



PLEASE CAN YOU HELP?

The Barn Owl Conservation Network: an introduction

As most of you already know the BOCN was founded following the Barn Owl Survey of Britain and Ireland which I undertook between 1982 and 1985, the findings of which were published as a report, *The Barn Owl in the British Isles, its Past, Present and Future*. The main purpose of the BOCN project was to take forward the recommendations made in this report which were to develop a sound strategy for the future conservation, research and population monitoring of barn owls in the UK.

Through your support and dedicated actions the research and conservation goals that we set almost three decades ago have now largely been achieved. The habitat needs of barn owls and the potential effects of road mortality and rodenticides were investigated and published in the 1990's, a new national survey, *Project Barn Owl*, was subsequently undertaken and this was followed closely by the ten year *Barn Owl (nest) Monitoring Programme (BOMP)*. Most importantly, rough-grassland feeding grounds have been successfully re-established throughout much of Britain on which artificial nest sites have been installed. Through these efforts a nationwide matrix of habitat corridors has been established re-connecting the once isolated and fragile populations of this bird, farm to farm and county to county.

As a result of these initiatives and the dedicated conservation work and nest monitoring that you and others have undertaken since 1988, the breeding population in Britain can now be estimated at over 9,000 pairs. This figure at least doubles that recorded by the earlier barn owl surveys in 1985 and 1995 and for some local barn owl populations, densities as high as 5 pairs per square kilometer are currently being recorded.

Conservation success can be measured today by the fact that about three-quarters of breeding barn owls in Britain are now dependent on the nestboxes and owl towers that we, and those who have been guided by us, have installed. Recently this culminated in the barn owl climbing out of the *Species of Conservation Concern in the UK*, 'amber list' into the 'green list'. What better tribute to the dedication and hard work you have achieved since the BOCN and its conservation plan for the species began all those years ago.

Rodenticides

Concerns about the exposure of the second generation anticoagulant rodenticides (SGARs) to non-target wildlife and the environment generally which were first expressed for barn owls in the early 1980's, are now being considered once again. This is mainly because, during the last 30 years an increasing proportion of barn owls and other birds of prey submitted for *post mortem* examination have been shown to contain rodenticide residue in their tissues. Whilst there is little evidence that the levels of rodenticide found are causing any noticeable effects at the population level, indeed populations of most of these species have increased since the 1990's, there is a clear responsibility to maintain a safe environment on which barn owls and other wildlife can depend.

The new Rodenticide Stewardship Programme

The Health and Safety Executive (HSE) is the Government body which has regulatory authority for, amongst other things, ensuring the safe use of rodenticides and other chemicals in Britain. Directives by the European Union for member states to improve the way in which SGARs are marketed, distributed and used has recently resulted in the HSE imposing more stringent procedures for rodenticide use in the UK.

The barn owl is nominated by HSE as a sentinel species for monitoring the effectiveness of the UK rodenticide stewardship regime for reducing wildlife exposure to rodenticides. As a result the Campaign for Responsible Rodenticide Use (CRRU) was asked by Government to develop a Rodenticide Stewardship Programme and enact and monitor its effectiveness. This Programme aims to ensure the safe and more targeted use of these compounds against rats and mice whilst maintaining the essential need for protecting public health and foodstuffs.

In particular the Programme seeks to achieve future reduction in the levels of environmental contamination by SGARs which is believed to have been caused largely by the misuse, unnecessary use or poorly-targeted use of these rodenticides. This is to be achieved by helping to ensure that those who are engaged in the control of rats and mice receive informed guidance and formal training in the proper and more effective application of these chemical baits. In order to monitor the effectiveness of the Stewardship Programme, two complementary wildlife monitoring schemes, the Predatory Bird Monitoring Scheme (PBMS) and the Barn Owl Monitoring Scheme (BOMS) are being undertaken.

Predatory Bird Monitoring Scheme (PBMS)

The barn owl, because it is a specialist predator of small mammals, is a key species for investigating the potential effects of SGARs on non-target wildlife. In the early 1980's I was instrumental through my association with the then Nature Conservancy Council and Institute of Terrestrial Ecology of introducing rodenticide residue analysis into the Predatory Birds Monitoring Scheme (PBMS), now undertaken by the Centre of Ecology and Hydrology (CEH). The PBMS as a result of its long-term monitoring investigation has over the last two decades reported a steady increase in the proportion of predatory bird specimens found to contain detectable levels of SGAR residues in their livers.

Today the PBMS plays an important part in the Rodenticide Stewardship Programme and will, on an annual basis, continue to investigate rodenticide levels in those barn owls which have been found dead and sent to the Scheme by you and other members of the public. (Should you find a dead barn owl please continue to contact PBMS on 01524 595830 and request a packaging kit to enable you to post the carcass to them.)

Barn Owl Monitoring Scheme (BOMS)

In addition to the PBMS the BOCN was, in 2015, asked by CRRU to set up and develop a barn owl nest monitoring scheme in five key regions of England. The project known as the Barn Owl Monitoring Scheme or BOMS aims to measure and evaluate any significant changes which may occur in levels of barn owl nest occupancy and breeding performance over time. Like previous research studies the Scheme will take account of the short-term changes in these two parameters caused largely by the 3-4 year cycle of abundance in field voles, the main prey species for barn owls in mainland Britain. The annual results of BOMS are being reported to colleagues at Reading University for independent analysis.

How you can help

Whilst there is no evidence to suggest that rodenticides are currently affecting barn owls or their breeding population in the UK, it is more difficult to determine if any hidden sub-lethal effects are occurring as a result of these chemicals. Should this be the case any effects are most likely to be

identified by unusual behavioural characteristics displayed by the owls or by uncharacteristic growth patterns and/or physiological deformities in their eggs or young.

Those of you who monitor the nests of barn owls have a unique opportunity of observing any unusual characteristics in eggs, egg shells or development of chicks and adults, particularly in wing/feather growth. In the past I have photographed barn owls blind in one eye; with a leg, foot or talon missing and with deformed wings, characterized by abnormal primary feather development. However, most of these abnormalities can be explained by past injuries rather than as deformities during development.

During the next few seasons when, like me, you will be inspecting clutches of eggs or handling and ringing adults or chicks (under your Schedule 1 Disturbance Licence), could I please ask that you note anything you consider unusual. For example, some of you already send me photographs of the outstretched wings of adult barn owls so that I can help you age these birds. But please do extend your involvement in BOMS by sending me photographs of anything you might consider unusual in the eggs or owls that you encounter on your nest monitoring rounds. Message me on 07774 899344 or email at colinshawyer@aol.com.

Below are some examples of clutches, chicks or adults that I have found when inspecting nests. As I said deformity is very rarely seen in barn owls or their eggs but anything you find and consider unusual will be an important contribution to the Barn Owl Monitoring Scheme (BOMS) we, the BOCN, are undertaking.





Hope all goes well during the forthcoming season and please keep in touch.

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