Committee(s)	Dated:
Hampstead Heath Consultative Committee – For Information Hampstead Heath, Highgate Wood and Queen's Park Committee – For Information	9 March 2015 23 March 2015
Subject: Eleven years of plant monitoring on Hampstead Heath	**Public**
Report of: Superintendent of Hampstead Heath	**For Information**

Summary

This report summarises the results of a long-term programme of plant monitoring which started 11 years ago. The work was confined to selected areas and selected native species, the latter primarily those which, though valuable for wildlife, can spread to an unwanted degree.

A study of the Heath's finest wildflower meadow, the Sparrows Site, indicated that it is maintaining its diversity of species, and that the beneficial plant, yellow rattle, has increased in abundance. Monitoring of, tormentil, a desirable but uncommon plant which grows on another part of the Heath, showed that it has spread following management action.

On the down side, creeping thistle, ragwort, hogweed and bramble, all native but potentially invasive species, were found to be spreading on the Heath. There is no legal requirement to control any of these plants, and they are important for biodiversity, especially bramble and thistle, but intervention is necessary to prevent them spreading to cover large areas, impeding public access and reducing the area of grassland. An effective programme of bramble cutting is now in place, while management interventions to control the spread of creeping thistle, ragwort and hogweed has reduced, but not eliminated, unwanted populations. In addition, Himalayan bramble, a large invasive alien blackberry, now grows on the Heath, but it is too early to say if it will become a significant problem.

In the long term, it is possible that, in addition to existing management methods, limited use of herbicides may be required to help control some native invasive plants.

Recommendation

Members are asked to:

- Note the contents of this report.

Main Report

Background

1. The plant communities of Hampstead Heath are continually changing, due to a wide range of factors such as natural succession, past and current management, public pressure and weather. This report outlines the results of monitoring change in grassland over the past five to 11 years; with the aim of informing future management. Some of this work has been funded by the City Bridge Trust.

2. It is not possible to monitor the whole of the Heath in detail, so certain areas and species were chosen to study. Most of the selected species were native plants, which are important to maintain on the Heath, but which can be invasive. If not managed, they can come to dominate large areas of meadow, to the exclusion of other plants and the public. It must be stressed that while these plants are important for biodiversity, they should not be allowed to spread on the Heath at will. Non-native species, of which there are many on the Heath, were not studied in this project, with the exception of the Himalayan species of bramble.

3. The areas and species chosen were:

    - Small Tumulus Field, a complex area of grassland and scrub.
    - The Sparrows Site, a wildflower meadow sown in 2010.
    - A meadow on the Heath Extension which was sown with wild flowers over 20 years ago and where experimental management is being carried out.
    - Creeping thistle.
    - Common hogweed.
    - Bramble.
    - Soft rush.
    - Bracken.
    - Tormentil, an uncommon, non-invasive plant.

Current Position

4. Sown wild flower meadows tend to decline over the years, but so far the Sparrows Site is doing very well, and is still extremely attractive. It was found that the diversity of wild flowers there has been maintained over the five years since it was sown. The amount of yellow rattle has increased considerably; this uncommon plant was included in the seed mix, and is highly desirable as it is parasitic on grasses, so usefully reduces the dominance of grasses in the sward, allowing ‘wild flowers’ to flourish.

5. Creeping thistle, an invasive species which can take over wild flower meadows, has unfortunately also increased in prevalence on the Sparrows Site. It is important to try and contain this plant. The annual mowing helps to reduce it, and volunteers pulled some of it up on the site in 2014 (and it is hoped to repeat this in 2015), but it is possible that spot treatment with herbicides may be necessary in the long term.

6. An experiment in managing another area of grassland, also relatively rich in wild flowers, was established on the Heath Extension in 2011. This involved carrying out different cutting regimes. No significant changes in sward composition have so far been detected, but the experiment is long term in nature, and it is too early to draw conclusions.

7. Until the late 1980s most of the grassland on the Heath was kept short by frequent gang mowing, preventing the establishment of creeping thistle, ragwort, hogweed and bramble. These four native but invasive species are now common on the Heath. This indicates that close mowing can control these plants over the long term, but short grass is not the ethos of Heath management today.

