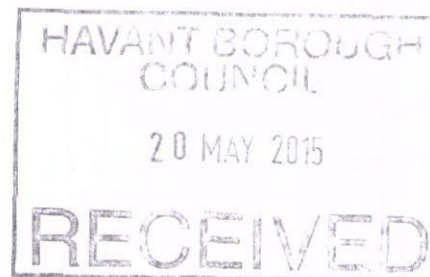


RPS

Woodcroft Primary School

**Extended Phase 1 Habitat Survey and
Reptile Survey Report**



December 2010

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EXECUTIVE SUMMARY

- RPS Ecology was commissioned by Hampshire County Council to carry out a Phase 1 Habitat survey at Woodcroft Primary School, in Lovedean, Hampshire.
- The survey identified suitable areas of reptile habitat on site; therefore a reptile survey was also carried out.
- Buildings and hard standing are considered to have negligible ecological value. Short perennial / ephemeral vegetation is considered to have low / negligible ecological value. The managed improved (amenity) grassland has little botanical and structural diversity and is considered to have low ecological value, however the taller improved (amenity) grassland towards the boundaries of the site has a higher botanical value and provides habitat for reptiles, small mammals, invertebrates and nesting birds.
- The hedgerows on site are species-rich and considered to be the key ecological features in the context of the school site and are likely to provide cover for reptile and nesting bird species. Similarly the young plantation woodland is likely to provide cover for reptile and invertebrate species. Therefore these boundary habitats are considered to be of notable ecological value in the context of the site.
- The inspections of the buildings concluded that they offer negligible roosting potential for bats and no evidence of roosting was found during the survey. Mature oak trees with features of potential value for roosting bats on the northern and western boundaries will remain unaffected by the proposed works.
- Linear tree lines surrounding the site boundaries are likely to be used by foraging and commuting bats therefore it is recommended that artificial lighting should be designed to avoid any light spill onto site boundaries.
- Low populations of slow-worm were recorded within the school site (but not within the residential development area) and recommendations with regards to this species have been made.
- The young planted trees, mature trees and hedgerows could be used by nesting birds and therefore site clearance should be undertaken outside of the nesting bird season to avoid potential delays in site works.
- It is concluded that badgers, great crested newts and other protected species are absent from the site.

1 INTRODUCTION

Background to the Study

- 1.1 RPS Ecology was commissioned by Hampshire County Council to carry out a Phase 1 Habitat Survey at Woodcroft Primary School, in Lovedean, Hampshire (Ordnance Survey grid reference SU 685 120).
- 1.2 The Phase 1 Habitat survey identified potential reptile habitat in rough grassland around the edge of the former playing fields on site, therefore a reptile survey was carried out by RPS surveyors in September and October 2010.
- 1.3 A previous Phase 1 Habitat Survey was carried out at the site in 2008 (HED 2008). This identified trees with the potential to support bat roosts around the boundaries of the school; potential bird nesting habitat on site and potential reptile habitat at the site boundaries.

Development Plans

- 1.4 It is proposed that part of the school site is used for residential development in order to facilitate the merging of the existing Junior and Infant School.

Site Description

- 1.5 The main area of the site supports school buildings and associated areas of hard standing. The western part of the school has been subject to building demolition in the last two years, and as a result an area of bare ground colonised by ephemeral and short perennial species was present. The southern half of the site has areas of grassland playing fields intersected by recent woodland planting.
- 1.6 The boundaries of the site comprise species-rich hedgerows and wooden fencing that screens the adjoining residential gardens. To the west of the school there is a block of mature broadleaved woodland, with playing fields beyond. To the north a bridleway track separates the school from the open fields beyond. To the east and south the school is bounded by residential housing and associated mature gardens.

Aims and objectives

Field Survey

- 1.7 The purpose of the Phase 1 Habitat survey was to identify the habitats present within and around the site. The site walkover survey also assessed the potential for the site and adjoining habitats to be used by species that receive legal protection (at a UK and / or European level) and species that are otherwise notable including Species of Principal Importance, UK BAP priority species, and Birds of Conservation Concern.
- 1.8 This report presents the Phase 1 Habitat survey information and provides an ecological baseline of the site. Consideration has been given to potential ecological impacts that could arise from the proposals on designated sites in the area.

Reptile Survey

1.9 Aims and objectives of the field survey were as follows:

- To establish presence / absence of reptiles;
- If reptile presence is confirmed, to determine species, density and distribution;
- To provide sufficient information for the evaluation of perceived impacts of the proposed development and to provide recommendations to ensure legal compliance.

2 METHODS

Field Survey

- 2.1 The survey was conducted in accordance with The Handbook for Phase 1 Habitat Survey (JNCC 2003), and included searches for signs of protected species, as described in Guidelines for Baseline Ecological Assessment (Institute of Environmental Assessment, 1995).
- 2.2 A walkover of the site was undertaken on 6th September 2010, during which habitats within the site were classified, mapped and described, with respect to their structure and floristic composition.
- 2.3 The habitats within the site were assessed for their potential to support legally protected or otherwise notable flora and fauna. Where suitable habitat was identified on site, a search was conducted for signs indicating the presence of protected species such as droppings, burrows, tracks and evidence of feeding. Where species are not specifically mentioned, this indicates that no habitat of potential value for these species was identified during the survey.
- 2.4 Consideration was also given to habitats outside the site, in order to understand the ecological context of the site within the wider landscape. Adjacent habitats were also considered with respect to their own ecological value and their potential to enhance the ecological value of habitats within the site.
- 2.5 Searches were made for invasive non-native plant species focussing on those species currently listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), including those species included in the revised Schedule 9.
- 2.6 Botanical nomenclature in this report follows that laid out by Stace (1997).

