

STELLING MINNIS COMMON. PHASE 1 HABITAT SURVEY

INTRODUCTION

A Phase 1 Habitat Survey was undertaken on Stelling Minnis Common over a three-day period in April 2004.

The survey followed the standard methodology recommended by the Nature Conservancy Council (1990) in their handbook entitled, "Handbook for Phase 1 habitat survey – A technique for environmental audit".

The survey was required as part of the management planning process and the results would be used to assist in formulating the management options contained within the management plan.

The survey was carried out by Joyce Pitt, an experienced botanist.

The habitat descriptions have been presented below, on a compartment-by-compartment basis – the individual compartments based on those devised by Nick Onslow in his 1993 management plan.

The Phase 1 map has been appended to the back of this report. The Compartment map is included in Figure 1 within the main management plan.

RESULTS

General Introduction

The site comprises a mix of acid and neutral grassland with relict lowland heathland and pockets of scrub and woodland of recent origin. Several ponds are also present.

It is considered that the current diversity of habitats reflects, in the main, the past management of the site rather than any underlying natural factors.

General Habitat Descriptions

Woodland and scrub areas

Dense scrub and secondary woodland was present at the northern end of the common and elsewhere where management has not been undertaken to prevent it encroaching from hedgerows and adjacent woodland boundaries. Species such as birch *Betula pendula*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium* and oak *Quercus* spp. are the commonest species, although sycamore *Acer pseudoplatanus* occurs in some places where it has colonised from occasional large mature roadside trees. Ash *Fraxinus excelsior* is fairly restricted, but it occurs frequently in damper parts at the southern end of the common.

The dense scrub and secondary woodland areas generally supported an impoverished flora typical of woodland of recent origin on poor soils with ivy *Hedera helix*, cow parsley *Anthriscus sylvestris*, bramble *Rubus fruticosus* agg. and, occasionally, bluebell *Hyacinthoides non-scripta*. Greater stitchwort *Stellaria holostea* was a common species, particularly along the edges of scrub, woodland glades and paths.

An area of richer, possibly relict woodland, with wood anemone *Anemone nemorosa*, bluebell, honeysuckle *Lonicera periclymenum* and creeping soft-grass *Holcus mollis* occurred in a small part of Compartment 3c.

A small area of relict damp, ash-dominated woodland, with some cherry *Prunus avium*, elder *Sambucus nigra*, and hazel *Corylus avellana*, was present at the southern margin of Compartment 7. The ground flora included greater stitchwort, lesser celandine *Ranunculus ficaria*, cuckooflower *Cardamine pratensis*, moschatel *Adoxa moschatellina* and wood anemone.

A series of wide, grassy paths and glades had been recently established in parts of Compartment 3 and Compartment 5.

Where areas of previously dense scrub/secondary woodland are believed to have been cleared in Compartments 3 and 5, a wood pasture habitat had developed with relict woodland species such as bluebell and bracken *Pteridium aquilinum* occurring below the individual oaks and birch. The grassland in these areas tended to be neutral in character and supporting few species of flowering plants, possibly due to the build-up of nutrients when under woodland cover.

Grassland/heathland

Management work has been undertaken in recent years to restore the more open grassland/heathland nature of the site. The proportions of species-poor acid grassland has increased in relation to the neutral grassland and the county rare plant western gorse *Ulex gallii* appears to have been freed up from bramble/bracken encroachment in many places. The number of colonies of this species is much greater than those observed in the earlier survey, undertaken by the Kent Trust for Nature Conservation (1990).

The amount of bracken also appears to have been reduced with no large bracken-dominated areas left.

The heathy vegetation however shows little sign of regeneration. Most patches of ling *Calluna vulgaris* and western gorse appear to be isolated and comprise 'elderly' bushes. Young ling plants were seen only very occasionally and these were generally mown.

All the grassland on the Common was species-poor; the neutral areas were grass-dominated with species associated with enrichment, such as common nettle *Urtica dioica*, docks *Rumex* spp., and dandelion *Taraxacum officinale* agg., particularly noticeable along the road and metalled track margins.

