# **Thames Valley**

## **Environmental Records Centre**



Enabling data-driven decisions to better enhance and protect our natural environment

# **BIODIVERSITY REPORT**

Site: Land east of Heyford Road, Kirtlington

TVERC Ref: TVERC/22/0666
Prepared for: Windrush Ecology

On: 2022-11-10

By: Thames Valley Environmental Records Centre

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# Further Information

- For information on data coverage, grid references and use of the NBN Atlas please visit http://www.tverc.org/cms/sites/tverc/files/Data\_coverage\_statement.pdf
- For imformation on the origin of individual species records please visit http://www.tverc.org/cms/sites/tverc/files/DataOrignTable-Mar2019.pdf
- For information on protected species designations please visit
   http://www.tverc.org/cms/sites/tverc/files/Species%20Status%20Guidance\_0.pdf
- For information on the various statutory and non-statutory site designations please visit http://www.tverc.org/cms/sites/tverc/files/Site%20Guidance.pdf

# PROTECTED AND NOTABLE SPECIES RECORDS

| Taxon Group | Common Name          | Latin Name                    | European<br>Directives | UK Legislation  | NERC<br>s41  | Other Designations | No of records | Earliest<br>Record | Latest<br>Record |
|-------------|----------------------|-------------------------------|------------------------|-----------------|--------------|--------------------|---------------|--------------------|------------------|
| Amphibians  | Common Frog          | Rana temporaria               | HabDir-A5              | WACA-Sch5-s9.5a | NA           | NA                 | 3             | 01/01/2002         | 31/05/2017       |
|             | Common Toad          | Bufo bufo                     | NA                     | WACA-Sch5-s9.5a | NERC-<br>S41 | NA                 | 7             | 14/04/2017         | 06/06/2017       |
| Birds       | Barn Owl             | Tyto alba                     | NA                     | WACA-Sch1-p1    | NA           | NA                 | 16            | 14/03/2005         | 24/06/2013       |
|             | Black-headed<br>Gull | Chroicocephalus ridibundus    | NA                     | NA              | NA           | Bird-Amber         | 2             | 29/02/2004         | 17/11/2014       |
|             | Bullfinch            | Pyrrhula pyrrhula             | NA                     | NA              | NERC-<br>S41 | Bird-Amber         | 1             | 23/12/2002         | 23/12/2002       |
|             | Cetti's Warbler      | Cettia cetti                  | NA                     | WACA-Sch1-p1    | NA           | NA                 | 1             | 24/04/2006         | 24/04/2006       |
|             | Common Gull          | Larus canus                   | NA                     | NA              | NA           | Bird-Amber         | 1             | 29/02/2004         | 29/02/2004       |
|             | Common Tern          | Sterna hirundo                | BirdsDir-A1            | NA              | NA           | Bird-Amber         | 1             | 09/06/2003         | 09/06/2003       |
|             | Corn Bunting         | Emberiza calandra             | NA                     | NA              | NERC-<br>S41 | Bird-Red           | 20            | 19/07/2002         | 16/12/2013       |
|             | Cuckoo               | Cuculus canorus               | NA                     | NA              | NERC-<br>S41 | Bird-Red           | 10            | 27/05/2003         | 07/05/2017       |
|             | Dunnock              | Prunella modularis            | NA                     | NA              | NERC-<br>S41 | Bird-Amber         | 2             | 22/12/2006         | 22/12/2006       |
|             | Fieldfare            | Turdus pilaris                | NA                     | WACA-Sch1-p1    | NA           | Bird-Red           | 18            | 26/11/2002         | 19/01/2015       |
|             | Grey Partridge       | Perdix perdix                 | NA                     | NA              | NERC-<br>S41 | Bird-Red           | 14            | 15/05/2002         | 15/07/2009       |
|             | Grey Wagtail         | Motacilla cinerea             | NA                     | NA              | NA           | Bird-Amber         | 5             | 02/03/2003         | 10/10/2009       |
|             | Hawfinch             | Coccothraustes coccothraustes | NA                     | NA              | NERC-<br>S41 | Bird-Red           | 1             | 18/01/2006         | 18/01/2006       |
|             | Hen Harrier          | Circus cyaneus                | BirdsDir-A1            | WACA-Sch1-p1    | NERC-<br>S41 | Bird-Red           | 1             | 25/10/2002         | 25/10/2002       |
|             | Hobby                | Falco subbuteo                | NA                     | WACA-Sch1-p1    | NA           | NA                 | 19            | 25/07/2004         | 13/07/2018       |
|             | House Martin         | Delichon urbicum              | NA                     | NA              | NA           | Bird-Red           | 12            | 06/09/2006         | 21/02/2017       |
|             | Kestrel              | Falco tinnunculus             | NA                     | NA              | NA           | Bird-Amber         | 33            | 05/07/2003         | 11/01/2018       |
|             | Kingfisher           | Alcedo atthis                 | BirdsDir-A1            | WACA-Sch1-p1    | NA           | NA                 | 21            | 16/02/2003         | 10/12/2013       |

