

London Borough of Croydon Habitat Action Plan

Chalk Grassland



‘Earth laughs in flowers...’

(Ralph Waldo Emerson 1803- 1882)

1. Aims

- To conserve, protect and restore Croydon’s chalk grasslands
- To promote public understanding of the importance of chalk grassland

2. Introduction

Chalk grassland is a rich mix of grasses and other herbaceous plant species growing on poor shallow soils overlying chalk. It supports a unique assemblage of insects, other invertebrates, birds and mammals. It includes chalk scrub which comprises trees and shrubs; this is a valuable habitat which provides shelter, but its tendency to encroach on the grassland necessitates active management to ensure the grassland remains open.

Grass species like red fescue, sheep’s fescue and quaking grass are common, along with plants such as wild thyme, marjoram and common bird’s-foot trefoil. In addition, chalk grasslands support a range of orchids, many of

which are nationally uncommon or scarce. The habitat is crucially important for butterflies, including those that are nationally or regionally scarce, such as grizzled skipper, dingy skipper, chalkhill blue, dark-green fritillary, marbled white and, most notably, the small blue.

Croydon possesses large and small chalk grassland sites (see table 1) which are concentrated in the southern part of the borough following the geology region.

3. Current Status

Traditionally chalk grasslands were kept open largely by grazing, primarily by sheep, although rabbits were also responsible for maintaining a short sward. Grazing declined after the 19th century and by 1945 few areas in Croydon were grazed. In the 1950s myxomatosis devastated the rabbit population, which further reduced grazing pressure and led to the spread of scrub and eventually woodland.

Croydon's suburban development during the inter-war period led to expansion of residential areas onto the chalk. The establishment of the Metropolitan Green Belt in 1949 prevented further significant loss through development. Some tracts became secured by the then urban district council and some of these became public open spaces. However, much of the rest was of declining value as pasture, and landowners have since converted much of the remaining chalk grassland, that was not built on in to golf courses or intensive horse pasture.

More recently, the identification of chalk grasslands as important resources for biodiversity has led to establishment of some chalk grassland nature reserves in an effort to restore and conserve them. Scrub-clearance remains a key issue for managers of these sites.

There are about 390 hectares of chalk grassland in London, just over 3% of the total area of chalk grassland found in southeast England. This is distributed across a number of sites within five boroughs: Croydon (184 ha) Bromley (162 ha), Sutton (48 ha), Hillingdon (6 ha), and Lewisham (<1 ha). Most of these sites lie on the northern parts of the North Downs, especially along the slopes of a number of dry valleys in Bromley and Croydon.

Croydon's chalk grassland supports a range of protected species. Of particular importance are greater yellow-rattle and small blue butterfly. Greater yellow-rattle is a nationally rare plant, which has the bulk of its UK population on London chalk grassland. The small blue butterfly is found on two sites in Croydon. Other protected species associated with Croydon's chalk grassland include common lizard, slow-worm, adder and badger.

Table 1: Chalk Grassland Area in London by Borough Croydon

| Name of Site | Grid Ref. | Area (ha) | Status |
|--|------------------|---|---------------|
| Montpelier Heights | 5320 1625 | 0.85 | |
| Foxley Down (wood) | 5315 1605 | 2.13 | LNR, CrBI |
| Riddlesdown and surrounds | 5331 1600 | 23.67 | SSSI, SMI |
| The Pit | 5337 1594 | 2.31 | SSSI, SMI |
| Addington Court Golf Course | 5375 1624 | 10.64 | CrBI |
| Happy Valley and Farthing Down | 5310 1570 | 36.34 | SSSI, SMI |
| Croham Hurst | 5340 1632 | 3.68 | SSSI, SMI |
| Coulsdon Quarry | 5303 1592 | 0.55 | CrBI |
| Hooley Farm & Woodplace Fields | 5299 1579 | 37.72 | Part CrBII |
| Chipstead Chalk Pastures | 5290 1575 | 13.82 | CrBI |
| Croydon Covered Res. | 5316 1627 | 1.70 | |
| Old Lodge Sports Ground | 5308 1606 | 0.3 | |
| Kenley Common | 5331 1589 | 3.70 | SMI |
| Purley Downs Golf Course | 5327 1614 | 7.95 | CrBI |
| Betts Mead Kenley | 5319 1585 | 2.54 | CrBI |
| Star Shaw Field & Railway | 5292 1575 | 0.53 | |
| Coulsdon Memorial Ground | 5301 1490 | 0.5 | SMI |
| Hutchinson's Bank, Frylands Wood & Chapel Hill | 5383 1615 | 7.56 | SMI, LNR |
| Coulsdon Common | 5332 1570 | 2 | CrBI |
| Roundshaw Downs | 5313 1627 | 20 | SMI |
| Kingswood Way, Mossy Hill Shaw & Beech Way | 5354 1613 | 4 | CrBI |
| Total | | 188 ha, 58% of London's resource | |

