

## LAND TO THE NORTH OF GAVRAY DRIVE, BICESTER

### Summary Description

This site consists of a network of fields of varying structure divided by a network of thick, species rich hedgerows with mature standards. These mature trees provide suitable habitat for bats, although no evidence of their presence was recorded. Fields to the south west are poor semi-improved grassland, dominated by false-oat grass, creeping bent and Yorkshire fog. Thick scrub is also present along the railway line, and together with the semi-improved grassland and pasture forms excellent habitat for badgers. Well worn mammal paths which were likely produced by badgers were recorded in the north of the site, leading into scrub however detailed searches of this area were not undertaken.

Of greater value and of at least District and possibly county importance, are the fields in the centre and to the north. Two wet meadows dominated by tufted hair-grass and great burnet (*Sanguisorba officinalis*) are present here, which contain some evidence of previous ridge and furrow. This grassland may be classified as MG4 *Alopecurus pratensis* – *Sanguisorba officinalis* under the NVC. Marshy grassland adjoins this to the north, where wetter areas are dominated by hard rush (*Juncus inflexus*) with locally abundant reed canary grass. Several sedge species are also apparent including hairy sedge (*Carex hirta*), lesser pond sedge (*Carex acutiformis*) and false fox sedge (*Carex otrubae*).

A small, heavily silted stream is also present in the centre of the site. This is bordered to the east by goat willow (*Salix caprea*), crack willow, hawthorn and field maple with mature oak and ash standards. The west of the stream is mainly dominated by common nettle and great willowherb, however a number of marginal and aquatic species are also present, particularly to the south, where branched bur-reed, water plantain, reed canary grass, water starwort species and meadowsweet are all present. Although no evidence was recorded and habitat is suboptimal, the thick vegetation cover and bank structure provides suitable habitat for water vole.

### List of Information obtained

Record of 'grounded' pipistrelle bat (*Pipistrellus* sp.) on the site itself (SP598233) and a second within 1km of boundary (SP592239 on 11/06/97). Also, both pipistrelle (*Pipistrellus* sp.) and brown long eared bat roosts are recorded in Launton, to the east of the site (SP610229 on 01/04/99 and SP606223 on 24/05/01 respectively). Recorded by Oxfordshire bat group.

### Features of Importance

- Semi-improved wet grassland

- Scrub (if badgers found to be present)
- Species-rich hedgerows
- Mature trees
- Stream
- Breeding Birds

### **Constraints on Development**

On the basis of the Phase 1 survey the site is likely to meet criteria for designation as a Site of Importance for Nature Conservation. Great burnet, abundant in these fields, is a locally scarce species occurring in only 0.6-4% of tetrads in Oxfordshire. Typical of damp hay meadows, it is 1 of 100 species identified in 1996 by BBOWT as a 'Biodiversity Challenge 100' species. These species are considered rare (internationally, nationally or locally); indicative of rare or threatened habitat in Oxfordshire and characteristic of the county and culturally valued. Additionally, if the community as a whole is found to be MG4, it is subject to a Biodiversity Action Plan under the UK Biodiversity Initiative.

The central and northern sectors of the site are therefore considered to be unsuitable for development on the basis of its ecological value and any alterations to the hydrology of these areas, due for example to the development of adjoining land, should be avoided

The south western sector of the site is of lesser value, although a number of the hedges are considered to be worthy of assessment under the Hedgerow Regulations 1997. In any case, they form a habitat of at least local importance to wildlife and should be retained within the site proposals where possible.

The stream is considered of limited value, although the presence of marginal vegetation offers potential for water vole. Further surveys are required only if the watercourse is likely to be subject to direct impacts. Water voles receive limited protection under the Wildlife and Countryside Act 1981.

The damp unimproved meadows offer suitable habitat for foraging bats. The potential for roosts is considered low as no suitable tree cavities were recorded. Bats are protected under the Wildlife and Countryside Act (1981) and the Habitat Regulations (1995).

### **Further Work Recommended**

- Bat survey
- Water vole survey
- Badger survey

- Hedgerow survey (including heritage data search)

## **CONCLUSIONS**

- 4.1 4 sites were found to contain habitats sufficient to represent a significant constraint to development. The majority of Shipton-on-Cherwell Quarry SSSI and County Wildlife Site (CWS) is considered unsuitable for development due to the important bird populations present on the site. Additionally, the species-rich calcareous grasslands located at RAF Upper Heyford, also designated a CWS, are of sufficient value to make development of this area of the site inappropriate, as are the damp hay meadows at Gavray Drive, Bicester and the rush pasture and stream at the South West Bicester site.
- 4.2 The only site to contain no constraints to development was the site North of Crutchmore Crescent, Kirtlington which consists of an improved grassland field with no species-rich hedgerows. The site is dominated by perennial rye-grass and horseradish and is considered of limited value for nature conservation.
- 4.3 The remaining sites were all found to contain habitats with the potential to support notable or protected species. Each of these sites, and the potential for the presence of each relevant protected species, is identified in Table 4.1
- 4.4 Under the Habitat Regulations 1994 it is an offence to disturb both the breeding and foraging habitat of bats and great crested newts. In the case of great crested newts foraging habitat may extend up to 500m from the pond. In cases where these species are found to be present development can only take place if three conditions are met:
- There is no alternative to development
  - There is over-riding public interest
  - The favourable conservation status of the species is not adversely affected
- 4.5 Determining the presence or absence of these species on a site prior to acquisition by a potential developer should thus be considered a priority by local authorities to avoid the risk of sites becoming 'blighted' at a later stage in the planning process.
- 4.6 Ponds were recorded either within or adjacent to a site on three occasions at West of West Hawthorn Road, land to South of Overthorpe Road and West of M40, Banbury. Surveys should be undertaken during the spring when adult newts return to ponds to spawn. The majority of the sites contained trees or buildings with potential to support bat roosts. However a targeted survey at the correct time of year is likely to eliminate this risk from the majority of sites.
- 4.7 All remaining protected species are material considerations when a local planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat. In most cases, suitable design and mitigation should enable development to proceed without significant effects.