| Taxon Group | Common Name                  | Latin Name                 | European<br>Directives | UK Legislation | NERC<br>s41  | Other Designations        | No of records | Earliest<br>Record | Latest<br>Record |
|-------------|------------------------------|----------------------------|------------------------|----------------|--------------|---------------------------|---------------|--------------------|------------------|
|             | Lapwing                      | Vanellus vanellus          | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 18            | 17/09/2003         | 14/12/2018       |
|             | Lesser Black-<br>backed Gull | Larus fuscus               | NA                     | NA             | NA           | Bird-Amber                | 5             | 13/10/2004         | 13/12/2006       |
|             | Linnet                       | Linaria cannabina          | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 9             | 29/04/2003         | 11/12/2007       |
|             | Little Egret                 | Egretta garzetta           | BirdsDir-A1            | NA             | NA           | NA                        | 1             | 07/02/2004         | 07/02/2004       |
|             | Marsh Tit                    | Poecile palustris          | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 22            | 26/01/2005         | 12/04/2015       |
|             | Meadow Pipit                 | Anthus pratensis           | NA                     | NA             | NA           | Bird-Amber                | 3             | 18/09/2003         | 09/09/2014       |
|             | Merlin                       | Falco columbarius          | BirdsDir-A1            | WACA-Sch1-p1   | NA           | Bird-Red                  | 1             | 14/01/2018         | 14/01/2018       |
|             | Mistle Thrush                | Turdus viscivorus          | NA                     | NA             | NA           | Bird-Red                  | 4             | 22/11/2009         | 09/01/2011       |
|             | Moorhen                      | Gallinula<br>chloropus     | NA                     | NA             | NA           | Bird-Amber                | 3             | 14/12/2006         | 06/12/2007       |
|             | Peregrine                    | Falco peregrinus           | BirdsDir-A1            | WACA-Sch1-p1   | NA           | NA                        | 1             | 28/11/2009         | 28/11/2009       |
|             | Red Kite                     | Milvus milvus              | BirdsDir-A1            | WACA-Sch1-p1   | NA           | RL-Global-post2001-<br>NT | 56            | 30/01/2006         | 24/12/2018       |
|             | Redwing                      | Turdus iliacus             | NA                     | WACA-Sch1-p1   | NA           | Bird-Amber                | 2             | 26/11/2002         | 25/01/2014       |
|             | Reed Bunting                 | Emberiza<br>schoeniclus    | NA                     | NA             | NERC-<br>S41 | Bird-Amber                | 12            | 08/03/2004         | 22/02/2013       |
|             | Rook                         | Corvus frugilegus          | NA                     | NA             | NA           | Bird-Amber                | 7             | 11/01/2005         | 22/04/2013       |
|             | Sedge Warbler                | Acrocephalus schoenobaenus | NA                     | NA             | NA           | Bird-Amber                | 3             | 07/07/2002         | 28/05/2015       |
|             | Skylark                      | Alauda arvensis            | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 8             | 29/04/2003         | 19/03/2014       |
|             | Song Thrush                  | Turdus philomelos          | NA                     | NA             | NERC-<br>S41 | Bird-Amber                | 2             | 05/07/2003         | 31/12/2007       |
|             | Sparrowhawk                  | Accipiter nisus            | NA                     | NA             | NA           | Bird-Amber                | 37            | 22/12/2003         | 29/01/2015       |
|             | Spotted<br>Flycatcher        | Muscicapa striata          | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 2             | 23/07/2002         | 17/05/2004       |
|             | Starling                     | Sturnus vulgaris           | NA                     | NA             | NERC-<br>S41 | Bird-Red                  | 8             | 29/04/2003         | 24/12/2018       |
|             | Swift                        | Apus apus                  | NA                     | NA             | NA           | Bird-Red                  | 78            | 01/01/2008         | 01/01/2021       |
|             | Tawny Owl                    | Strix aluco                | NA                     | NA             | NA           | Bird-Amber                | 40            | 15/07/2003         | 25/08/2017       |

