



*CARAVAN CLUB ECOLOGICAL  
SITE APPRAISAL*



Blackmore  
Caravan Club Site  
Blackmore End  
Hanley Swan  
Worcester  
WR8 0EE



**General Information**

**Site Name and County:** Blackmore Caravan Club Site, Worcestershire

**Grid Reference:** SO 813 441

**Area:** 8.9 hectares

**Date:** 30/08/07

**Recorder:** David Plant, JUST ECOLOGY

**Weather Conditions:** Overcast but warm

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### **Site Description**

This irregular shaped site comprises a single large flat parcel of land. Most areas have been filled with caravan pitches leaving little room on the site for semi-natural habitat, though there is a dog walk area through a small patch of woodland.. There are hedges around the four sides of the site; there has also been new planting in several areas on site. The site's 230 pitches are divided between hard standing and grass, surrounded by mown amenity grassland with some areas of trees and shrubs.

### **Context**

The site lies between Great Malvern and Upton-upon-Severn. It is contained within the Severn and Avon Vales Natural Area, a low-lying plain through which the rivers Severn, Avon and their tributaries flow. This Natural Area contains areas which regularly flood in winter, as well as relict wetland sites and wet pastures, ditches and tall hedges. There are no designated sites close to the Caravan Club site.



### **Habitat Information**

**Broad Habitats Present:** Hedgerows, woodland

**National BAP Priority Habitats Present (newly adopted 2007):** Hedgerows, Lowland Mixed Deciduous Woodland.

**Caravan Club cBAP features:** Broad-leaved woodland

### **Amenity Grassland:**

The main areas of grassland occurring on this Caravan Club site is short mown amenity grassland (see Figure 1). This is dominated by grasses, with only a few broad-leaved species present. The most frequent grass is Perennial Rye-grass *Lolium perenne*; other grasses that occur include Red Fescue *Festuca rubra*, Yorkshire Fog *Holcus lanatus*, Cocksfoot *Dactylis glomerata* and Annual Meadow-Grass *Poa annua*. Common broad-leaved species present include White Clover *Trifolium repens*, Creeping Buttercup *Ranunculus repens* and Dandelion *Taraxacum officinalis*. Other species recorded were Yarrow *Achillea millefolium*, Thyme-leaved Speedwell *Veronica serpyllifolia*, Knotgrass *Polygonum aviculare*, Greater Plantain *Plantago major*, Cuckooflower *Cardamine pratensis*, Ribwort Plantain *Plantago lanceolata* and Red Clover *Trifolium pratensis*. In a few areas other more interesting species occur, including Agrimony *Agrimonia eupatoria* and Bird's-foot Trefoil *Lotus corniculatus* (see Figure 2).



Figure 1: View of typical short mown amenity grassland on site



Figure 2: Bird's-foot trefoil *Lotus corniculatus* flower



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**Hedges and woodland margins:**

There were a number of hedges surrounding and within the site. Elsewhere boundaries consisted of woodland was abutting up against fences on the edge of site (see Figure 3). Here the cover of the trees meant that occasionally there were a few ground flora woodland species present such as Dog's Mercury *Mercurialis perennis*.

Most of the hedges on site were well trimmed and maintained (see Figure 4). Species present within these hedges included English Elm *Ulmus procera*, Hazel *Corylus avellana*, Blackthorn *Prunus spinosa* and Field Maple *Acer campestre*. There did not appear to be much ground flora present; species that were observed included Hedge Woundwort *Stachys sylvatica*, Common Nettle *Urtica dioica* and Cleavers *Galium aparine*.



Figure 3: Fence abutting woodland at edge of site.



Figure 4: Hedge along eastern side of site looking south.

