Natural England Research Information Note RIN012

Radio tracking study of Greater Horseshoe Bats at Dean Hall, Littledean, Cinderford

The study involves radio tracking of ten Greater Horseshoe bats for a short period in August 2007. The aim of the study was to gather information on the activity patterns of Greater Horseshoe bats using the maternity roost at Dean Hall Site of Special Scientific Interest. By establishing activity patterns, key local landscape features for the bats were identified.

What was done

Ten Greater Horseshoe bats were caught within the roost and fitted with radio transmitters. Before release they were weighed, sexed, measured and examined to ascertain breeding condition. Up to four fieldworkers then tracked the bats using Australis 26K and Sika receivers. Whip omni directional antennas were used to search for bats by vehicle. Accurate bearings of bat locations were taken from hand held sighting compasses. Duet bat detectors were used to confirm the presence of horseshoe bats by listening for their characteristic echolocation calls. Tracking continued over five nights.

For all detectable bats the following data was recorded: observer location, bat ID number, triangulation bearings were taken when possible, signal strength, apparent location or route and behaviour.

Results and conclusions

Six foraging areas, five night roosts and one new day roost were identified during the study. Another night roost that may be used by the Dean Hall bats was also identified by the presence of Greater Horseshoe bat droppings. One particularly important foraging area was identified in the Hinders Farm area. Broad flight corridors were identified. Bats were travelling up to 9 km a night and sometimes crossing (at unknown points) 2 or 3 busy roads as they foraged. However the report notes that this is only a snapshot of bat activity confined to one particular month.

Natural England's viewpoint

The methodology used was similar to that used in previous studies aimed at identifying flight corridors and foraging areas. However, funding only permitted radio tracking of a small number of bats for a very limited period. The study was therefore only able to give a snapshot of bat activity at the roost, but still managed to provide valuable information on foraging areas, night roosts and likely routes taken to reach foraging areas.

Selected References

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Further information

For the full details of the research covered by this information note see Natural England Research Report NERR012 *Radio tracking study of Greater Horseshoe Bats at Dean Hall, Littledean, Cinderford*.

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Greater Horseshoe bat(s), radio tracking, foraging areas, night roost, day roost, Dean Hall, Forest of Dean, commuting, flight corridors.

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