



31st January 2022

FAO: Lindsey Spinks

Re: Campaign to save Leather Lane trees

I have reviewed the campaign report and bat survey results relating to the habitat corridor at Leather Lane. Based on the information provided, it is evident that the mature oak trees and other vegetation along Leather Lane constitute an important and irreplaceable bat habitat feature used for commuting (as well as foraging and possibly roosting) by at least seven bat species including rare barbastelle bats. Any disruption or fragmentation of this corridor would not only result in the direct loss of valuable bat habitat but may also cut off access to other important habitats with significant adverse effects on local bat populations.

I understand that nine veteran oak trees have been felled along Leather Lane at the proposed location of the HS2 railway track, thus already resulting in fragmentation of this corridor. This is extremely worrying given that bats can be deterred by even small gaps (<5 m) in linear habitat features (Bennett & Zurcher 2013), which may result in the abandonment of commuting routes. It is also a concern that the trees were felled in mid-summer when bats are most active and are likely to have been using the corridor in high numbers. A sharp decline in bat activity has already been recorded at this location since the trees were felled.

I would strongly recommend that a substantial and appropriately designed green bridge is installed as a matter of urgency to re-establish this important habitat corridor over the proposed railway line. Based on the available evidence, a green bridge is likely to be the most effective method of mitigation (Berthinussen *et al.* 2021). However, design and placement are critical. The bridge would need to be wide (> 15 m), unlit, and planted with substantial mature vegetation to provide continuous connectivity with the remaining habitat corridor on either side. Although it will not be possible to directly replace the mature and well-established vegetation that has been removed, this is likely to be the best available option. Temporary mitigation structures may also be needed to maintain the bat flight route prior to and during construction.

Given the importance of this habitat corridor for bats (and other wildlife), any further disruption, including further felling of trees, should be avoided (as stipulated by the 'Mitigation Hierarchy'). This includes the current proposals for an overbridge, which would require a significant number of trees (almost half of those remaining) to be felled along the corridor resulting in even greater habitat loss and fragmentation. Alternative options that would preserve the bat corridor, such as re-routing the overbridge to the north of Leather Lane, should be given full consideration.

Yours sincerely,

Dr Anna Berthinussen



REFERENCES

Bennett, V. J. & Zurcher, A. A. (2013) When corridors collide: road-related disturbance in commuting bats. *Journal of Wildlife Management* 77, 93-101.

Berthinussen, A., Richardson O.C. and Altringham J.D. (2021) Bat Conservation: Global Evidence for the Effects of Interventions. *Conservation Evidence Series Synopses*. University of Cambridge, Cambridge, UK.

CREDENTIALS

Dr Anna Berthinussen has a first-class degree in Zoology and a PhD in Bat Ecology and Conservation. She received the Vincent Weir Scientific Award in 2014 from the Bat Conservation Trust for the significant contribution her work has made to bat conservation. Anna has been involved in bat research for over twelve years, leading several large-scale projects including the development of best practice bat survey methods for assessing the impact of linear infrastructure. Anna is now an ecological consultant working for various conservation organisations including Wildlife Trusts, National Parks, AONBs and the National Trust. Anna regularly develops or advises on bat monitoring plans and mitigation. Her work focuses on the use of evidence-based methods and she has been an author for Conservation Evidence at the University of Cambridge since 2014. Anna was also recently involved in advising the Berks, Bucks and Oxon Wildlife Trust on the likely impact of High Speed rail 2 proposals and associated mitigation on a colony of rare Bechstein's bats.