

How many barn owls are there in Shropshire?

The work of the Shropshire Barn Owl Group

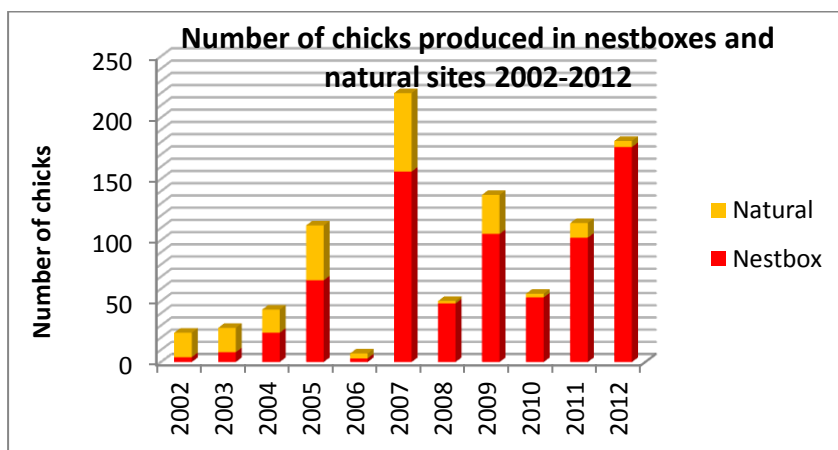
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How many barn owls are there in Shropshire? This is a question the Shropshire Barn Owl Group is often get asked. Another is, how are they doing? Conscious of the fact that these were the sort of questions that would be asked when we set up the group in 2002 one of our first tasks was to scrutinise the existing barn owl records and to come up with an estimate of breeding pairs - which was 121 to 140 pairs, a loss of 150 pairs since the first estimate in 1935 and roughly the same as in the 1992 Shropshire 'Atlas'. So, eleven years and over 300 nestboxes later how are barn owls faring?

Since 2002 our nestboxes have produced 741 barn owl chicks, natural nest sites 226. Nestboxes have been installed on trees or in internal sites on farms and other land that supports suitable barn owl hunting habitat – permanent, rough, tussocky grassland. Our policy of siting nestboxes only in areas of good barn owl hunting habitat has established new breeding pairs in hitherto unoccupied sites. This is a gradual and long-term process and the occupation of new nestboxes is often tentative. Our records show that the shortest time lapse for occupation of a nestbox by a breeding pair of barn owl is eight months. The average lapse time is 17 months. Nestboxes installed in 'Hot' sites, that is with barn owls known to be present in adjacent 1km grid squares, are occupied in 13 months on average compared to 25 months for 'Cold' sites (no known barn owls in adjacent grid squares). Roosting barn owls can be enticed to use nestboxes quicker than breeding pairs: for example, a pole box succeeded in attracting a roosting barn owl within 28 days and tree nestboxes have been occupied by roosting barn owls within 2 months.

By targeting nestboxes in good barn owl habitat and working in partnership with others we have been able to produce results quickly. Working on our Whixall project, for example, with Shropshire County Council Countryside Service and the Parish Environmental Action Project, SBOG identified areas of suitable habitat in the Whixall area and helped install 11 nestboxes in 2007. At that time we had no records of breeding barn owls in the designated area but three years and twenty-eight nestboxes later four pairs had produced 13 young.

2012 was a peak year for breeding barn owls in Shropshire and the second highest in terms of chick productivity since we began in 2002. See chart. Nestboxes produced 172 chicks and natural nest sites produced 5 chicks. Laying began early, around 12th April, and broods ranged from 2 to 6 chicks, mean 3.2, and were higher than the average brood size for all years combined of 3.0. Studies elsewhere suggest that a long-term average productivity of about 3.2 young per pair is required to maintain viable populations, so 2012's average of 3.2 chicks was precisely on target. Interestingly, eight pairs were double-brooded, usually on sites where we had two nestboxes closely sited to each other. It appeared that when the chicks reached ten weeks old or more the female laid a second clutch in the second nestbox while the male continued to provision the young in the original nestbox. Chicks were still present in a second brood nest site when monitored on 20th October.



The nestbox occupancy rate for breeding barn owls in Shropshire in 2012 was 28%, significantly above our average occupancy rate of 22% and the highest so far. The nestbox occupancy rate for both breeding and roosting barn owls combined was 41% and was also significantly higher than the average occupancy rate of 32%. The average yearly nestbox occupancy rate is greater for tree nestboxes, 34%, than building nestboxes, 30%, and pole nestboxes, 30%. Clearly, nestboxes in Shropshire are now playing a key part in the conservation of barn owls in Shropshire and new barn owl pairs are constantly becoming firmly established at nestbox sites.

A two-year cycle in breeding productivity is also increasingly evident, so much so that we can predict with a degree of confidence how productive the following breeding season is likely to be. This is fascinating but why the peaks and troughs in alternate years? We assume it is prey related, probably in synchronisation with the barn owls main prey in Shropshire – the field vole. And we know the main prey item is field vole because we have identified 1458 separate prey items from 522 pellets collected from 69 different sites. But why does the field vole population increase and decrease so markedly and what mechanisms control the barn owls response to this change in prey availability? A nice study surely for some research student.

So, can we answer the question ‘how are barn owls doing in Shropshire’? Quite well according to the above statistics and the signs within the farmed landscape are encouraging. When we started out, farms enrolled in agri-environment schemes and offering the required permanent rough grassland for barn owls as part of their farm conservation plans were few and far between. In recent years we have noticed a definite surge in grassy margins, either wide arable margins several metres in width or more recently, one metre wide margins following the lines of hedgerows. As they mature and attract field voles, and so long as we continue to provide nestboxes and there are no sudden adverse climatic conditions or unforeseen environmental problems detrimental to barn owls, we are optimistic that the breeding population in Shropshire can recover. And of course, money must remain available from the EC pot, which is not a given, for agri-environment schemes

The next year is going to be an interesting and exciting one for barn owl conservation in Shropshire. After six years of intensive fieldwork the Shropshire Ornithological Society will be publishing its Atlas of breeding and wintering birds. SBOG has provided extensive data on the distribution of breeding pairs of barn owl in Shropshire and their breeding productivity and in combination with contributions from atlas fieldworkers we will arguably have in 2014 the most definitive account of the status of the barn owl in Shropshire yet.

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