

<b>Committee(s)</b>	<b>Dated:</b>
Hampstead Heath Consultative Committee Hampstead Heath, Highgate Wood and Queen's Park Committee	6 July 2015 20 July 2015
<b>Subject:</b> Reptiles on Hampstead Heath - an update	<b>Public</b>
<b>Report of:</b> Superintendent of Hampstead Heath	<b>For Information</b>

### Summary

This report updates the status of reptiles on Hampstead Heath since the London Essex and Hertfordshire Amphibian and Reptile Trust (LEHART) was commissioned to carry out a reptile survey in 2008/9.

The 2009 report revealed that a small, but widespread, population of grass snakes was present on Hampstead Heath. Some 50 snakes were recorded, with recommendations made to continue monitoring and to put in place certain management practices. These recommendations have subsequently been carried out, including the continuation of monitoring together with habitat improvement works, such as the creation of new ponds and the placement of vegetation piles.

Since 2011, 25 volunteers have been involved in reptile recording on Hampstead Heath, and a similar number trained in identification and monitoring techniques

It is believed that the grass snake population on Hampstead Heath has increased since the initial 2009 report.

### Recommendation

Members are asked to:

- Note the contents of this report.

### Main Report

#### Background

1. An Essential Action in Hampstead Heath's Management Plan Part I is to 'Manage the Heath to protect and enhance populations of plants and animals protected by law, identified as being Priority Species in national and local Biodiversity Action Plans, or identified in subsequent management planning as being worthy of protection.' All of the Heath's six native reptile species are listed as Priority Species in the United Kingdom Biodiversity Action Plan.

2. In 2008, the London Essex and Hertfordshire Amphibian and Reptile Trust (LEHART) was commissioned by the City of London to undertake a reptile survey. This had the aim of assessing the status of reptiles on the Heath, in order to advise on future management practices.
3. Prior to this survey, only occasional records of reptiles had been made, following the introduction of both grass snakes and slow worms in the 1980s. Grass snakes, slow worms and, indeed, sand lizards and common lizards were still present on the Heath in the early 20th century, and it is unknown when these populations died out.
4. The grass snake *Natrix natrix Helvetica* was the only species of reptile found in this survey, although the presence of slow worm *Anguis fragilis* was not ruled out, due to its cryptic nature.
5. The population of grass snakes was found to extend from Kenwood Nursery through the main chain of the Highgate Ponds and west towards the Viaduct. The main foci were found in the fenced areas that are subject to fewer disturbances than the rest of the Heath.
6. The population was estimated to be of low status, with only 20 different individuals being recorded by LEHART during the survey. The survey was supplemented by recordings made by City of London Corporation staff; although the survey year was spread across 2008 and 2009, with 50 sightings made in total.
7. The population was considered to be well structured, with an even mix of male and female grass snakes, as well as a varied age structure.
8. An average of two snake sightings was made on any one visit over the initial survey period, with a maximum number of sightings in a single visit of four.
9. Although no methodology exists to estimate the total number of reptile species in a given area, it was reasoned that the population of grass snakes had maintained itself and spread its range since their introduction in the 1980s.
10. This report provides information on the status of reptiles on Hampstead Heath since 2009.

### **Current Position**

11. Due to lack of monitoring resources in 2010, the year after the initial survey report, only eight sightings were made. Given this lack of monitoring, it was difficult to analyse the success of habitat improvement techniques and thus to guide future management.
12. In 2011, thanks to generous funding from the City Bridge Trust, the City of London Corporation was able to set up a monitoring scheme and train volunteers in identification and survey techniques. In this first year of monitoring, more than

150 snake records were made and twelve volunteers were trained in identification and monitoring techniques.

13. By the end of 2014, 450 grass snake sightings had been made by more than 25 volunteers, who walked 150 transect routes. 25 volunteers have attended training sessions on the identification and ecology of British reptiles (Figure 1).



