrew ***	<i>Neomys fodiens</i>	x	x		x	x	x	Sighting
Brown Rat *	<i>Rattus norvegicus</i>	x	x	x				Prints
Wood Mouse *	<i>Apodemus sylvaticus</i>			x	x	x		Probable breeding
Bank Vole *	<i>Myodes glareolus</i>	x	x	x	x	x	x	Breeding
Grey Squirrel *	<i>Sciurus carolinensis</i>						x	Sighting
Rabbit *	<i>Oryctolagus cuniculus</i>	x	x	x		x	x	Sighting
Cat *	<i>Felis catus</i>					x	x	Prints
Pipistrelle Bat * **	<i>Pipistrellus pipistrellus</i>	x	x	x		x		Sighting
Soprano Pipistrelle Bat * **	<i>Pipistrellus pygmaeus</i>			x			x	Sighting
Noctule Bat * **	<i>Nyctalus noctula</i>			x				Sighting
Serotine Bat * **	<i>Eptesicus serotinus</i>		x		x			Sighting
Daubenton's Bat * **	<i>Myotis daubentonii</i>			x		x		Sighting

\* Additional species since 2006

\*\* Red Data Book & Legally Protected species

## Amphibians

Year		07	08	09	10	11	12	Comments
Toad *	<i>Bufo bufo</i>		x	x		x	x	Breeding
Frog *	<i>Rana temporaria</i>					x	x	Breeding

\* Additional species since 2006

## Reptiles

Year		07	08	09	10	11	12
Grass Snake * **	<i>Natrix natrix</i>					x	x
Slow Worm * **	<i>Anguis fragilis</i>			x	x	x	x
Common Lizard *	<i>Zootoca vivipara</i>			x			

\* Additional species since 2006

\*\* Legally Protected species

## Fish

Pike *	<i>Esox lucius</i>	2012
Perch *	<i>Perca fluviatilis</i>	2008

\* Additional species since 2006

## Fungi

Bracket Fungi on Willow *	<i>Polyporaceae</i> species
---------------------------	-----------------------------

\* Additional species since 2006

## Algae

Filamentous alga *	<i>Oedogonium</i> species
Filamentous alga *	<i>Zygnema</i> species
Filamentous alga *	<i>Spirogyra</i> species

\* Additional species since 2006

## 9.8 Plant Records

Common Name	Botanical Name
Agrimony – Hemp	<i>Eupatorium cannabinum</i>
Alder *	<i>Alnus glutinosa</i>
Apple *	<i>Malus pumila</i>
Angelica	<i>Angelica sylvestris</i>
Ash	<i>Fraxinus excelsior</i>
Avens – Water	<i>Geum rivale</i>
Balsam – Himalayan	<i>Impatiens glandulifera</i>
Balsam – Orange	<i>Impatiens capensis</i>
Bartsia – Red	<i>Odontites vernus</i>
Basil	<i>Clinopodium vulgare</i>
Bedstraw – Hedge	<i>Galium mollugo</i>
Bedstraw – Lady's	<i>Galium verum</i>
Bent – Common *	<i>Agrostis capillaris</i>
Bent – Creeping	<i>Agrostis stolonifera</i>
Betony	<i>Stachys officinalis</i>
Bindweed – Hedge	<i>Calystegia sepium</i>
Birch – Silver *	<i>Betula pendula</i>



Bistort – Amphibious	<i>Persicaria amphibian</i>
Bistort – Common U	<i>Persicaria bistorta</i>
Bittercress – Wavy	<i>Cardamine flexuosa</i>
Bladderwort *	<i>Utricularia</i> species
Blackthorn*	<i>Prunus spinosa</i>
Bramble *	<i>Rubus fruticosus</i> agg.
Bristly Ox-tongue	<i>Picris echioides</i>
Brome – Hairy	<i>Bromus ramosus</i>
Brooklime *	<i>Veronica beccabunga</i>
Buddleia	<i>Buddleia davidii</i>
Bulrush	<i>Typha latifolia</i>
Burdock – Greater	<i>Arctium lappa</i>
Bur-marigold – Trifid	<i>Bidens tripartita</i>
Bur-reed – Branched *	<i>Sparganium erectum</i>
Buttercup – Creeping	<i>Ranunculus repens</i>
Buttercup – Meadow *	<i>Ranunculus acris</i>
Campion – Red	<i>Silene dioica</i>
Catsear	<i>Hypochaeris radicata</i>
Celandine – Lesser	<i>Ranunculus ficaria</i>
Centaury – Common	<i>Centaureum erythraea</i>
Cherry – Wild *	<i>Prunus avium</i>
Chicory	<i>Cichorium intybus</i>
Cinquefoil – Creeping	<i>Potentilla reptans</i>
Cleavers	<i>Galium aparine</i>
Clover – Red	<i>Trifolium pratense</i>
Clover – White	<i>Trifolium repens</i>
Cocksfoot	<i>Dactylis glomerata</i>
Coltsfoot	<i>Tussilago farfara</i>
Comfrey	<i>Symphytum officinale</i>
Cow Parsley	<i>Anthriscus sylvestris</i>
Cranesbill – Cut-leaved	<i>Geranium dissectum</i>
Cranesbill – Hedgerow	<i>Geranium pyrenaicum</i>
Cranesbill – Meadow	<i>Geranium pratense</i>
Creeping Jenny	<i>Lysimachia nummularia</i>
Crested Dog's-tail *	<i>Cynosurus cristatus</i>
Daisy	<i>Bellis perennis</i>
Daisy – Oxeye	<i>Leucanthemum vulgare</i>
Dandelion	<i>Taraxacum officinale</i>
Dead-nettle – Red	<i>Lamium purpureum</i>
Dead-nettle – White	<i>Lamium album</i>
Dock – Broad-leaved	<i>Rumex obtusifolius</i>
Dock – Curled	<i>Rumex crispus</i>
Dropwort – Water *	<i>Oenanthe</i> species
Elder *	<i>Sambucus nigra</i>
Fat Hen	<i>Chenopodium album</i>
Fern – Male	<i>Dryopteris felix-mas</i>
Fescue – Meadow *	<i>Festuca pratensis</i>
Fescue – Red *	<i>Festuca rubra</i>
Field Maple *	<i>Acer campestre</i>
Figwort	<i>Scrophularia nodosa</i>

