

7 Earldom Street Greenspace



Introduction

Earldom Green Space, located on the hillside between Catherine Road and Grimesthorpe Road, has no designated entry points and little in the way of suggested routes. Steps along the north-western boundary of the site actually lead down to the footpath into the adjacent housing estate, although it is possible to step off the path and head east into the green space instead.

On the eastern perimeter there are bollards separating the green space from Earldom Drive. This does not restrict pedestrian access. This east-west route is a shortcut for local residents.

However, there are no trodden paths leading up or down the slope to indicate regular pedestrian traffic in this direction. Nor is there a trodden path from Earldom Close off Grimesthorpe Road leading diagonally across the site.

Recent demolition of housing in the area has temporarily increased the size of available green space, so that the area surveyed and mapped is greater than what may actually be designated as Earldom Green Space. Future building may reduce the site's dimensions once again.

The ecology of the site is best discussed in the context of its recent history as the two are intertwined.

Site details

Site name

Earldom Green Space

Location

Ordnance Survey Grid Reference: SK 363 889

Land owner

Sheffield City Council

Nearest road/street

Catherine Road

Grimesthorpe Road

Earldom Drive

Earldom Close

Adjacent land use

Residential to the east, west and south.

Directly across Catherine Road to the north is Burngreave Recreation ground.

Size

0.75 hectares

Present management

The Sheffield City Council mows the amenity grassland approximately once a month from April to autumn. Possibly due to the terrain, some areas of tall ruderals within the grassland are left standing. An area to the east of the designated green space, above Earldom Close, had been left unmowed allowing many flowering herbs to flourish. However, it was eventually mowed in mid July when the mowers cut the amenity grassland of Earldom Green Space.

Many of the trees on the site have been damaged (bark stripped off trunk). One has been tarred, a known procedure for dealing with this type of damage.

UDP designations

Green Space

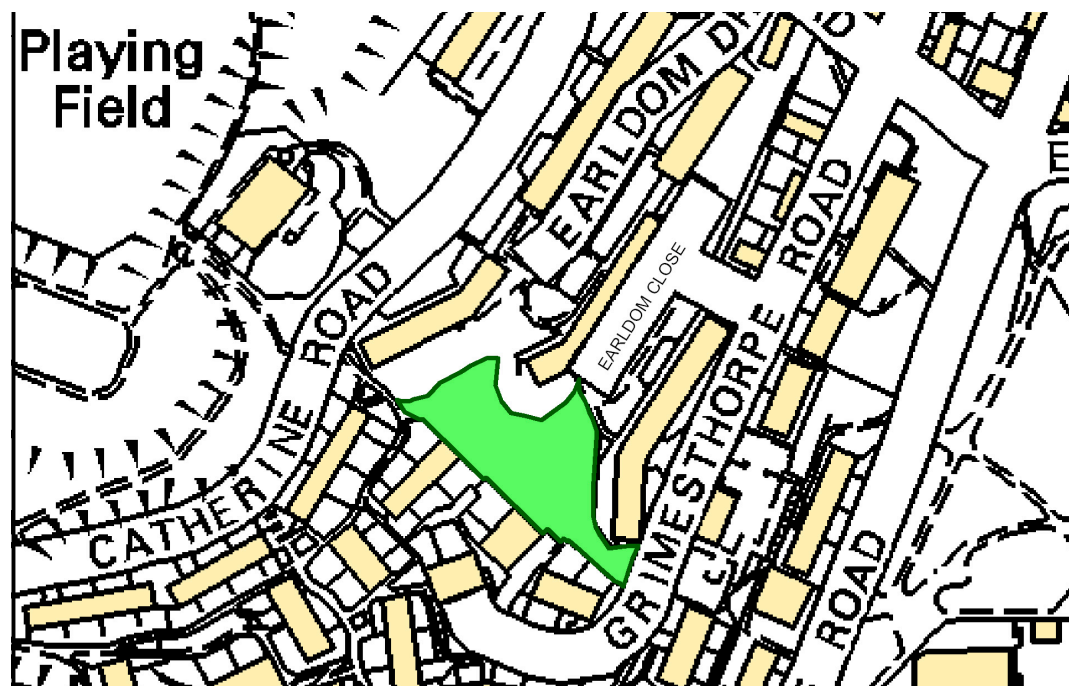
Housing Area

Location map

Maps show Earldom Green Space as surveyed compared with Earldom Green Space from a historical perspective.

The second map shows the area of designated green space before the demolition of housing blocks on Grimesthorpe Road, Earldom Close and then finally on Catherine Road.

