

Bat Boxes at Priory Country Park

Picking a suitable box

In 2008, as part of the Count Bat project the country park rangers were asked to assist in a bat box building exercise for a local lower school. Having little experience of building bat boxes the local bat group (Bedfordshire Bat Group) were asked to see whether they had a suitable design for children to make – they suggested the Kent bat box ('H' in the picture below).

We were informed that it was a new and untested design but would probably suit our needs. The fact it was not a proven design led the rangers to investigate other designs that were in use as well to see if they were suitable.

In the end we decided the Kent bat box looked great to build with children and appeared to have several advantages for putting in public places. To ease our worries about whether it would be used we decided to have 10, more traditional, Gwent bat boxes made for us and do a comparative study once they were in place.



© Daniel Fellman 2009

Benefits of the Kent box

- Simple construction – no angles to cut.
- You cannot remove a bat from it.
- The two channel construction also allows different species of bats to be accommodated.
- Birds cannot nest in the bat box.

Building the boxes

The Kent box kits were cut by the rangers and then assembled by a local lower school's eco club – children between 6 and 8 years old.

The assembly required the assistance of an adult, especially to get the screws tight enough to remove all gaps between the parts – the holes had been pre-drilled. The drilling of the holes also provided a slight problem as it meant all the kits had to be re-assembled as it had been drilled – which almost worked. We also had a slight issue with gaps by the roof where kit parts were not accurate enough or had not been positioned accurately.



© Bedfordshire Bat Group 2008

The next building session was done with another children's group of 8 to 12 year olds, but this time we drilled the holes during assembly, all other supervision was as before, this worked well. We adapted our instructions to fit everything up tight against the roof during assembly (the roof was fitted to the back as the first step) to avoid gaps when the box was complete. Additional boxes were assembled by the rangers.



We decided to make the channels for the bats at 20mm and 15mm wide. The 20mm channel width was chosen as it was also the thickness of the wood used, therefore simplifying the cutting. We found the accurate cutting of the channel rails was the most difficult part, given the fact we were using a hand saw and a workmate bench.

© Paul Wheatley 2008

In total 29 Kent boxes were built, of which 17 are installed and monitored in Priory Country Park.

Hanging the boxes

We now had a set of bat boxes ready to go, but had to decide where and how to hang them?

Where to hang them

We have only installed these boxes on trees at Priory Country Park.

We decided the boxes needed to be in accessible places to be monitored easily, as a fortnightly schedule was proposed, but suitably protected from the public for fear of vandalism. We specifically sited four boxes in full public view to be able to point these out on bat walks and use them for educational purposes.

The less suitable, draughtier, boxes that were made during the first children's building exercise were hung in the schools local area as a publicity exercise – the bat group felt the conditions in the area were not very favourable for bats.



© Daniel Fellman 2009

How to hang them

The hanging method was eventually chosen to be synthetic rope and nails, purely because of the materials we had to hand – the wire we had available was too stiff to bend around the box properly. We have also changed the position of the hanging screws from the front to the sides – make sure you put the screws into the solid wood, not the rails. We also removed the top stand-off (block on the back of the box) to allow a more stable fit against a tree – we suspect the two stand-off approach would work well on a wall.

To allow for easy monitoring the boxes were installed at a suitable working height for a two stage ladder. This allows most monitoring to be carried out from ground level – especially for the Kent boxes.

The Kent box in action

The comparative study set up at Priory Country Park involved the use of ten pairs of Kent / Gwent bat boxes mounted in similar positions. Not all box pairs can be mounted at the same angles to the sun so we have tried to keep a balance in the directional mounting of each type of box over the ten pairs to allow for any preference of mounting direction.

Monitoring

Monitoring is very important in scientific studies so it was considered from the outset. The Kent box is very easy to check with just a torch and the open ends of the channels allows photographs to be taken of the occupants. This latter point was not a consideration, but has helped prove to the wide world that the boxes do get used and can help in publicity of bat conservation.

Issues

The boxes at Priory Country Park have highlighted the need to look at vandalism. The woodpeckers have managed to put holes into the front channels of some of the Kent boxes. The boxes still remain usable as the rear channel is unaffected.

Thankfully the human population have left them alone, so far.



© Daniel Fellman 2009

The results

Well what can we say...

The results have been beyond anyone's expectation:

- Firstly the Kent boxes have been used, with the first occupancy being less than three months after installation.
- Ten different Kent bat boxes were occupied in 2009.
- One Gwent box was occupied on one occasion.
- Four Kent boxes were still occupied in early December.
- In total 57 bats were seen in Kent boxes.
- The maximum box occupation was five bats – two boxes on different dates.
- The maximum occupancy for the boxes correlates with the area in and around the conservation area.



© Daniel Fellman 2009