8. Monitoring confirmed that creeping thistle, ragwort and hogweed are continuing to spread despite efforts to control them. The spread is probably mostly due to erosion caused by public pressure. Seedlings cannot usually establish in healthy dense swards, but overuse produces bare areas which are ideal for them.

9. Cutting just before flowering greatly reduces the density and spread of creeping thistle but, for example, five years of such mowing in the Small Tumulus Field has not eradicated it, although it has reduced its abundance. An experiment in monthly cutting, of formerly dense thistle on Parliament Hill, has recently been started but such management is undesirable on a wide scale.

10. Control of ragwort on Hampstead Heath is not legally required, however it would be preferable to eradicate it from the main meadows, so that the cut grass can be used for hay; ragwort is poisonous to stock. Pulling is the most effective way of getting rid of this plant on the Heath but lack of resources prevents this on a large scale.

11. Hogweed (not to be confused with giant hogweed) now seems to be spreading relatively quickly on the Heath, which may be a national trend. Mowing or cutting the flowers off reduces spread but does not eradicate a population, at least in the short term. It is too abundant to be dug out.

12. In the long term, limited use of herbicides may be required to supplement existing management techniques in order to eradicate particularly troublesome populations of creeping thistle, ragwort and hogweed.

13. Bramble has spread in open areas over the past few years, mainly through expansion of existing patches due to insufficient management. Bramble is relatively easy to control by repeated mowing over a couple of years, and a coordinated programme of management to reduce it in open land to recent levels is now in operation. Bramble is a vital habitat, and it will continue to be retained alongside hedges and woodlands. Established patches in meadows will also be retained, but recent expansion will be curbed and it will not be allowed to spread further into open land.

14. Himalayan bramble, a robust and invasive alien species, has started to establish on the Heath. It originated from cultivated blackberries and is a significant

problem abroad. Efforts are being made to eradicate any patches found, but it is too early to say if it will be pose a serious risk to the Heath in future.

15. Bracken and soft rush were not found to be problems in grassland.

16. Tormentil is a small plant which is characteristic of acid grassland and heathland, but which is now uncommon on the Heath. Recent management has aimed at increasing the extent of the main population, and this study showed that this has been successful, although more can be done.

Proposals

17. It is proposed that the programme of monitoring plants on the Heath continue. This is vital in order to assess the need for and success of management to maintain the natural aspect and biodiversity of the Heath and allow public enjoyment of and access to it.

Corporate & Strategic Implications

18. The work supports the City Together Strategy theme … *protects, promotes and enhances our environment*.

19. The Heath's Management Plan commits the Heath to survey and monitor selected flora, fauna and habitats.

Implications

20. The City has a legal duty under the Hampstead Heath Act 1871 to maintain the natural aspect of the Heath.

21. There is a reputational risk in not pro-actively managing the natural aspect of the Heath. Left unchecked the mosaic of diverse habitats for which the Heath is renowned would be lost to secondary woodland cover and scrub. Management is also required to maintain public access to, and enjoyment of the Heath. Knowledge of how the Heath is changing is required to manage the Heath effectively.

22. Funding for plant monitoring will be met for the Superintendent's Local Risk Budget.

Conclusions

23. Monitoring the populations of selected native plants on the Heath has provided information on changes in the vegetation and the impacts of management, which is useful in determining future action.

24. Desirable wild flower populations have been maintained or have expanded. However, the extents of certain invasive native species have in some cases increased undesirably. Management is in place to control unwanted expansions, but, while limiting spread, it was found that in some cases this has not been

totally effective. In the long term limited treatment with herbicides may be required in certain restricted situations.

25. Monitoring vegetation on the Heath should continue.

Appendices

- Appendix 1: Eleven years of plant monitoring on Hampstead Heath

Meg Game
Ecologist / Open Spaces Department

T: 020 7332 3304
E: meg.game@cityoflondon.gov.uk