Future building could always reduce the present green space returning it to its original dimensions.



Ecology

Phase I ecological survey

Site description

This is a large expanse of grassland on a gentle south-east-facing slope. It is quite interesting from an ecological point of view as it contains a large number of flowering herbs. Unfortunately the site suffers from unsympathetic management.

There are many areas of bare ground. The height of the grass sward varies considerably from rank grasses along the perimeter of the site to a large area of mown amenity grassland.

Black medick carpets the hillside. If allowed to flower, it attracts grassland butterflies like small skippers. Notable too were the number and variety of crucifers that flowered on the site in spring and summer attracting white butterflies. In addition to the ubiquitous hedge mustard, there was also oil seed rape and two varieties of wild radish (the yellow flowering form and the white flowering form) growing next to each other. Geranium species are also well represented. Growing in the grass there is small flowered geranium and dove's foot geranium. Along the grassland perimeters a larger cultivar (a garden escapee) grows. Surprisingly, common stork's-bill, a relative of the geranium family, was also found growing in the area above Earldom Close. This is the area where the greatest variety of flowering herbs is found. This area east of the amenity grassland was left unmowed until mid summer. Goldfinches breeding in the area were regularly visiting the creeping thistles to pluck out seed to feed their young. Butterflies flitted about and common ragwort was being devoured by cinnabar moth caterpillars. In mid July much of the grassland including the flowering herb rich areas were mown, yet islands of rosebay willowherb in the middle of the amenity grassland were left standing. Shrubs and trees along western perimeter of the site include elder, horse chestnut, black poplar hybrid, western balsam poplar, Swedish whitebeam, common whitebeam and Norway maple. There is a Japanese flowering cherry growing along Grimesthorpe Road that has begun to sucker from its wild cherry rootstock.

Habitats of Interest

The grassland proved to be surprisingly interesting. Despite being primarily improved grassland, it varied considerably. There is a historical explanation for this.

Given its appearance and vegetation, for discussion purposes the site can be divided into:

- The upper slope
- The central slope (western)
- The lower slope

- The slope immediately above Earldom Close (central –eastern)

Most of the upper slope except for a stretch of amenity grassland along Catherine Road was a demolition site quite recently.

The demolition left a large amount of bare ground. Although opportunist plants have since colonised the slope, there still remains several areas of bare ground. Situated as it is on a south-facing slope, this bare ground dried out badly and cracked during the summer of 2003 which was an abnormally dry and hot year.

The central slope on the western side of the site is amenity grassland. Rain during the autumn and winter has given the sward a lushness it did not have during the hot dry summer of 2003.

This part of the slope is dominated by grass typical of lawns but there are a few flowering herbs as well. Clover is abundant. In winter, the basal foliage of lesser celandine can be seen. It may or may not reach flowering stage depending on how early the amenity grassland is mowed in the spring.

After the demolition of the housing block on Grimesthorpe Road, the lower hillside was sown with grass seed, rather than turfed which would have been the more expensive option. Consequently, there is still bare patches of ground. Opportunist plants that moved in at the earliest possible moment are still holding on to their territory within the grass sward. Unlike the amenity grassland on the central slope, the lower slope is dotted with broad-leaved dock, scentless mayweed, and wall barley.

The after-effects of the demolition of the housing block on the slope above Earldom Close resulted in this area of the site having a more species rich grassland. Not only is there a greater variety of flowering herbs growing here, but the density of the flowering herb vegetation is much higher. A plausible explanation is either infill or topsoil for the central eastern slope may have been deemed necessary at the time. Imported soil could easily account in part for some of the flowering herbs now found on this part of the hillside.

Admittedly, some of the flowering herbs flourishing on the slope above Earldom Close are typical of wasteground (sowthistles, mugwort, red hemp nettle, docks, spear thistle, hedge mustard and weld) and would not be aesthetically appealing to local residents. But the area did have its attractions before it was mowed in July.

Black medick which densely carpets the whole hillside was flowering. There were also other members of the Fabaceae family – bird's-foot trefoil, red clover, white clover, and hare's-foot clover. Geraniums and their relatives were well represented. In February 2004, colt's-foot and field speedwell could already be seen in flower and sun spurge was recorded for the first time.

In addition to the areas of managed grassland, there are areas of unmanaged grassland where coarse rank grasses are the norm.

One such area is found along the western boundary of the site and is typical of the grassland found under the scattered trees .

Grass species recorded on the site include perennial rye grass, Italian rye grass, annual meadow-grass, rough meadow-grass, meadow foxtail, Yorkshire fog and common bent.