The acid grassland areas were poor in herbs, characteristic species including heath bedstraw *Galium saxatile*, tormentil *Potentilla erecta*, sheep's sorrel *Rumex acetosella*, common cat's-ear *Hypochaeris radicata*, and, occasionally, harebell *Campanula rotundifolia*. Grasses included sweet vernal-grass *Anthoxanthum odoratum*, common bent *Agrostis capillaris*, brown bent *Agrostis vinealis*, sheep's-fescue *Festuca ovina* and red fescue *Festuca rubra*. Wavy hair-grass *Deschampsia flexuosa* is occasional where soils are most acid.

The most interesting area of unimproved acid grassland/lowland heathland was in Compartment 4. It supported several large colonies of ling and western gorse interspersed with acid grassland and the occasional patch of bracken. Common dog violet *Viola riviniana*, harebell and an unidentified hawkweed species *Hieracium* sp. occurred together with an abundance of heath bedstraw and sheep's sorrel.

Ponds

Four ponds were identified. Three of these were considered to be permanent ponds. The fourth, to the north of Bramble Cottage, supported very little vegetation typical of wetland situations and was possibly holding water only because of recent rainfall.

The ponds generally were considered to be in poor condition with little water and few plant species. Most were heavily shaded by scrub and trees. Coxsole pond was found to support a relatively large colony of the highly invasive, non-native plant New Zealand stonecrop.

Compartment-by-Compartment Descriptions

For locations of the various compartments, refer to the map in Figure 1.

Compartment 1

Compartment 1a. A narrow, regularly mown verge of limited botanical interest.

Compartment 1b. A densely wooded compartment that comprised closed canopy dense mature hawthorn with young holly, cherry and oaks, with rowan *Sorbus aucuparia*, etc. in the understorey. The ground was dominated by ivy with lord's-and-ladies *Arum maculatum*.

Compartment 1c1. Closed canopy secondary woodland with occasional oak, hazel coppice, hawthorn and cherry, with young holly, elder and honeysuckle, etc. The ground flora was rather sparse but included the occasional patch of moschatel and bluebell towards the southern end.

Compartment 1c2. A small triangle of neutral grassland with sweet vernal-grass, meadow-grass *Poa* spp. and meadow foxtail *Alopecurus pratensis*. Herbs included common knapweed *Centaurea nigra*, bulbous buttercup *Ranunculus bulbosus*, lesser celandine and field wood-rush *Luzula campestris*.

Compartment 1d. Dense scrub with only narrow open area to road edge.

Compartment 1e. Track to Church Wood lined with woodbanks with overstood hornbeam *Carpinus betulus*, ash, holly and oak on the old banks. The track sides supported an excellent woodland flora with wood anemone *Anemone nemorosa*, bluebell, dog's mercury *Mercurialis perennis*, moschatel and wood melick *Melica uniflora*, etc.

Compartment 1f. Broadleaved secondary woodland dominated by birch and oak with occasional oak, cherry, hawthorn and holly. Bracken was locally dominant. This compartment has a number of wide grassy tracks and glades.

Compartment 1g. A mosaic of dense hawthorn and bramble scrub with an area dominated by bracken.

Compartment 2

Compartment 2a. Regularly mown grass verge in front of houses.

Compartment 2b. Pond adjoins road and has a small gulley showing it receives road run-off. The depth of water was a maximum of 6 inches. It was overhung by a hawthorn. The dry margin of the pond supported red deadnettle *Lamium purpureum*, common nettle and bittersweet *Solanum dulcamara*.

The pond vegetation was limited and included floating sweet-grass *Glyceria fluitans*, common water-crowfoot *Ranunculus aquatilis*, common water-starwort *Callitriche stagnalis* and a few stems of yellow iris *Iris pseudacorus*.

Compartment 2c1. A mosaic of dense scrub and secondary woodland with rank, enriched vegetation beneath (a result of garden dumping). All the grassland to the east of the metalled track in front of the houses was regularly mown.

There was a very narrow grassy margin to Bossingham Road.

Compartment 2c2. Acid grassland with scattered bracken and scrub. Relict ling and western gorse were present.

Compartment 2d. An area of dense scrub with young sycamore, elder and hawthorn etc. surrounding a pond. Garden rubbish and piles of flints was present along a track. Garden escapes in this area included green alkanet *Pentaglottis sempervirens* and the variegated form of yellow archangel *Lamiastrum galeobdolon* ssp. *argentatum*.

The pond was water-filled to a depth of approximately 30cms. It was strongly vegetated and dominated by floating sweet-grass. Other species included soft rush *Juncus effusus* and bittersweet.