4. Specific Factors Affecting the Habitat

4.1 History

Traditionally, sheep grazing maintained a short sward and prevented scrub invasion, but with intensification of farming this traditional management practice has largely been abandoned in London. The decline in sheep pasturing and rabbit grazing (following myxomatosis) has resulted in many chalk grasslands succumbing to scrub invasion and natural succession to woodland. Other remaining chalk grassland sites have been modified by applications of fertiliser, partial reseeding and frequent mowing. The continued sprawl of urban London has led to large losses of habitat and conversion to arable has been a problem in the past.

4.2 Scrub encroachment

Abandonment of chalk grassland management since the 1950s has led to the widespread invasion of scrub and woodland species that, once established, can be difficult and expensive to remove. Hawthorn, blackthorn, dogwood, bramble, ash and some exotic species may colonise chalk grassland to the detriment of other species that depend on the open nature of the habitat.

4.3 Lack of grazing

The lack of livestock grazing on chalk grassland in London has been the principal factor leading to loss of grassland to scrub and woodland. Changes in market conditions have severely affected farming profits, leading to the continued decline in serious agricultural commitment in the relatively under-productive North Downs region.

4.4 Fragmentation

The loss of chalk grassland through habitat fragmentation has resulted from arable conversion, agricultural improvement, scrub encroachment, housing development, quarrying and use of the grassland for recreation. As a result of these pressures, what remains of the habitat tends to exist in isolation as small areas of grassland within the outer suburban matrix of London. This makes populations of species associated with chalk grassland less viable and positive management, for example through the reintroduction of grazing, more difficult.

4.5 Amenity use

All of Croydon's chalk grassland occurs either within public open spaces or is in private ownership. Both Croydon and Corporation of London manage the habitat as a separate management parcel within the framework of wider management plans with habitat maintenance and restoration as clear priorities. Grazing on some sites, as a main tool to manage sward height and control invading scrub is generally accepted by the public and is an added visitor attraction.

Croydon's chalk grassland sites are popular and well used by the public. A number of self guided footpaths lead through some sites, including the LOOP (London Outer Orbital Path), Downland Circular Walk and Coulsdon Commons Circular Walks, plus regular guided walks which focus on history, management, wildlife and plants found on site.

5. Current Action

5.1 Legal Status

There are four Sites of Special Scientific Interest (SSSI) within London that consist primarily of chalk grassland two of the largest sites are within Croydon ; Farthing Downs & Happy Valley SSSI and Riddlesdown SSSI . Five sites across London, containing chalk grassland (Roundshaw Downs, Devonshire Avenue Nature Area and Cuddington Meadows in Sutton, and Hutchinson's Bank and Foxley Wood in Croydon) are declared as Local Nature Reserves (LNRs). City of London owned sites enjoy their own special

protection under an 1878 Act of Parliament. In Croydon this applies to Farthing Downs, Riddlesdown, Coulsdon Common and Kenley Common.

5.2 Mechanisms targeting the habitat/ species

5.2.1 Decline of traditional management

In the past, species-rich chalk grassland was maintained as an incidental result of traditional agricultural practices, such as hay cutting and grazing. In recent decades, these practices have either disappeared completely in London, or been significantly altered through the impact of modern technology. The management mechanisms that are currently in place are either modifications of standard agricultural practices, or are replications of traditional practices such as hay cutting, often led by local authorities.

5.2.2 Local projects

There are a number of charities and volunteer groups who are actively involved in looking after Croydon's chalk meadows, they all provide volunteer labour and expert advice. Both the Downlands Countryside Management Project and Corporation of London assist in the management of sites through the provision of grazing livestock. The presence of livestock on sites ensures the maintenance of the flora and fauna associated with open chalk grassland habitat by arresting natural succession towards scrub and woodland communities.

5.2.3 Chalking Up London's Downs

Chalking Up London's Downs was a partnership between the Downlands Countryside Management Project, the Bromley Countryside Management Service, the London Wildlife Trust, Sutton Nature Conservation Volunteers, Croydon Parks, Croydon BTCV and the City of London together with English Nature.