Many coarse grasses flourish here as well including false oat grass, wall barley, timothy and couch.

One habitat that should be remarked upon as they are a feature of the site, although perhaps a somewhat negative one, are the areas of tall ruderals. There is one in a prominent position along Catherine Road. Numerous spear thistles thrive within their own low concrete barrier.

There are islands of rosebay willowherb in the amenity grassland of the central western slope. The mower goes around these islands allowing the willowherbs to flower. In winter all one sees is a clump of dead vegetation.

Species of interest

Goldfinches, which are species of Conservation Concern in the UK Biodiversity Plan, were regular visitors to the site when creeping thistle was in bloom on the hillside above Earldom Close.

There are no botanical species of high conservation importance on the site, but it did contain common stork's-bill, a species which can flourish in dry grasslands, but which is more likely to be found on the coast than in Burngreave.

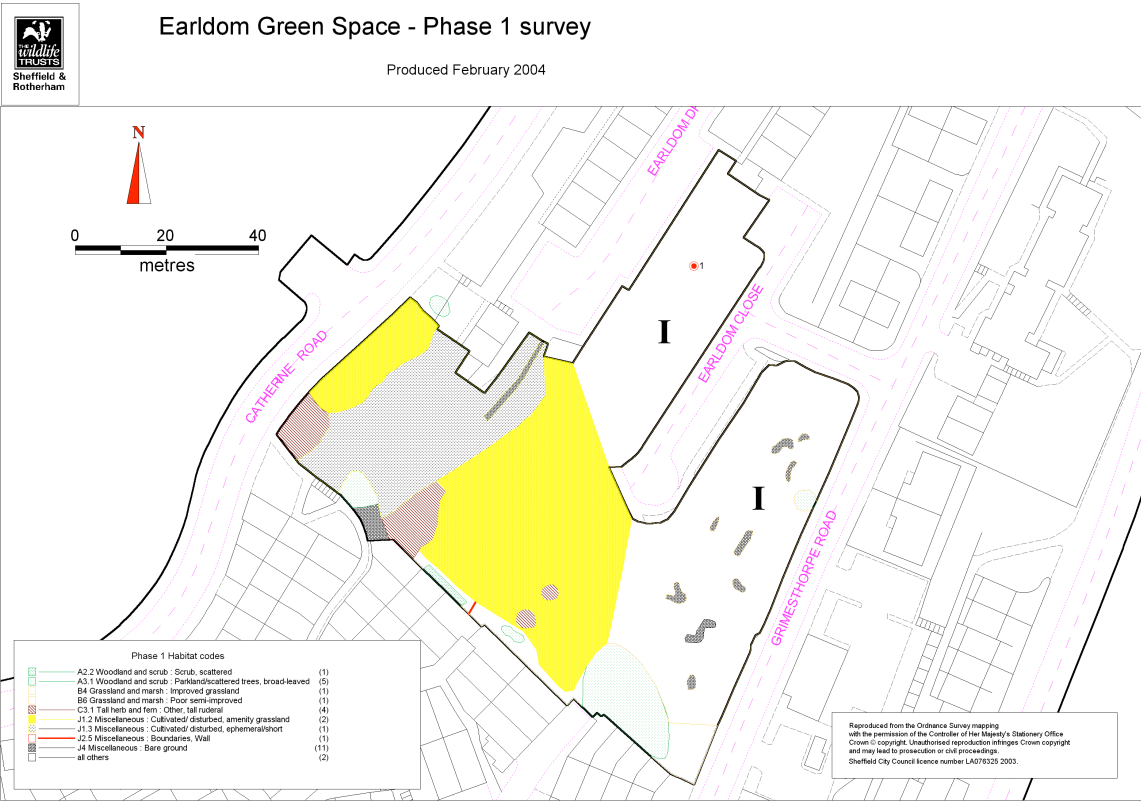
The north-eastern portion of the site above Earldom Close is particularly rich in flowering herbs. Some of these flowering herbs, i.e., oil seed rape and two varieties of wild radish, are agricultural introductions and may have come in on imported soil.

Black medick carpets the hillside. Plants in the flowering herb rich area grew to substantial size and flowered attracting grassland butterfly species such as small skippers and meadow browns.

Crucifers were numerous. These are the foodplants of white butterflies and several small whites and large whites were commonly seen here. Larvae of cinnabar moths could be seen devouring ragwort, which is their foodplant.

Invertebrates in general were well represented.