| Taxon Group   | Common Name                    | Latin Name                    | European<br>Directives | UK Legislation | NERC<br>s41  | Other Designations | No of records | Earliest<br>Record | Latest<br>Record |
|---|--------------------------------|-------------------------------|------------------------|----------------|--------------|--------------------|---------------|--------------------|------------------|
|   | Tree Sparrow                   | Passer montanus               | NA                     | NA             | NERC-<br>S41 | Bird-Red           | 12            | 31/03/2004         | 12/03/2009       |
|   | Turtle Dove                    | Streptopelia turtur           | NA                     | NA             | NERC-<br>S41 | Bird-Red           | 16            | 27/05/2002         | 10/07/2005       |
|   | Whitethroat                    | Curruca communis              | NA                     | NA             | NA           | Bird-Amber         | 1             | 05/07/2003         | 05/07/2003       |
|   | Willow Warbler                 | Phylloscopus<br>trochilus     | NA                     | NA             | NA           | Bird-Amber         | 3             | 05/07/2003         | 11/04/2007       |
|   | Yellow Wagtail                 | Motacilla flava               | NA                     | NA             | NERC-<br>S41 | Bird-Red           | 12            | 15/05/2002         | 23/07/2006       |
|   | Yellow Wagtail                 | Motacilla flava<br>flavissima | NA                     | NA             | NERC-<br>S41 | Bird-Red           | 1             | 15/05/2002         | 23/07/2006       |
|   | Yellowhammer                   | Emberiza citrinella           | NA                     | NA             | NERC-<br>S41 | Bird-Red           | 7             | 29/04/2003         | 19/03/2014       |
| Higher Plants -<br>Flowering Plants                   | Bluebell                       | Hyacinthoides non-scripta     | NA                     | WACA-Sch8      | NA           | NA                 | 1             | 30/06/2008         | 30/06/2008       |
|   | Bogbean                        | Menyanthes<br>trifoliata      | NA                     | NA             | NA           | Oxon-Scarce        | 1             | 15/06/2019         | 15/06/2019       |
|   | Carline Thistle                | Carlina vulgaris              | NA                     | NA             | NA           | RL-Eng-post2001-NT | 2             | 02/06/2011         | 02/06/2019       |
|   | Chicory                        | Cichorium intybus             | NA                     | NA             | NA           | RL-Eng-post2001-VU | 1             | 05/09/2018         | 05/09/2018       |
|   | Common<br>Valerian             | Valeriana<br>officinalis      | NA                     | NA             | NA           | RL-Eng-post2001-NT | 1             | 30/06/2008         | 30/06/2008       |
|   | Greater<br>Spearwort           | Ranunculus lingua             | NA                     | NA             | NA           | Oxon-Scarce        | 1             | 15/06/2019         | 15/06/2019       |
|   | Heath<br>Speedwell             | Veronica<br>officinalis       | NA                     | NA             | NA           | RL-Eng-post2001-NT | 1             | 30/06/2008         | 30/06/2008       |
|   | Hoary Plantain                 | Plantago media                | NA                     | NA             | NA           | RL-Eng-post2001-NT | 1             | 12/02/2017         | 12/02/2017       |
|   | Quaking-grass                  | Briza media                   | NA                     | NA             | NA           | RL-Eng-post2001-NT | 3             | 30/06/2008         | 02/06/2019       |
|   | Sanicle                        | Sanicula europaea             | NA                     | NA             | NA           | RL-Eng-post2001-NT | 1             | 30/06/2008         | 30/06/2008       |
|   | Stinking<br>Hellebore          | Helleborus<br>foetidus        | NA                     | NA             | NA           | Status-NS          | 1             | 10/02/2017         | 10/02/2017       |
|   | Wild Strawberry                | Fragaria vesca                | NA                     | NA             | NA           | RL-Eng-post2001-NT | 3             | 30/06/2008         | 02/06/2019       |
| Invertebrates -<br>Ants, Bees,<br>Sawflies &<br>Wasps | An Ant, Bee,<br>Sawfly or Wasp | Priocnemis agilis             | NA                     | NA             | NA           | Notable-B          | 1             | 14/07/2006         | 14/07/2006       |