- 4.8 A number of the sites supported habitats or species for which biodiversity action plans have been prepared under the UK Biodiversity Initiative. They include skylark, grey partridge, and lowland hay meadow and calcareous grassland. Under the Countryside and Rights of Way Act 2000 it is the duty of any Government Department, including local authorities in carrying out its functions 'to have regard to and promote the purpose of conserving biological diversity in accordance with the Convention.'

**Table 4.1 Summary of Nature Conservation Potential**

| Site Name  | Potential for Bats | Potential for Badgers | Potential for 'Important' Hedges | Potential for Reptiles | Potential for breeding birds | Potential for invertebrates | Potential for Water Voles | Potential for notable plants |
|--|--------------------|-----------------------|----------------------------------|------------------------|------------------------------|-----------------------------|---------------------------|------------------------------|
| South of Aynho Road                              | -                  | -                     | Low                              | -                      | -                            | -                           | -                         | -                            |
| North of Milton Road                             | -                  | -                     | Moderate                         | -                      | -                            | -                           | -                         | -                            |
| West of West Hawthorn Road                       | Low                | Low                   | -                                |                        |                              |                             |                           |                              |
| South of Buchanan Road                           | -                  | -                     | Low                              | -                      | -                            | -                           | -                         | -                            |
| South of Greenfields                             | -                  | -                     | Low                              | -                      | -                            | -                           | -                         | -                            |
| Land off Bankside                                | Moderate           | Moderate              | Moderate                         |                        |                              | Low                         |                           |                              |
| Land to the South of Overthorpe Road and West of |                    | Low                   | Low                              |                        |                              |                             | Moderate                  |                              |
| Land to the rear of Hightown Road                |                    | Low                   | -                                |                        |                              |                             |                           |                              |
| Bretch Hill Farm                                 | Moderate           | Moderate              | -                                |                        |                              |                             |                           |                              |
| Bicester Airfield & Caversfield                  | Moderate           | High                  | Moderate                         | High                   | High                         | Moderate                    | Low                       | Moderate                     |
| South West Bicester                              | Low                | Moderate              | Moderate                         |                        |                              | Low                         |                           |                              |
| Bicester Town Rail Station Area                  |                    |                       |                                  | High                   |                              | Moderate                    | Low                       |                              |
| Land to the North of Gavray Drive                | Moderate           | High                  | High                             |                        |                              |                             |                           |                              |
| Land off Howes Lane/Middleton Stoney Road        | Low                | Low                   | Low                              |                        |                              |                             |                           |                              |
| Oxfordshire County Highways Depot, London Road   | Low                |                       |                                  |                        |                              |                             |                           |                              |
| Land North of Milton Road                        |                    |                       | Low                              |                        |                              |                             |                           |                              |
| Land off Banbury Road, at Ells Lane              |                    |                       | Moderate                         |                        |                              |                             |                           |                              |
| Brymbo Works                                     | Moderate           | Moderate              |                                  | Moderate               |                              |                             |                           |                              |
| North of Crutchmore Crescent                     |                    |                       |                                  |                        |                              |                             |                           |                              |
| Oak Farm   | Moderate           | Moderate              |                                  |                        |                              |                             |                           |                              |
| Shipton-on-Cherwell Quarry                       |                    |                       |                                  |                        |                              |                             |                           |                              |
| Former RAF Upper Heyford                         | High               | High                  | Moderate                         | Moderate               | High                         | Moderate                    | -                         | High                         |
| North of Cassington Road                         |                    | Moderate              | Moderate                         |                        |                              | Moderate                    |                           | Moderate                     |

