

OBJECTIVE

To protect or create habitats that help farmland bird species.

CONTEXT

The graph below, which is taken from the 2018 UK biodiversity indicators report, shows how over the last 5 decades numbers of farmland bird species have seen a marked decline. Farmland birds are species that have adapted to the agricultural landscape over a period of many centuries. The biodiversity indicators report measures the populations of 19 species of bird all associated with British Farmland. Some of these species have seen populations increase such as wood pigeon, goldfinch, greenfinch, chaffinch, jackdaw, whitethroat, rook and stock dove. Most though have seen worrying decreases to their populations. Species that have seen marked decline include Tree Sparrow (-94%), Corn Bunting (-90%), Turtle Dove (-89%), Yellow Wagtail (-73%), Starling (-68%), Linnet (-58%), Yellowhammer (-54%), Skylark (-51%), Kestrel (-35%) and Reed Bunting (-27%).

The decline began during 1970's and accelerated during the 1980's. The underlying reasons for the decline included rapid changes by farmers in land management practices. Field sizes were increased to maximise yield but at the cost of removing hedges and field borders. There has also been an increase in the use of pesticides which has removed an important food source for the birds. Increased use of herbicides also significantly decreases food sources and contributed to increasing levels of toxicity in the British Countryside. Changes to livestock management have seen a decrease in hay production and a corresponding increase in silage which needs a more liberal use of fertiliser on fields increasingly dominated by rye grass species which allow farmers to intensively graze fields with their livestock – this has seen a dramatic reduction in flowering meadow. Increasing use of field drains has also had a detrimental effect removing plant species which were sources of seed. During recent decades populations of farmland bird predators have also increased – most notably fox, sparrowhawk, buzzard and crow. Migratory species have also struggled with a loss of seed sources on their migratory routes – mainly to



north Africa. Populations of the birds have started to stabilise more recently but clearly habitat creation and changes in land management are required to reverse the current trend.



Tree

Sparrow



SOLUTIONS

Restored Quarries have become important resources for conservation organisations. All operational quarries are now restored with many becoming SSSi or local nature reserves when operations finish. Working quarries can also be important for many species as the sites are not



intensively managed, grassland can easily be converted to flowering meadow or scrub and hedge can be planted or allowed to grow from succession. These areas contain the characteristic plant and invertebrate species farmland birds need for foraging. Cemex working jointly with the RSPB have produced nearly 30 Biodiversity Action Plans at working quarries. Where appropriate the plans include actions specifically designed to help preserve or increase numbers of farmland bird species. Projects run jointly with the RSPB have seen several sites working to protect the turtle dove and nearly all Cemex quarries have installed Kestrel boxes. The pictures below show some of the habitats preserved or created during restoration of quarries. Managing grassland as meadow helps replicate similar areas of the countryside which have now been lost. Hedges can be managed so cutting is not as severe or sections can be left for several years so birds are not continually disturbed. Field margins have also been planted in fields beside quarries. The quarries can also leave seed on the ground near nesting sites at critical times during the year ensuring the birds get enough food i.e. when rearing fledglings or in winter when snow is on the ground.

Annual grass cutting in the autumn preserves flowering meadow at Cragmill Quarry, Northumberland. The farmland birds still have access to the surrounding fields and thrive in the undisturbed habitat found on site. Most notably the Yellowhammer with large numbers recorded at the quarry. The meadow also supports large numbers of wildflower and invertebrate (including the endangered Wall butterfly) species.

Restored grassland and scrub beside arable fields at Hyndford Quarry in Lanarkshire have replaced habitat lost to farming. The grassland is rich in wildflowers, invertebrates and grass seed and also supports rarer butterfly species including the Scotch and Northern Argus. Farmland birds spotted breeding on site during the previous 12 months include Linnet, Yellowhammer, Skylark, Meadow Pipit and Tree Sparrow. Bird numbers were good and demonstrate how important restored quarries are for Farmland Birds.



OUTCOMES

During early 2018 annual reports were produced for 16 quarries operated by Cemex in the UK and these show 24 species of red listed birds and many more amber listed bird species present at the quarries. These figures are very encouraging. A key determinant to success is if the bird species are nesting and rearing their young at quarries. Reports clearly show this to be the case. Success was noted at Collessie in Fife and Cambusmore nr Callander where healthy populations of Reed Bunting are using reed beds beside retained hedges and restored grassland. Yellowhammers have been recorded at numerous sites with large populations noted at Cragmill Quarry in Northumberland and Loanleven Quarry near Perth. Skylarks and Kestrel were spotted at most quarries – some sites supporting significant breeding numbers – over 50 breeding pairs of skylarks were noted at Roan Edge in Cumbria and the nearby quarry at Shap had 5 breeding pairs of Kestrel. Linnet have been identified as successfully breeding at several sites. Most encouraging is the presence of nesting Tree Sparrows at Gartshore nr Cumbernauld, Shap in Cumbria and Hyndford South Lanarkshire. More needs to be done but it is encouraging that progress is being made creating habitats which protect these species after seeing such a marked decline to their populations. Clearing, replacing flowering meadow, scrub and hedge close to farmland on restored areas of quarries helps protect and preserve farmland birds.

Skylark – a common site at quarries, especially in the Summer when you'll also hear their characteristic birdsong

PARTNER

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