**Area of fenced off rough ground:**

This area included many species, mostly those associated with disturbed ground (see Figure 5). There were a number of grass species present including Couch *Elytrigia repens*, Timothy *Phleum pratense*, Perennial Rye-grass, Yorkshire Fog, Red Fescue, Common Bent *Agrostis capillaris*, Tall Fescue *Festuca arundinacea* and Crested Dog's-tail *Cynosurus cristatus*. These were accompanied by a myriad of wildflower species including Black Medick *Medicago lupulina*, Spear Thistle *Cirsium vulgare*, Creeping Thistle *Cirsium arvense*, Common Ragwort *Senecio jacobaea*, Field Pansy *Viola arvensis*, Field Forget-me-not *Myosotis arvensis*, Common Poppy *Papaver rhoeas*, Scarlet Pimpernel *Anagallis arvensis*, Creeping Cinquefoil *Potentilla reptans*, Doves-foot Cranesbill *Geranium molle*, Ribwort Plantain and Wood Avens *Geum urbanum*. Other species included Toad Rush *Juncus bufonius* and Hairy Sedge *Carex hirta*.





Figure 5: Area of fenced off rough ground.

**Woodland:**

The small area of woodland (see Figure 6) on site is used as a dog walk, and has a number of mature or almost mature tree present. These tree species include Ash *Fraxinus excelsior*, Hawthorn *Crataegus monogyna*, Sycamore *Acer pseudoplatanus*, Holly *Ulex aquifolium*, Hazel, Blackthorn, English Elm and Field Maple. There are also a number of species present associated with woodland such as Dog's Mercury, Wood Avens, Wood Dock *Rumex sanguineus*, Enchanter's Nightshade *Circaea lutetiana*, False-brome *Brachypodium sylvaticum*, Wood Sedge *Carex sylvatica*, Giant Fescue *Festuca gigantea*, Wood meadow-grass *Poa nemoralis* and Red Currant *Ribes rubrum*. Two of these species (Wood Sedge and Dog's Mercury) are considered to be ancient woodland indicators in Worcestershire, which means their presence is indicative of the age of the woodland.



Figure 6: View inside woodland with dog walking path.



### **Habitat Evaluation**

The short mown amenity grassland has a very low diversity of species and is very improved in nature. Thus the only value of this habitat is for birds feeding on soil invertebrates.

The present of two ancient woodland indicators within the woodland show that at least part of this area of woodland has been wooded for many hundreds of years. This habitat has been degraded over previous decades including the extensive piling of grass cuttings within this woodland. This should now change with the new wardens who have already tried to let more of the ground flora grow. The woodland and stream also added diversity to the site.



### **Species Information**

**BAP Species Seen:** None

**BAP Species Potential:** Song Thrush *Turdus philomelos* has been recorded on the site. Kestrel has occurred over site but no confirmed breeding has been recorded. Bats could also be using the area for foraging or commuting.

**Other Noteworthy Species:** Dog's Mercury *Mercurialis perennis*, Wood sedge *Carex sylvatica*



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**Flora:**

The site's flora was most interesting for its number of species and habitats, rather than for any particular individual species. Probably the most interesting plants seen, were those of Dog's Mercury along some of the boundaries and within the woodland. Wood Sedge was also found within the woodland; both species are considered to be ancient woodland indicators. Also the number of species seen within the fenced off area including Field Pansy (see Figure 7) and others.



Figure 7: Field Pansy flower.

**Avifauna:**

The hedges on site are the most likely to be used by birds on site for both feeding and nesting. The hedges would probably be used for some feeding and nesting. Species looking for worms and leather jackets will use the amenity grassland especially after rain when these prey items are closer to the surface. During the survey quite a number of bird species were seen these included; Blue Tit *Parus caeruleus*, Wood Pigeon *Columba palumbus*, Chiffchaff *Phylloscopus collybita*, Magpie *Pica pica*, Great Spotted Woodpecker *Dendrocopos major*, Green Woodpecker *Picus viridis*, Rook *Corvus frugilegus*, Carrion Crow *Corvus corone*, Buzzard *Buteo buteo* and Robin *Erithacus rubecula*. Many common British species have been recorded by the wardens on site, including Great Tit *Parus major*, Coal Tit *Parus ater*, Blackbird *Turdus merula*, Kestrel *Falco tinnunculus*, Long-tailed Tit *Aegithalos caudatus*, Goldfinch *Carduelis carduelis*, Mistle Thrush *Turdus viscivorus* and Chaffinch *Fringilla coelebs*. They have also recorded Song Thrush *Turdus philomelos* as a regular visitor. The hedges contain a good resource of invertebrates and seeds for birds to feed on, this means that many species should occur on sites from warblers, tits feeding on insects to the finches feeding more on the seeds.



