

FRIENDS OF CITY GARDENS

Nest box cleaning report November 2016

1. Results

1.1 All the nest boxes in City gardens were cleaned 23-25 November 2016. In summary for the 2016 nesting season:

- 45 nest boxes were checked and cleaned in 19 gardens.
- 23 of the boxes had completed nests (51%), in comparison to 30% in the 2015 nesting season.
- There were in addition four partial nests that had not been completed.
- The majority of nests were those of Blue tits (65%) with the remainder Great tits. This is a reversal of 2015 when 66% of nests were attributed to Great tits.
- Of the 45 boxes, six were old-style wooden boxes. None of these had nests and all of them were replaced by woodcrete boxes in November 2016.
- No nests had been built in open-type 'robin' boxes.
- In 2016 there were 19 nests (82%) with either unhatched eggs or dead chicks. Although the odd dead chick or abandoned egg can be expected, this year, the frequency and the number of dead chicks was much higher. For example, at least eight very immature unfledged Blue tits were found in a nest from Fann Street and 12 Great tit eggs were found abandoned in a nest in St Paul's. This level of abandoned young or eggs was considerably more than in 2015 when there were only four such nests (25%). This year's level of abandonment may be a reflection of the below average temperatures and wetter than average conditions in April and May 2016, that may have reduced insect food sources.

1.2 Annual nest box cleaning is important not only for maintaining the health of birds but also, together with the annual spring bird count and summer breeding bird survey, provides evidence to evaluate the success of the City's biodiversity strategy. Given the numbers of abandoned eggs or young it is unlikely these boxes would have been reused, so cleaning is essential to maintain the number of potential nest sites.

Cleaning took 38 man-hours of City gardener time spread over 3 days plus 40 hours of volunteer time to take notes and photographs.



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1.3 In total six new boxes were installed, including boxes in three additional gardens - see Table 3. In addition, six nest boxes were replaced at existing sites. These were older style wooden boxes that had become rotten. All were replaced with Schwegler woodcrete boxes that are easier to install and clean and are more robust. There is also evidence to suggest that Great tits and Blue tits using woodcrete boxes have greater breeding success¹. The Schwegler boxes were a mixture of 26mm and 32mm apertures.

Table 1: Number of nest boxes and number of nests for 2016 season

	2016		2015		2014	
	No. boxes	No. nests	No. boxes	No. nests	No. boxes	No. nests
Barbican - Fann Street	3	2	2	1	4	1
Barbican - Speed	1	1	1	1	1	1
Barbican - St Giles	2	2	2	2	2	1
Barbican - Thomas More	7	3	7	1	7	2
Barbican - Upper Podium	Removed prior to nesting season		3	0	NA	NA
Bernard Morgan/Golden Lane	Removed Nov 2015		1	0	1	1
Bunhill Fields	7	2	6	2	5	1
Christchurch Greyfriars	Removed 2015		NA	NA	13	1
Cleary Garden	2	1	2	1	2	1
Finsbury Circus	2	2	2	1	1	0
Portsoken	1	0	NA	NA	NA	NA
Postman's Park	3	1	3	1	3	1
St Anne and St Agnes	1	1		NA	NA	NA
St Botolph without Bishopsgate	1	0	1	Not checked	1	Not checked
St Dunstan's in the East	5	2	6	0	3	1
St Olave's Silver Street	1	1	NA	NA	NA	NA
St Mary Aldermanbury	2	2	1	1	1	Not checked
St Mary Staining	1	1	NA	NA	NA	NA
St Michael Cornhill	1	0	NA	NA	NA	NA
St Paul's Cathedral	4	2	4	1	5	1
St Peter's Cornhill	1	0	NA	NA	NA	NA
Total	45	23	41	12	49	12
Occupancy of checked boxes (excl. Christchurch Greyfriars)	51%		30%		31%	

¹ <http://www.conservationevidence.com/individual-study/1131>

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Table 2: Species using boxes 2016