Reptile Survey

- 2.7 Reptile survey equipment was set out in areas of potential habitat for reptiles. The equipment consists of artificial refugia made of bitumen roofing felt that is cut into approximately 100 x 100cm mats. The felt warms up quickly and retains the heat well, attracting reptiles. A total of 16 refugia were laid out in suitable habitat within the site.
- 2.8 The refugia were evenly placed across the grassland areas of potential value for reptiles and were left to bed down for at least two weeks. During this time, ground beneath the refugia felts develop favourable conditions (*e.g.* suitable humidity and temperature gradient) and reptiles will become more familiar with them, where they are located with active territories. To assess presence or absence, the refugia were checked once each day for 7 days during optimal weather conditions. The refugia were collected from the rough grassland upon completion of the fieldwork.
- 2.9 All seven survey visits were undertaken in suitable weather conditions during the recommended optimum period for reptile surveys.

Constraints

- 2.10 The surveys were undertaken at an appropriate time and full access to the site was possible. Therefore, there were no perceived constraints to the interpretation of the results of the surveys.

3 RESULTS

Desk Study

Designated Sites

Statutory Designated Sites

- 3.1 Three statutory designated sites for nature conservation are present within 2km of the site:
- Yoell's Copse Local Nature Reserve (LNR) – 0.6km north of the site;
 - Hazelton Common LNR – 1.1km to the east of the site;
 - Catherington Down Site of Special Scientific Interest (SSSI) and LNR – 1.9km to the north.
- 3.2 Yoell's Copse is an ancient woodland site with old coppiced sessile oak *Quercus petraea* and wild service-tree *Sorbus torminalis*. Unusual plants include common cow-wheat *Melampyrum pratense* and butcher's-broom *Ruscus aculeatus*.
- 3.3 Hazelton Common has a varied woodland flora including 26 recorded Ancient Woodland Indicator species. Butterflies recorded since 1996 include Essex skipper *Thymelicus lineola*, small skipper *Thymelicus sylvestris* and grizzled skipper *Pyrgus malvae*. The site also supports a significant dragonfly population and 43 species of spiders have been identified including three nationally notable species and one not previously recorded in England. The main pond supports a population of great crested newt *Triturus cristatus*.
- 3.4 Catherington Down is an area of chalk grassland and narrow fringing woodland belts on predominantly west-facing downland slopes near the southern extent of the main Upper Chalk outcrop in Hampshire. The main part of Catherington Down has short downland turf with a good range of chalk herbs, including pyramidal orchid *Anacamptis pyramidalis*, autumn lady's tresses *Spiranthes spiralis* and round-headed rampion *Phyteuma tenerum*.

Non-statutory Designated Sites

- 3.5 Nineteen non-statutory, locally designated Sites of Importance for Nature Conservation (SINCs) are present within 2km of the site:
- Crabdens Copse – 1.9km northwest of the site;
 - Crabdens Row – 1.9km northwest;
 - James' Copse Paddock – 1km northwest;
 - James' Copse & Outlier – 0.4km northwest;
 - Rabbit Copse, Horndean – 1.8km north;
 - Yoells Copse – 1.1km north;
 - Dell Piece West – 1.4km east;

- Hazelton Common – 1.8km east;
- Dell Piece Gully – 1.8km east;
- Waterloooville Golf Course (North) – 1.7km southeast;
- Wecock Common – 0.8km southwest;
- Park Wood, Havant – 1.6km south;
- Longwood (Idlewood) – 0.6km southeast;
- Wecock Wood – 0.4km east;
- The Queen's Inclosure – 1.3km southeast;
- Waterloooville Golf Course – 2km southeast;
- Hazleton Wood – 1.7km southeast;
- Kings Pond Meadow – 1.9km west;
- Anmore Dell Meadow – 1.4km west.

Protected species

Plant species

- 3.6 The results of the protected species records received in the desk study are detailed below. Explanations for the abbreviations describing species status are provided as a footnote at the end of the desk study section.
- 3.7 Five plant species of conservation significance were recorded within 2km of the site, all within the last 10 years. These are smooth brome *Bromus racemosus* (CS), bluebell *Hyacinthoides non-scripta* (WCA), summer snowflake *Leucojum aestivum* (HBAP), green-winged orchid *Orchis morio* (HBAP), rough poppy *Papaver hybridum* (sHS) and round-headed rampion *Phyteuma orbiculare* (NS, CS).

Invertebrates

- 3.8 An extensive list of invertebrate species has been recorded within 2km of the site; the majority are moth species. For the full list, including the conservation status and date of the most recent records refer to Table 1 of Appendix 1.
- 3.9 UKBAP Priority Species recorded include the shrill carder-bee *Bombus (Thoracombus) sylvarum*, butterflies small blue *Cupido minimus*, grizzled skipper *Pyrgus malvae* and small heath *Coenonympha pamphilus*, and moth species such as dusky brocade *Apamea remissa*, mottled rustic *Caradrina Morpheus* and rosy minor *Mesoligia literosa*.

Reptiles

- 3.10 There are many records of slow-worm *Anguis fragilis*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and adder *Vipera berus* (all UKBAP, WCA) from between 1 and 2km of the site

and all have been recorded within the last 10 years. There are no records of any reptiles from within 1km from the site boundary.

Amphibians

- 3.11 Great crested newt (EU_Hab_2; UKBAP; HBAP; WCA; CI) have been recorded as recently as 2006 in Hazelton Common, 1.8m east of the site. No other amphibian records exist within 2km of the site.

Birds

- 3.12 There are extensive bird records within 2km of the site. For the full list refer to Table 2 in Appendix 1.
- 3.13 Birds listed on the Red List of Birds of Conservation Concern (BOCC) and the UKBAP Priority Species list that have been recorded within 2km include song thrush *Turdus philomelos*, turtle dove *Streptopelia turtur*, bullfinch *Pyrrhula pyrrhula*, starling *Sturnus vulgaris*, marsh tit *Poecile palustris*, spotted flycatcher *Muscicapa striata*, peregrine falcon *Falco peregrinus*, yellowhammer *Emberiza citrinella*, nightjar *Caprimulgus europaeus*, linnet *Carduelis cannabina* and lesser-spotted woodpecker *Dendrocopos minor*.

