

Riparian Mammal Survey

Bleachcroft Way, Barnsley

Harron Homes Yorkshire

Report Reference: ER-4066-06

14/10/2021

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Summary Statement

Surveys have been able to conclude the likely absence of protected riparian mammals and further precautions in this respect will not be required.

Introduction

1. Brooks Ecological was commissioned by Harron Homes Yorkshire to undertake a detailed riparian mammal (water vole and otter) survey at the proposed development site at land off Bleachcroft Way, Barnsley (grid reference SE37390488).

2. The survey encompassed the area within the Site boundary as highlighted in Figure 1.

Figure 1 The Site boundary (red line). Survey extent (blue).



Legal Background

Water vole

3. In England, water voles are protected under Schedule 5 of the Wildlife and Countryside Act (1981), receiving full protection since 2008. This Act, together with amending legislation, lists the following as offences:

   - intentionally killing, taking or injuring water voles (Section 9(1));
   - possessing or controlling any live or dead water voles, or any part or derivative (Section 9(2));
   - intentionally or recklessly damaging or destroying a water vole's place of shelter or protection (Section 9(4)(a));
   - intentionally or recklessly disturbing a water vole whilst it is occupying a structure or place which it uses for shelter or protection (Section 9(4)(b));
   - intentionally or recklessly obstructing access to a water vole's place of shelter or protection (Section 9(4)(c));
   - selling, offering for sale, or possessing or transporting for the purposes of sale, any live or dead water vole, or any derivative, or advertising any of these for buying or selling (Section 9(5)).

4. It is generally agreed that a place of shelter or protection used by water vole includes a network of active burrows and/or any nests that have been constructed within the burrow system or above ground amongst dense vegetation.

5. Water voles occupy a variety of water's edge habitats but can also be found away from water in some regions of the UK. Their places of shelter are normally found within 2m of the water's edge and comprise a series of connected burrows with both above water and under water entrances.

Otter

6. Otters are afforded full protection under The Wildlife and Countryside Act (1981) plus amendments, and Conservation of Habitats and Species Regulations (2010). Under these Acts it is an offence, among others, to:

   - capture, kill, disturb, or injure otters (on purpose or by not taking enough care)
   - damage or destroy a breeding or resting place -an otter holt or couch- (deliberately or by not taking enough care)

- obstruct access to their resting or sheltering places (deliberately or by not taking enough care)
- possess, sell, control or transport live or dead otters, or parts of otters

7. Otters are territorial animals with ranges of up to 35km^2 depending upon habitat quality. They frequent a wide range of sheltering places, mostly close to water, and occupy them at varying times of the year.

Method

Water vole

8. Survey followed the methodology for field survey outlined in Dean and Strachan (2016).

9. Given that the suitability of any given habitat for water vole can change markedly over the course of the breeding season (affecting the distribution and apparent population size), two survey visits should ideally be undertaken: one in the first half of the season (mid-April to the end of June) and one in the second half of the season (July to September inclusive). These visits should be undertaken at least two months apart.

10. In this case, the potential for protected riparian mammals was scoped out at the PEA stage, but the survey commissioned at a later stage at the request of the LPA Conservation Officer. Survey was carried out on the 23rd September by an experienced surveyor

11. Survey was carried out from the banks and within the Dob Sike Channel of where safe to do so; with the surveyor attempting to locate evidence of water vole, including the following field signs:

    - Water vole latrines
    - Sightings of water vole
    - Water vole tunnel entrances
    - Water vole "lawns"
    - Water vole feeding stations
    - Water vole footprints

12. The presence of water vole droppings is the only field sign that can be used reliably on its own. Experience is required to distinguish between feeding remains, burrows, and footprints of water vole and other species. However, a combination of these field signs in close proximity to each other can be highly suggestive of water vole presence.

Otter

13. Whilst undertaking the water vole surveys, the surveyor was also vigilant to the field signs of otter activity, which can take the form of:

    - dung (spraints)
    - tracks (footprints)
    - feeding remains
    - otter slides (into water)
    - holts (underground dens)
    - couches (above ground sites where otters rest during the day)

14. Remote camera traps were also installed in strategic locations along the beck to look for evidence of otters or water vole. Camera traps were baited with apples and deployed for a period of 10 nights – from 23rd September until 4th October.

    To increase the detectability of riparian mammals, floating latrine sites were installed at regular intervals along the channel.

Limitations

15. Due to it overgrown nature and the presence close grown scrub and fallen trees some short sections of watercourse are impossible to access. However, the beck was shallow enough to walk the channel safely, and as such, a detailed inspection could still be made of most of its length.

Results

Habitat Assessment

16. Dob Sike is overgrown by dense scrub, and woodland, as such the ground flora is relatively sparse being limited to shade tolerant or adapted species such as brambles, broad buckler fern, ivy, herb bennet, nettles and Himalayan balsam, alongside a sparse and occasional covering of woodland grasses such as wood meadow grass and creeping soft grass. Suitable foraging for water vole is in very short supply here.
17. The channel was at very low flow during the surveys, but camera trap footage suggests it is very 'flashy' and rises quickly in response to rain. This cuts a relatively regular c.1m deep and 2m wide channel with a cobble and mud substrate and steep soil banks which are poorly vegetated - they provide sub-optimal conditions for burrowing.
18. The channel is partially blocked in places by trees and accumulated rubbish so retains deeper water in parts but is generally to shallow to provide good cover for water vole.
19. The channel is culverted under the railway upstream of the Site, and downstream enters another culvert under a retail park. As such it is poorly connected for riparian mammals

Figure 2a Typical channel section



Figure 2b Channel with baited mat for camera trapping



Figure 2c Downstream culvert and floating latrine sites to be deployed



Figure 2d Deeper section of channel



Results

Field Signs

Water vole

20. No evidence of water vole was found during the survey. Habitat is assessed as sub-optimal at best.

Otter

21. No evidence of otter was found during the survey. Habitat is assessed as sub-optimal at best.

Other species

22. Camera traps recorded brown rat, field mouse, weasel, and badger.

Conclusions & Recommendations

23. The likely absence of protected riparian mammals is concluded and further precautions in this respect are not recommended.

24. Investigations into the presence of badger and the location of their setts locally are ongoing.

Figure 3a Example brown rat footprints



Figure 3b Brown rat footprints - note tail strikes



Figure 3c&d Brown rats and field mice were recorded on both camera traps.





References

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