Farmland birds in 2011

GAVIN SIRIWARDENA looks at how agri-environment schemes have evolved as we learn more about their effectiveness and discusses whether they are supporting any recovery in farmland bird populations.

Widespread declines in farmland birds were first formally identified by the BTO's Common Birds Census (CBC) analyses in the 1990s, prompting widespread concern and stimulating research into possible causes. Much of the research, often funded by Government and Natural England, used analyses of CBC, ring-recovery and Nest Record Scheme data, as well as dedicated field studies by the BTO and other scientists. The results led to a policy commitment to reverse the declines in England, using the European Union's agri-environment schemes (AESs) as a management tool. Such schemes were also adopted elsewhere in the UK and more widely across Europe, as the Common Agricultural Policy (CAP) budgets subsidizing farmers were redirected towards protecting the environment..

It is now six years since the inception of Environmental Stewardship (ES), England's 'second generation' agri-environment scheme. Although the formal target to reverse the declines was abolished by the present Government, the commitment to agri-environment funding remains. Within Europe, the CAP, which funds such schemes, faces renewal in 2013, at a time of growing, competing demands for land and agricultural production. Agri-environment policy in Europe is, therefore, at a crossroads. Sound evidence for the efficacy (or otherwise) of AES provision, coupled with the need to provide value for taxpayers' money, is more important for policy now than ever before. Across Europe, policy-makers will ask whether farmland biodiversity conservation is worth the expense. There is also the question of whether AESs are the best approach to delivering biodiversity conservation.

So, what progress has been made in terms of reversing farmland bird declines through AESs? The short answer, revealed from the long-term trends shown on the BTO website, is 'not much'. The populations of most quintessential farmland birds, such as Grey Partridge, Yellowhammer and Skylark are declining more slowly than in previous decades but are, nonetheless, still going down. This suggests that the policy has, to date, not worked, begging the question 'why not?'. The design of ES management options are based on scientific evidence, some from BTO research, aiming to cover declining species' requirements, but there are four possible problems: management quality (is it right for birds?), quantity (is there enough?), delivery (are farmers doing it right?) and time (has it had time to work?). Each one probably plays a part.

▲ Research has shown that the critical time for many farmland birds, such as Yellowhammer, is in late winter, when food supplies are low. Agri-environment scheme options, however, are often failing to provide foraging opportunities during this crucial period.

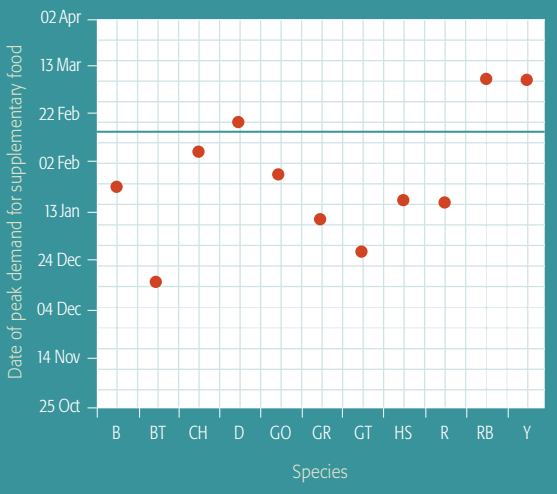
ES uptake has been extremely good – over 60% of the lowland cropped area in England is now in the scheme – but farmers understandably choose scheme options that fit most easily into their farming systems and these are generally less valuable for birds. A BTO research project found little evidence for national bird population responses to ES when considering either specific option-effects on particular species' BBS counts or effects of all AES management present. This followed only three years of ES, but bird responses did not even tend to be in the right direction. So, even where the 'right' options were in place, the benefits to birds were small, raising questions over management quality and delivery.

Some options have sometimes suffered from failures in delivery methods, with some farmers placing fallow plots for Lapwings too close to woods or choosing fields with the lowest weed loads to leave as unsprayed stubble over winter. Then there is option quality, one example of which is critical for farmland seed-eaters that are limited by winter food availability: stubble and wild bird seed crop options typically fail to provide any food during a 'hungry gap' in late winter, which is probably a major bottleneck for bird populations. BTO landscape-scale feeding

Farmland birds: dates of peak demand for supplementary food

Revealed by counts and bird-use indices for eleven farmland birds. Species are denoted as follows: B: Blackbird BT: Blue Tit CH: Chaffinch D: Dunnock GO: Goldfinch GR: Greenfinch GT: Great Tit HS: House Sparrow R: Robin RB: Reed Bunting Y: Yellowhammer.

The line showing 14th February indicates the date on which stubbles under ELS option EF6 can be ploughed.



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experiments prove that positive population-level effects on species like Yellowhammer can be achieved – the key is to feed birds effectively through the whole winter.

In 2010, with the date for CAP re-negotiation approaching rapidly, Natural England funded a re-analysis of BBS data using new, more sensitive methods to measure the effects of five years of ES. The results are still being finalized for publication, but they show a more positive picture: where they occur, winter seed options improve population trends, but not enough to turn declines into increases. This suggests that improvements in option quality and quantity are required, but that the management is working. We also know that ES protects valuable, existing habitats.

Further good news is that Natural England have acted upon previous results: from 2010, Entry-Level ES has been enhanced by including an option to deal with the hungry gap and by improving scheme organization to promote management with positive biodiversity effects. Advice to farmers to guide option choices and to aid management delivery has also been improved and increased. This gives us hope for the future, but is not a panacea. AESs remain the most viable approach to enhance farmland nationally and to reverse bird declines, but monitoring and research feeding back into scheme design are essential if improvements are to continue. This is an important message that is understood well in England now, but less so in some other countries.

In CAP reform, public spending constraints and pressure for more, cheap food may force society to decide between landscape improvements, through AESs, and protecting only 'farmland reserves', while most of the landscape focuses on production with no consideration for wildlife. If the latter option is chosen, and there is no consideration for wildlife in the most farmed landscapes, our countryside and experience of wildlife will change.

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FIND OUT MORE

Davey et al. (2010). Assessing the impact of Environmental Stewardship on lowland farmland birds in England. Aspects of Applied Biology 100: 51–58. DOI: 10.1111/j.1474-919X.2009.01001.

Facts & Figures

€50 billion

This is the approximate budget of the Common Agricultural Policy (CAP) in 2006. The CAP is a system of EU agricultural subsidies and programmes available to farmers. It represents some 48% of the EU's budget, however, by 2013 the share of traditional CAP spending is projected to decrease significantly to 32%.

90%

The uptake of Environmental Stewardship across England has been extremely good, with about 60% of lowland cropped land now being in the scheme, which is a vastly higher uptake than for previous agri-environment schemes. Some 90% of farmland-dominated BBS squares contain some land in ELS.

29%

One of the aims of agri-environment schemes is to reverse the declines seen in farmland birds. Despite AESs, however, Corn Buntings have continued to decline. BBS figures show a continued decline of 29% since 1995, following the 80% decline between 1971 and 1995.