Bats

- 3.14 The following bat species have been recorded within 2km of the site. The exact locations of most of the records have been deemed sensitive by Hampshire Biodiversity Records Centre:
- Serotine *Eptesicus serotinus* (HBAP, WCA) recorded in 2001;
 - Bechstein's *Myotis bechsteinii* (UKBAP; HBAP; WCA; CI) roost with a maximum count of 24 in 2009;
 - Brandt's *Myotis brandtii* (WCA) recorded in 2008;
 - Whiskered *Myotis mystacinus* (WCA) roost with a maximum count of 3 in 2009;
 - Natterer's *Myotis nattereri* (WCA) recorded in 2009;
 - Noctule *Nyctalus noctula* (UKBAP, WCA) with a maximum count of 58 in 2004;
 - Pipistrelle sp. (WCA) most recently recorded in 2009;
 - Brown long-eared *Plecotus auritus* (UKABP, WCA) roost with a maximum count of 5 in 2009.

Mammals

- 3.15 Records for hedgehog *Erinaceus europaeus* (UKBAP) and brown hare *Lepus europaeus* (UKBAP, HBAP) exist within 2km of the site boundary. Badger was recorded 1.8km to the west of the site in 1995.

Protected Species Status Abbreviations

EU_Hab_2: Annex II of the Habitats Directive (priority species); **EU_BIRD_1:** Annex I of Birds Directive; **WCA:** Wildlife and Countryside Act (1981); **UK BAP:** UK BAP priority species; **NS:** Nationally scarce; **HBAP:** Hampshire BAP priority species; **CS:** County Scarce; **sHS:** South Hampshire Scarce; **CI:** County Interest; **BOCC-Red:** Birds of Conservation Concern Red list; **CR:** County Rare

Extended Phase 1 Habitat Survey

- 3.16 The results of the field survey are shown in Drawing SL1795 3.1 Phase 1 Habitat Survey Map. The habitats present on the site are described below broadly in order of extent.

Improved (Amenity) Grassland

- 3.17 A large area of the site supports an improved grassland playing field that is regularly mown to produce a very short sward (Plate 1). The grassland composition has not significantly changed since the previous Phase 1 survey, and still supports a species composition typical of amenity grassland, with abundant perennial ryegrass *Lolium perenne*, creeping bent *Agrostis stolonifera* and rough meadow-grass *Poa trivialis*, and frequent cock's-foot *Dactylis glomerata*, and annual meadow-grass *Poa annua*.
- 3.18 Forb species recorded in these regularly mown areas include locally abundant yarrow *Achillea millefolium*, daisy *Bellis perennis*, rough hawkbit *Leontodon hispidus*, common chickweed *Stellaria media* and spear thistle *Cirsium vulgare* and locally frequent common sorrel *Rumex acetosella*, red clover *Trifolium pratense*, white clover *Trifolium repens* and ribwort plantain *Plantago lanceolata*.

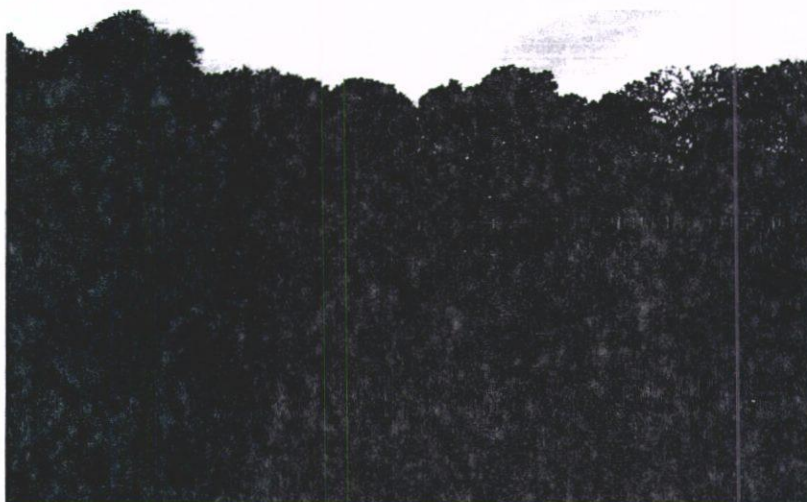


Plate 1 – Improved grassland playing fields with short, regularly mown sward

- 3.19 Around the margins of the playing field, towards the hedgerow and woodland planting, the grass has been allowed to grow slightly longer, and has developed a more diverse sward with an increased number of sward species. A small area of grassland at the north of the site was also longer and more species-rich than the playing field grassland (Plate 2).
- 3.20 Species recorded in these areas include locally abundant meadow foxtail *Alopecurus pratensis*, smooth tare *Vicia tetrasperma*, black medick *Medicago lupulina* and tufted vetch *Vicia cracca*,

locally frequent curled dock *Rumex crispus* and scarlet pimpernel *Anagallis arvensis* subsp. *arvensis*, and occasional field bindweed *Convolvulus arvensis* and hairy brome *Bromopsis ramosa*.



Plate 2 – Longer grassland sward within northern area of the site

- 3.21 In addition, some additional herb species were recorded growing in the more shaded areas among the woodland planting at the south of the site. Species recorded include locally abundant ground-ivy *Glechoma hederacea*, common nettle *Urtica dioica* and cleavers *Galium aparine*.

Ephemeral / Short Perennial

- 3.22 Some school buildings have been demolished on site since the previous Phase 1 survey was undertaken, and a scattered covering of ephemeral and short perennial species have started to colonise this extensive area of the site (Plate 3). Patches of bare ground are still present across this area, and species typically recorded include fat-hen *Chenopodium album* and scarlet pimpernel.

