



**CARAVAN CLUB ECOLOGICAL
SITE APPRAISAL**



St Agnes Beacon Caravan Club Site
Beacon Drive
St Agnes
Cornwall
TR5 0NU



General Information

Site Name and County: St Agnes Beacon, Cornwall

Grid Reference: SW705502

Area: Approximately 2.43 hectares

Date: 17/08/05

Recorder: Vilas Anthwal, Just Ecology

Weather Conditions: Hot and sunny

Site Description

This is a relatively small Caravan Club site on a gently sloping, south-west facing field. Habitats comprise short mown improved grassland in the vicinity of the caravan pitches. Around the perimeter, and scattered throughout the site there are hedgerows, scrub and mature trees. There are also some old hedgebanks and walls present. In the east of the site there is an area of mixed broadleaved woodland that is used as a dog walk area.

Context

The site is located on the north coast of Cornwall approximately 11km north-west of Truro. The surrounding landscape includes St Agnes Head, a National Trust heathland rising to 192 metres above sea-level, improved agricultural pasture and mixed farming.



Habitat Information

Broad Habitats Present: Broadleaved woodland; improved grassland; boundary and linear features

BAP Priority Habitats Present: None

Subsidiary Habitats Present: None

Plant Communities Present:

Grassland Communities:

The main caravanning fields have been mown short (Figure 1) and the majority of the grassland area on the site is species-poor with common species such as Perennial Ryegrass *Lolium perenne* and bent grasses *Agrostis* sp. dominating. Along the edges of the site entrance and along the margins of banks around the site, there are some seasonally inundated areas where the sward has been left uncut. Species of note in these areas include Soft Rush *Juncus effusus*, Greater Bird's-foot Trefoil *Lotus pedunculatus*, Sheep's Sorrel *Rumex acetosella*, Common Valerian *Valeriana officinalis*, Black Knapweed *Centaurea nigra* and a dog violet *Viola* sp.



Figure 1: Hedgebanks and mown grassland in the caravanning field

Woodland, scrub and hedgebanks:

There is a small block of woodland present in the south-east of the site designated as the dog walk area. The canopy has near 100% cover over an area of less than 0.1ha. Species present in the canopy include Sycamore *Acer pseudoplatanus*, Turkey Oak *Quercus cerris*, Sweet Chestnut *Castanea sativa* and an elm *Ulmus* sp.. Species present in the understorey include Elder *Sambucus nigra*, Holly *Ilex aquifolium*, and a privet *Ligustrum* sp. Ground flora was limited at the time of survey and covered less than 5% of the woodland area. However, several Ancient Woodland Indicators were found including Soft Shield-fern *Polystichum setiferum*, Hart's-tongue fern *Phyllitis scolopendrium*, Intermediate Polypody *Polypodium interjectum* and Bluebell *Hyacinthoides non-scripta*. Other species present included Ivy *Hedera helix*, Bramble *Rubus fruticosus* agg. and Red Campion *Silene dioica*.

To the north of the site there are patches of scrub comprised of Blackthorn *Prunus spinosa*, a maple *Acer* sp., Wych Elm *Ulmus glabra*, Hawthorn *Crataegus monogyna*, Sycamore *Acer pseudoplatanus* and Ash *Fraxinus excelsior* (Figure 2). A similar set of species was found in the hedge near the entrance of the site where a gorse *Ulex* sp. was also found. Under the canopy of these features, the ground flora was not as diverse as the dog walk woodland, but did include Hart's-tongue fern, Wood Sage *Teucrium scorodonia*, Bracken *Pteridium aquilinum* and Foxglove *Digitalis purpurea*. Other scrub towards the middle of the site include non-native plantings and a bush rose *Rosa* sp.. Elsewhere on site, boundaries are present as hedgebanks with defunct or species poor hedges on them as is typical for the county. These banks contain a more diverse flora than the majority of the grassland present including Sheep's Sorrel *Rumex acetosella*, Red Fescue *Festuca rubra* agg., Common Cat's-ear *Hypochaeris radicata*, a dog violet *Viola* sp., Sweet Vernal-grass *Anthoxanthum odoratum*, Navelwort *Umbilicus rupestris*, and Wild Carrot *Daucus carota*.