| Taxon Group                    | Common Name                  | Latin Name                            | European<br>Directives | UK Legislation  | NERC<br>s41  | Other Designations | No of records | Earliest<br>Record | Latest<br>Record |
|--------------------------------|------------------------------|---------------------------------------|------------------------|-----------------|--------------|--------------------|---------------|--------------------|------------------|
|                                | Black-headed<br>Mason Wasp   | Odynerus<br>melanocephalus            | NA                     | NA              | NERC-<br>S41 | Notable-A          | 1             | 06/06/2006         | 06/06/2006       |
|                                | Dark Blood Bee               | Sphecodes niger                       | NA                     | NA              | NA           | RL-GB-pre94-R      | 2             | 14/07/2006         | 07/09/2006       |
|                                | False Margined<br>Blood Bee  | Sphecodes<br>miniatus                 | NA                     | NA              | NA           | Notable-B          | 1             | 14/07/2006         | 14/07/2006       |
|                                | Hawksbeard<br>Mining Bee     | Andrena fulvago                       | NA                     | NA              | NA           | Notable-A          | 1             | 06/06/2006         | 06/06/2006       |
|                                | Hill Cuckoo Bee              | Bombus rupestris                      | NA                     | NA              | NA           | Notable-B          | 1             | 14/07/2006         | 14/07/2006       |
|                                | Lobe-spurred<br>Furrow Bee   | Lasioglossum pauxillum                | NA                     | NA              | NA           | Notable-A          | 2             | 26/04/2006         | 07/09/2006       |
|                                | Painted Nomad<br>Bee         | Nomada fucata                         | NA                     | NA              | NA           | Notable-A          | 2             | 26/04/2006         | 14/07/2006       |
|                                | Red-tailed<br>Mason Bee      | Osmia bicolor                         | NA                     | NA              | NA           | Notable-B          | 2             | 26/04/2006         | 14/07/2006       |
|                                | Sharp-collared<br>Furrow Bee | Lasioglossum<br>malachurum            | NA                     | NA              | NA           | Notable-B          | 2             | 10/04/2006         | 14/07/2006       |
|                                | Small Tiphia                 | Tiphia minuta                         | NA                     | NA              | NA           | Notable-B          | 1             | 06/06/2006         | 06/06/2006       |
|                                | Spined Blood<br>Bee          | Sphecodes spinulosus                  | NA                     | NA              | NA           | RL-GB-pre94-VU     | 1             | 06/06/2006         | 06/06/2006       |
|                                | Swollen-thighed<br>Blood Bee | Sphecodes crassus                     | NA                     | NA              | NA           | Notable-B          | 2             | 14/07/2006         | 07/09/2006       |
|                                | White-footed<br>Furrow Bee   | Lasioglossum<br>leucopus              | NA                     | NA              | NA           | RL-GB-pre94-R      | 2             | 26/04/2006         | 07/09/2006       |
| Invertebrates -<br>Beetles     | Stag Beetle                  | Lucanus cervus                        | HabDir-<br>A2np        | WACA-Sch5-s9.5a | NERC-<br>S41 | NA                 | 1             | 18/07/2015         | 18/07/2015       |
| Invertebrates -<br>Butterflies | Brown<br>Hairstreak          | Thecla betulae                        | NA                     | WACA-Sch5-s9.5a | NERC-<br>S41 | RL-GB-post2001-VU  | 5             | 03/11/2015         | 04/11/2020       |
|                                | Small Heath                  | Coenonympha<br>pamphilus<br>pamphilus | NA                     | NA              | NERC-<br>S41 | RL-GB-post2001-NT  | 1             | 28/05/2020         | 28/05/2020       |
|                                | White Admiral                | Limenitis camilla                     | NA                     | NA              | NERC-<br>S41 | RL-GB-post2001-VU  | 1             | 24/06/2018         | 24/06/2018       |