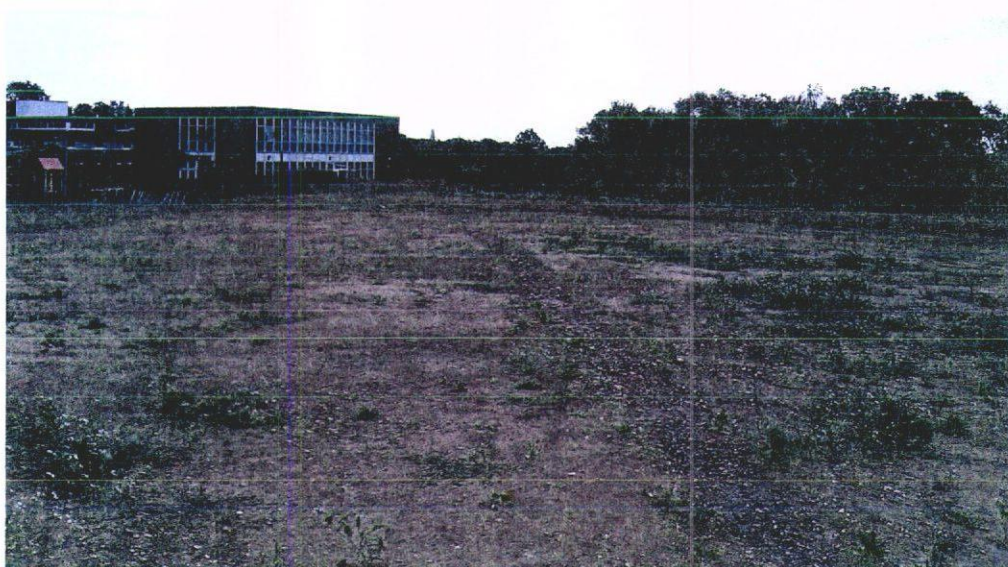


Plate 3 – Ephemeral / short perennial species colonising ground cleared after building demolition

Species-rich Hedgerows

- 3.23 Species-rich hedgerows are present at the northern, southern and western boundaries of the site. The northern boundary hedgerow is dominated with hawthorn *Crataegus monogyna*, with a line of mature sessile oak *Quercus petraea* trees present. Goat willow *Salix caprea*, ash *Fraxinus excelsior* and beech *Fagus sylvatica* were all recorded frequently within the hedgerow.
- 3.24 The western boundary had a similar species composition, but was dominated by hawthorn and bramble *Rubus fruticosus*.

Broadleaved Plantation Woodland

- 3.25 Towards the southern boundary of the site an area of recently planted young trees form a broadleaved plantation belt that separate two playing fields. These are a mixture of species dominated by hazel *Corylus avellana* and goat willow. There is a limited ground flora cover, with mainly bramble and a few taller grass species as recorded at the edges of the playing fields.

Buildings and Hard Standing

- 3.26 A large part of the site comprises school buildings and associated areas of tarmac and paved hard standing. No species are associated with these areas.
- 3.27 The buildings remaining on site are all single or two-storey, with flat-roofs and cladding around the exterior.



Plate 4 – School buildings and hard standing play surfaces on site

Offsite Habitat – Broadleaved Woodland

- 3.28 Mature broadleaved woodland adjoins the site at the western boundary. The canopy trees comprise mature pedunculate oak *Quercus robur*, with semi-mature sycamore *Acer pseudoplatanus* recorded frequently and ash recorded occasionally. The understorey includes locally abundant hawthorn, holly *Ilex aquifolium* and field maple *Acer campestre*, frequent elder *Sambucus nigra* and blackthorn *Prunus spinosa* along the boundaries and occasionally recorded apple *Malus sp.* and cherry *Prunus avium var.*
- 3.29 Ground flora recorded within the woodland is sparse due to the dense canopy and understorey that reduces the light reaching the ground in most areas. Towards the boundary of the woodland and school site the light level increases and a more diverse ground flora is present including locally abundant ground-ivy, ivy *Hedera helix*, common nettle and cleavers, common ragwort *Senecio jacobaea*, yarrow, fat-hen, wood avens *Geum urbanum* and bramble, and occasionally recorded male-fern *Dryopteris filix-mas*.

Reptile Survey Results

- 3.30 A summary of the reptile survey results is provided in Table 3.1 and described in the following paragraph.

Table 3.1 – Reptile Survey Results

Date	Species and Number	Weather Conditions
22/09/2010	Adult slow-worm x 1	19°C. Sunny
24/09/2010	Adult slow-worm x 1	14°C. Bright sunshine following light showers overnight
30/09/2010	-	12°C. Bright sun, light mist
06/10/2010	-	13°C. Sunshine following heavy rain
07/10/2010	-	14°C. Bright sun
08/10/2010	Adult slow-worm x 1	13°C. Sunny following rain overnight
11/10/2010	-	13°C. Bright sun

- 3.31 One adult slow worm was recorded beneath the same refugia (located in the rough grassland to the north of the site – see Figure 3.1) during three of the seven visits; it is possible that this was the same individual on each occasion. No other reptiles were recorded on site.

4 EVALUATION

Habitats

- 4.1 A large proportion of the site comprises hard standing, buildings and improved (amenity) grassland, with an extensive area of ephemeral / short perennial colonising a recently cleared area of ground. A block of recently planted trees separates two playing fields in the southern half of the site. The school boundaries comprise species-rich hedgerows and woodland edge habitats.
- 4.2 The buildings and hard standing are considered to have no botanical value. The ephemeral / short perennial species that are colonising areas where buildings have recently been demolished has very little structural or botanical diversity and is considered to be of low-negligible ecological value.
- 4.3 The improved (amenity) grassland is frequently mown, with a uniform short sward and little botanical and structural diversity. It supports a low number of widespread grasses and forb plant species that will occur commonly in the local area. The amenity grassland and is considered to be of low botanical and ecological value.
- 4.4 The grassland towards the edges of the site is less intensively managed, with a longer, more diverse sward and slow-worm has been recorded in this area. The hedgerows are species-rich and overall these boundary habitats are considered to have ecological value in the context of the site.

Species

Bats - Roosting

- 4.5 All species of bats occurring in the UK receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended). A number of bat species are UK BAP priority species. These include the widespread species, soprano pipistrelle *Pipistrellus pygmaeus*, brown-long eared bat *Plecotus auritus* and noctule *Nyctalus noctula*.
- 4.6 The school buildings are all modern and flat-roofed and they lack features such as roof voids and cavities. No obvious features such as openings, crevices, voids or overhangs were noted, therefore the buildings are considered to offer negligible value for roosting bats.
- 4.7 Mature oaks along the northern site boundary and in woodland to the west were noted to contain features such as small holes and loose bark that may offer bat roost potential, however these are all being retained with the masterplan of the site and will not be directly impacted by the proposed works.

