

Appendix 1

Small Tumulus Field Management Work Plan



Small Tumulus Field Management Work Plan

1. Site description

1.1 Location

Small Tumulus Field is one of the Parliament Hill Fields and lies to the west of the Men's Pond. Its location is shown in Figure 1.

1.2 Geology, Soils, Hydrology

The field is flat at the high western end, but then slopes down to the main path by the Men's Pond. The lower half lies on London Clay, the upper part on Claygate Beds, a mixture of clay and sandier deposits. A wide area at the bottom of the path, which is regularly mown grassland and is not included in this management plan, is very damp, but the rest of the field is drier; cracks can open in the clay in dry seasons. However, there is a wet seep not far from the high south-west corner which causes damp ground locally.

1.3 Ecology

Habitats and flora

Figure 2 provides an over view of the habitats of Tumulus Field.

The rough grassland which comprises the bulk of the Field is dominated by quite a range of common grass species, including bents, red fescue, timothy, Yorkshire fog, meadow foxtail and false oat-grass. Of some interest is the small amount of sweet vernal-grass which, although common in the wider countryside in older fields, is not abundant on the Heath. Pignut grows near the edge of Hedge Three; unlike sweet vernal-grass, this is quite abundant on parts of the Heath but of more restricted distribution elsewhere; it is one of the characteristic species of Hampstead Heath. A third interesting plant in the Field is goat's-beard, which is uncommon on the Heath. There is also a small area of specie-rich grassland by a clump of bramble near the bottom of the Field. This relic of wild flowers sown following installation of a gas pipeline about 20 years ago includes cowslip, lady's bedstraw, ox-eye daisy and black knapweed.

The native wild flowers in the main grassland also include creeping thistle, ragwort and common hogweed. These are all valuable ecologically, but are invasive and can grow to large mono-specific clumps if not managed. A large and spreading area of common hogweed grows near the eastern corner of the Field, and is scattered and increasing elsewhere. The distribution of ragwort varies from year to year depending on the seasons and the amount of bare ground, but overall it too appears to be spreading. Creeping thistle occurs in patches, and is controlled to stop it spreading. There is a large patch of rosebay willowherb on the north side of the Field. This non-native plant is attractive, but can also be invasive, and the extent of the patch increased in recent years until half was cut in 2015.

Hedges Two and Three border Small Tumulus Field to the south and north respectively. Once true hedges, these are now belts of trees flanked by younger trees, shrubs and bramble. Management of the hedges themselves is not included here, but it does consider how to maintain and enhance the very important 'woodland edge' habitats which flank the hedges. A large area of bramble, scrub and trees of various ages in the south-west corner is well on the way to being woodland. There are also several isolated patches of bramble in the Field. The scrubby areas contain dog rose bushes, which stich up above the bramble and form song-posts for birds, especially whitethroat.

The Field also contains a group of trees, mostly pine, which gives the field its name as these resemble the group of trees on the Tumulus in the adjacent field. However, there is no mound beneath the trees here. The trees are of high landscape value but of relatively little ecological interest, and are not considered further here.

Fauna

The Field supports a good range of bird life, particularly species which nest, roost and feed in scrub. Whitethroat regularly breed in the areas of bramble near Hedge Two, and the woodland edge is also frequented by blackcap, chiffchaff, dunnock and the other birds which favour dense vegetation cover near the ground. This habitat, particularly that on the warm northern side of the field by Hedge Three, also attracts butterflies, bees and other invertebrates, and this is augmented by the nectar-rich flowers of the creeping thistle, hogweed and ragwort which grow in the field. However, the extensive patch of bramble at the north-west corner of the Field seems relatively little used by birds, possibly because it is too uniform in structure.

An uncommon spider, *Porrhomma campbellii*, was found near the wet seep in the late 1990s, when the area was more open and grassy,

1.4 Public and educational uses

Small Tumulus Field is well used by the public, being relatively close to the main entrance to the Heath at Parliament Hill. It provides an attractive vista from the main path running past the Highgate Ponds, and its buttercups, patches of bramble and scrubby edges make it feel pleasantly rural.

