Ecological Survey of Building

Tidnor Mill
Lugwardine, Herefordshire

April 2010

Survey undertaken by Samantha Davies (Bsc Hons)
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Summary

A visual ecological inspection survey of a brick building known at Tidnor Mill, Tidnor Lane, Lugwardine, Herefordshire was undertaken on the 4th April 2010. The picture on the front cover of this report shows the building surveyed.

Bat droppings were not found in the building which indicates that the area is not regularly used by this species for roosting or feeding. Barn Owl pellets were not recorded in the building although evidence of past perching by this species was noted.

It is recommended that bat access gaps in the form of raised ridge tiles are installed when the building is restored. It is recommended that the building work does not start between May and September as this is the breeding season for bats and could potentially disturb a maternity roost.

Bird boxes on the eastern or western walls of the building will assist in the replacement of nesting bird habitat lost during conversion. Again, work should not start between May and August as this may disturb birds nesting in the building.

The provision of a Barn Owl box on the renovated building will enhance the roosting habitat available in this area.

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Methodology

Visual Inspection

The brick building at Tidnor Mill was checked for visual indicators of bats, owls and other wildlife present on the 4th April 2010. The picture on the front cover of this report shows the building surveyed.

All accessible surfaces including walls, beams, windowsills and floors were inspected for bat droppings. Occasional scattered droppings would indicate the area was irregularly visited; in comparison a pile of dropping would indicate a roosting or feeding area. A line of droppings under a ridge beam would indicate the beam was sheltering a roosting site or regular feeding area. The size, shape and composition of the droppings help in species identification as different bat species have varied dietary requirements.

The buildings were checked for the presence of white staining on the walls. White staining caused by bat urine is an indicator that the area directly above is used as a regular roost site by a number of bats, e.g. a maternity roost.

Gaps between adjoining beams, holes in brickwork, and spaces between wall layers and the roof, were inspected for the presence of roosting bats. A visual inspection for the presence of roosting bats hanging from beams or walls was also undertaken.

An inspection of the area surrounding the building was undertaken to gain a general understanding of the site lay out and likely bat roosting, and feeding locations. Checks for other protected species including Barn Owls, Great Crested Newts and Badgers were also undertaken and any indicators such as pellets, sightings or setts recorded.

Results

General Location Details

The building surveyed is of brick construction. Many of the internal walls are of a brick with the timber ceilings covered with plastered wattle and daub. The roof is protected from the weather by clay tiles and the lower floors are solid whilst the upper are constructed of wooden boards. The building is adjoined to other farmbuildings; it is located in the farmyard and close to the River Lugg, other outbuildings, a garden, and house. The buildings are situated in an isolated, rural location away from major roads.

Brick Building

The building at Tidnor Mill was in a mostly unused condition during the survey period; it appeared to be infrequently entered and the ground floor was being used for storage. The upper two floors were very unstable with rotten floorboards and holes in the floor; the surveyor was unable to walk on these areas. Sweeping of walls, floors and ceilings to remove evidence of bat and bird activity had not taken place; many cobwebs were present. The building had several ill-fitting doors, and windows; allowing potential access to bats and birds.

The unfelted, tiled roof was reasonably intact but several tiles were missing, again providing potential access to bats and birds.

The external walls were constructed from brick, with many cracks, and crevices; providing an ideal sheltering location for bats and nesting birds. Many holes were present in the exterior mortar of the building on the river facing side; the surveyor believes these to be the result of birds pecking the minerals from the mortar over many years.

Large sections of the internal wattle and daub plaster ceiling coverings were damaged; again, providing potential roosting areas for bats and birds. The timber frame roof construction of the building creates perches ideal for use by Barn Owls; white staining on the walls was evidence of the species perching in the building in the past but pellets were not recorded.

The upper floor of the building was unsafe to walk upon due to fragile timber boards, however the area was searched with the aid of steps.

Bat droppings were not recorded in the building.

Birds' nests were noted in the internal areas of the building.

Area surrounding the building

The area around the building, and yard were searched for indicators of protected species; none were found. The partially walled 'garden' attached to the building is separated from the River Lugg by a tall brick wall.