Compartment 2e. A patchwork of dense scrub and secondary woodland with discrete open areas which were a mosaic of acid and neutral grassland with occasional leggy western gorse. Field wood-rush and heath bedstraw were present in the more acidic areas.

A large stand of tall young sycamore was present at the southern end opposite Ridlings.

The bracken in this area appeared to have been controlled. Occasional tall birch sycamore and oak had been left.

Compartment 3

Compartment 3a. A wide grassy ride.

Compartment 3b. Cleared young oak woodland over bramble with dense scrub of hawthorn and willow *Salix cinerea* subsp. *oleifolia* at the northern end. Young holly was abundant in the understorey at the eastern end of the compartment.

Compartment 3c. A mix of grassland and woodland.

The grassland comprised a mosaic of acid and neutral grassland with isolated oak and birch trees and the occasional cherry. Young bramble, honeysuckle and bracken was present beneath the individual trees.

The woodland comprised primarily oak and birch, with neutral grassland along the cleared paths and glades. Holly and field maple occurred in the understorey. Species such as bluebell, wood anemone, wood sage *Teucrium scorodonia*, creeping soft-grass and some bracken was present within the open areas.

Compartment 3d. Comprised an area of open, mainly acid grassland with a very occasional scattering of western gorse and ling (mostly tall and leggy) with bracken and young oak intruding into the tall ling. The grassland itself included a diversity of species that included fescues, heath bedstraw, sheep's sorrel, pill sedge and the acid-loving moss *Brachythecium albicans* in the thin turf. Bracken was present around the young oak.

A line of tall holly trees was present along boundary wall of 'Ridlings' with an adjacent area of enriched neutral grassland of limited botanical interest.

The area at the south of this sub-compartment has been enriched by organic debris.

Compartment 3e. A band of closed canopy, broadleaved woodland with little understorey except for the occasional bluebell, creeping soft-grass and bracken. Trees included birch, oak, sycamore, cherry and hawthorn. One or two broom *Cytisus scoparius* bushes were present along the south-facing edge.

Compartment 3f. Mainly acid grassland with occasional areas of neutral grassland. There were occasional patches of western gorse, ling and broom.

Rabbits have close-cropped parts of this sub-compartment giving a short turf with sheep's sorrel, heath bedstraw, heath wood-rush and sheep's fescue. The acid-loving moss *Brachythecium albicans* was common in the thin acid grassland areas.

Compartment 3g. A very scrubbed-up depression. It was not possible to access this sub-compartment.

Compartment 3h. An area of neutral grassland with scattered oak, young birch trees and, at the western end, dense broadleaved woodland and dense scrub with hazel and hawthorn, bramble, bluebell and ivy.

Compartment 3i. A copse of oak, birch, hawthorn and bramble. There was some remnants of bracken and bramble under the trees.

There appeared to have been some recent clearance on the southeastern side to make a wood pasture-type habitat. There was the odd patch of relict bluebell in the grassland.

Compartment 3j. Mostly neutral grassland with smaller patches of acid grassland and a scattering of clumps of broadleaved woodland and dense scrub that comprised a mix of birch, ash, hawthorn and holly over bramble and bracken.

Compartment 4

Compartment 4a. A mosaic of acid grassland and heathland with patches of mature scrub of hawthorn, birch and oak. A feature of this compartment was the large, dense area of tall ling and western gorse with encroaching young oak, birch and bramble.

Nearer the road, the ling and western gorse were more scattered within the acid grassland. Species in the grassland included abundant heath bedstraw, pill sedge *Carex pilulifera*, heath wood-rush *Luzula multiflora*, harebell and dog violet. A belt of dense scrub dominated by blackthorn with a line of tall birch was present along the southern margin of this compartment.

A band of ranker neutral grassland was present along the western edge to the Bossingham Road.

Compartment 4b. A mosaic of neutral and acid grassland with scattered birch trees and the occasional patch of bracken. A line of mature sweet chestnut *Castanea sativa* with holly, etc. beneath marks the northern margin. Enriched neutral grassland and secondary woodland occurred at the southern end.

Compartment 4c. Mostly neutral grassland with occasional patches of acid grassland. Species recorded included common knapweed, bird's-foot-trefoil *Lotus corniculatus*, red clover *Trifolium pratense*, plantain *Plantago* spp., buttercups *Ranunculus* spp., and a variety of grass species. Dense scrub with the occasional mature oak was present along the eastern margin.