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**Invertebrates:**

The site has potential to support invertebrates due to the habitat resource with in the hedges as well as the woodland. There is a diversity of species which means there are many niches on site for invertebrate species to fill. A few species were recorded on site including Cinnabar Moth *Tyria jacobaeae* (see Figure 8). These very obvious and identifiable caterpillars were found on Common Ragwort with in the fenced off area. Two butterfly species were observed on site; these were Speckled Wood *Pararge aegeria* a species of woodland and woodland edge habitats and Large White *Pieris brassicae* a common ubiquitous species. A number of hoverfly species were seen on site including the large species the Dronefly *Eristalis tenax*. Within the woodland a species of snipefly *Rhagio tringarius* (see Figure 9) was seen; this species is associated with areas next to water often with in woodland. The nectar resources for invertebrates were concentrated in the hedges and woodland; particularly the blossom of trees and Bramble is also important. Species which use these include flies including hoverflies, wasps, many species of beetle, bumblebees and bees both social and solitary.



Figure 8: Cinnabar Moth caterpillar on Common Ragwort



Figure 9: A snipe fly *Rhagio tringarius*

**Herptofauna:**

No species of reptile or amphibian was recorded on the site at the time of survey. There have also been none observed by the wardens on site. The most likely reptile to occur is the Slow Worm *Anguis fragilis*, though the habitats on site are suboptimal for this species. However if there is suitable habitat nearby they may still use areas in the site's hedges for hibernation. No amphibians have been recorded on site, though again they may use areas within the hedgerows for hibernation.

**Mammals:**

The only mammal recorded during the survey was Rabbit *Oryctolagus cuniculus*. Other mammals frequently recorded by wardens on the site include Grey Squirrel *Sciurus carolinensis* and Fox *Vulpes vulpes*. Though no bats have been recorded on site, their nocturnal behaviour makes them more difficult to see. The hedges would provide a feeding resource for bats because of the invertebrates present. The woodland may also provide a roosting site for a number of bat species.





### **Species Evaluation**

Though not many invertebrates were recorded on site there is the potential for many species to occur in the hedges and the trees of the woodland.

The most interesting bird species that has been recorded on site is Song Thrush because as well as being a UK BAP species, it is also included within the Caravan Club cBAP. Kestrel though recorded on site could possibly occur breeding in the future. There are many other species recorded which shows there are a good range of common species occurring on site. The placing of bird feeding stations will undoubtedly encourage many more species onto site than would normally occur. Other important species which could occur on the site in future include the BAP species Bullfinch *Pyrrhula pyrrhula* and Spotted Flycatcher *Muscicapa striata*.

Although no bats have been recorded on the site, they probably could occur on site. The most likely species would be the BAP species Common Pipistrelle *Pipistrellus pipistrellus*. The potential of the site for bats could easily be enhanced by erecting bat boxes on trees over the site.

### **Management Recommendations**

- Where possible, create and maintain wide margins of longer sward at the currently mowed hedgerow edges. This will promote a greater diversity of habitat structure and enable flowering hedgerow plants to flourish, providing a vital nectar resource for bees, butterflies and other insects. This could be done especially in the corners of the site which are not being used for caravan pitches. This will mean that the diversity that has occurred in the fenced off area will occur over more of the site.
- Leave at least some fallen and standing deadwood *in situ*, this provides habitat for dead wood invertebrates, which, in turn provides a valuable food resource for insectivorous woodland birds such as woodpeckers and warblers. Outside of the breeding season in spring, fallen dead wood also provides shelter for amphibians such as Great-crested Newts *Triturus cristatus* and Common Toad.
- Consider promoting the wildlife value of the site as a feature by providing interpretation material (leaflets/posters) and/or setting up a nature trail through the woodland.