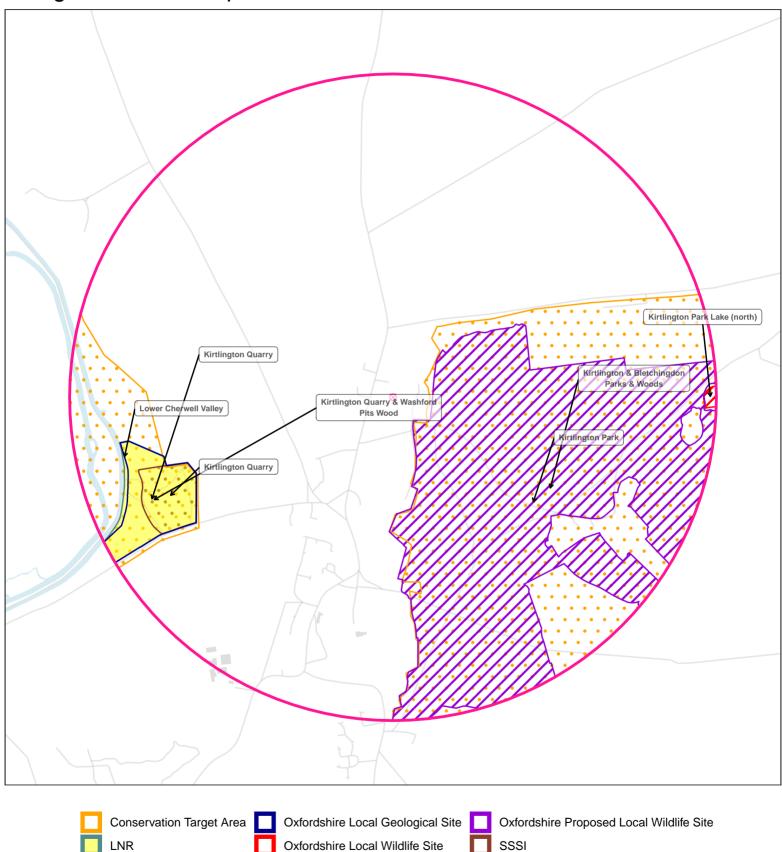
| Taxon Group                              | Common Name               | Latin Name                   | European<br>Directives        | UK Legislation                                     | NERC<br>s41  | Other Designations  | No of records | Earliest<br>Record | Latest<br>Record |
|--|---------------------------|------------------------------|-------------------------------|--|--------------|---|---------------|--------------------|------------------|
| Mammals -<br>Terrestrial (bats)          | Bat                       | Chiroptera                   | HabDir-<br>A2np,<br>HabDir-A4 | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | RL-GB-post2001-CR,<br>RL-GB-post2001-EN,<br>RL-GB-post2001-VU,<br>RL-GB-post2001-NT,<br>RL-GB-post2001-DD | 2             | 13/10/2008         | 16/06/2019       |
|  | Brown Long-<br>eared Bat  | Plecotus auritus             | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | NA  | 11            | 25/05/2012         | 16/06/2019       |
|  | Common<br>Pipistrelle     | Pipistrellus<br>pipistrellus | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NA           | NA  | 9             | 01/08/2016         | 16/06/2019       |
|  | Myotis Bat species        | Myotis                       | HabDir-<br>A2np,<br>HabDir-A4 | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | RL-GB-post2001-CR,<br>RL-GB-post2001-DD   | 2             | 20/09/2016         | 16/06/2019       |
|  | Noctule Bat               | Nyctalus noctula             | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | NA  | 5             | 20/09/2016         | 16/06/2019       |
|  | Pipistrelle Bat species   | Pipistrellus                 | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | RL-GB-post2001-NT   | 1             | 27/04/2015         | 27/04/2015       |
|  | Serotine                  | Eptesicus<br>serotinus       | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NA           | RL-GB-post2001-VU   | 2             | 14/05/2019         | 28/05/2019       |
|  | Soprano<br>Pipistrelle    | Pipistrellus<br>pygmaeus     | HabDir-A4                     | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | NA  | 8             | 20/09/2016         | 16/06/2019       |
|  | Western<br>Barbastelle    | Barbastella<br>barbastellus  | HabDir-<br>A2np,<br>HabDir-A4 | HabReg-Sch2, WACA-Sch5-<br>s9.4b/s9.4c/s9.5a/s9.5b | NERC-<br>S41 | RL-GB-post2001-VU   | 4             | 25/05/2012         | 28/05/2019       |
| Mammals -<br>Terrestrial (excl.<br>bats) | Eurasian Badger           | Meles meles                  | NA                            | Badgers-1992                                       | NA           | NA  | 5             | 13/10/2008         | 31/03/2021       |
|  | West European<br>Hedgehog | Erinaceus<br>europaeus       | NA                            | NA   | NERC-<br>S41 | RL-GB-post2001-VU   | 4             | 20/06/2004         | 13/12/2019       |
| Reptiles                                 | Grass Snake               | Natrix helvetica             | NA                            | WACA-Sch5-s9.1k/s9.5a                              | NERC-<br>S41 | NA  | 11            | 30/05/2002         | 06/06/2017       |