Compartment 5

Compartment 5a. Essentially developing 'wood pasture' with mosaic of acid and neutral grassland and maturing oak trees. The grassland contained species such as greater stitchwort and heath bedstraw.

There appears to have been scrub clearance from this area. The scrub clearance from beneath and around the trees appears to be more recent as one moves northwards in the compartment.

Compartment 5b. Very similar to Compartment 5a.

Compartment 5c. Comprised an area of semi-improved neutral grassland with occasional hawthorn and oak.

Close to Bramble Cottage was an area that may once have been a pond. It was in effect a depression in a tree and shrub-covered area where there had been some cutting back of ash trees overhanging the pond. From evidence of lack of colonisation by wet-loving species, it appeared that this pond has been largely dried-out for some time, although it did hold about 5cms of water in places at the time of the survey. The only plants characteristic of damp areas included cuckooflower, bittersweet, soft rush and great willowherb *Epilobium hirsutum*. There was some sphagnum moss around the margin at one point.

Compartment 5d. Mosaic of neutral and acid grassland with young oak and the occasional patch of hawthorn scrub.

Compartment 5e. Neutral grassland of limited botanical interest with a broken line of hawthorn scrub.

Compartment 5f. Mainly short, acid grassland with occasional hawthorn bushes and isolated stands of tall, leggy ling and western gorse. Grassland species include heath bedstraw, pill sedge and tormentil *Potentilla erecta*.

Some of the ling had been mown; there was no evidence of young bushes or regeneration.

Compartment 5g. A mosaic of dense scrub and secondary woodland surrounded by neutral grassland paths and glades.

Compartment 5h. Neutral grassland with scattered scrub.

Compartment 6

Compartment 6a. A mosaic of acid and neutral grassland with scattered bushes of hawthorn, apple *Malus* sp., goat willow *Salix caprea* and bramble *Rubus fruticosus* agg.. There were occasional stands of bracken and raspberry *Rubus idaeus*.

Acid grassland patches supported tormentil, field wood-rush, pill sedge and heath bedstraw.

The verges comprised more enriched neutral grassland with cock's-foot *Dactylis glomerata*, meadow foxtail and common sorrel *Rumex acetosa*.

Compartment 6b. Mainly species-poor neutral grassland with the occasional area of acid grassland and one or two trees.

Compartment 6c. A mosaic of acid and neutral grassland with small stands of dense scrub at the southern end with western gorse, hawthorn and bramble. Proportions of this compartment were roughly $\frac{1}{4}$ neutral to $\frac{3}{4}$ acid grassland.

The rank neutral grassland was concentrated in a circular area close to a large goat willow tree. Species included creeping thistle *Cirsium arvense*, meadow foxtail, cock's-foot, red clover and hogweed *Heracleum sphondylium*, etc.

A band of woodland/hedgerow was present along the eastern boundary of the Common at this point. Mixed species included hawthorn, holly, ash, elder, blackthorn *Prunus spinosa*, hazel and goat willow with honeysuckle, bramble and bracken beneath.

Compartment 6d. Intensively managed neutral grassland of limited botanical interest.

Compartment 6e. A mosaic of neutral and acid grassland with occasional hawthorn and one or two planted trees at the southern end.

Compartment 7

Compartment 7a. Rough, mostly enriched, neutral grassland with much thistle, nettle and hogweed. Meadow foxtail was the dominant grass species. The southwestern end was less rough.

Scattered trees and scrub was present, particularly around the margins.

Compartment 7b. Grassy paths and tracks of limited botanical interest.

Compartment 7c. Enriched neutral grassland of limited botanical interest.

Compartment 7d. Enriched, tightly mown, neutral grassland of limited botanical interest.

Compartment 7e. A rough, grassy hollow with rank, enriched neutral grassland that supported many species associated with past disturbance including dock, nettle and hogweed, etc.

A steep wooded/scrubby bank was present along the eastern edge to the adjacent road.

A small, scrubby copse with mature ash was present at the northern end, and further scattered scrub was present across the compartment.

Compartment 7f. Grassy track and glade that comprised enriched neutral grassland of limited botanical interest with encroaching scrub from adjacent wooded edge and hedgerows. At TR1433 4649 there was a relict leggy stand of western gorse with bramble.