1.5 History

Small Tumulus Field was presumably grazed in the 18th and 19th century; the hedges were presumably traditionally managed to keep them stock proof at some period. But Hedges Two and Three appear as thin, gappy lines of trees in a photo of the late 1940s. This shows allotments to the north of the diagonal cross path and grassland to the south; there were playing fields on the flat top of the field, and at the bottom where there is now mown grass. Later on, the grass was regularly mown short when the Heath was under the control of the Greater London Council; this practice ceased in the mid or late 1980s.

A 1997 or 1998 air photo shows the Field as open and grassy; bramble or other scrub is beginning to increase in the south-west corner as well as lower down, near where there are now isolated patches of bramble. The 2013 air photo used in Figure 2 shows how this scrub had spread by then, and how the hedges have expanded naturally since the War.

Management over the past 10 years or so has concentrated, not always successfully, on controlling expansion of native but invasive species.

- The central triangle formed by the two diagonal paths has been mown annually to reduce the spread of creeping thistle, ragwort and hogweed.
- The dense hogweed patch near Hedge Two was mown monthly in 2013 and 2014, but this management was reduced to a couple of times in 2015 as the more frequent mowing was not found to be effective at preventing its increase. Hogweed is now cut shortly before it flowers. This treatment curtailed its spread in Pryors Field, but it is doubtful if it will here, where the soil is damper and more fertile. This remains a problem.
- Ragwort was pulled by corporate volunteers in 2013 and it was greatly reduced the following year. The reduction was unfortunately short-lived as no volunteers were available to repeat the pulling the following year.

- Patches of creeping thistle were topped or mown, reducing the density of this plant.
- In 2015 bramble, which was spreading into the grassland, was cut back in several areas.
- About half of the patch of rosebay willowherb was mown in 2015 with a view to restoring this area to grassland again.
- Detailed monitoring of the vegetation began in 2009, although was not carried out in 2015.

1.6 Natural and human-induced trends

The main trend is the increase in native invasive species. Common hogweed is increasing rapidly, a trend also seen elsewhere on the Heath and perhaps due to climate change. Ragwort may also increase substantially if summers become hotter and drier. Bramble and creeping thistle can, when necessary, be controlled by mowing, but this is ineffective for hogweed and ragwort, and these are likely to spread further and become denser colonies.

2. Evaluation

2.1 Natural landscape

Small Tumulus Field is perhaps the most important meadow for biodiversity in the Parliament Hill area. It includes good scrubby 'woodland edge' habitats, which are rather underdeveloped elsewhere on the Heath: scrub is an exceptionally important habitat, providing nectar, seeds, fruits, shelter and nest sites for invertebrates, birds and small mammals. Notably, whitethroat breed here most years. The scrub and the grassland provide for small mammals, and kestrels are regularly seen hunting over the Field. The grassland itself contains several significant plant species, including pignut.

2.2 Public and educational uses

The Field is very attractive, particularly in spring, and is seen by many of the Heath's visitors as they pass by on the main path up the Highgate chain of pond, or walk or jog through it. It is not particularly used for educational purposes.

2.3 History and built environment

It is interesting to see how the Field has changed in the past couple of centuries, including major changes in management in the 20th century, transforming it from pasture to allotments and back to a natural-seeming meadow. Apart from this, Small Tumulus Field is not of particular significance historically.

2.4 Vision

The vision for Small Tumulus Field is:

- To maintain approximately the current proportions of grassland and scrub/woodland edge habitat
- To maintain and improve the scrub and woodland edge habitat, for example by coppicing bramble, trees and shrubs on rotation and removing invading tree seedlings and suckers, as required to maintain a variety of structure
- To maintain the grassland through mowing, removing the arisings, as necessary to retain a grassy sward. Some areas will be cut annually, some on a longer rotation
- To allow some creeping thistle to flower and set seed but to prevent it spreading or becoming a monoculture

- To attempt control of other native and non-native invasive plants
- To monitor the area, especially invasive species

2.5 Relevance to achieving the 2007-2017 Hampstead Heath Management Plan

Overriding Objectives, Essential Actions and Aspirational Goals from Part I of the Hampstead Heath Management Plan which are particularly relevant to the management of Small Tumulus Field include:

- NL3 Manage the Heath's grasslands to enhance their nature conservation and aesthetic value
- NL4 Manage the Heath's woodlands and scrub to enhance their nature conservation value and improve their distinctiveness
- NL18 Consider providing a substantial, undisturbed area of scrub and bramble on the Heath.

