



*CARAVAN CLUB ECOLOGICAL
SITE APPRAISAL*



**Craigie Gardens Caravan Club Site
Craigie Road
Ayr
KA8 0SS
Scotland**



General Information

Site name and county: Craigie Gardens, Ayrshire

Grid reference: NS 346 217

Area: 2.8 hectares

Date: 15/07/03

Recorder: Dr James Riley and Jessica Arnold, Ecologists with Just Ecology Environmental Consultancy.

Weather Conditions: Hot (28 °C) and sunny with a slight breeze.

Site description

The site, which is approximately rectangular in plan, is set within Craigie Gardens recreational parkland on the outskirts of Ayr. It is composed of gravel pitches surrounded by short closely mown grass with tarmac roads leading across the site. There are numerous hedges across the site and beds containing shrubs separate the caravan pitches. Strips of woodland surround the site and there are many trees within the site itself in hedges and also standing alone. There is no dog walk area on the site itself; instead the surrounding parkland offers a pleasant walking and recreational area amongst lawns and mature trees.

Context

The site and surrounding parkland are located within the seaside town of Ayr. The River Ayr runs to the south of the site where it meets the sea further downstream. A shallow ditch runs along the western boundary of the site. A racecourse, railway and residential areas surround the site within the wider landscape.



Habitat information

Broad habitats present: Improved grassland; native deciduous woodland; amenity grassland.

BAP priority habitats present: None.

Subsidiary habitats present: Dead wood; hedgerows.

Plant communities present

Grassland communities

The area of grassland on site is small, consisting mainly of small mown strips between the roads. This is very short, species poor MG6 (*Lolium perenne* – *Cynosurus cristatus*), which has been sown and is likely to be nutrient enriched.

Woodland

Metal fencing separates the surrounding narrow strips of woodland from the site itself. There are some mature trees with scrub beneath. The tree species found here include: horse chestnut (*Aesculus hippocastanum*), sycamore (*Acer pseudoplatanus*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), laurel (*Prunus laurocerasus*), beech (*Fagus sylvatica*), ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), wych elm (*Ulmus glabra*), lime (*Tilia* spp.) and pendunculate oak (*Quercus robur*). Bramble (*Rubus* agg.) covers much of the understorey, with hogweed (*Heracleum sphondylium*), hedge woundwort (*Stachys sylvatica*), wood avens (*Geum urbanum*), common male fern (*Dryopteris filix-mas*), raspberry (*Rubus idaeus*), birdsfoot trefoil (*Lotus corniculatus*), red campion (*Silene dioica*), wood false brome (*Brachypodium sylvaticum*), black bent (*Agrostis gigantea*), broadleaved willowherb (*Epilobium montanum*) and ivy (*Hedera helix*) also present. Tufted hair grass (*Deschampsia cespitosa*) is the dominant grass. Trees across the site are mostly young but there are some larger specimens towards the edges of the site, including a large beech, elm and lime.

Hedgerows

The majority of the internal hedges on site are composed of blackthorn (*Prunus spinosa*), bramble (*Rubus* sp.) and rose (*Rosa* spp.), plus eared willow (*Salix aurita*), broom

(*Sarothamnus scoparius*), hawthorn (*Crataegus monogyna*) various non-native ornamental species and closely cropped tree species such as silver birch (*Betula pendula*), hazel, beech, rowan (*Sorbus acuparia*), sessile oak (*Quercus petraea*), and sycamore. There is very little understorey.



Habitat evaluation

The woodland surrounding the site has a good mix of woody species, plus good structure. The hedgerows are species-rich (albeit with little understorey) and dense providing useful shelter for small birds and mammals. The grassland on site is short, species-poor and of little value as a habitat.



Species information

Flora: There is an unusually high diversity of native woody species (plus a few exotic species) in the hedgerows, but the grassland areas of the site are uniformly species-poor. The woodland areas immediately surrounding the site are generally diverse and have good structure, but are not actually managed by the caravan club. There are no species of particular local or national conservation importance.

Avifauna: The surrounding woodland provides shelter, feeding and nesting opportunities for birds. Many of the common garden birds such as dunnoek (*Prunella modularis*), blue tit (*Parus caeruleus*), wood pigeon (*Columba livia*), blackbird (*Turdus merula*), wren (*Troglodytes troglodytes*), and robin (*Erithacus rubecula*) were seen at the time of the site visit along with common gull (*Larus canus*). A song thrush (*Turdus philomelos*), which is a UK BAP Priority species, was also seen. It is likely that more species would be recorded should more time be spent on the site.

Invertebrates: Meadow brown (*Maniola jurtina*) and large white butterflies (*Pieris brassicae*) were recorded on the site; the buddleia and other flowering plants on the site are attractive to butterflies and other nectar feeding invertebrates.