**Figure 1: Reptile training session for volunteers in 2011.**

14. These records have allowed the City of London to build up an excellent database of core grass snake areas on the Heath. They have also been important in guiding habitat management works, and how these reptiles may best be protected in the future. This level of monitoring would not have been possible without the funding provided by the City Bridge Trust.
15. The core grass snake areas are still focused around the Kenwood Nursery/Orchard area, as well as in the vicinity of Athlone House through to the Bird Sanctuary. Although snakes have been seen in the South Meadow area of the Heath, no snakes have been recorded at the Viaduct since 2009. A map of the historical and recent grass snake records is shown in Figure 2 and Appendix 1. It should be noted that unreported sightings are likely, including the possibility of snakes using private gardens adjacent to the Heath as a refuge.

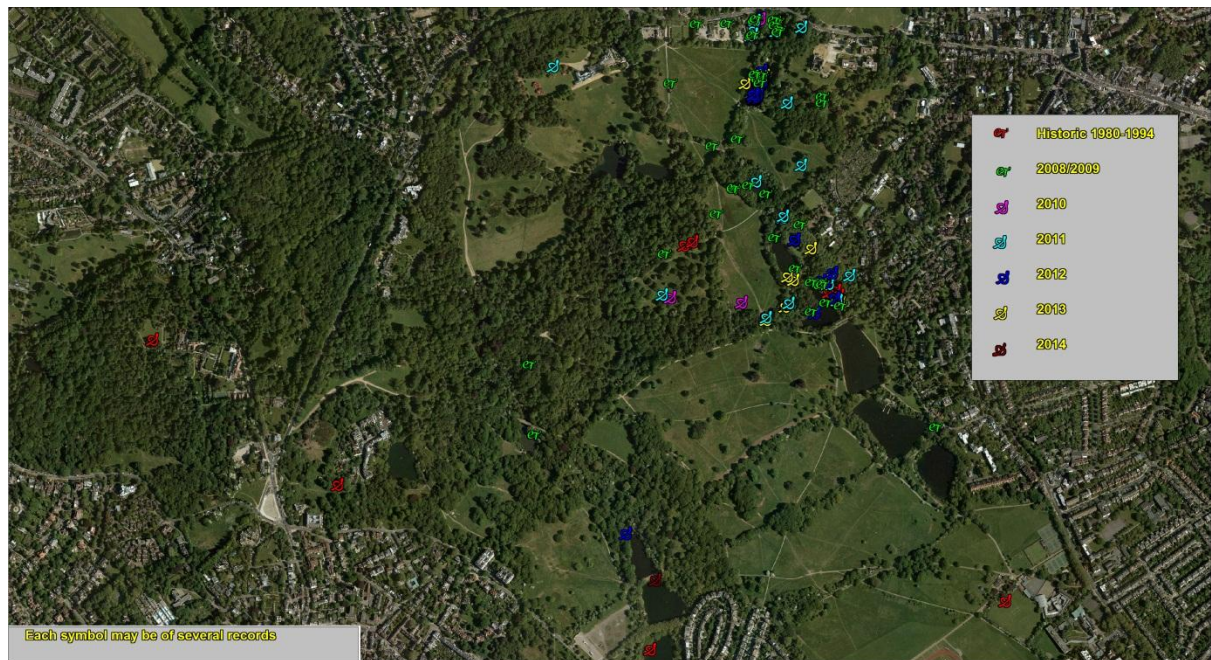


Figure 2: Map of historic and recent reptile sightings (see Appendix 1 for a full page map).

16. The main limiting factor preventing the spread of grass snakes across the Heath is public pressure, so they are still largely restricted to the fenced areas of the Heath. The spread of the population of grass snakes further south of the Bird Sanctuary is currently limited by the habitat in the ponds, with steep sided revetments, the large extent of open ground around the Boating Pond, and the lack of aquatic vegetation. Whilst Highgate No.1 Pond has a good extent of aquatic vegetation and undisturbed basking opportunities, there is little 'wildlife corridor' between it and the Bird Sanctuary.
17. Although disturbance is still likely to be high, it is hoped that the new marginal planting on the Boating and the Men's Ponds – part of the Ponds Project – may provide a safer corridor to spread the population further down the Highgate chain.
18. It is believed that the population of grass snakes has increased on Hampstead Heath since 2009. During the 2008 and 2009 survey, an average of two snakes were recorded per visit, with a maximum number of four seen on any one visit. In 2013 and 2014, averages of seven and four snakes were seen per visit respectively. In both 2013 and 2014, more than seven snakes were seen on any one visit on numerous occasions, with more than ten snakes seen several times during a single visit.
19. Although the figures appear to show a decline between 2013 and 2014, a number of the visits in 2014 were made in sub-optimal conditions, so few records were made on those occasions. Natural fluctuations can also occur in a population, indicating the importance of longer-term monitoring.
20. As part of the RSPB Wild About Hampstead Heath Project, the Ecology Team has led a number of 'snake walks' for family groups over the past three years (Figure 3), engaging with the next generation of snake surveyors.