The following policies from the Natural Landscape chapter of the Part II Management Plan for the Heath are particularly relevant to Small Tumulus Field:

- Policy 1 The Heath will be managed to maintain and preserve its unique wild and natural aspects and its ecology, and enable quiet enjoyment and appreciation of the natural world by visitors
- Policy 4 The existing areas of natural grassland will be managed to protect and enhance their nature conservation importance
- Policy 5 The City proposes to retain grassland cover at roughly its present area
- Policy 6 Grassland will not be allowed to revert to scrub or woodland
- Policy 20 Woodland edge habitat, i.e. a gradation from trees or shrubs to long grass, will be encouraged
- Policy 33 Woodland edge habitat will be maintained alongside hedgerows where possible. Management will normally entail rotational cutting or coppicing
- Policy 34 The spread of scrub will generally be limited and will be managed to prevent it becoming woodland
- Policy 50 Selected invasive and inappropriate species will be controlled.

3. Prescription and Work Programme

Figures 3 and 4 show the location of the actions listed in the tables below.

3.1 Regular management tasks

See figures 3 and 4

Objective	Prescription	Frequency	Month(s)	Years	Priority
Maintain grass sward	Cut approximately 1/3 of grassland, excluding central triangle, on three-yearly rotation (fig. 3)	annually	June/July	all	high
Maintain grass sward	Cut bramble spreading into wild flower area near bottom of Field, leaving central patch (fig. 4)	annually	September/October	all	high
Control ragwort, creeping thistle and hogweed	Mow most or all of large triangular area of grassland between paths before ragwort flowers, preferably leaving some unmown (fig. 3)	annually	June	all	high
Control creeping thistle	Cut most of thistle in large patch near Hedge 3 before it flowers, leaving some uncut for wildlife (fig. 3)	annually	June	all	medium
Control hogweed	Remove flowers from all hogweed plants outside areas to be cut and repeat when first re-flowering occurs	twice a year	May/June then again later	all	high
Improve and maintain edge habitats	Cut bays in bramble over 8 years and allow to regenerate. Leave perching posts where possible. Consider planting more dog rose to provide song posts. Recut every 10 years or as required (fig. 4).	As specified then about every 10 years	September (ground too wet later on)	2016, 2017, 2020, 2024 Then every 10 years	high
Improve and maintain edge habitats	Remove tree seedlings and saplings from in and along brambly edges as required (fig. 4)	1-4 years as required	October-February	2016/7 then as required	high
Improve and maintain edge habitats	Coppice selected lengths of woody edges of Field by Hedge 3 and repeat as required to maintain edge habitat (fig. 4)	1-10 years	October-February	2017 then every 5-10 years	medium
Improve and maintain edge habitats	Re-lay short but wide band of Hedge 3 to create better edge habitat (fig. 4)	every 7-10 years as required	October-February	2019 then as required	medium
Improve and maintain edge habitats	Coppice small oak near Hedge 2 (fig. 4)	every 7-10 years as required	October-February	2019 then as required	medium
Maintain variety of vegetation and vegetation structure	Consider cutting some sections of bramble in north-east corner of Field and allowing to re-grow, to create more structural variety (fig. 4)	Every 4 years	September	2016, 2020 etc.	medium

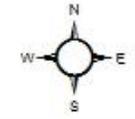
3.2 One-off tasks

Objective	Prescription	Frequency	Months	Years	Priority
Restore grassland	Mow area of rosebay willowherb cut in 2015 until restored to grassland (fig. 4)	annually	June	2016 then until eradicated	medium
Improve and maintain edge habitats	Remove 2 immature ash trees in south-west corner of Field to reduce shade; leave logs lying in bramble (fig. 4)	once	October-February	2016	high
Improve habitat for fauna	Plant teasel in open area in bramble near Hedge 2 (fig. 4) and elder bushes among bramble edges	once	Winter/spring	2016	medium

4.0 Review

To be filled in as time goes by.