Flax – cultivated	<i>Linum usitatissimum</i>
Fleabane – Blue	<i>Erigeron acer</i>
Fleabane – Common *	<i>Pulicaria dysenterica</i>
Forget-me-not – Water *	<i>Myosotis scorpioides</i>
Fox-and-cubs	<i>Pilosella aurantiaca</i>
Foxtail – Meadow	<i>Alopecurus pratensis</i>
Garlic Mustard	<i>Alliaria petiolata</i>
Gipsywort *	<i>Lycopus europaeus</i>
Goatsbeard	<i>Tragopogon pratensis</i>
Goldenrod – Canadian	<i>Solidago canadensis</i>
Ground Ivy	<i>Glechoma hederacea</i>
Groundsel	<i>Senecio vulgaris</i>
Guelder-rose *	<i>Viburnum opulus</i>
Hair-grass – Tufted *	<i>Deschampsia flexuosa</i>
Hawthorn *	<i>Crataegus monogyna</i>
Hazel *	<i>Corylus avellana</i>
Hemlock	<i>Conium maculatum</i>
Herb Robert	<i>Geranium robertianum</i>
Hogweed	<i>Heracleum sphondylium</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Hornwort – Rigid * U	<i>Ceratophyllum demersum</i>
Horsetail – Field	<i>Equisetum arvense</i>
Iris – Stinking	<i>Iris foetidissima</i>
Iris – Yellow *	<i>Iris pseudacorus</i>
Ivy *	<i>Hedera helix</i>
Knapweed – Common	<i>Centaurea nigra</i> agg.
Knapweed – Greater * U	<i>Centaurea scabiosa</i>
Lady's Smock	<i>Cardamine pratense</i>
Loosestrife – Purple *	<i>Lythrum salicaria</i>
Lords-and-Ladies	<i>Arum maculatum</i>
Male Fern	<i>Dryopteris felix-mas</i>
Marsh Marigold *	<i>Caltha palustris</i>
Mayweed species	<i>Tripleurospermum</i> species
Meadow-grass – Rough-stalked *	<i>Poa trivialis</i>
Meadowsweet *	<i>Filipendula ulmaria</i>
Medick – Black	<i>Medicago lupulina</i>
Melilot – Golden	<i>Melilotus altissima</i>
Mint – Water *	<i>Mentha aquatica</i>
Mouse-ear – Common	<i>Cerastium fontanum</i>
Mouse-ear – Field R	<i>Cerastium arvense</i>
Mouse-ear – Sticky	<i>Cerastium glomeratum</i>
Mugwort	<i>Artemisia vulgaris</i>
Nettle – Common / Stinging	<i>Urtica dioica</i>
Nettle – Stingless	<i>Urtica galeopsifolia</i>
Nightshade – Woody (Bittersweet)	<i>Solanum dulcamara</i>
Nipplewort	<i>Lapsana communis</i>
Oak – Pedunculate	<i>Quercus robur</i>
Orchid – Bee U	<i>Ophrys apifera</i>
Orchid – Common Spotted	<i>Dactylorhiza fuchsii</i>
Orchid – Pyramidal R	<i>Anacamptis pyramidalis</i>