**Figure 3: Guided walks for family groups from the local community in conjunction with the RSPB.**

21. A single record of a slow worm was made in the vicinity of the Ladies' Pond in 2013, possibly indicating that a small but localised population still exists in this location. Slow worms were still being recorded in the 1990s in and around the Ladies' Pond area, but the 2013 record is the only known one since then.
22. A dead adult Boa Constrictor from an unknown origin was discovered in the woodland to the eastern edge of the Ladies' Pond in 2013, (Figure 4). It would not have been able to live long in the UK climate if it had been released alive.



**Figure 4: Dead Boa Constrictor May 2013.**



23. Terrapins, a species not surveyed in the initial 2009 report, continue to be recorded across the Heath, with a number of new sightings already in 2015 (Figure 5). Whilst they are not currently able to breed in the UK climate, introductions from members of the public continue. About ten terrapins are thought to be present in Heath ponds, down from an estimated 30-40 in 2000. This reduction has partly been due to some harsher winters and partly to a trapping campaign from 2007-2010. Terrapins are currently rehomed in the Barbican Conservatory, where a special pond area has been constructed by the Gardening Team (Figure 6).



**Figure 5: Two new arrivals on the Boating pond May 2015.**



**Figure 6: Barbican Conservatory terrapin pond.**

24. A number of volunteers have been recording snakes for several years and are now able to carry out training of new volunteers. One such volunteer is now taking part in their fifth year of grass snake monitoring (2015) and is currently recruiting their own volunteer helpers, as well as passing on their knowledge and experience to others. The Heath Ecology Team has, in turn, learnt important information from volunteers about the grass snake populations on the Heath.
25. This initially City Bridge Trust-funded Project has resulted in a programme of citizen scientists, able to monitor grass snakes effectively unaided, thus providing future sustainability to the monitoring scheme.

## **Proposals**

26. It is proposed that the current programme of monitoring reptiles across Hampstead Heath is continued, with trained volunteers continuing to carry out the majority of this monitoring.

## **Corporate & Strategic Implications**

27. The work supports the City Together Strategy theme ... “protects, promotes and enhances our environment”.
28. It also links to the Open Spaces Department Plan through the Strategic Aim to “adopt sustainable working practices, promote the variety of life (biodiversity) and protect the Open Spaces for the enjoyment of future generations”, and the Improvement Objective to “ensure that measures to promote sustainability and biodiversity are embedded in the Department’s work”.
29. This monitoring also helps fulfil an Essential Action in the Part 1 Management Plan, namely:

*NL8 Manage the Heath to protect and enhance populations of plants and animals protected by law, identified as being Priority Species in national and local Biodiversity Action Plans, or identified in subsequent management planning as being worthy of protection.*

## **Implications**

30. The City has a legal duty under the Hampstead Heath Act 1871 to maintain the natural aspect of the Heath.
31. There are no financial or risk implications for this report. Any recommended actions carried out will be undertaken using the Superintendents Local Risk Budget.

## **Conclusion**

32. Hampstead Heath continues to maintain a population of grass snakes and is consequently likely to be the closest site to the centre of London with a significant breeding population of this species. It is believed that the population has increased over the past five years. Management practices that would enhance the breeding and feeding opportunities of this reptile should continue.

33. Monitoring of this species should continue and, where possible, include new transect routes.

## **Appendices**

- Appendix 1 - Map of the historical and recent grass snake records.

## **Background Papers**

- Reptile on the Heath Committee Report 2010.
- Reptile Survey of Hampstead Heath 2008-2009.

### **Adrian Brooker**

Ecologist, Open Spaces Department

T: 020 7332 3304

E: [adrian.brooker@cityoflondon.gov.uk](mailto:adrian.brooker@cityoflondon.gov.uk)