

# Observations on breeding Lesser Spotted Woodpeckers at Swanpool, Lincoln, 2015-2016

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## Introduction

During 2015 and 2016 I was extremely privileged to be able to watch a successful breeding pair of Lesser Spotted Woodpeckers, *Dendrocopos minor* (hereafter LSW). I have been watching this area for 34 years and LSW used to breed regularly in the nearby Swanpool wood but have not done so for about 20 years. I conducted the observations with help and advice from Dr Ken Smith (KS). KS has made a personal study of woodpeckers for more than 30 years. Having retired from a research career in the RSPB in 2008 he realised that the methods he had developed for studying nesting woodpeckers could be used more widely to collect important conservation information on breeding LSW. One of the main hypotheses for the decline of these woodpeckers is poor breeding success. In 2015 KS started the LSW initiative (see [www.woodpecker-network.org.uk](http://www.woodpecker-network.org.uk)) to help bird watchers monitor nests and collect data on nest success that could be fed into the BTO nest record scheme.

## Methods and equipment

KS uses an endoscope to inspect nest holes. This is a miniature video camera with LED lighting that can be slipped into the nest cavity to take a look at the nest contents. The camera includes a Wi-Fi link so the images can be viewed from the ground on an iPad or iPhone, stored and viewed later. Telescopic poles, normally sold for window cleaning, allow the camera to reach high nests. Over the years KS has refined his nest camera system but currently uses something called a 'crevice cam' supplied by a small UK company called Wildlife Windows. The camera requires at least 2 people to operate it. One person holds the 9m pole & guides it into the nest hole and the second holds the iPad and tells the pole operator when the nest contents can be seen and when to start and end the recording.

Inspecting the nest with these cameras causes minimal disturbance and only takes a few minutes. The birds are soon back at the nest after the temporary disturbance and are often unaware that the nest has been checked. Having used them for more than 15 years on all three species of woodpecker they seem entirely safe.

## Observations in 2015

### Initial observations

My first sighting of 2015 was of a bird flying over my garden on the afternoon of Jan 29th, followed by a male on the south edge of Swanpool wood on Feb 2nd. Then on Feb 12th at about midday a male was drumming in a small copse of trees by the Catchwater drain. More extensive observations were made during March-June and are detailed below.

### March

2nd I heard the male calling from the same copse as on Feb 12th.

16th The male was again calling from the same area.

17th I found the male starting to excavate a nest hole in a dead horse chestnut tree on the edge of the copse. The hole was about 9m high and was facing SE. The male excavated this site for two days & then moved to a new site about 600mm higher on the same broken trunk where he continued to excavate.

23rd A female inspected the nest hole. The female was then seen calling from an adjacent tree and later she was seen looking out of the nest hole. As far as I could ascertain, the male did all of the excavation of the nest hole.

### April

all I had eleven sightings of the birds, mainly the male, to the 24th. All were made in the vicinity of the nest.

24th I observed the female looking out of the nest hole

### May

5th I observed a changeover at the nest.

- 8th There was a squirrel on the tree trunk near to the nest hole, but there was no significant interaction. The female was looking out of the hole and I noted two changeovers at the nest that day.
- 11th It appeared that the young had very recently hatched. I observed regular changeovers, as both birds were presumably brooding, and noted that both brought food in regularly. The pair flew off quite long distances to fetch food, clearly not finding it nearby. A Mistle Thrush, which was nesting in an adjacent tree, was often aggressive towards the woodpeckers when they flew in with food.
- 12th Regular feeding continued by both adults, who by now were not brooding all the time. At one point the male was seen feeding in dead elders just north of the nest site.
- 14th The weather was cold and brooding was taking place with changeover when food was brought in. Fortunately, the Mistle Thrushes had fledged by now. The following day brooding was intermittent.
- 17th KS visited the site with me and we used his endoscope to inspect the nest. We found that there were six young which were about seven days old. Both male and female carried on feeding the young regularly, bringing both grubs and fat, presumably from a feeder on the nearby housing estate.
- 23rd The adults were first seen feeding the young from outside the nest and only going in to remove faecal sacs; the young could be heard calling continually in the nest.
- 25th Eight visits were recorded in 23 minutes: five by the male and three by the female.
- 27th The young birds could sometimes be seen at the nest hole when being fed.
- 29th Regular feeding continued during pouring rain when the calls of young were heard to be louder and sounded much more like the adults; a pair of Treecreepers was found building a nest under peeling bark on the same tree.
- 31st The young were still calling loudly and two were seen poking their heads out of nest hole. The male was calling back to the young at one point, and I thought he might have been trying to entice them to leave the nest hole.

### *June*

- 1st Both parents were still feeding the young in the nest at 05:30, with the male calling to the young from an adjacent tree after feeding. Three young were then seen to leave the nest between 08:20 and 09:15, when I had to leave. On returning at 10:00 at least one young bird was still in nest, silent but occasionally showing the top of its head. At 12:30 there was no sign of any birds and all was silent and I presumed the whole brood had fledged.

After fledging there was no sign of any birds, adults or juveniles, until August 9th when a juvenile was seen looking out of the nest hole.

## **Observations in 2016**

### *Initial observations*

In 2016 the first sighting was of the male drumming on a tree adjacent to the nest site on Mar 15th, after which I had no further sightings until April. These and other observations during the 2016 breeding season are summarised below.