Bats - Foraging

- 4.8 The site boundaries particularly on the northern, western and southern sides of the site are linear features that may be used by bats in the local area for foraging / commuting routes. The off-site woodland edge habitats also offer sheltered areas that bat species from the local area may utilise for foraging.

Nesting Birds

- 4.9 Nesting birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.
- 4.10 Areas of cover in the hedgerows and young tree planting, and the more mature trees around the site boundaries provide suitable nesting opportunities for a range of common bird species and will provide a foraging resource for nesting birds in the wider area.

Reptiles

- 4.11 The four widespread reptile species (grass snake, adder, viviparous lizard and slow-worm) are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). These are also Priority Species in the UK Biodiversity Action Plan.
- 4.12 The majority of the short improved grassland on site is regularly mown up to the edge of the hedgerows and young woodland planting at the boundaries of the site, and is therefore unsuitable for reptile species. The longer grassland sward towards the site boundaries and in an area at the north of the site was considered to offer suitable reptile foraging habitat and the hedgerows at the school boundaries may provide cover for reptiles.
- 4.13 The reptile survey has confirmed that the longer grassland at the northern boundary of the site supports a low population of slow-worm. Slow-worm are a widespread and common species in Hampshire, therefore the school is likely to be of low local importance for these species. Garden habitats off site are likely to be more important for reptiles in the context of the local area.

Great Crested Newt and Other Amphibians

- 4.14 The great crested newt *Triturus cristatus* receives full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife & Countryside Act 1981, (as amended). Great crested newt is also a UK BAP priority species.
- 4.15 There is no pond present on site and a search of aerial photographs and maps of the local area shows there do not appear to be any ponds within 500m of the site. In addition, there are no records of great crested newt within 500m of the site.
- 4.16 The school does not contain extensive areas of good quality great crested newt habitat, and it is therefore concluded that the school site is very unlikely to support great crested newt.

Badger

- 4.17 Under the Protection of Badgers Act 1992, badgers *Meles meles* are protected from killing, injuring or disturbance, while occupying a sett, and their setts are protected from obstruction, damage or destruction.
- 4.18 No setts or obvious signs of badger, such as snuffle holes, prints or latrines, were noted during the site walkover. It is considered likely that badgers are absent from the site.

5 CONCLUSIONS

- 5.1 The buildings and hard standing are considered to have negligible ecological value and the ephemeral and short perennial habitat is considered to have low / negligible ecological value.
- 5.2 The mown improved (amenity) grassland is considered to have low ecological value. The taller improved grassland towards the boundaries of the school site that has developed a more diverse sward is considered to offer a higher botanical value and are likely to provide habitat for reptiles, small mammals, invertebrates and nesting birds. Therefore, these areas offer a higher ecological value in the context of the site.
- 5.3 The hedgerows on the boundaries of the site are the key ecological features in the context of the school site and are probably associated with providing cover for nesting bird and reptile species. This is considered to offer high ecological value in the context of the site.
- 5.4 The survey has found no evidence of roosting bats in trees or buildings on site, and the buildings are considered to offer negligible roosting potential for these species. Mature oak trees with bat roost potential on the northern and western boundaries will remain unaffected by the proposed works. Linear tree lines surrounding the site boundaries are potentially used for foraging and commuting bats.
- 5.5 Low populations of slow-worm have been recorded at one location within the longer grassland to the northern boundary of the site (as marked on figure 3.1) but not within the area to be developed for residential purposes.
- 5.6 It is considered that badgers, great crested newts and other protected species are likely to be absent from the site.

6 RECOMMENDATIONS

Habitats

- 6.1 The boundary habitats should be retained within the development scheme as they provide an important resource for biodiversity in the school site and allow species to move around the boundaries of the site to other good habitats offsite, such as the woodland to the west.
- 6.2 To ensure that the integrity of these areas is maintained a buffer zone between the longer grassland and hedgerows and any construction activities (including clearance, construction, storage and access) should be maintained.
- 6.3 To provide additional habitat suitable for invertebrates, the longer improved grassland sward at the edge of the site could be managed as wildflower meadow to promote a greater diversity of grassland species. This would enhance the botanical value of the grassland habitat. Maintaining areas of longer grassland will continue to provide cover for fauna including reptiles. These measures should also increase the potential value of the site for foraging bats and birds.
- 6.4 Piles of logs, stones or grass clippings could be placed towards the edges of the site boundaries to provide refugia and cover all year round for reptile and common amphibian species such as common frog *Rana temporaria* and common toad *Bufo bufo*.

Bats

- 6.5 Protection of the boundary features and maintenance of dark corridors (without any artificial light spill) should be built into the site design to avoid impacting on the potential value of the school site for foraging/commuting bats.
- 6.6 In order to increase the bat roosting opportunities on site, it is recommended that at least two bat boxes be installed in appropriate locations within the final development.

Nesting Birds

- 6.7 If any habitat identified as suitable for nesting birds will be removed it should be undertaken outside of the nesting bird season (normally considered to be March-August inclusive). If this is not possible, works completed within the bird nesting season will need to take into account the potential presence of active nests. Where birds are found to be nesting on or in a building or within hedgerows or woodland on site, any works that result in damage to or loss of the nest would be unlawful.
- 6.8 Any active nests established in the working area during site operations will need to be protected until after the young have fully fledged and no longer return to the nest site. Any active nest should be cordoned off to a distance of 5-10m. No works will be allowed within the cordoned area until it has been confirmed that the nest is no longer active.
- 6.9 In order to enhance the bird nesting potential of the site, it is recommended that at least two bird nest boxes be installed in appropriate locations within the final development.