Phase one saw the delivery of a £72,000 initiative funded through the Heritage Lottery Fund between 2001-2004. Machinery and tools were purchased and training given to enable local people to be involved in managing chalk grasslands. Extensive surveys for butterflies, other invertebrates, wildflowers and grasses were undertaken. Leaflets showing the best sites to visit and why these sites are so valuable were produced. Together with mobile displays, the aim has been to raise awareness of London's chalk grassland. Phase two will build on this successful partnership and will seek to forge links with possible Heritage Lottery Fund (HLF) bids in Surrey and/or Kent.

5.2.4 Countryside Stewardship Scheme/Environmental Stewardship

The Countryside Stewardship Scheme (CSS) currently targets chalk grassland. Happy Valley and Riddlesdown Fields, managed by Croydon

Council and the City of London Corporation has agreements for Farthing Downs & New Hill and on its land at Riddlesdown. Agreements provide both capital and revenue costs to benefit biodiversity, as well as access and general environmental improvement. Environmental Stewardship will offer similar stream of funding for landowners through the Entry Level Scheme and Higher Level Scheme

6. Flagship Species

These special plants and animals are characteristic of chalk grassland in Croydon. They have been chosen because they are easier to identify and monitor by the general public.

| Common Name | Latin | Brief Description |
|-------------------------|-------------------------------|---|
| Chalkhill Blue | <i>Lysandra coridon</i> | A small silvery blue (male) or brown (female) butterfly. The caterpillars feed on horseshoe vetch (<i>Hippocrepis comosa</i>) |
| Roman snail | <i>Helix pomatia</i> | Britain's largest snail, restricted to the chalk of SE England |
| Glow-worm | <i>Lampyris noctiluca</i> | A beetle. The flightless females emit the glow (bioluminescence) to attract the winged males. The larvae eat snails. |
| Pyramidal Orchid | <i>Anacamptis pyramidalis</i> | Colonies of this bright pink orchid flower in July on most of Croydon's chalk grassland sites |
| Marjoram | <i>Origanum vulgare</i> | One of the herbs which give chalk grassland its characteristic scent. |
| Quaking Grass | <i>Briza media</i> | A distinctive small perennial grass with heads of loose spikelets which tremble in any slight breeze. |
| | | |

7. Objectives, Actions and Targets

Objective 1

To identify and map the existing and restoration chalk grassland sites in Croydon

| Action | Target Date | Lead | Other Partners |
|--|-------------|------|----------------------------------|
| 1.1 Identify all chalk sites through audit | 12 months | NCCM | CoL, DCMP, LWT, GLA |
| 1.2 Initial quality & suitability assessment to prioritise efforts for practical management. Extension of existing sites a high priority | 24 months | NCCM | CoL, DCMP, LWT, GLA |
| 1.3 Quality audit of chalk sites by a comparative assessment technique | 2010 | NCCM | CoL, DCMP, LWT, GLA, ACCS, CNHSS |
| | | | |

Objective 2

To encourage the practical management of chalk grassland building on current best practice

| Action | Target Date | Lead | Other Partners |
|---|-------------|----------------|--------------------------|
| 2.1 Scrub management on degraded sites through volunteers/community participation, 25 volunteer task days /annum. | annual | NCCM | BTCV, DCMP, Friends, LWT |
| 2.2 Maintain grazing on 5 chalk grassland sites, keep remaining sites under mowing/hay crop regime | annual | CoL, DCMP/ OSD | NCCM LWT |
| | | | |

Objective 3

To improve access and encourage community interest and involvement in the management and usage of chalk grassland

| Action | Target Date | Lead | Other Partners |
|---|-------------|-----------------|----------------|
| 3.1 To promote Croydon's chalk grassland through event and publicity at one new site per year | annual | DCMP/ OSD, NCCM | CoL, ACCS |
| 3.2 To establish extent of community use and enjoyment of chalk grasslands | annual | DCMP/ OSD, | ACCS, NCCM |

through visitor survey at one site per year

CoL

Abbreviations

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|----------|--|
| ACCS | Association of Croydon Conservation Societies |
| CoL | City of London |
| CNHHS | Croydon Natural History and Scientific Society |
| CrBI | Site of Borough Importance for Nature Conservation grade one |
| CrBII | Site of Borough Importance for Nature Conservation grade two |
| DCMP/OSD | Downlands Countryside Management Project/Old Surrey Downs |
| GLA | Greater London Authority |
| LWT | London Wildlife Trust |
| NCCM | Nature Conservation and Countryside Management Team |
| SMI | Site of Metropolitan Importance for Nature Conservation |