Land to the North of Gavray Drive, Bicester

1. **Poor Semi-improved grassland**  
Recently mown improved/poor semi-improved grassland. Cutting makes species ID problematic, but appears to be dominated by perennial rye grass (*Lolium perenne*), false oat-grass (*Arrhenatherum elatius*) and locally frequent creeping bent (*Agrostis stolonifera*) and common couch (*Elymus repens*)
2. **Species rich hedgerow**  
Includes buckthorn, hawthorn, blackthorn and bramble, with occasional goat willow (*Salix caprea*) and oak (*Quercus robur*).
3. **Species Rich hedgerow**  
Species rich hedgerow with dry ditch-species include hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*), elm (*Ulmus procera*), elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*) and bramble (*Rubus fruticosus* agg).
4. **Poor semi-improved grassland**  
Recently mown, poor semi-improved grassland. Cutting makes species ID difficult but includes sorrel (*Rumex acetosa*), perennial rye grass (*Lolium perenne*), creeping buttercup (*Ranunculus repens*), creeping bent (*Agrostis stolonifera*), tufted hair-grass (*Deschampsia cespitosa*), creeping thistle (*Cirsium arvense*), ragwort (*Scenecio jacobaea*), yorkshire fog (*Holcus lanatus*), nettle (*Urtica dioica*) and birds foot trefoil (*Lotus corniculatus*).
5. **Mixed dense scrub**  
Scrub along railway line. Includes hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg), elder (*Sambucus nigra*) and blackthorn (*Prunus spinosa*).
6. **Stream**  
Silted stream, with culvert under railway line to north. East bank is bordered by goat willow (*Salix caprea*), crack willow (*Salix fragilis*), hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*), with oak and ash (*Fraxinus excelsior*) standards. West bank mainly dominated by common nettle (*Urtica dioica*) and great willowherb (*Epilobium hirsutum*). Various emergents throughout, particularly branched bur-reed (*Sparganium emersoni*). More diverse at Southern extreme, species including water plantain, reed canary grass (*Phalaris arundinacea*), meadowsweet (*Filipendula ulmaria*), reedmace (*Typha latifolia*), and foals watercress (*Apium nodiflorum*).
7. **Poor semi-improved grassland with scattered scrub**  
Approximates to MG1, dominated by false oat-grass and cocksfoot (*Dactylis glomerata*). Locally frequent tufted hair-grass (*Deschampsia cespitosa*), nettle (*Urtica dioica*), ragwort (*Scenecio jacobaea*) and creeping thistle (*Cirsium arvense*). Scattered scrub invading throughout includes elm (*Ulmus procera*), hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg), and willow (*Salix* sp).
8. **Area of rubbish and flytipping.**  
May provide refuges for reptiles if left undisturbed.
9. **Improved grassland and species rich hedgerows**  
Improved grassland with species rich hedgerows, species including elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg) and ash (*Fraxinus excelsior*).
10. **Species rich semi-improved grassland**  
Damp hay meadows with evidence of ridge and furrow. Abundant great burnet, tufted hair-grass (*Deschampsia cespitosa*) and creeping bent (*Agrostis stolonifera*). Other species includes crested dogs tail (*Cynosurus cristatus*), meadowsweet (*Filipendula ulmaria*), meadow buttercup (*Ranunculus acris*) and reed canary grass (*Phalaris arundinacea*). Appears diverse – requires more detailed survey.

11. **Marsh and tall ruderals with scattered scrub**  
Locally frequent soft rush (*Juncus effusus*) and hard rush (*Juncus inflexus*). Great willowherb (*Epilobium hirsutum*), creeping bent (*Agrostis stolonifera*) and tufted hair-grass (*Deschampsia cespitosa*) all locally dominant. Variety of sedges including false fox sedge and hairy sedge (*Carex hirsuta*). Scrub invading includes blackthorn (*Prunus spinosa*), willow (*Salix* sp.), alder (*Alnus glutinosa*) and bramble (*Rubus fruticosus* agg).
12. **Semi improved grassland**  
Dominated by tufted hair-grass (*Deschampsia cespitosa*) with frequent creeping thistle (*Cirsium arvense*). Lower quality than fields to west, but still relatively diverse.
13. **Species rich grassland and marsh**  
Quality varies through field, better to west. Contains marshy patches dominated by reed canary-grass (*Phalaris arundinacea*) to north. Variety of species, including locally dominant hard rush (*Juncus inflexus*), soft rush (*Juncus effusus*), creeping thistle (LA), creeping bent (A), meadowsweet (O-f), silverweed (o), tufted hair-grass (LA), false fox sedge (O), meadow buttercup @, hairy sedge (LF), amphibious bistort (O), birds foot trefoil @, white clover (Lo), false oat-grass (O) and meadow vetchling (O).

**Additional Comments:** Majority of hedgerows on site species rich with standards. Need hedgerows survey to fully assess value. Site for range of species, including breeding birds, badgers, bats (particularly foraging) and possibly water voles. Also low possibility of reptiles.



**Figure 3.13**  
Phase 1 Habitat Map  
for Land to the North  
of Gavray Drive,  
Bicester

**Legend**



- Site Boundary
- × Scattered Scrub
- Scattered Trees
- Watercourse
- Species Rich Hedge
- Species Poor Hedge
- Marsh
- Ruderals
- Deciduous woodland
- Dense/Continuous Scrub
- Improved grassland
- Species poor semi-improved grassland
- Arable Land
- Species rich semi-improved grassland
- Phase 1 dominant species codes
- ① Target Note Number

Filename:  
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Scale 1:4000

07 August 2001

Drawn By: DCH

Checked By: NJH