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### **Further Suggestions to Enhance the Wildlife Value of the Site**

- **Nest boxes** – Both open-fronted and conventional single hole (32mm diam.) could be added to trees along the hedgerows and mature trees on site. Nest boxes need cleaning out once each autumn. There is also the possibility of putting up tawny Owl and Kestrel nest boxes to encourage these species to breed on site. These can be positioned in the woodland and possibly on the mature trees with in the centre of the site.
- **Bird feeding stations** – Feeding stations could be added at two or three places throughout the site. Two or three feeders at each station could hold a variety of food. One with niger seed; one with husked sunflower seed and a third with general purpose food plus fat balls. Large plastic dishes are available to place beneath feeders to catch most of the fallen debris, which attract birds unable to use hanging feeders, these can be cleaned periodically.
- **Bat boxes** – These should be placed with in the woodland and possibly on the tree mature oak trees with in the centre of the site.
- **Bats and trees** – If any mature or dead trees are marked for surgery or felling it is advisable to get them checked by a bat expert. Similarly if any lighting is to be installed on site regard should be made in to the activity of bats on site and the impacts the lighting may have. Bat boxes could be erected on site on hedgerow trees or other mature trees.
- **Bug Boxes** - Consider positioning bug boxes (boxes containing short lengths of bamboo. Insects such as solitary bees and wasps can use the bamboo tubes for nesting) these can be fixed onto trees in sheltered locations at the edge of hedges.
- **Shrub, hedgerow & tree planting** – New planting on site should use native species, ideally of a local provenance. This has already occurred in several areas. Generally the commonest tree and shrub species are most beneficial to invertebrates and many produce autumn nuts and berries such as rowan, hawthorn, holly and hazel. Ash, birch, blackthorn, field maple and oak are also desirable species. In the case of any new hedgerow planting a mix the above should be used with occasional standards to increase structural diversity. Limited inter-planting with species such as honeysuckle that is attractive and highly scented will provide a nectar source for moths. Invasive shrubs giving dense ground cover should be avoided in any new planting. Hedges are currently trimmed every year. This should be reduced to every other year at most to allow greater fruiting of shrubs for animals and invertebrates.
- **Edges** – Buffer zones of longer grass adjacent to woodland edges or hedgerows should be to 2m or greater where possible. This would provide additional invertebrate habitat and also provide greater cover for small mammals, reptiles and amphibians. These ‘buffer’ zones should be cut once or twice per year, ideally in late July/Early August and in the autumn to allow wildflowers and favourable grasses time to set seed. Species such as Foxglove, Red Campion, Wood Avens, Common Dog Violet and vetches are suited to



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the woodland edge and may well come in naturally to buffer zones if a suitable cutting regime is adopted. Cut vegetation should be removed from the buffer zone to avoid die back and swamping by ruderal species. Buffer zones can be further enhanced by the introduction of wild meadow or flower seed mix. Again seed mixes should be native and of local provenance if possible.

- **Tree stumps, log piles and mounds** – If any trees are need to be cut down the logs can be left *in-situ* or consolidated in to hibernacula, these will provide excellent invertebrate, reptile and amphibian habitat, particularly if left in a sunny spot. Increased insect diversity will in turn attract more bird species to the area. Coarse stone, rubble or deadwood could be placed in discrete piles around the site to create hibernation sites for a range of wildlife including reptiles, amphibians and invertebrates. These would be ideally located in area of scrub and longer grassland.
- **Wildlife recording** – Hold a wildlife records book and/or board for casual observations and sightings. This will aid monitoring of wildlife on site and promote the role of the Caravan Club members in building biodiversity on site. Important sightings of rare flora and fauna should be passed on to the Worcestershire Biological Records Centre.
- **Wildlife pond** - Consider creating a wildlife pond on the site. An ideal location for this may be in an out of the way corner. Ecological advice should be sought regarding the pond's location, construction and stocking of wetland plants. A wildlife pond should be stocked only with native aquatic plant species, ideally of local provenance and ponds should not be stocked with ornamental fish. This is quite a small Caravan club site and so may not be able to have a pond; this also could be a problem due to Health and Safety concerns.

### **Further Survey or Information Requirements**

- Further invertebrate surveys, particularly to record species associated with the hedgerows and woodland, covering most invertebrate groups.
- Specialist bat surveys to establish the species of bat using the site and the activities such as commuting or foraging that they are using the site for.
- Additional botanical survey of the woodland habitat carried out between mid April and May to establish the presence of more ephemeral ground-flora species.