# INVASIVE SPECIES RECORDS

| Taxon Group                      | Common Name           | Latin Name         | Status             | No of records | Earliest Record | Latest Record |
|----------------------------------|-----------------------|--------------------|--------------------|---------------|-----------------|---------------|
| Higher Plants - Flowering Plants | Fringed Water-lily    | Nymphoides peltata | INNS-Priority-2015 | 1             | 15/06/2019      | 15/06/2019    |
|                                  | Three-cornered Garlic | Allium triquetrum  | INNS-Other-2015    | 1             | 28/04/2018      | 28/04/2018    |

# Land east of Heyford Road, Kirtlington

## **Designated Sites Map**



COUNTY: OXFORDSHIRE SITE NAME: KIRTLINGTON QUARRY

**Status:** Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act

1981

**Local Planning Authorities:** Cherwell District Council, Oxfordshire District Council

National Grid Reference: SP494199

Ordnance Survey Sheet 1:50,000: 164 1:10,000: SP41 NE, SP42 SE

Date Notified (Under 1949 Act): 1955 Date of Last Revision: 1977

Date Notified (Under 1981 Act): 1986 Date of Last Revision:

**Area:** 3.3 ha 8.2 ac

### **Description and Reasons for Notification**

Of only five Middle Jurassic mammal sites in the world (all of them British) Kirtlington has yielded by far the most diverse assemblage described to date. At least nine species of therian and prototherian mammals occur, together with a stratigraphically late tritylodontid. These occur in a discontinuous rootleted clay of probable marsh origin within the basal Forest Marble Beds (Upper Bathonian). The bed has yielded crocodilian, pterosaur and theropod dinosaur material. The richest mammal-bearing locality of Middle Jurassic age known anywhere in the world.

The Kirtlington Mammal Bed in the Forest Marble Beds at this site has also yielded a rich and diverse fauna of fish species based on teeth. These include Lepidotidae, Pycnodontidae and *Caturus*. The site is very rich in micro-shark teeth. Elasmobranes include *Asteracanthus*, *Hybodus* and a lamnid.

#### **Local Nature Reserve Brief Description**

#### **KIRTLINGTON QUARRY**

Grid Reference: SP 493198

Area (ha): 7.36

Local Authority: Cherwell District Council

### **Site Description**

The Jurassic rocks exposed in Kirtlington Quarry provide lots of evidence to tell us what the environment would have been like at the time these rocks formed. It is thought that Kirtlington lay near to the shore of a small barrier island, in a coastal environment, and would have been similar to the Florida Everglades today. These conditions attracted many animals to Kirtlington, and the quarry is famous among geologists for its rich diversity of fossils.