Other Species

No indicators of badgers, Great Crested Newts or other protected species were found in the building or surrounding areas.

Temperature during the survey

4th April 2010- 11°C- cloudy with a cold wind.

Interior of the building showing damaged ceilings.

Conclusions

The gaps in the building's internal walls and ceilings, missing roof tiles and ill-fitting windows and doors will allow potential access to roosting bats. Birds nests were present in the building.

The proximity of the buildings to pasture and old trees would assist bats as they move away from roosting areas after dark towards more fertile hunting territory. Insects which shelter in the grass and trees during the day will become active at night and provide ideal prey for the bats.

The surveyor believes bats are not roosting in the building as no droppings or indications of their presence were recorded. It is more likely any bats in the vicinity will be using the roofs of the adjacent dwellings as they provide a warmer, more sheltered environment.

The white staining on the interior upper walls was probably caused by Barn Owl's roosting in this location in the past. However, pellets indicating recent presence were not recorded.

The areas close to the building were searched for signs of other protected species but none were found.

Rear of the building facing the river

Recommendations and Mitigation

It is recommended that when the building is restored, four raised ridge tiles, or ventilation tiles are provided; these will allow bats to access the area between the slates and the felt. It is recommended that the building work does not start between May and September as this is the breeding season for bats and could potentially disturb a maternity roost.

Two bird boxes, on the east or west face of the building will help to mitigate against the loss of bird nesting habitat. Work should not start between May and August as this may disturb birds nesting in the vicinity.

The addition of a Barn Owl nesting box on the external wall of a gable end will create a location in which these birds may roost.

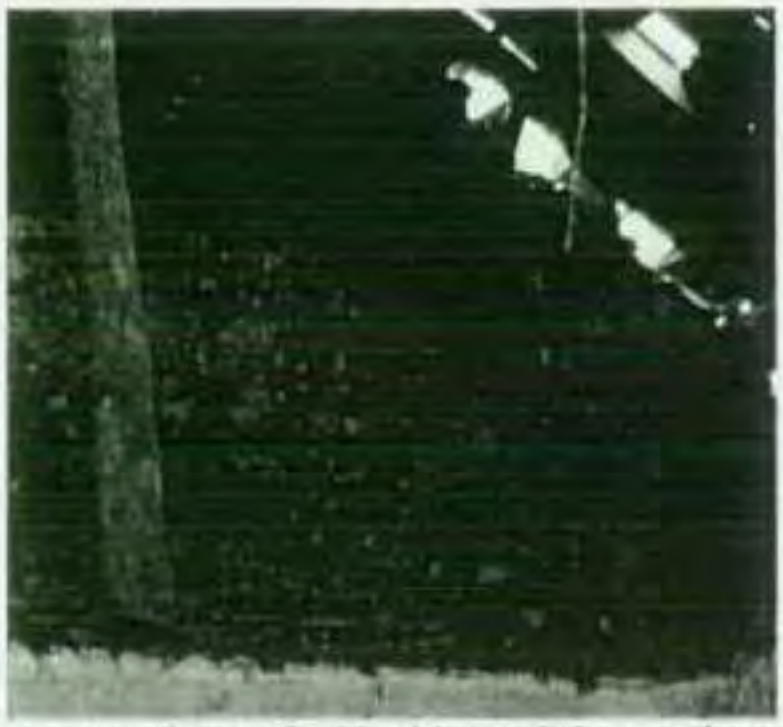
Security lights should be positioned so that they do not shine directly onto the roof or upper walls of the barn as this may deter bats and birds from roosting in the locality.

The discovery of protected species such as Bats, Barn Owls, Badgers or Great Crested Newts during building work on the site should cause works to stop, and be reported to the council's conservation department and Natural England to allow for extra mitigation and species protection to take place.

Bird's nest inside the building

Surveyor Details

Samantha Davies has a Natural England licence to visit bat roosts (No. 20092036) and disturb Barn Owl's (No.20093439), and is an experienced wildlife surveyor. She completed her Wildlife Management Degree in 2002 and has worked in the field of nature conservation since this time.



Damage to the roof and white staining on the wall