Herpetofauna: None recorded although there is potential for slow worm (*Anguis fragilis*).

Mammals: Other than rabbits (*Oryctolagus cuniculus*) no other mammal species were recorded. There is potential for the buildings on site to be used as a bat roost as a number of access points were seen under eaves and soffits. Bats may also be able to crawl underneath the roofing slates. The ditch which runs along the outside of the site amongst the woodland may be worth investigating for the presence of water vole although the habitat is not ideal as, at the time of the survey there was little water in the ditch, it was stagnant in places and there was some dumping of rubbish. At other times of the year it may contain higher levels of water and there is potential for enhancing the area. No evidence of water vole was seen at the time of the survey, such as burrows in the banks, runs through the vegetation, latrines or feeding remains.

BAP species seen: None.

BAP species potential: The most likely bat species to be found on the site is pipistrelle. The pipistrelle is the most common and widespread bat in Ayrshire, they are found

throughout the county although little is known about the overall population size. Roosts are often in buildings where they roost in small spaces, such as cavity wall, under roofing tiles etc. More than half of summer roosts are in buildings less than 30 years old. (South Ayrshire BAP). Although still the most common and widespread bat the pipistrelle is thought to have undergone a 70% decline between 1978 and 1993 (National Bat Colony Survey, Harris et al. 1995). Other bat species may also forage around the site and surrounding parkland, for example the Daubentons bat. This species generally forages over water and may use the nearby River Ayr for foraging and commuting to and from the roost site.

The song thrush is a Priority Species on the UK BAP and has a Species Action Plan in the Ayrshire BAP. Numbers were stable until the mid-1970s when they declined steadily to 73% in farmland areas and 49% in woodland habitats due to factors such as changing farming practices.

The water vole is present in small populations in the lower reaches of the Ayr catchment (South Ayrshire BAP). The water vole has suffered a serious decline in numbers and distribution mainly as a result of habitat destruction and competition with mink.

Other notable species: None seen.



Species evaluation

The patches of grassland on site are species poor, closely mown and have probably been nutrient enriched and therefore offer little value to wildlife. However the diversity of tree and shrub species on site is high. As well as being aesthetically pleasing and useful in providing privacy the trees and shrubs offer shelter, a food supply and nesting areas for birds and animals such as bank voles and field voles. The surrounding woodland may also be important for birds and animals, which can use the area as a corridor to move across the countryside, a particularly important feature in urban areas such as this.

Management recommendations

- Less frequent mowing of some areas, especially the edges that border the woodland strips. Margins of long grass can provide a valuable habitat for wildlife. Many invertebrates, including the caterpillars of butterflies and moths, feed on grasses. Long grass is also favoured by many small mammals, reptiles and amphibians, which in turn will attract kestrels, owls and other predators. Bats frequently hunt for insects over long grass. A variety of lengths will produce a range of habitats and species assemblages. A mowing regime would have to be established that would allow flowers and grasses to reseed.
- There is considerable potential for improving the botanical value, and therefore aesthetic appeal, of the grassland away from the edges. This could be done in one of two ways:
 - The first would involve stripping the existing turf in parts of the site (in order to remove both the existing species and the topsoil layer), creating a fine seedbed and broadcasting a locally sourced wildflower seed mix (Appendix I) onto the bare ground.

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- The second would involve broadcasting of the same locally sourced wildflower seed mix into the existing sward. Harrowing of the existing turf would be required in order to create gaps for seedling germination. The sward would need to be mown quite short prior to harrowing and broadcasting and kept short for the first 10 days after broadcasting in order to reduce competition to the germinating seedlings from the established grasses. No fertilisation would be required.

The former method is the most reliable; the latter method is a less disruptive way to increase the wild flower value of the sward, but carries the risk that a greater proportion of the seed will fail to establish both due to competition from the existing grasses and to the higher fertility of the soil.

Seed rates would not need to be high – 2 to 6 grams per square metre is a typical seed rate for this form of diversification.

If a mix with low growing species is used, the sward can be maintained as a short lawn from October to April and mown infrequently (i.e. every six to eight weeks) during the growing season in order to maintain an average height of roughly 10 cm.

- Removal of grass cuttings instead of leaving them in situ. This will help to gradually reduce the fertility of the soil and coarse grass species will cease to out-compete the finer, less vigorous grasses and wildflowers.