Phase I habitat map



Target notes

- 1. Flowering herb rich grassland

Invertebrates

A gall on clover

Gastropod snail

Hemiptera shield bug

Hymenoptera queen buff-tailed bumblebee, queen red-tailed bumblebee, bumble

Specialist Lepidoptera survey

Species recorded

Large white

Orange tip

Small skipper

Small white

Meadow brown

Cinnabar moth

Vertebrates

Bird survey

Recorded outside of the breeding season: blackbird, magpie, mistle thrush

SPECIES RECORDED ON AT LEAST ONE OCCASION DURING THE BREEDING SEASON	<u>POSSIBLE</u> BREEDING SPECIES	<u>PROBABLE</u> BREEDING SPECIES	<u>CONFIRMED</u> BREEDING SPECIES	NUMBER OF TERRITORIES HELD BY SELECTED SPECIES
Pigeon Goldfinch				

Mammals

No mammals were noted on the site.

Evaluation

The ecological value of Earldom Green Space and the land immediately adjacent to it should not be discounted simply because they don't contain botanical species of high conservation importance.

Grassland is a local biodiversity habitat priority. With sympathetic management these areas can sustain a diverse fauna.

A balanced grassland management plan is required – one that would satisfy local residents' and the City Council's desire to have tidy grassland areas but would also not destroy wildlife habitats. There are different options available. Having the Green Estate re-seed some of the hillside with wildflowers would make the area visually more attractive and discourage the kind of fly tipping which often occurs in unmanaged grasslands, but their mixtures, although pretty, aren't that particularly attractive to invertebrates. Managing the flowering herb community already in place is another option.

The different types of grassland present require different solutions.

Amenity grassland

- Do not mow short in hot and dry conditions.

Disturbed

- Soil rotovated and enriched
- Resown with grass seed
- Not mown in hot dry conditions

Improved grassland

- Docks need to be controlled.
- Coarse rank grasses typical of waste ground should be discouraged. They should be mowed or if necessary, scythed, if the mower can not get to them, to prevent them from setting seed that could germinate in the patches of ground on lower and upper hillside.

Flowering herb rich grassland:

- Relaxed mowing regime during the growing season. Perhaps one hay cut in September would be sufficient.
- Removal of less desirable flowering herbs. Introduction of others.

Many of the trees along the western perimeter of the site have been damaged. Perhaps they are not worthy of saving. A specialist should make the decision on whether they should be felled or treated.

Protective actions:

- Sympathetic grassland management
- Existing trees properly cared for

Potential improvements:

- Additional tree planting along western perimeter
- Removal of islands of tall ruderals in amenity grassland and mini-compartment of spear thistles along Catherine Road

Species found

A (tree or shrub)

<i>Acer platanoides</i>	Norway maple
<i>Aesculus hippocastanum</i>	horse-chestnut
<i>Populus nigra</i>	black poplar
<i>Populus trichocarpa</i>	western balsam poplar
<i>Prunus serrulata</i>	Japanese cherry
<i>Rubus fruticosus</i> agg.	bramble
<i>Sambucus nigra</i>	elder
<i>Sorbus aria</i> agg.	common whitebeam
<i>Sorbus aucuparia</i>	rowan
<i>Sorbus intermedia</i> agg	Swedish whitebeam

B (herb)

<i>Anthriscus sylvestris</i>	cow parsley
<i>Arctium minus</i>	lesser burdock
<i>Artemisia vulgaris</i>	mugwort
<i>Bellis perennis</i>	daisy
<i>Brassica oleifera</i>	oil seed rape
<i>Centranthus ruber</i>	red valerian
<i>Cirsium arvense</i>	creeping thistle
<i>Cirsium vulgare</i>	spear thistle
<i>Conium maculatum</i>	hemlock
<i>Epilobium hirsutum</i>	great willowherb
<i>Erodium cicutarium</i>	common stork's-bill
<i>Euphorbia helioscopia</i>	sun spurge
<i>Galeopsis angustifolia</i>	red hemp nettle
<i>Geranium molle</i>	dove's-foot crane's-bill
<i>Geranium pusillum</i>	small flowered cranesbill
<i>Geranium robertianum</i>	herb-robert
<i>Geranium</i> sp.	cranesbill
<i>Lapsana communis</i>	nipplewort
<i>Lotus corniculatus</i>	common bird's-foot trefoil
<i>Medicago lupulina</i>	black medick
<i>Papaver rhoeas</i>	common poppy
<i>Papaver somniferum</i>	opium poppy
<i>Plantago lanceolata</i>	ribwort plantain
<i>Plantago major</i>	greater plantain
<i>Polygonum aviculare</i>	knotgrass
<i>Ranunculus repens</i>	creeping buttercup
<i>Raphanus raphanistrum</i>	wild radish
<i>Reseda luteola</i>	weld
<i>Rumex crispus</i>	curled dock
<i>Rumex obtusifolius</i>	broad-leaved dock
<i>Senecio jacobaea</i>	common ragwort
<i>Silene alba</i>	white campion
<i>Sisymbrium officinale</i>	hedge mustard
<i>Sonchus asper</i>	prickly sow-thistle