Compartment 7g. A spoon shaped patch of damp woodland at the southern end of a narrow tree and scrub-lined footpath. The woodland was dominated by tall, singled ash with occasional hazel, elder and cherry. Wood anemone, cuckooflower, moschatel and cow parsley were present in the ground flora. The ash trees supported an active rookery and 16+ nests were noted.

Compartment 7h. Rough neutral grassland with encroaching scrub from adjoining hedgerows.

Compartment 8

Compartment 8a. A narrow, damp track with woodland and scrubby margins. Trees and scrub included ash, hazel and oak with holly and hawthorn beneath.

Compartment 8b. A series of open, acid grassland areas with occasional patches of more neutral grassland. Pill sedge, heath bedstraw, field wood-rush, heath wood-rush and tormentil were all present in the turf.

Scattered scrub included leggy western gorse and bramble. The gorse was often surrounded by bracken, which appeared to be controlled. Occasional areas of dense hawthorn and blackthorn scrub were present between the grassland areas.

Compartment 8c. A wide grassy path that comprised enriched neutral grassland of limited botanical interest. Rougher areas contained scattered docks, garlic mustard *Alliaria petiolata*, cock's-foot and greater stitchwort, etc.

Parts of the path near the houses were mown by householders.

Compartment 8d. A mosaic of acid and neutral grassland with scattered scrub and individual hawthorn bushes. The grassland contained a diversity of species such as field wood-rush, common cat's-ear and fescue grasses *Festuca* spp.

A patch of secondary woodland was present near the road at the northwestern end.

Compartment 8e. A track with dense scrub that was developing into secondary woodland, and patches of rank neutral grassland of limited botanical interest.

A line of fine, old hornbeam was present along the eastern edge of the track.

Compartment 8f. A band of mixed, broadleaved woodland with an understorey of hawthorn and holly, etc.

Compartment 9

Compartment 9a. Generally comprised regularly mown grassland verges of limited botanical interest, with an area of impenetrable dense scrub and woodland of ash, hawthorn, elder and bramble surrounding a pond.

Coxsole Pond was the largest pond on the Common. The pond was holding approximately 15-20cms deep water over a thin, muddy cover, although there was a considerable area that had a hard base (found to comprise house bricks). There was a raised island in the centre of the pond, which also seemed to have a brick foundation, which was colonised by hairy willowherb, male fern *Dryopteris filix-mas* and cuckooflower.

The pond itself was mainly vegetated by yellow iris, with bittersweet round the margins. There was a strong colony of bulrush *Typha latifolia*, abundant common water-starwort and a substantial patch of New Zealand stonecrop.

Jointed rush *Juncus articulatus* was present in one area, with a few flowers of common water-crowfoot showing through the common water-starwort cover.

The pond was surrounded by ash, hawthorn, elder and elm *Ulmus* sp. with much ivy. The ground layer included primrose *Primula vulgaris*, lesser celandine, hairy bitter-cress *Cardamine hirsuta*, wood dock *Rumex sanguineus*, broadleaved dock, common nettle and bramble. Enchanter's-nightshade *Circaea lutetiana*, cow parsley and lord's-and-ladies were also recorded.

Compartment 9b. Rough, unmanaged neutral grassland, with occasional scattered scrub and the occasional mature thorn and ash tree. The grassland was dominated by meadow foxtail and cock's-foot with hogweed and ground ivy *Glechoma hederacea* etc.

Compartment 9c. Rough, damp, neutral grassland dominated by meadow foxtail with the occasional hawthorn bush. Cuckooflower and the occasional 'hedge' of bracken/bramble was present along the edge of the western lane.

The eastern margin comprised woodland with oak, holly, hawthorn and bracken with relict bluebell beneath.

Compartment 9d. A series of enriched, neutral tracks, managed by mowing, that were of limited botanical interest.

Compartment 9e. An area of damp, neutral grassland. Species recorded included meadow buttercup *Ranunculus acris*, bulbous buttercup *Ranunculus bulbosus*, cuckooflower, red clover, perennial rye-grass and meadow foxtail etc.

A line of mature oak marked the northern edge of this compartment.

The southern boundary comprised broadleaved woodland with bramble and other common woodland plant species. A rough track, edged on both sides by broadleaved woodland, ran along the edge of the Common.

Compartment 9f. A mosaic of mown and rough neutral grassland with patches of scattered and dense scrub.