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TROOPERS HILL, BRISTOL

ECOLOGICAL MONITORING REPORT

1994

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INTRODUCTION

A vegetation and photographic survey of Troopers Hill was carried out during August 1994. The purpose of the survey was to serve as a baseline for monitoring in future years and to identify any priorities for management required in order to conserve and enhance the site's ecological interest. During the surveys notes were also made of any invertebrates seen.

METHODS AND RESULTS

Photographs of the site, a map showing the locations pictures were taken from and brief notes on locations are included as an appendix. The photographs were taken during late August - it is important that further photographs are taken at this time of year when the heather species are in flower. The camera used was a SLR with a 28mm lens for a slight wide angle effect. Two sets of prints were made - the other set has been retained by Wessex Ecological Consultancy.

Large parts of the site are covered in sparse acidic grassland, which is of ecological interest, especially in a local context since suitable rock for the development of such habitats is rare in the Bristol area. This habitat was not surveyed in detail but general notes were made on its structure. It is predominantly very short, with the incidence of bare ground and rock varying from occasional to abundant. Bryophytes and lichens make up a large proportion of the sward in places. There are occasional patches of longer acidic grassland and pockets where the soil is evidently richer and a rank growth of tall grasses and herbs has developed.

Other parts of the site consist of heath dominated by either ling (*Calluna vulgaris*) or bell heather (*Erica cinerea*). Occasional plants of both species are scattered through the grassland areas (as described below). The extent of this vegetation type, which is probably the most valuable habitat on the site, was described and photographed. The dimensions, including height, of several isolated areas of heather were measured in order to provide a base line to monitor whether these areas are spreading or are in decline.

Elsewhere scrub of various species is present, sometimes over a patchy sward of grassland or heathland species. This habitat type has also been photographed and described.

Area Descriptions

The approximate extent of the areas described below is shown on the enclosed map.

Where measurements are given they are across the widest and longest dimensions of a patch of heather, with the edges being defined as the furthestmost branch tips. The height measurement was taken at the tallest point for each patch.

A. The steep slope above Troopers Hill Road is dominated by scrub, especially bramble (*Rubus fruticosus* agg), which makes up about 50% of the ground cover and bracken (*Pteridium aquilinum*) which makes up about

20%. Other species include oak (*Quercus robur*), hawthorn (*Crataegus monogyna*) and broom (*Cytisus scoparius*). The southern part of this area is shown on photographs 1 and 20. To the north-east of area 1 a narrower band of scrub, dominated by hawthorn, sycamore (*Acer pseudoplatanus*) and bramble, extends in a narrow strip parallel to the road.

B. This is a dense patch of bramble in front of a hawthorn hedge. It is shown in photograph 2.

C. The edge of the site here consists of a hedge of hawthorn, elder (*Sambucus nigra*), goat willow (*Salix caprea*) and oak. There is very little bramble, with no substantial patches extending onto the site.

D. A patch of *Calluna vulgaris* measuring 1.80m x 0.75 metres across and 0.265 metres tall. Shown on photograph 6.

E. A very scattered area of *Calluna*, with small plants growing in a grassy sward. Shown on photographs 7 and 8.

F. Open broom scrub with scattered silver birch (*Betula pendula*), hawthorn and oak. Shown on photographs 9 and 10.

G. A patch of *Calluna* 0.6 x 0.35 metres and 0.25 metres tall with several seedlings around this patch at the eastern end of area F. Shown on photograph 11.

H. An area of goat willow and silver birch. Underneath the silver birch there is one patch of *Erica cinerea* 0.35 metres x 0.20 metres and 0.06 metres tall.

I. Very scattered small plants of *Erica* in a very grassy sward. Shown in photograph 12.

J. Scattered small plants of *Erica* on the west-south-west facing slope. *Erica* becoming dense at the bottom of the slope. Shown on photographs 13, 14 and 15.

K. A very dense stand of broom, shown on photographs 13 and 14.

L. One patch of *Calluna*, 0.38 metres x 0.24 metres and 0.18 metres tall.

M. Scattered small plants of *Calluna* in a grassy sward.

N. Scattered *Calluna* on both sides of the small valley with 6 plants of *Erica* at the top of the slope. Also with scattered bramble, oak, hawthorn and Japanese knotweed (*Reynoutria japonica*). Shown on photographs 16, 17 and 18.