Kirtlington, is most important for its mammal fossils, and the quarry is the richest mammal-bearing locality of Middle Jurassic age known anywhere in the world.

https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L 1009324&SiteName=kirtlington%20quarry&countyCode=&responsiblePerson =&SeaArea=&IFCAArea=

#### **Oxfordshire Local Wildlife Site Description**

#### **KIRTLINGTON PARK LAKE (NORTH)**

Site Code: 52A01.3

Grid Reference: SP521202 Area (ha): 1.4

Local Authority: Cherwell Last Survey Date(s): June 1979

Date Selected or Reconfirmed:

### **Site Description**

This small lake was selected as County Wildlife Site due the presence of a rich variety of aquatic plants and the presence of rich marshy areas where marsh orchids and other wetland plants were found. Such habitats are national nature conservation priorities. There were also grassy areas with shrubs near the edge where other orchids grew. However there are indications that work on the lake has meant much of this habitat has been lost and the current status of this site is unclear.

### **Oxfordshire Proposed Local Wildlife Site Description**

#### **KIRTLINGTON PARK**

Site Code: 52A01

Grid Reference: SP507200

Area (ha): 92.28

Local Authority: Cherwell

### **Site Description**

An extensive area of parkland habitat associated with the 18<sup>th</sup> century house. The parkland was laid out by Capability Brown. The trees include good numbers of veteran and were described as being of high conservation value in the Natural England Thames and Chilterns Parkland Survey.

<u>SECTION 41 HABITATS OF PRINCIPAL IMPORTANCE:</u> lowland wood pasture and parkland

Produced by TVERC 24/04/2013

### **Oxfordshire Local Geological Site citation**

### **KIRTLINGTON QUARRY**

SITE CODE: LGS33

**GRID REF: SO494199** 

DATE RECORDED09/03/2002

**DISTRICT:** Cherwell

RIGS STATUS: Approved 29/04/2002

PARISH COUNCIL: Kirtlington

SITE TYPE: Disused quarry

REASONS FOR LISTING: Bathonian stratigraphy - one of only 5 Middle Jurassic mammal sites in world. Fossils including dinosaurs e.g. Megalosaurus - best upper Bathonian reptile site in UK. Superb educational site, already used by universities. Long industrial history. Potential for geomorphologicaillandscape studies. Beautiful open rural site with good views over Cherwell valley.

<u>STRATIGRAPHY</u>: Cornbrash, Forest Marble, White Limestone (possible Hanborough Terrace deposits at top, Quaternary). Bathonian, Middle Jurassic

### **Kirtlington and Bletchingdon Parks and Woods CTA (Conservation Target Area)**

The historic parklands at Kirtlington and Bletchingdon, including areas of degraded parkland, the woodlands to the east of Bletchingdon and including Weston Fen at the east edge.

Joint Character Area: Cotswolds and Thames and Avon Vales.

**Landscape Types:** Wooded Estatelands and Clay Vale to the south east though is well wooded.

**Geology:** Cornbrash limestone in the east, Kellaways and Oxford Clay in the east. Some areas of sand and gravel and alluvium along the Gallos Brook at the eastern edge.

**Topography:** Relatively flat plateau land.

**Area of CTA:** 505 hectares

#### **Biodiversity:**

- Parkland: rich parkland habitat at Kirtlington with many veteran trees with long term management and restoration agreed. Outside the main park there are degraded areas while Bletchingdon Park may have some parkland habitat but has not been assessed yet.
- Lowland Mixed Deciduous Woodland: The most important woodlands are to the south east where there are two Local Wildlife Sites. There are other areas of woodland associated with the parks with one area of ancient woodland.
- Fen, swamp and wet woodland. There is an area of fen habitat at Weston Fen SSSI along with wet woodland. The largest of the Kirtlington Park lakes has a good sized reedbed and wet woodland at the west end.
- Limestone grassland: found at Stonepit Hills at Weston Fen SSSI.

