My Favourite Bird

The Red-Backed Shrike – "Its Demise and Return in the UK"

The Red-Backed Shrike has the Latin name Lanius collurio with Lanius coming from the Greek for butcher and this species is known as the butcher bird due to its rather barbaric behaviour. It has a sharp hooked beak and can tear its prey apart and will also impale its prey onto anything sharp, usually thorns or even barbed wire. In this way it can store food as a larder for leaner times. Some biologists have suggested that this practice may have evolved from times when these birds fed on prey that contained toxins. The Loggerhead Shrike, its North American cousin, impales the toxic lubber grasshopper so that it dries out in the sun destroying toxic chemicals.

Where are we today with the Red-Backed Shrike? Bird Life International lists this species as of "least concern". It is found wide spread in mainland Europe and parts of western Asia. The situation in the UK is very much different. The population of this once common bird, in southern parts of England, crashed in the mid 20th Century, with the last breeding pair seen at Santon Downham, West Suffolk in 1988. Since then the Red-backed Shrike has been seen as a passing migrant usually on the east coast of mainland Britain. Many of these birds are juveniles perhaps blown of course during migration to Africa and turn up at places such as Spurn attracting twitchers and photographers. To guarantee seeing a grand looking male shrike with its bluish-grey head, black mask, chestnut back and thick hooked black bill then a trip to mainland Europe is required.

Juvenile Red-backed Shrike Spurn, October 2017

Red- backed Shrike (Male) Hungary, May 2018

In essence the UK had lost one of its most attractive and charismatic breeding birds and the thought of it ever returning to breed seemed like a long lost hope. Would we ever see these birds established and observe their behaviour of swooping down on to their prey or chasing after small birds or hear their characteristic call when alarmed? Then, it was announced in September 2010 that a pair had actually nested and raised young at a secret location on Dartmoor. Previously, the last recorded breeding on this moorland was at a site near Meldon Reservoir in 1970 but the birds were likely disturbed by work on the reservoir and never returned. The 2010 breeding pair was first spotted in May of that year and as there were some convicted egg collectors seen in the vicinity the nest was watched over 24/7 by the RSPB and the Devon Birdwatching and Protection Society. With their eggs trading for around £5000 the nest of the Red-backed Shrike is a tempting target for the egg collectors.

The sad fact was that after many hours that volunteers put in to guarding this nest, predation by Magpies put an end to this breeding success. Luckily, the pair bred again and successfully raised young. Further breeding success occurred on Dartmoor in 2011 with young fledged but in 2012 breeding failed possibly due to a very wet Summer. In 2013 there was another breeding success with 2 young reported as fledged and in 2015 a pair bred on Shetland and four young successfully fledged. Apart from these few breeding success there have been reports of single shrike in the UK singing to establish territory and seek a mate. In 2004 a singing male was observed in the BOG recording area in the plantation near to Thornton Moor reservoir. Prior to that the red back shrike was seen in our area on Barden Moor in 2003 and in the garden of the old school house, Norwood in 2001. Other isolated sightings of Red-backed Shrike have been reported in several areas across the UK over the years and reported on Birdguides.

The question is why did this species decline totally in Britain as a breeding bird and why has it returned to breed. A change in farming methods and loss of habitat is the rationale usually put forward for the decline but what is the evidence base to support any link here? A study carried out in the Republic of Moldova demonstrated a significant correlation between pairs of red-backed shrike with both the amount of arable land and orchards (V Aider and ES Baltag, Polish Journal Ecology 65(2)285-294 2017). According to Natural England and the National Trust orchards have declined in England by around 60% since the 1950's. In the case of arable land there has been a 45% reduction in farms since 1945 but a fourfold increase in crop yield due to changes in farming practices. Farms have become larger with a 50 % decrease in hedgerow stock and more mechanization. Autumn growing of crops has increased with far less winter stubble. This intensification of farming has had a profound effect on biodiversity. According to the British Ecological Society this reduction in habitat diversity was an important factor in the 1950s and 1960s, whereas reduction in habitat quality is more of an issue in recent times. On mainland Europe the Red-backed Shrike on farmland appears to prefer to nest in heterogeneous territories i.e. those with the presence of uncultivated areas and shrub patches (F Morelli, The Wilson Journal of Ornithology, 124(1):51-56 (2012)).

We know that many seed eating species of birds have been hit badly by these changes in farming practices but what about the shrike, a carnivore/insectivore species. A study on the diet of the shrike carried in Poland (P Tryjanowski, Belgian Journal of Zoology 133(2) 2003) showed that 97.7% of the diet was composed of Coleoptera (beetles), Hymenoptera (saw flies, wasps, bees and ants), Orthoptera (grasshoppers, locust, crickets). This changed on rainy days with 26.5% of the diet being vertebrates (small birds, mammals, reptiles and amphibians). A reduction in the food supply would cause a dramatic loss of any species and we know there has been a 75% decline in flying insect biomass over 27 years (CSA Hallmann et al., PLOS One Journal.
https://doi.org/10/1371/jornal.pone.0185809).

There are many factors that could possibly contribute to this decline in the insect population but the authors of this study indicated that two of the prime suspects i.e. landscape and climatic changes were unlikely explanatory factors. Agricultural intensification, including the disappearance of field margins and new crop protection measures have been associated with insect decline by other studies. Also, extensive monoculture crop farming and notably pesticide use are causative factors.

It is difficult to point the finger at any one particular factor that could have resulted in the loss of the Red-backed Shrike in the UK. A similar conclusion was drawn in a publication from the first International Shrike Symposium in Florida (The Auk 111(1):228-233, 1994 – Evaluation of the Global Decline in the True Shrikes). The author, Reuven Yosef, stated "The decline of the Red-backed Shrike is a good example of a scenario in which governing factors causing a drastic decline are not clear". A decrease in population of this species has also been noted at its western range boundary on mainland Europe. In the Basque country there has been a loss of 95% of breeding pairs over the last forty years (JL Telleria, Ardeola, 65(2):2018). This decline cannot be attributed to any specific factor particularly as two populations of shrike were involved in study areas with environmental differences. The author of this study concluded that "the decline of the Red-backed Shrike could be related to processes acting on this species at larger scales and a review of its conservation status is needed".

Keith Allen – Feb 2020