Reptiles

-
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- 6.10 The single slow-worm recorded by the survey was found within habitat on the existing school site, rather than on the area to be developed for residential purposes. This contained only a very limited area of reptile habitat (a small strip of long grass along the northern boundary).
- 6.11 If this limited area of habitat is to be lost, it is recommended that a sensitive vegetation clearance methodology should be implemented in order to have minimal risk of injury to any reptiles.
- 6.12 The clearance methodology will be undertaken under the watching brief of an ecologist experienced in reptile survey and relocation. Should any individuals be found then they will be relocated to suitable cover within the school boundary or if not possible within woodland habitat to the west, subject to permission from the landowner.
- 6.13 Any reptiles caught will be placed into a reptile bag, or a cool container with a secure lid, to be transported to the relocation area. They will then be released as soon as possible in favourable habitats under suitable weather conditions.
- 6.14 Initially a hand search of will be undertaken by the ecologist to remove any deadwood or piles of grass cuttings with the working area for the development. The rough grassland and scattered scrub habitat will be cleared with handheld tools (i.e. strimmers).
- 6.15 The vegetation cutting would be implemented in two stages. The whole of the rough grassland would be cut to approximately 10cm above ground level and any thatch of dead grass removed. A subsequent second cut would remove vegetation to ground level. This phased systematic cutting regime will ensure that any reptiles or other species of fauna present within the site are encouraged to move away from the development. In addition, degrading the vegetation should discourage reptiles from re-entering the site during the development works thereby reducing the potential for animals to be injured or killed.

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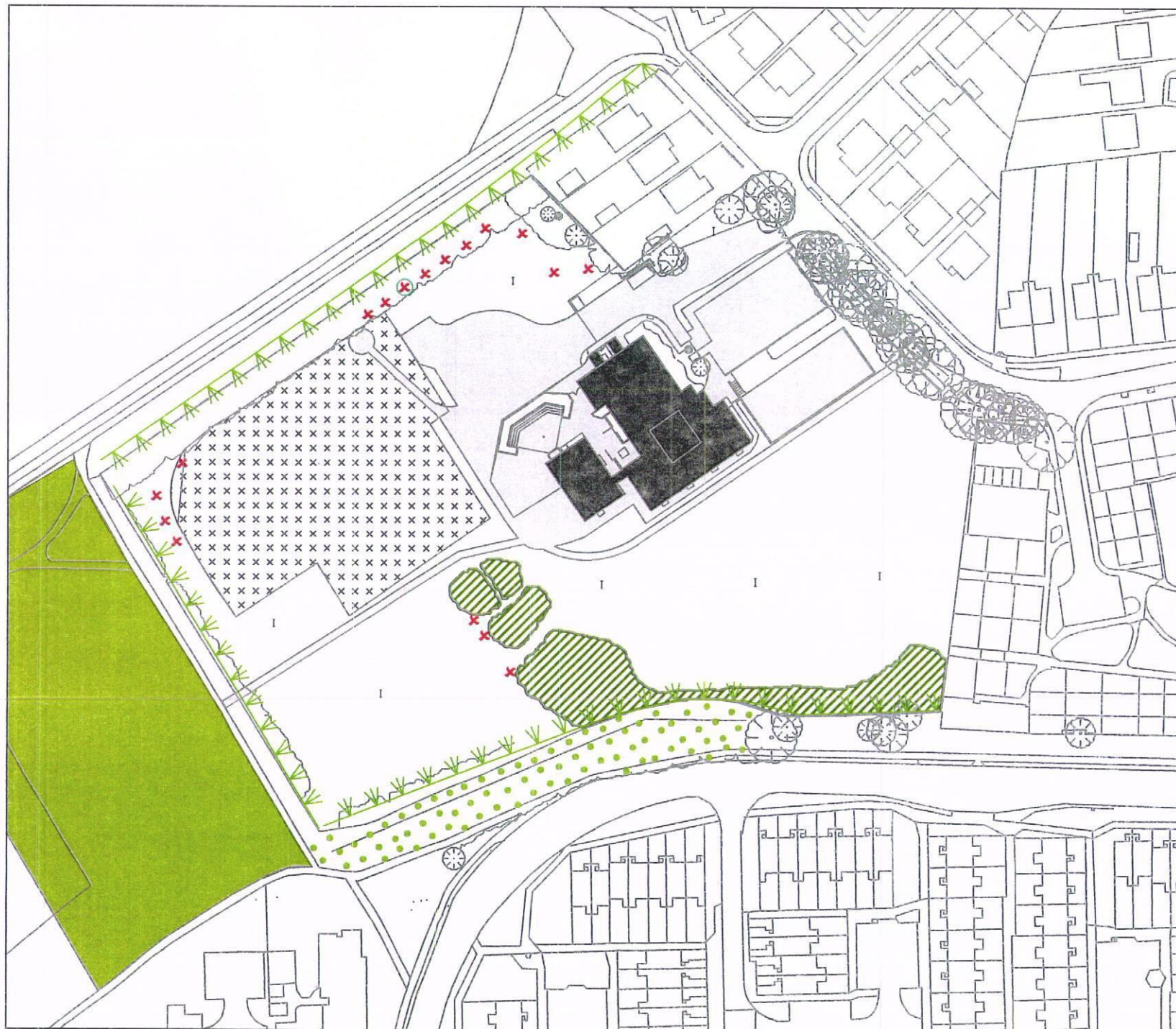
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FIGURE 3.1

Phase 1 Habitat Survey September 2010 – Woodcroft Primary School,
Lovedean



Legend

- x Survey Sheet Locations
- x Location of slow-worm
- Trees
- ~ Hedge Species Rich
- / Broad-leaved woodland plantation
- Hard Surface
- Off Site Woodland
- Buildings
- Short Perennial

Rev.	Date	Amendment	Name	Checked

■ Data Source: RPS 2010

Status: FINAL

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■ Client: Hampshire County Council

Project: Woodcroft Primary School

Title: Phase 1 Habitat Survey

Scale: A3 @ 1:1000

Date: 06/08/2010 Datum: OSGB36 Projection: BNG

Drawn: SH Checked: NB Job Ref: SL1795

■ Figure No: 3.1

Revision: -

APPENDICES

Appendix 1 – Protected / Notable Species records within 2km of the site

Table 1 - Invertebrate species of conservation concern present within 2 km of the site