O. A dense patch of hawthorn surrounded by less dense broom and bramble with some grass. Shown on photograph 19.

P. On either side of the informal, unsurfaced path leading up from the gate are very scattered plants of *Erica* with slightly fewer plants of *Calluna*. Shown (distantly) on photograph 20.

R. An area with c75% cover of *Erica*. At the north-eastern end there is some hawthorn, bracken, bramble and broom. Shown on photograph 21.

S. A dense area of *Erica*, varying in cover from 30% at the south-eastern end to 90% at the north-western end. A few scattered plants of *Erica* to the north-west of the area shown. Shown on photograph 22.

T. 1 very small plant of *Calluna* at the bottom of the south-facing slope of the gully.

U. On the south-facing slope of the gully, below the rocky outcrop, are 3 clumps of *Calluna*. The largest measures 0.73 metres x 0.60 metres and 0.31 metres tall. 11 metres to the east of this clump there is a fourth clump on the same slope.

V. A small bowl in the south-facing slope of the gully. *Calluna*, is frequent on the flat bottom of the bowl and on the western (ie east-facing) slope of the area and less frequent on the eastern slope. There is 1 small oak tree here and 1 clump of *Erica*. Shown on photographs 25 and 26. A small informal path which can be seen on the right hand side of photograph 26 is the approximate eastern limit of *Calluna* in this area.

W. Opposite area V on the north-facing slope of the gully. 3 moderate-sized and 1 very small patches of *Calluna*.

X. On the south-facing slope of the gully *Calluna* is scattered and there are also 3 patches of *Calluna* and 1 patch of *Erica* at the top of the slope.

Y. On the north-facing slope of the gully *Calluna* is dense and forms approximately 75% of the vegetation. Photographs 27 and 28 show this area.

Z. Scattered *Calluna* on the south and east facing slopes of the gully where the slope bends around.

AA. A small gully containing dense *Calluna* with scattered plants of *Calluna* at the top of the gully. Shown on photographs 30 and 31.

BB. *Calluna* is scattered across this slope and is dense around the patch of bramble. Shown on photograph 33.

CC. Dense *Calluna* on the slope with bramble and other scrub species, including a young oak tree, at the area's eastern end. Shown on photograph 32.

DD. At the bottom of the slope of area BB and adjacent to area A, a patch of dense heath, consisting of *Calluna* and *Erica* in approximately equal quantities. Shown on photograph 34.

EE. Located directly above number 89 Troopers Hill Road, 2 clumps of *Calluna* and 1 clump of *Erica*. To the south-west of the area is a small plant of *Erica* on the edge of broom and bramble scrub. Shown on photograph 35.

Invertebrate Records

Incidental notes were made of any invertebrates recorded during the course of the survey. Several species of butterfly were seen, all of which have been recorded on the site in previous years. they included grayling, small heath and small copper. Three species of grasshopper were recorded - mottled (*Myreomattix maculatus*), meadow (*Chorthippus*

parallelus) and field (*Chorthippus brunneus*). Mottled grasshopper is uncommon in Bristol. It is abundant on Troopers Hill. Dark bush-cricket (*Pholidoptera griseocapta*) are present in areas of scrub.

MANAGEMENT PRIORITIES

On the whole trampling and the nutrient-poor nature of the soils appears to be maintaining the key habitats on the site - acidic grassland and heath. There are localised areas where management is required, especially where scrub is encroaching on patches of heath. It should be remembered, however, that scrub is of some value in itself, especially for invertebrates, and many areas of scrub are probably growing on soils which are too nutrient-rich to allow the re-establishment of any habitat of greater interest. The broom scrub is itself an unusual habitat in Bristol and should not be cleared without a very good reason.

Three areas are suggested as being priorities for scrub clearance:

Area F: Clearance of hawthorn and oak, which is growing over acidic grassland and some *Calluna*. Retain the broom and silver birch.

Area J: Clearance of bramble which is encroaching on a very rich area of *Erica* heathland.

Area CC: Clearance of bramble encroaching on *Calluna*.