	<i>Sonchus oleraceus</i>	smooth sow-thistle
	<i>Taraxacum officianale</i> agg.	dandelion
	<i>Trifolium arvense</i>	hare's-foot clover
	<i>Trifolium pratense</i>	red clover
	<i>Trifolium repens</i>	white clover
	<i>Tripleurospermum inodorum</i>	scentless mayweed
	<i>Tussilago farfara</i>	colt's-foot
	<i>Urtica dioica</i>	common nettle
	<i>Veronica persica</i>	common field-speedwell
C (grass)		
	<i>Agrostis capillaris</i>	common bent
	<i>Alopecurus pratensis</i>	meadow foxtail
	<i>Arrhenatherum elatius</i>	false oat-grass
	<i>Bromus hordeaceus</i>	soft-brome
	<i>Elytrigia repens</i>	common couch
	<i>Holcus lanatus</i>	Yorkshire fog
	<i>Hordeum murinum</i>	wall barley
	<i>Lolium multiflorum</i>	Italian rye-grass
	<i>Lolium perenne</i>	perennial rye-grass
	<i>Phleum pratense</i>	timothy
	<i>Poa annua</i>	annual meadow-grass
	<i>Poa trivialis</i>	rough meadow-grass

Habitats/species of nature conservation importance

UK BAP Priority Habitats

None

Sheffield LBAP Priority Habitats

Grassland

UK BAP Priority Species

None

Sheffield LBAP Priority Species

None

UK BAP Species of Conservation Concern

Goldfinch

UK Red List Birds

None

UK Amber List Birds

None

Local Red Data Book Species

Lepidoptera Grade A Species

None

Previous surveys

AUTHOR/RECORDER	DATE	COVERAGE	LOCATION
J. Fox	10/09/87	Sheffield Habitat Survey	Site 320
		Inner City Phase 1	SK363 889

History and Geology

Geological Survey

The solid geology of the site lies within the Lower Coal Measures of the Upper Carboniferous period and is characterised by mudstone and flaggy sandstone.

Notes by the ecologists

The site is underlain by sedimentary rocks from the Lower Coal Measures series, deposited during the Upper Carboniferous period.

South east of the site Extinct buried quarry. Lower Coal Measures. Petrology - Sandstone, Coal.

This slope represents the dip slope of the upper surface of Parkgate Rock which dips down southeast here at about 20 degrees. Clearance of site shows only a thin soil of weathered material and soil covering rock. Upper layers of rock have been rotted by weathering over time but are still in position. Above this the clay becomes softer. One small area proved unsuitable for building and appears to be a very old and forgotten quarry. Within the enclosed building line there was no solid bottom to be found.

Archaeological survey

No archaeological or historical features were identified within the Earldom Street Green Space in the South Yorkshire Archaeology Service SMR, English Heritage NMR or on historic Ordnance Survey maps.

Ten features, however, were identified from archive records within the immediate vicinity (i.e. 500m) of the site. These included evidence of Romano-British metalworking (SMR 894), a Roman coin hoard (SMR 889), a find spot of an Iron Age quernstone (SMR 882) and a number of buildings associated with industry along the River Don.

Historical survey

The Earldom Street Green Space was created on the site of former terraced housing on Danville Street. This housing was first shown on the 2nd edition Ordnance Survey 25" map (1905). The site is previously shown as agricultural land on Harrison's survey of Southall Soake (1637). It would appear to have remained largely unchanged until the late nineteenth century when residential development would appear to have encroached upon the site. The area immediately to the south-west of the site is shown as part of the Occupation Road Colliery on the 1st edition Ordnance Survey 6" map (1855).

Recommendations

The Earldom Street Green Space is of limited archaeological or historical significance. It would appear to have been used for housing during the early to mid twentieth century. Following the demolition of the housing, the site remained undeveloped and has since become one of the many open or green spaces in the Burngreave NDfC area. Consultation of census records will help identify former residents of Danville Street. This information may help improve understanding of local social history.

Notes by the ecologists

Jim Bruce notes that the old quarry referred to in the geological section is not shown on maps later than 1853. He suggests that the quarry may have been filled in before the founding of a colliery on the site.

Community

No community survey was carried out.