Common name	Scientific name	Date of most recent record	Conservation status
	<i>Andrena (Micrandrena) alfkenella</i>	2001	
Hill Cuckoo Bee	<i>Bombus (Psithyrus) rupestris</i>	2002	NS; HBAP
Shrill Carder Bee	<i>Bombus (Thoracombus) sylvarum</i>	2001	NS; UKBAP; HBAP
Blue Carpenter Bee	<i>Ceratina (Euceratina) cyanea</i>	2001	
	<i>Dolichovespula (Dolichovespula) media</i>	2001	NS
	<i>Lasioglossum (Evylaeus) pauxillum</i>	2001	NS
	<i>Melitta tricincta</i>	2001	NS
	<i>Nomada fucata</i>	2002	NS
	<i>Chetostoma curvinerve</i>	2001	
	<i>Criorhina asilica</i>	2002	NN
a hoverfly	<i>Eumerus ornatus</i>	2002	NN; HBAP
	<i>Gymnosoma rotundatum</i>	2001	
	<i>Volucella inflata</i>	2001	NN
	<i>Notaris scirpi</i>	2001	NS
Dark Spectacle	<i>Abrostola triplasia</i>	2006	CS
	<i>Acleris literana</i>	2007	CR
Grey Dagger	<i>Acronicta psi</i>	2005	UKBAP
Knot Grass	<i>Acronicta rumicis</i>	2007	UKBAP
Brown-spot Pinion	<i>Agrochola litura</i>	2000	UKBAP
Beaded Chestnut	<i>Agrochola lychnidis</i>	2007	UKBAP
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	2007	UKBAP
Saltern Ear	<i>Amphipoea fucosa</i>	2004	CS
Ear Moth	<i>Amphipoea oculatea</i>	2004	UKBAP
Mouse Moth	<i>Amphipyra tragopoginis</i>	2005	UKBAP
Orange Moth	<i>Angerona prunaria</i>	2007	CS
Dusky Brocade	<i>Apamea remissa</i>	2006	UKBAP
Reddish Light Arches	<i>Apamea sublustris</i>	2001	CS
Small Clouded Brindle	<i>Apamea unanims</i>	2007	CS
festoon	<i>Apoda limacodes</i>	2007	HBAP; NS
Deep-brown Dart	<i>Aporophyla lutulenta</i>	2006	UKBAP
Light Orange Underwing	<i>Archiearis notha</i>	2000	NS
Garden Tiger	<i>Arctia caja</i>	2007	UKBAP
silver-washed fritillary	<i>Argynnis paphia</i>	2007	HBAP CI
Centre-barred Sallow	<i>Atethmia centrargo</i>	2006	UKBAP
Red-necked Footman	<i>Atolmis rubicollis</i>	2007	CS
	<i>Capperia britanniodactyla</i>	2005	NS
Mottled Rustic	<i>Caradrina morpheus</i>	2007	UKBAP
	<i>Cataclysta lemnata</i>	2006	CR

Common name	Scientific name	Date of most recent record	Conservation status
Royal Mantle	<i>Catarhoe cuculata</i>	2005	CS
Ruddy Carpet	<i>Catarhoe rubidata</i>	2003	NS
Little Thorn	<i>Cepphis advenaria</i>	2000	NS
Silky Wainscot	<i>Chilodes maritima</i>	2005	CS
Small Heath	<i>Coenonympha pamphilus</i>	2008	UKBAP
	<i>Coleophora orbitella</i>	2007	NS
Dotted Chestnut	<i>Conistra rubiginea</i>	2006	NS
Marbled Green	<i>Cryphia muralis</i>	2002	CS
Small Blue	<i>Cupido minimus</i>	2008	UKBAP; HBAP; CS
Mocha	<i>Cyclophora annularia</i>	2007	NS
Oak Lutestring	<i>Cymatophorima diluta</i>	2006	UKBAP
Silver Barred	<i>Deltote bankiana</i>	2005	
Small Square-spot	<i>Diarsia rubi</i>	2007	UKBAP
Small Phoenix	<i>Ecliptopera silaceata</i>	2002	UKBAP
Orange Footman	<i>Eilema sororcula</i>	2007	HBAP
Pyralid Moth	<i>Elegia similella</i>	2005	HBAP; NS
Large Thorn	<i>Ennomos autumnaria</i>	2003	NS
Dusky Thorn	<i>Ennomos fuscantaria</i>	2007	UKBAP
Galium Carpet	<i>Epirrhoe galiata</i>	2007	UKBAP CS
The Spinach	<i>Eulithis mellinata</i>	2004	UKBAP
Shaded Pug	<i>Eupithecia subumbrata</i>	2003	CS
Poplar Kitten	<i>Furcula bifida</i>	2004	CS
Lappet	<i>Gastropacha quercifolia</i>	2007	CS
Small Emerald	<i>Hemistola chrysoprasaria</i>	2007	UKBAP
Ghost Moth	<i>Hepialus humuli</i>	2005	UKBAP
The Rustic	<i>Hoplodrina blanda</i>	2007	UKBAP
Rosy Rustic	<i>Hydraecia micacea</i>	2007	UKBAP
Great Oak Beauty	<i>Hypomecis roboraria</i>	2007	NS
Small Scallop	<i>Idaea emarginata</i>	2005	CS
Dog/Es Tooth	<i>Lacanobia suasa</i>	2004	CS
Four-spotted Footman	<i>Lithosia quadra</i>	2007	CR
Brindled Beauty	<i>Lycia hirtaria</i>	2002	UKBAP
Chalk-Hill Blue	<i>Lysandra coridon</i>	2007	HBAP; CS
The Lackey	<i>Malacosoma neustria</i>	2007	UKBAP
Kent Black Arches	<i>Meganola albula</i>	2006	NS
Dot Moth	<i>Melanchra persicariae</i>	2007	UKBAP
Broom Moth	<i>Melanchra pisi</i>	2001	UKBAP; CS
Pretty Chalk Carpet	<i>Melanthia procellata</i>	2006	UKBAP
Rosy Minor	<i>Mesoligia literosa</i>	2003	UKBAP
Shoulder-striped Wainscot	<i>Mythimna comma</i>	2007	UKBAP
White-L Wainscot	<i>Mythimna l-album</i>	2007	NS
Powdered Quaker	<i>Orthosia gracilis</i>	2007	UKBAP
Blossom Underwing	<i>Orthosia miniosa</i>	2007	CS
Northern Drab	<i>Orthosia opima</i>	2007	CR
Barred Rivulet	<i>Perizoma bifaciata</i>	2007	CS
Maple Pug	<i>Perizoma inturbata</i>	2005	CS
Gold Spot	<i>Plusia festucae</i>	2005	CS
Large Ranunculus	<i>Polymixis flavicincta</i>	2007	CS
Feathered Ranunculus	<i>Polymixis lichenea</i>	2006	CS