	Total nests	Great tit	Blue tit
Barbican - Fann Street	2	1	1
Barbican - St Giles terrace	2		2
Barbican - Thomas More	3	1	2
Barbican - Speed House	1		1
Bunhill Fields	2		2
Cleary Garden	1		1
Finsbury Circus	2		2
Postman's Park	1		1
St Anne and St Agnes	1		1
St Dunstan's in the East	2	2	
St Mary Aldermanbury	2	2	
St Mary Staining	1		1
St Olave's Silver St	1		1
St Paul's Cathedral	2	2	
Total	23	8	15
% of completed nests		35%	65%

2. Observations

2.1 Breeding success



Blue tit nest Fann Street made of moss, dried grass and feathers. One abandoned egg.

The occupancy level in 2016 was significantly higher than last year. It is always difficult to speculate on differences in breeding success based on levels of occupancy without additional observations of the birds using the boxes. There is evidence that the Schwegler type woodcrete boxes are drier and better insulated than the old wooden boxes and birds find them more attractive and achieve better breeding success. Only six of the 45 boxes in City gardens for the 2015 breeding season were of the old wooden type - so the replacement programme may explain improved occupancy levels and potentially greater breeding success.

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Alternatively, higher occupancy levels may be result of the poor weather during April and May 2015, which may have caused the higher than usual number of dead chicks and abandoned eggs. Birds seeking clean, unoccupied boxes for a second attempt at breeding may be the explanation for the higher occupancy levels, and this of course does not equate with higher overall breeding success.

2.2 Other species using nest boxes



This year as well as the usual number of spiders, earwigs, wasps and bees that we observed in nest boxes there were a number of False Widow spiders, probably *Steatoda nobilis*. Specimens were found in Bunhill Fields and Thomas More Garden.

We also found a dead adult Gypsy Moth, *Lymantria dispar*. These moths have been introduced to the UK in imported trees and are potentially very destructive to deciduous trees.

False widow spider from a nest box in at Bunhill Fields

3. New sites for nest boxes

Table 3: Sites where new boxes were installed 2016

Location	No. boxes	Type
Barbican - Speed garden	1	Schwegler 32mm
Bunhill Fields	1	Schwegler open front robin box
St Andrew Holborn	1	Schwegler 32mm
St Olave's Hart Street	1	Schwegler open front robin box
St Paul's	1	Schwegler 32mm
Smithfield Rotunda	1	Schwegler 32mm

Recommended sites for new boxes 2017

Gardens where new nest boxes could be installed are:

- Bunhill Fields - 5 boxes
- Petticoat Square - 3 boxes
- Church Entry - 1 box
- St Mary at Hill - 1 box
- Smithfield Rotunda - 2 boxes
- St Botolph's Bishopsgate - potential for sparrow terrace recycled from Christchurch Greyfriars

Total number of new boxes required in 2017: 12

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There are also six sparrow terraces that were removed from Christchurch Greyfriars that have not been relocated. These require fixing with a bolt to masonry or soffit boards. The issue of listed building or English Heritage consent for fixing to walls needs to be resolved as they would be ideal for the Barbican. Potentially one or two could be fixed to the Guildhall School of Music and Drama and this will be investigated.

4. Type of box and installation

Front opening woodcrete boxes are the easiest and quickest to clean. It is suggested that boxes with a variety of entry hole sizes are installed to attract different species:

- 25 mm for blue, coal tits
- 28 mm for great tits, tree sparrows
- 32 mm for house sparrows
- 45 mm for starlings

Tit and tree sparrow boxes should be installed approximately 3 metres above the ground on trees with a clear flight path to the nest box. House sparrow and starling boxes should be higher and positioned under eaves if possible. Potential sites would need to be individually identified.

5. Volunteer involvement

National Nest Box Week (14 - 21 February 2017) although a little late for early nesting birds in the City, could be used as a focus for activities such as engaging City businesses in funding new boxes.

6. Interpretation boards

Consideration should be given to placing interpretation boards in some City gardens showing the type of birds that nest and feed. In Bunhill a whiteboard could be placed in the window of the hut and daily sightings written up. The existing species sheets in notice boards for birds such as the Peregrine falcon should be updated.