### *April*

- 6th I found a male LSW excavating a new hole in the same tree as in 2015. He continued with this the next day.
- 8th The male was seen cleaning out the old nest hole, which had not been opened up since last year; the female was also present.
- 11th The male flew onto the nest tree and went into last years nest hole; the female flew in & looked into the hole with the male still inside. The female then flew onto an adjacent tree, still calling, and then flew off leaving the male in the hole.
- 17th The male flew in, silently, at 08:30 & went into nest hole, and was still there when I left. At 10:10 the female was calling from an adjacent tree, but then flew off.
- 20th At 06:20 the female flew onto a tree adjacent to the nest, the male then came out of the hole and female went in.
- 21st At 06:30, exactly the same sequence of events as yesterday occurred. This was the last time the female was seen.
- 24th The male was drumming softly from an adjacent tree at 19:00.

## May

- all I continued to follow events keenly and the pertinent observations during May were as follows:
- 4th At 07:50 one bird, sex not determined, was drumming softly from an adjacent tree and then flew into nest hole.
- 5th At 09:40 the male was drumming from an adjacent tree and then flew into nest hole, and 20 minutes later had not emerged. At 20:00 on the same day the same happened but the sex of the bird entering the hole was not determined.
- 6th At 07.40, the same sequence of events occurred as on 5th. Then at 10:30 the male was calling from adjacent tree before flying off south, and at 12.25 he was again drumming nearby.
- 9th The male was drumming from an adjacent tree at 06:05. At 08:10 the male was observed looking out of the nest hole before flying off. Later, at 11:30 a bird was heard drumming close by, but was not seen and the sex thus not determined.
- 12th The male was observed looking out of the nest hole. At 10:45 I checked the nest with KS and we discovered that the male was incubating five or six eggs, KS left the camera equipment with me for future checking of the nest.
- 15th At 13:35 a bird was seen to fly from the nest site to an oak tree in middle of the nearby field.
- 17th The male was observed regularly taking food into nest and often staying in the nest for 15 to 20 minutes, presumably brooding. The food appeared to be unidentified grubs. The same pattern was followed on the 18th.
- 20th I checked the nest with the camera and saw that there were at least 3 young; all had their eyes still closed.
- 23rd The male was still feeding the young regularly, taking in grubs & fat.
- 27th I re-checked the nest and saw 3 half-grown young with their eyes open.



Lesser Spotted Woodpecker *Dendrocopos minor*, screen grab from nest monitoring software showing development of the chicks between May 20th and Jun 2nd 2016 © Andy Sims

## June

- 2nd I observed the male feeding but not always going into the nest. I again re-checked the nest with the camera and the three young were almost fully grown. There was one male, one female & one of indeterminate sex.
- 5th The three young fledged between 08:00 & 09:15, with the male seen and heard in adjacent trees. The nest was checked with the camera on the 6th and was completely empty & clean.

My observations confirmed that the female had left the area from Apr 21st, leaving the male on his own. The 2016 spring weather was poor, so he did well to rear three young on his own. No birds were seen after fledging.



Lesser Spotted Woodpecker *Dendrocopos minor* adult male at the Lincoln nest site on Mar 24th 2015 and image showing monitoring equipment in use © Andy Sims

## Discussion

LSW *Dendrocopos minor* have declined significantly in the UK since the early 1980s. Consequently it is a UK Biodiversity Action Plan priority species and was added to the UK Red List of birds of highest conservation concern in 2009<sup>1</sup> where it remains. Any observations of this species in the county are thus extremely valuable, especially those concerning a territorial and/or breeding pair. The observations of the Swanpool pair in 2015 and 2016 are in that category and are part of an ongoing UK-wide study of the species (K Smith, *pers. comm.*). One interesting feature of the Swanpool pair in both years was that the birds were bringing fat, presumably from garden feeders to the young in the nest; while Great Spotted Woodpeckers often do, LSW do not usually visit feeders. This behaviour was, though, also seen at a Hertfordshire nest in 2016.

These were two contrasting seasons for the Swanpool LSW. In 2015, the adult pair successfully reared at least four, possibly six, young. In 2016, the female disappeared after mating and was not seen in the area after Apr 21st. The male continued to incubate the eggs and reared three young on his own until they fledged. This is not a unique event though and a Swedish study in 2000<sup>2</sup> found that where the female deserted, the male compensated for the reduced feeding by the female; the males matched the combined rate of both sexes after the female ceased feeding. Furthermore, in both the UK and Scandinavian Lesser Spotted Woodpecker populations there is an imbalance of the sexes, with more males than females. It seems that desertion by females to pair with another male is not unusual and that as many as 10% of females are polyandrous. Polyandry is a class of mating system where one female mates with several males in a breeding season. Given the rarity of LSW's in Lincolnshire, it seems less likely that the Swanpool female disappeared to mate with another male, although this cannot be ruled out.

With regard to the breeding success of the Swanpool pair, it appears that they were above average despite the female's desertion in 2016. A UK study published in 2012 monitored nests in three regions of England (south Yorks, Hants/Wilts and Worcs) during 2007-2009, involving 27 nests in total<sup>3</sup>. It was found that only 16 out of 27 nests (59%) fledged one or more chicks and that the

commonest cause of nest failure was loss of one or more adults, resulting in chick starvation. In 2016 there were ten known nests and only two of these fledged young. The Swanpool pair has thus had two seasons of success compared to these findings.

It has been fascinating and rewarding to be able to study these birds in details, and I would encourage anyone who finds nesting LSW to get in touch with Ken Smith through the woodpecker network website ([www.woodpecker-network.org.uk](http://www.woodpecker-network.org.uk)).

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