

Farmland Landscape Introduction

A Landscape Perspective...

Farming has been taking place in the UK for thousands of years, changing the natural landscape and creating a predominately man made environment. Farmland dominates our landscape, with agricultural land accounting for approximately 75% of UK land use cover. Many species of birds, mammals and invertebrates have taken advantage of this change in landscape and certain types of farming can be particularly beneficial to biodiversity, especially traditional low intensity farming and what is known as 'High Nature Value' farmland.

Whilst farmland is not a habitat in itself within the UK Biodiversity Action Plan, it supports a mosaic of habitats which can be of high biodiversity value. The importance of farmland to biodiversity is recognised at a national level. The 2020 Challenge for Scotland's Biodiversity identifies key steps to improve farmland for biodiversityⁱ. The growing concept of 'High Nature Value' recognises that the conservation of biodiversity in Europe depends on the continuation of low intensity farming systems

Why are they important?

Farmland provides a diverse range of habitats and supports a wide range of species. Given the extent of farmland, it can be of huge importance to wildlife as this habitat can potentially allow wildlife to move through the landscape. Features associated with farmland such as hedgerows, woodland shelter belts and field margins provide suitable habitat for foraging, sheltering and breeding. If managed appropriately, they can support a large variety of species such as Barn owl, Brown hare and Grey partridge. Wildflower rich hay meadows can be particularly important for wildlife. By supporting grass and flower species such as Meadow foxtail, Lady's bedstraw and Meadow buttercup, meadows can support a rich invertebrate assemblage and be an important food source for a variety of bird species. One such hay meadow is found at Brownsburn Local Nature Reserve, and is managed to optimise wildflower diversity. Annual, late summer cutting produces wildflower meadows that attract a variety of butterfly species such as Peacock butterfly and Orange-tip butterfly.

Farmland is not only beneficial to wildlife. As well as producing food, they have rich cultural value and play an integral role in rural economies. Agricultural landscapes provide public benefits for recreation, improving health and well being and have an important aesthetic value. Scottish farming plays a major part in sustaining rural community networks, as employer, consumer and producer. Farmland provides us with many ecosystem services. Ecosystem services can be described as the benefits society receives from the natural environment. From a farmland perspective, these ecosystem services include soil, water and air quality. For example, farmland can help with water

regulation through increased filtration which can reduce the risk of runoff and flooding and help recharge groundwater suppliesⁱⁱ

Farmlands Habitats Under Threat...

Since the latter part of the 20th Century, modern, intensive farming methods have led to a decline in farmland biodiversity. With a growing human population, there will be an ever increasing demand for food production. This will lead to further pressures on farmland habitat and the ecosystem services that they provide.

Biodiversity is heavily influenced by land use and land management techniques. As traditional methods of farming have declined and agricultural intensification has taken hold, there has been a rapid decline in the wildlife that is associated with our farmed environment. Hedge laying, rotational and diverse cropping, seasonal grazing and leaving winter stubble and field margins are just some of the farming methods that have become less common in recent years, despite having many benefits for wildlife, the environment and food production.

Between the period 1970 – 2013, species highly dependant on farmland habitat in the UK (including Tree sparrow, Corn bunting and Grey partridge) have declined by 70%ⁱⁱⁱ. This trend continues with the Index of Abundance for Scottish Terrestrial Breeding Birds 1994 to 2018 identifying that there have been some substantial long-term decreases in farmland birds, including more than 50% for greenfinch, kestrel, and lapwing, and between 25-50% declines in oystercatcher, rook and pied wagtail. Pied wagtail had the largest decrease (33%) and another two (dunnock and whitethroat) had decreases of more than 20% on farmland^{iv}. Changes in farming practices, such as the loss of mixed farming systems, the move from spring to autumn sowing of arable crops, and increased pesticide use, have been demonstrated to have had adverse impacts on farmland birds such as skylark and grey partridge, although other species such as woodpigeon have benefitted. Skylark, once synonymous with many farms throughout the country, has suffered many decades of breeding population decline. It has declined 58% from the period 1970 – 2010 and it is believed that it has declined due to changes in farming practice, in particular the intensification of grassland management and the switch from spring to autumn sowing of cereals^v. This declining trend is not only seen in farmland bird species, but also in other groups such as butterflies. Structural variety in sward length, summer nectar sources and areas of scrub are all features which can be incorporated into farmland management that would greatly benefit butterflies.

Farmland In North Lanarkshire

There are over 300 farms in North Lanarkshire which support a diverse range of habitats and wildlife. Biodiversity is not only under threat from intensification, but also the loss of farmland to

development such as housing, landfill and wind farms. National trends in the decline of key farmland species groups such as waders are mirrored in North Lanarkshire.

The Farmland Habitat Action Plan aims to protect and safeguard habitats associated with farmland such as lowland flood plain grazing marsh and hedgerow. The plan also includes objectives and targets for key farmland species within North Lanarkshire such as Barn owl and Bean goose, with the aim to not only improve fortunes for these species under threat but to improve habitat quality.

ⁱ The Scottish Government, 2013, 2020 Scottish Biodiversity Challenge

ⁱⁱ Natural England, 2012, Ecosystem services from Environmental Stewardship that benefit agricultural production (NERC102)

ⁱⁱⁱ DEFRA, 2014, Wild Bird Population in the UK, 1970 to 2013

^{iv} Index of Abundance for Scottish Terrestrial Breeding Birds, 1994 to 2018

^v Gibbons, D.W., Reid, J. and Chapman, R.A. (1993) The New Atlas of Breeding Birds in Britain and Ireland; 1988 -1991. T.&A.D. Poyser, London