**Access:** Restricted to bridleways and footpaths.

#### **Archaeology:**

#### Oxfordshire Biodiversity Action Plan Targets associated with this CTA:

- 1. Parkland management<sup>1</sup> and restoration
- 2. Lowland mixed deciduous woodland management, restoration and creation (some planting to link sites).
- 3. Fen (and swamp) and Wet Woodland management and creation (little potential to extend except perhaps along Gallos Brook).
- 4. Limestone (lowland calcareous) grassland management and restoration (the plateau soils may be too deep and rich to allow the restoration of rich limestone grassland in the east of the area though some buffer areas near Stonepit Hills could be considered).

<sup>&</sup>lt;sup>1</sup> "Management" implies both maintaining the quantity, and maintaining and improving the quality of existing BAP habitat and incorporates the following target definitions: "Maintaining extent" and "Achieving Condition".

### **Lower Cherwell Valley CTA (Conservation Target Area)**

The Cherwell Valley from just south of Lower Heyford to Kidlington. Includes sections of valley side where the slopes are steeper and BAP priority habitats are found and includes a number of limestone quarries on the valley edge. To the south it includes a corridor along the Oxford Canal running south almost to Wolvercote.

Joint Character Area: Cotswolds and Thames and Avon Vales.

**Landscape Types:** River Meadowlands with small areas of Clay Vale. The quarry sites are in Wooded Estateland and Estate Farmland Area though are not typical of the landscape. Along the canal at Kidlington there are small areas of Lowland Village Farmlands and Alluvial Lowland.

**Geology:** The floor of valley is alluvium with some sand and gravel deposits. The areas of valley sides included in this area are limestone.

**Topography:** Flat riverside land, some east or west facing slopes and some quarries.

**Area of CTA:** 609 hectares

### **Biodiversity**:

- Fen and Swamp. There are a variety of sites which including Enslow Marsh, an area next to the oxbow lake at Northbrook Marsh, riverside land south of Enslow, including some degraded sites, in part of Rushy Meads SSSI and within Shipton-on-Cherwell Quarry.
- Reedbed. There are areas in the area east of Kidlington and an area has been created next to the canal south of Kidlington.
- Lowland meadow. The main site is Rushy Meads SSSI at Kidlington. There are remnant areas in the meadows east of Kidlington, in a meadow near Pigeon Lock and canalside fields at Yarnton.
- Wet grassland/floodplain grazing marsh: Some parts of the area are floodplain grazing marsh, such as Langford Meadows, which is wet grassland and some meadows near Yarnton At Home Farm Ponds there is a wet grassland/fen mixture at the pond edge.
- Limestone grassland: found in the quarries between Enslow and Shipton-on-Cherwell and at Kirtlington. There is a bank north of Kirtlington Quarry with remnant limestone grassland.
- Eutrophic Standing Water: The main site is the Oxford Canal. There is a rich oxbow lake at Northbrook Marsh and ponds at Home Farm.
- Scrub: A Cherwell BAP priority habitat. The main site is St. Mary's Field Parish Nature Reserve at Kidlington.
- Geology: Includes geological SSSIs at Kirtlington and Shipton-on-Cherwell and also Greenhill Ouarry, a local geological site.
- Species: the Canal is a key site for water vole. The area holds populations of BAP bird species
  including reed bunting, skylark yellowhammer and grey partridge. Lapwing and curlew have
  declined.
- Access: There is a local nature reserve at Kirtlington Quarry. There is controlled access at
  Enslow Marsh sedgebed. The main access feature is the Oxford Canal which runs the whole
  length of the area. There is an area of planted woodland at Kidlington where access is allowed.
  There is public access on land next to the canal south of Kidlington. St. Mary's Field Parish
  Nature Reserve at Kidlington

#### **Archaeology:**

#### Oxfordshire Biodiversity Action Plan Targets associated with this CTA:

1. Lowland meadow – management<sup>1</sup>, restoration and creation.

- 2. Floodplain grazing marsh management, restoration and creation (for breeding waders in particular).
- 3. Lowland Fen (including swamp) management and restoration.
- 4. Reedbed management and creation.
- 5. Rivers management and restoration (including management for water vole).

<sup>&</sup>lt;sup>1</sup> "Management" implies both maintaining the quantity, and maintaining and improving the quality of existing BAP habitat and incorporates the following target definitions: "Maintaining extent" and "Achieving Condition".