Pignut *	<i>Conopodium majus</i>
Plantain – Hoary	<i>Plantago media</i>
Plantain – Ribwort	<i>Plantago lanceolata</i>
Plantain – Water *	<i>Alisma plantago-aquatica</i>
Pondweed – Curled U	<i>Potamogeton crispus</i>
Privet – Wild *	<i>Ligustrum vulgare</i>
Ragged Robin	<i>Lychnis flos-cuculi</i>
Ragwort – Common	<i>Senecio jacobaea</i>
Ragwort – Hoary	<i>Senecio erucifolius</i>
Ragwort – Marsh	<i>Senecio aquaticus</i>
Rattle – Yellow U	<i>Rhinanthus minor</i>
Reed – Common *	<i>Phragmites australis</i>
Rose – Dog *	<i>Rosa canina</i>
Rush – Blunt-flowered R	<i>Juncus subnodulosus</i>
Rush – Hard *	<i>Juncus inflexus</i>
Rush – Soft *	<i>Juncus effusus</i>
Ryegrass – Perennial *	<i>Lolium perenne</i>
Scabious – Field	<i>Knautia arvensis</i>
Sedge – Pendulous	<i>Carex pendula</i>
Sedge – Yellow	<i>Carex flava</i>
Self-heal	<i>Prunella vulgaris</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Silverweed	<i>Potentilla anserine</i>
Sorrel – Common *	<i>Rumex acetosa</i>
Sow-thistle – Corn	<i>Sonchus arvensis</i>
Sow-thistle – Smooth	<i>Sonchus oleraceus</i>
Speedwell – Heath	<i>Veronica officinalis</i>
Speedwell – Water U	<i>Veronica anagallis-aquatica</i>
Spindle	<i>Euonymus europaeus</i>
St John's Wort – Perforate	<i>Hypericum perforatum</i>
St John's Wort – Square-stalked	<i>Hypericum tetrapterum</i>
Starwort – Water *	<i>Callitriche truncata</i>
Stitchwort – Lesser	<i>Stellaria graminea</i>
Sweet-grass – Reed	<i>Glyceria maxima</i>
Tansy	<i>Tanacetum vulgare</i>
Tare – Hairy	<i>Vicia hirsuta</i>
Teasel – Wild	<i>Dipsacus fullonum</i>
Thistle – Creeping	<i>Cirsium arvense</i>
Thistle – Marsh	<i>Cirsium palustre</i>
Thistle – Spear	<i>Cirsium vulgare</i>
Timothy	<i>Phleum pratense</i>
Tormentil	<i>Potentilla erecta</i>
Trefoil – Bird's-foot	<i>Lotus corniculatus</i>
Trefoil – Greater	<i>Lotus pedunculatus</i>
Valerian – Red	<i>Centranthus ruber</i>
Vetch – Common	<i>Vicia sativa</i>
Vetch – Tufted	<i>Vicia cracca</i>
Vetchling – Meadow	<i>Lathyrus pratensis</i>
Vernal-grass – Scented	<i>Anthoxanthum odoratum</i>
Wall Barley	<i>Hordeum murinum</i>

Water Milfoil – Spiked	<i>Myriophyllum spicatum</i>
Wayfaring Tree	<i>Viburnum lantana</i>
Watercress *	<i>Rorippa nasturtium-aquaticum</i>
Watercress – Fool's *	<i>Apium nodiflorum</i>
Water Dropwort – Corky-fruited * X	<i>Oenanthe pimpinelloides</i>
Water Dropwort – Hemlock	<i>Oenanthe crocata</i>
Water-lily	<i>Nuphar lutea</i>
Water Milfoil – Spiked *	<i>Myriophyllum spicatum</i>
Water Parsnip – Lesser * U	<i>Berula erecta</i>
Water-pepper *	<i>Persicaria hydropiper</i>
Water-plantain – Common	<i>Alisma plantago-aquatica</i>
Water-plantain – Narrow-leaved	<i>Alisma lanceolata</i>
Water Starwort – Short-leaved R	<i>Callitriche truncata</i>
Wayfaring-tree *	<i>Viburnum lantana</i>
Willow – Crack *	<i>Salix fragilis</i>
Willow – Goat	<i>Salix caprea</i>
Willow – Osier	<i>Salix viminalis</i>
Willow – White	<i>Salix alba</i>
Willowherb – American	<i>Epilobium ciliatum</i>
Willowherb – Broad-leaved	<i>Epilobium montanum</i>
Willowherb – Great *	<i>Epilobium hirsutum</i>
Woundwort – Hedge	<i>Stachys sylvatica</i>
Woundwort – Marsh	<i>Stachys palustris</i>
Yarrow	<i>Achillea millefolium</i>
Yellow-cress – Marsh *	<i>Rorippa palustris</i>
Yorkshire-fog *	<i>Holcus lanatus</i>

\* Introduced or extant on the site

R Rare: recorded in 5% or fewer of Somerset tetrads

U Uncommon: recorded in 5 – 20% of Somerset tetrads

X Locally common, restricted to Devon, Dorset, Hampshire and Somerset

## 10.0 References

LAWRENCE, D. (2000). Frome Flood Mitigation Scheme Management Plan. Wessex Ecological Consultancy

Pinchen, B. J. (2008, 2009, 2010, 2011). Rodden Nature Reserve Insect Survey

Rutty, T. (2006). Asda (Frome) Wildlife Site Ecological Management Plan 2006 – 2016

Thomas, L.C. Aquatic microbiology and invertebrate survey, 2010

Tigwell, E. M. (2008, 2009, 2010, 2011, 2012) Rodden Nature Reserve Management Plan & Budget

Tigwell, E. M. (2008) Rodden Nature Reserve Plant Survey