Author	Date	Task	Observation, event or alteration to task



Small Tumulus Field Management Work Plan

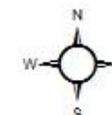
**Figure 1
Location**

-  Hampstead Heath Boundary
-  Small Tumulus Field

Created by:
Meg Game

Date Created:
12 May 2016





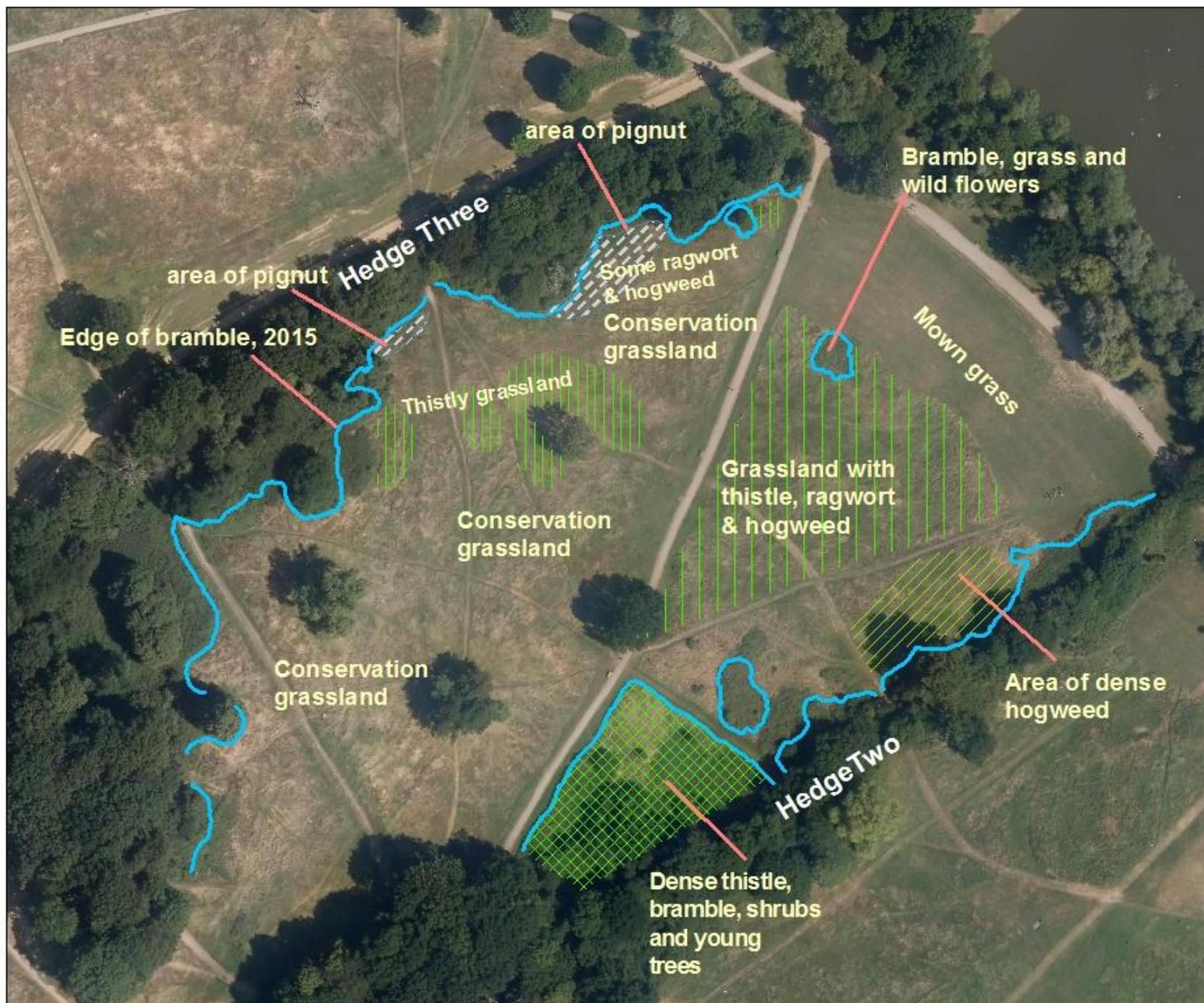
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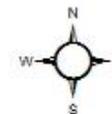
Figure 2
Main habitats

Edge of bramble and
scrub in January 2016

Created by
Meg Game

Date Created:
19 May 2016





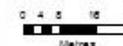
**Small Tumulus
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**Figure 3
Grasscutting
Regime**

**Numbers show year
of cutting,
in rotation**

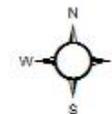
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12 May 2016



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Figure 4 Management of bramble and scrub



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Meg Game

Date Created:
19 May 2016