Figure 2: Scrub along the northern edge of the site



Habitat Evaluation

The majority of the site comprises species poor improved grassland of little nature conservation value. This habitat is mown and managed intensively and is low in diversity. A narrow area of grassland around hedgebanks and scrub has created some grassland of greater value. These less intensively managed areas have a greater botanical and structural diversity than the short mown grassland.

Woodland, scrub and woodland-edge habitats are important in terms of biodiversity as they maintain botanical diversity and support typical woodland bird and mammal assemblages and numerous invertebrates. These habitats are found to the north of the site and in the south-east. The presence of several species that are Ancient Woodland Indicators would also suggest that this woodland has a diverse ground flora. Hedgerows and hedge banks add further diversity to habitats present and these linear features also offer important linkages between otherwise unconnected habitats. Animals and birds can travel across along these features without having to cross open countryside effectively increasing the range of many species. The hedgebanks present are an important feature of this site and support grassland species associated with old meadow and pasture.



Species Information

BAP Species Seen: None

BAP Species Potential: Various UK bats have UK action plans, it is likely that bats are present. Other species which might occur on the site include Dormouse *Muscardinus avellanarius*

Other Noteworthy Species: Badger *Meles meles*

Flora:

The grassland across most of the site is comprised of common species associated with improved grassland. Limited areas towards the edge of the main caravanning areas contain species more commonly associated with unimproved grassland.

Vegetation among the scrub and woodland provides more variation in habitat structure and species such as bramble *Rubus fruticosus*, Common Nettle *Urtica dioica* and coarse grasses offer additional nectar sources and larval food plants for butterflies. Surveying for woodland ground-flora is ideally conducted in spring time, however, the presence of species like Bluebell, and several ferns in the woodland would suggest that the habitat contained ground flora typical of lowland broadleaved woodland. This also suggests ground flora present is both rich and diverse. Such a ground-flora is also valuable in supporting invertebrate populations.

Efforts should be made to retain and diversify hedgebank, scrub and woodland edges when managing the site. Any improvement of the central caravanning area should be undertaken with care to avoid spray-drift of pesticides, run-off of fertilisers or other pollutants and other damage to surrounding habitats and water-courses.

Avifauna:

Although it is likely that a number of common species of birds utilise the site, during the survey only Buzzard *Buteo buteo* and Swallow *Hirundo rustica* were recorded. At present the caravanning grassland area has little to attract bird species. The scrub and woodland provides greater potential for nesting birds and hunting ground for birds of prey. Other species not recorded on the day of the survey are likely to visit the site.

Invertebrates:

No records of invertebrates were made during the survey. It is likely with the variety of habitats on site that a variety of invertebrates are present. Sensitive planting and management of the site may be a valuable means of increasing the resource for invertebrates.

Herptofauna:

No species of herpetofauna (reptiles and amphibians) were recorded during the survey but the Common Frog (*Rana temporaria*) and possibly the Common Toad (*Bufo bufo*) are likely to be found. Areas of scrub and taller grassland may provide suitable habitat for the common species of reptile, such as Common Lizard *Lacerta vivipara*, Slow Worm *Anguis fragilis*, Adder *Vipera berus* and Grass Snake *Natrix natrix*. The heathland near to the site is excellent reptile habitat thus increasing the likelihood of

common species utilising suitable habitat on site. The scrub to the north of the site is suitable habitat for reptiles, such animals may bask in the open areas of bare ground and shelter under grassy clumps or within log piles. The old hedgebanks present may also provide valuable hibernacula for reptiles and amphibians.

Mammals:

Sedentary small mammals like Field Vole *Microtus agrestis* probably use the site. Water Vole *Arvicola terrestris*, Water Shrew *Neomys fodiens* and Otter *Lutra lutra* would probably not be found in this type of habitat as there no suitable water courses present on the site or in the immediate surroundings. Fox *Vulpes vulpes* may utilise the site. Badger *Meles meles* are present on site and an active sett was found in the scrub towards the north of the site. The scrub may also support populations of Wood Mouse *Apodemus sylvaticus*. Similarly Common Dormouse *Muscardinus avellanarius* may be present although there was no evidence on site to support this.