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## Species Lists

### **Birds:**

#### **Common Name**

Blackbird  
Blue Tit  
Buzzard  
Carrion crow  
Chiffchaff  
Dunnock  
Great Spotted Woodpecker  
Green Woodpecker  
House Martin  
Magpie  
Robin  
Rook  
Wood Pigeon

#### **Scientific Name**

*Turdus merula*  
*Parus caeruleus*  
*Buteo buteo*  
*Corvus corone*  
*Phylloscopus collybita*  
*Prunella modularis*  
*Dendrocopos major*  
*Picus viridis*  
*Delichon urbica*  
*Pica pica*  
*Erithacus rubecula*  
*Corvus frugilegus*  
*Columba palumbus*

### **Mammals:**

#### **Common name**

Rabbit

#### **Scientific name**

*Oryctolagus cuniculus*

### **Invertebrates:**

#### **Common name**

a cranefly species  
a snipefly  
Cinnabar Moth  
Dronefly

#### **Scientific name**

*Tipula sp.*  
*Rhagio tringarius*  
*Tyria jacobaeae*  
*Eristalis tenax*

### **Plants:**

#### **Common name**

a lobelia species  
a whitebeam  
Agrimony  
an apple species  
Ash  
Balsam Poplar  
Birdsfoot Trefoil  
Bittersweet  
Black Medick  
Blackthorn  
Bramble  
Bristly Oxtongue  
Broad-leaved Dock  
Broad-leaved Willowherb  
Cherry Plum  
Cocksfoot  
Common Bent  
Common Mouse-ear  
Common Nettle

#### **Scientific name**

*Lobelia sp*  
*Sorbus sp.*  
*Agrimonia eupatoria*  
*Malus sp.*  
*Fraxinus excelsior*  
*Populus balsamifera*  
*Lotus corniculatus*  
*Solanum dulcamara*  
*Medicago lupulina*  
*Prunus spinosa*  
*Rubus fruticosus*  
*Picris echinoides*  
*Rumex obtusifolia*  
*Epilobium montanum*  
*Prunus cerasifera*  
*Dactylis glomerata*  
*Agrostis capillaris*  
*Cerastium fontanum*  
*Urtica dioica*



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<b>Common name</b>	<b>Scientific name</b>
Common Poppy	<i>Papaver rhoeas</i>
Common Ragwort	<i>Senecio jacobaea</i>
Common Vetch	<i>Vicia sativa</i>
Couch	<i>Elytrigia repens</i>
Cow Parsley	<i>Anthriscus sylvaticum</i>
Crack Willow	<i>Salix fragilis</i>
Creeping Bent	<i>Agrostis stolonifera</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Creeping Cinquefoil	<i>Potentilla repens</i>
Creeping Thistle	<i>Cirsium arvense</i>
Crested Dogtail	<i>Cynosurus cristatus</i>
Cuckoo Flower	<i>Cardamine pratensis</i>
Curled Dock	<i>Rumex crispus</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinalis</i>
Dogs Mercury	<i>Mercurialis perennis</i>
Doves-foot Cranesbill	<i>Geranium molle</i>
Elder	<i>Sambucus nigra</i>
Enchanter's Nightshade	<i>Circaea lutetiana</i>
English Elm	<i>Ulmus procera</i>
False Oat-grass	<i>Arrhenatherum elatius</i>
False-brome	<i>Brachypodium sylvaticum</i>
Field Forget-me-not	<i>Myosotis arvensis</i>
Field Maple	<i>Acer campestre</i>
Field Pansy	<i>Viola arvensis</i>
Field Rose	<i>Rosa arvensis</i>
Giant Fescue	<i>Festuca gigantea</i>
Giant Redwood	<i>Sequoiadendron giganteum</i>
Goat Willow	<i>Salix caprea</i>
Great Willowherb	<i>Epilobium hirsutum</i>
Greater Burdock	<i>Arctium lappa</i>
Greater Plantain	<i>Plantago major</i>
Groundsel	<i>Senecio vulgaris</i>
Gypsywort	<i>Lycopus europaeus</i>
Hairy Sedge	<i>Carex hirta</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hedge Bindweed	<i>Calystegia sepium</i>
Hedge Parsley	<i>Torilis japonica</i>
Hedge Woundwort	<i>Stachys sylvatica</i>
Herb Robert	<i>Geranium robertianum</i>
Hogweed	<i>Heracleum sphondylium</i>
Holly	<i>Ilex aquifolium</i>
Horse Chestnut	<i>Aesculus hippocastanum</i>
Hybrid Black Poplar	<i>Populus x euramericana</i>
Ivy	<i>Hedera helix</i>
Knotgrass	<i>Polygonum aviculare</i>
Lilac Tree	<i>Syringa vulgaris</i>
Lords and Ladies	<i>Arum maculatum</i>