Further suggestions to enhance the wildlife value of the site

- Creation of a relatively shallow pond (certainly no smaller than 4 m² and no shallower than 2.5 feet at its deepest point), would encourage amphibians (newts, frogs and toads) and dragonflies (potentially including the azure damselfly, common darter dragonfly, blue-tailed damselfly and broad-bodied chaser dragonfly). Any pond that is constructed should:
 - Be made of natural materials as much as possible.
 - Be sheltered from the wind, but not the sun.
 - Not be overshadowed by trees, or it will fill with leaves.
 - Have tall (not closely mown) grass and some bushes surrounding it in order to provide cover for amphibians and perching sites for dragonflies.
 - Have sloping and irregular sides (rather than steep and flat ones).
 - Have a mixture of bankside, emergent and submerged aquatic plants, although the actual choice of species to plant is less important (Appendix II).
 - Not be stocked with fish (as they are major predators)
 - Part of it (no more than 25%) should be cleared of emergent and submerged vegetation in autumn/winter each year in order to retain areas of open water while at the same time maintaining some aquatic vegetation and structural variation.

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- Planting of nectar providing plants around the site to encourage butterflies and moths (see Appendix I).
 - Erection of bat and bird boxes on the buildings and trees on the site.
 - Improvement to the ditch area to create a wetland habitat on site thereby increasing habitat diversity on site. For example planting of lush bankside vegetation, such as grasses, sedges, rushes and reeds alongside the ditch may encourage water voles by providing a food source and shelter. Removal of rubbish from the ditch will also enhance the area.

Survey or information requirements

A bird survey will be of value.

Appendix I. Example list of low-growing wildflower species that could be sown to enhance the botanical interest of the grassland and be attractive to butterflies.

Yarrow	<i>Achillea millefolium</i>
Black medick	<i>Medicago lupulina</i>
Salad burnet	<i>Sanguisorba minor</i>
Selfheal	<i>Prunella vulgaris</i>
Birdsfoot trefoil	<i>Lotus corniculatus</i> (foodplant for dingy skipper, grizzled skipper, small blue, brown argus, pearl bordered fritillary, common blue butterflies)
Kidney vetch	<i>Anthyllis vulneraria</i> (foodplant for small blue, common blue butterflies)
Cowslip	<i>Primula veris</i>
Lady's bedstraw	<i>Galium aparine</i>
Sheep's fescue	<i>Festuca ovina</i>
Wild thyme	<i>Thymus praecox</i> (foodplant for brown argus, common blue, wall brown butterflies)
Sweet vernal grass	<i>Anthoxanthum odoratum</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Devil's bit scabious	<i>Succisa pratensis</i>
Common vetch	<i>Vicia sativa</i>
Common cat's ear	<i>Hypochaeris radicata</i> (foodplant for wall butterfly)
Common sedge	<i>Carex nigra</i>
Yellow rattle	<i>Rhinanthus minor</i> (NB seed from this species must be chilled before sowing)
Quaking grass	<i>Briza media</i>
Dog violet	<i>Viola riviniana</i> (foodplant for pearl bordered fritillary)
Meadow buttercup	<i>Ranunculus acris</i>
Red clover	<i>Trifolium pratense</i> (foodplant for bees and small skipper butterfly)
Yorkshire fog	<i>Holcus lanatus</i> (foodplant for small skipper and wall butterflies)

For the edges of the grassland, which do not need to be short, taller wildflowers such as oxeye daisy (*Leucanthemum vulgare*), wild carrot (*Daucus carota*), field scabious (*Knautia arvensis*) and meadowsweet (*Filipendula ulmaria*) could be added to the mix.

Appendix II. Example list of pond plants

Because many ponds contain non-native, potentially invasive plants or non-native animals, introducing plants from another pond should be done so using extreme care making sure that they do not contain such species. It is unwise, and in the case of some species illegal, to introduce or assist the spread of non-native invasive organisms. A list of **suitable** plants include:

Submerged:

spiked water-milfoil *Myriophyllum spicatum*
whorled water-milfoil *M. verticillatum*
curled pondweed *Potamogeton crispus*
hornwort *Ceratophyllum demersum*
water starwort *Callitriche stagnalis*
common spike-rush *Eleocharis palustris*
willow moss *Fontinalis antipyretica*
marestalk *Hippurus vulgaris*
water violet *Hottonia palustris*
water crowfoot *Ranunculus aquatilis*

Floating:

white water lily *Nymphaea alba*
ivy-leaved duckweed *Lemna trisulca*
frogbit *Hydrocharis morsus ranae*
water soldier *Stratiotes aloides*

Emergent:

yellow iris *Iris pseudacorus*
meadowsweet *Filipendula ulmaria*
purple loosestrife *Lythrum salicaria*
rushes *Juncus spp*
sedges *Carex spp*
greater spearwort *Ranunculus lingua*
water mint *Mentha aquatica*
water forget-me-not *Myosotis scorpioides*