Common name	Scientific name	Date of most recent record	Conservation status
Maple Prominent	<i>Ptilodontella cucullina</i>	2007	CS
Grizzled Skipper	<i>Pyrgus malvae</i>	2007	UKBAP; CI
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	2002	UKBAP
Striped Lychnis	<i>Shargacucullia lychnitis</i>	2007	UKBAP; HBAP; NS
White Ermine	<i>Spilosoma lubricipeda</i>	2007	UKBAP
Buff Ermine	<i>Spilosoma luteum</i>	2007	UKBAP
	<i>Stigmella assimilella</i>	2007	CR
	<i>Synaphe punctalis</i>	2007	CS
Hedge Rustic	<i>Tholera cespitis</i>	2007	UKBAP; CS
Feathered Gothic	<i>Tholera decimalis</i>	2007	UKBAP
Blood-vein	<i>Timandra comae</i>	2007	UKBAP; CS
The Cinnabar	<i>Tyria jacobaeae</i>	2007	NS
Oak Hook-tip	<i>Watsonalla binaria</i>	2007	UKBAP; CS
Orange Sallow	<i>Xanthia citrigo</i>	2000	CS
The Sallow	<i>Xanthia icteritia</i>	2007	UKBAP
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	2005	UKBAP
Heath Rustic	<i>Xestia agathina</i>	2006	UKBAP; CS

CI: County Interest; CS: County Scarce; CR: County Rare; HBAP: Hampshire BAP priority species; NN: Nationally notable; NS: Nationally scarce; UK BAP: UK BAP priority species

Table 2 - Birds species of conservation concern present within 2 km of the site

Common name	Scientific name	Date of most recent record	Conservation status
Kingfisher	<i>Alcedo atthis</i>	2007	EU_Bird_1; WCA
Brent Goose	<i>Branta bernicla</i>	2006	
Nightjar	<i>Caprimulgus europaeus</i>	2004	EU_Bird_1; BOCC_Red; UKBAP; HBAP; CI
Lesser Redpoll	<i>Carduelis cabaret</i>	2008	UKBAP
Linnet	<i>Carduelis cannabina</i>	2001	BOCC_Red; UKBAP; HBAP
Hen Harrier	<i>Circus cyaneus</i>	2002	EU_Bird_1; WCA
Stock Dove	<i>Columba oenas</i>	2002	
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	2008	EU_Bird_1; BOCC_Red; UKBAP; HBAP; CI
Little Egret	<i>Egretta garzetta</i>	2007	UKBAP
Yellowhammer	<i>Emberiza citrinella</i>	2006	BOCC_Red; UKBAP; HBAP
Reed Bunting	<i>Emberiza schoeniclus</i>	2006	EU_Bird_1; BOCC_Red; HBAP
Merlin	<i>Falco columbarius</i>	2000	
Peregrine Falcon	<i>Falco peregrinus</i>	2008	BOCC_Red; UKBAP; HBAP
Hobby	<i>Falco subbuteo</i>	2008	HBAP; WCA; CI
Pied Flycatcher	<i>Ficedula hypoleuca</i>	2005	CR
Brambling	<i>Fringilla montifringilla</i>	2008	WCA
Oystercatcher	<i>Haematopus ostralegus</i>	2008	CS
Mew Gull	<i>Larus canus</i>	2007	
Great Black-backed Gull	<i>Larus marinus</i>	2006	CR
Mediterranean Gull	<i>Larus melanocephalus</i>	2008	EU_Bird_1; HBAP; WCA; NR
Black-Headed Gull	<i>Larus ridibundus</i>	2007	CR
Crossbill	<i>Loxia curvirostra</i>	2008	CS
Red Kite	<i>Milvus milvus</i>	2007	EU_Bird_1; HBAP; WCA; NR
Spotted Flycatcher	<i>Muscicapa striata</i>	2001	BOCC_Red; UKBAP; HBAP
Eurasian Curlew	<i>Numenius arquata</i>	2007	UKBAP
Whimbrel	<i>Numenius phaeopus</i>	2006	WCA
Wheatear	<i>Oenanthe oenanthe</i>	2003	CS
Osprey	<i>Pandion haliaetus</i>	2005	EU_Bird_1; WCA
Marsh Tit	<i>Poecile palustris</i>	2007	BOCC_Red; UKBAP
Bullfinch	<i>Pyrrhula pyrrhula</i>	2007	BOCC_Red; UKBAP; HBAP
Firecrest	<i>Regulus ignicapilla</i>	2007	HBAP; WCA; NR
Whinchat	<i>Saxicola rubetra</i>	2002	HBAP; CR
Woodcock	<i>Scolopax rusticola</i>	2008	
Turtle Dove	<i>Streptopelia turtur</i>	2008	BOCC_Red; UKBAP; HBAP
Starling	<i>Sturnus vulgaris</i>	2006	BOCC_Red; UKBAP
Dartford Warbler	<i>Sylvia undata</i>	2005	EU_Bird_1; HBAP; WCA; CI
Redwing	<i>Turdus iliacus</i>	2008	WCA

Common name	Scientific name	Date of most recent record	Conservation status
Song Thrush	<i>Turdus philomelos</i>	2007	BOCC_Red; UKBAP; BAP
Fieldfare	<i>Turdus pilaris</i>	2007	WCA
Mistle Thrush	<i>Turdus viscivorus</i>	2002	

BOCC-Red: Birds of Conservation Concern Red list; **CI:** County Interest; **CR:** County Rare; **CS:** County Scarce; **EJ_BIRD_1:** Annex I of Birds Directive; **HBAP:** Hampshire BAP; **NR:** Nationally Rare; **UK BAP:** UK BAP priority species ; **WCA:** Wildlife and Countryside Act (1981)