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**Common name**

Male Fern  
Musk Mallow  
Paper Birch  
Pedunculate Oak  
Perennial Rye-Grass  
Red Clover  
Red Currant  
Ribwort Plantain  
Rowan  
Scarlet Pimpernel  
Scented Mayweed  
Self-heal  
Silver Birch  
Smooth Hawksbeard  
Smooth Sow-thistle  
Spear Thistle  
Sycamore  
Tall Fescue  
Thyme-leaved speedwell  
Timothy  
Toad Rush  
Tufted Hair-grass  
Weld  
White Clover  
Wild Angelica  
Wood Avens  
Wood Dock  
Wood Meadow-grass  
Wood Sedge  
Yarrow  
Yorkshire Fog

**Scientific name**

*Dryopteris filix-mas*  
*Malva moschata*  
*Betula papyrifera*  
*Quercus robur*  
*Lolium perenne*  
*Trifolium pratensis*  
*Ribes rubrum*  
*Plantago lanceolata*  
*Sorbus aucuparia*  
*Anagallis arvensis*  
*Matricaria recutita*  
*Prunella vulgaris*  
*Betula pendula*  
*Crepis capillaris*  
*Sonchus oleraceus*  
*Cirsium vulgare*  
*Acer pseudoplatanus*  
*Festuca arundinacea*  
*Veronica serpyllifolia*  
*Phleum pratense*  
*Juncus bufonius*  
*Deschampsia cespitosa*  
*Reseda luteola*  
*Trifolium repens*  
*Angelica sylvestris*  
*Geum urbanum*  
*Rumex sanguineus*  
*Poa nemoralis*  
*Carex sylvatica*  
*Achillea millefolium*  
*Holcus lanatus*

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## **Appendix 1 - Bats**

Certain species of bats may use the site for foraging (flying insects) and some may roost in convenient trees on the site or nearby. These will probably be pipistrelle bats *Pipistrellus sp.*

Although it remains the most abundant and widespread bat species in the UK, the pipistrelle is thought to have undergone a significant decline in numbers this century. Estimates from the National Bat Colony Survey suggest a population decline of approximately 70% between 1978 and 1993. The current pre-breeding population estimate for the UK stands at approximately 2,000,000.

Females form maternity roosts of up to several hundred adults from May, often in house roofs but also in woodland. They give birth to a single live young in July. Males are much more solitary. Hibernation takes place from November to March. Pipistrelles forage for small insects in varied habitats but woodland edges, hedgerows and waterways are particularly important.

The pipistrelle bat is listed on Appendix III of the Bern Convention, Annex IV of the EC Habitats Directive and Appendix II of the Bonn Convention (and is included under the Agreement on the Conservation of Bats in Europe). It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994 (Regulation 38) and Schedules 5 and 6 of the WCA 1981.

## **Appendix 2 - Birds**

In Britain all wild birds are granted legal protection under the Wildlife & Countryside Act 1981, the Bern Convention and the EC Birds Directive. This legislation protects the birds, their eggs and nests whilst being built or in use. Such protection makes it an offence to intentionally kill, injure, take or have in possession any wild bird or egg. It is also an offence to intentionally damage or destroy the nest of any wild bird whilst it is being built or in use. Any vegetation clearance and tree works should preferably take place outside of the bird-nesting season to minimise disturbance. The nesting season varies from year to year, according to the weather conditions but generally begins in March, peaks during May and June and continues until August.