Bats may roost around the perimeter of the site in some of the suitable mature trees. In particular some of the mature Turkey Oak *Q. cerris* have suitable broken branches and rot holes that provide potential roosting space for bats. These may include pipistrelle bats *Pipistrellus sp* and Barbastelle bat *Barbastella barbastellus* both of which are priority species listed in the UK BAP (Appendix 1). Noctule bats *Nyctalus noctula* may also roost in these trees and forage over grassland and scrub on site. Natterer's bat *Myotis nattereri* utilises woodland edges, this species is widespread in the UK and is another species that may be present.



Species Evaluation

Although limited records of birds were made on the day of the survey, it is likely that a greater diversity do utilise the site especially those associated with woodlands and scrub.

No records of invertebrates were made during the survey. Had more time been available for survey it is very likely that a number of species would have been recorded. Most species are likely to be found using the rough grassland on and next to the hedgebanks, and in the scrub and woodland.

Other than the active Badger *M. meles* sett to the north of the site, mammal use of the site seems low but this may be due to under-recording as time available on the site was limited. However, it is possible that a number of common species are in the area and utilise the site. Although bats were not recorded during the survey, it is likely that species are present within the surrounding countryside and use the appropriate habitat on the site to roost and forage. Similarly amphibians such as common frog and common toad were not recorded on the day of the survey but are likely to be present. The mosaic of scrub and rough grassland on the bank to the north of the site is suitable habitat for reptile species although again, none were recorded on site.

Management Recommendations

- **Nest boxes** – both open-fronted and conventional single hole (32mm diam.) could be added to trees in the woodland areas of the site. One or two owl boxes could also be erected to the larger trees on site. Nestboxes need cleaning out once each autumn.
- **Bird feeding stations** –Feeding stations could be added at three or four 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 should be cleaned periodically.
- **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 within the woodland.
- **Shrub, hedgerow & tree planting** –New planting on site should use native species, ideally of a local provenance. Generally the commonest tree and shrub species are most beneficial to invertebrates and many produce autumn nuts and berries such as Rowan *Sorbus aucuparia*, Hawthorn *C. monogyna*, Holly *I. aquifolium* and Hazel *Corylus avellana*. Ash *F. excelsior*, birch *Betula* sp., Blackthorn *P. spinosa*, Field Maple *Acer campestre* and native oak *Quercus* sp. 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. The Hedge Promotion Officer at Devon Farming and Wildlife Advisory Group (FWAG) should be consulted regarding hedges on site and the hedge pack produced by FWAG should be obtained. 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.
- **Diversification of grassland** – Little consideration has already been made to diversification of grassland. This should be addressed where possible on the site. Securing areas of grassland that are mown once a year would be a considerable asset in terms of wildlife on the site. Such management can produce some of the most floristically diverse meadows in the UK. However, if these areas are left uncut in time they will scrub over and turn to woodland. Mosaics of grassland, scrub and woodland are also of considerable value to biodiversity. If a more wooded approach is desirable in terms of management, efforts should still be maintained to create a varied structure in habitats as detailed under the edges section. Although space is limited on site, the small area of mown grassland with the bench next to pitch 65 could be managed in this way to improve the floristic diversity.

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- **Edges-** Buffer zones of longer grass adjacent to woodland edges or hedgerows should be extended beyond the 0.5m currently in place to 1-2m 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 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 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.
 - **Retention of natural features** - This site has areas of scrub and woodland. Any removal of scrub or woodland must be carried out at an appropriate time of year to avoid the bird nesting season (see Appendix 2). The construction of a fence to limit users to the path in the dog walk area would protect the delicate flora, mosses and lichens growing in this area. Hedgebanks are protected under the Hedgerow Regulations (1997) and appropriate survey and mitigation should be conducted if works on the site are to impact on the boundaries in any way. The badger sett located in the scrub to the north of the site is protected by law. Appropriate mitigation should be undertaken if works are to be carried out in the vicinity of the sett.
 - **Tree stumps, log piles and mounds-** left *in-situ* or consolidated into hibernacula, will provide excellent invertebrate, reptile and amphibian habitat, particularly if left in a sunny spot for example on the banks to the north of the site. 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 longer grassland adjacent to scrub.
 - **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 Environmental Records Centre for Cornwall and the Isles of Scilly.

Further Survey or Information Requirements

- Bats may be present on the site. Additional survey could identify the use of the site by bats and safe guard these species should they occur.
- A woodland survey at an appropriate time of year could help identify important assemblages of woodland flora and help in further assessment against ancient woodland criteria.

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.