North York Moors
Biodiversity Action Plan

Farmland Habitat Action Plan
2013 – 2017

Compiled by the North York Moors National Park Authority
The Farmland Habitat Action Plan includes arable flowers and farmland birds, along with arable field margins, hedgerows, traditional orchards and ponds – many of which are priority habitats for Biodiversity 2020.

### Objectives

1. To maintain existing arable plant communities within the Park and encourage the wide appreciation of arable plants and their essential role in retaining ecological diversity.
2. To provide expert advice to land managers regarding appropriate habitat management for farmland birds, especially where good wader habitat or concentration of other vulnerable species occur.
3. To promote the importance of arable field margins to land managers and provide expert advice to help create or re-instate arable field margins.
4. To improve the condition and increase the extent of traditional hedgerows within the Park and promote their importance in terms of high biodiversity value.
5. To seek opportunities to restore and increase traditional orchards within the Park.
6. To create or restore ponds to improve habitat for a variety of wildlife, with a particular focus on amphibians.

### Introduction

Around 80 percent of the UK is farmland making it an incredibly important component of conserving many habitats and features across our countryside. Post war government incentives for farms to become more efficient in production followed by agricultural intensification during the 1970s and 1980s has resulted in the decline of many important habitats across the UK. Habitats such as hedgerows and arable field margins suffered as fields were made larger and farmed more intensively, adversely affecting species such arable flowers and farmland birds.

From the 1990s onwards there has been a reversal of this process with a strong emphasis on the importance of conservation across our farmed environment. Habitats enhancement and creation is vitally important for wildlife as well as protecting the countryside for future generations to enjoy.
**National Status**

**Arable plants:** Britain's arable plants are particularly important because they occupy the north-western end of a range of communities spreading across Europe into Asia. Most species have declined over their whole European range during the last century. Most of the sites where species-rich communities survive are on calcareous soils in the south and east of England. The majority of uncommon species have retreated from the north of the country and few can now be found north of Yorkshire.

**Farmland Birds:** The decline in farmland birds across the UK has been well documented over the last few decades. These declines have primarily been attributed to changes in agriculture including; increased efficiency, changes in cropping practices, specialisation of farms or regions to either arable or livestock production and the increased use of fertilisers and pesticides. There are many conservation initiatives to reverse the decline of farmland birds to help species such as lapwing, turtle dove, skylark and yellowhammer.

**Hedgerows:** The value of hedgerows are being more widely recognised for their biodiversity importance as well as for their landscape, farming, cultural and historical value. In 1998 it was estimated 815,000 km of hedgerows in the UK, yet in 2006 it was reported that only some 22% of the UK’s hedgerows were in a favourable state. Over the last few years there has been a push to survey hedgerows across the country and assess their quality in terms of structure and species-richness, with a focus on promoting their importance and providing advice on how to manage them appropriately.

**Arable field margins:** Arable field margins are herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife. They are rich habitats in their own right as well as forming extensive networks across the landscape. Grass margins can provide nest sites for ground-nesting birds such as yellowhammers and habitat for small mammals, in-turn providing hunting habitat for kestrels and barn owls. Wild flower strips attract nectar-feeding insects such as bumble bees and cultivated margins can help conserve rare arable plant species. Cereals account for around 51% of our arable land, and it is estimated that there are 400,000 km of arable field edges in the UK. If all of these edges included a field margin this would result in a huge expanse of land managed for wildlife.

**Traditional Orchards:** Traditional orchards are found throughout lowland Britain with higher concentrations in southern England. Traditional orchards have been recognised as a UK BAP and Biodiversity 2020 priority habitat as they can support a range of wildlife. The biodiversity significance depends of the mosaic of habitats that make up the orchard such as fruit trees, species-rich grassland, hedgerows, scrub and dead wood. In 2008 the extent of traditional orchards in the UK was estimated at around 25,000ha (although this includes some orchards that are not classified as priority habitats). Since 1945 there has been a dramatic decline in traditional orchards due to neglect, pressures from development and intensification of agriculture. Over recent year there has been a revival in the interest of orchards with many local and national campaigns to encourage people to plant and restore orchards.

**Ponds:** Ponds are crucial habitats for a vast number of species and support at least 65 BAP priority species, including internationally significant species such as great crested newt and otter. Ponds also act as stepping-stone habitats and play a vital role for species that do not spend all their lives in water such as water voles and provide feeding areas for bats. There are around 400,000 ponds in Britain but this is probably only a quarter of the number of ponds present 100 years ago. Due to their small size ponds are a vulnerable habitat, loss of the number of ponds is a concern but the reduction in quality of remaining ponds is really serious and it is vital quality issues are addressed.
Local status
Large areas of the National Park are arable land, especially across the Tabular and Cleveland Hills. Unusually for the north of England, some arable land in the National Park supports rich arable plant communities, including two rare UKBAP species, red hemp-nettle and shepherd’s-needle. Two others, night-flowering catchfly and fine-leaved fumitory, are nationally scarce and a third, Venus'-looking-glass, is at the northern edge of its range on the Tabular Hills. Some farms in these areas have arable field margins which support these important assemblages of rare arable flowers. The presence of the sea at the eastern edge of the North York Moors helps to moderate the climate and allow other plants such as the hairy buttercup, corn parsley and pointed or sharp-leaved fluellen to thrive at the northern edge of their range in Britain. Other uncommon arable plant species also present in the Park are narrow-fruited cornsalad and dwarf spurge.

Arable field margins together with species-rich hedgerows provide wildlife networks which harbour many wild flora and fauna. Hedges are used as commuting routes by bats, to guide them from one area to another. Hawks and owls rely on the hedges and walls to provide the breeding habitat for much of their small mammal prey. Winter stubbles, set-aside and field margins all play a vital role in providing refuge and food to farmland birds such as skylarks, grey partridges and yellow hammers. Hares are most frequently seen in arable fields. Wet grassland and marsh are of great importance to wading birds such as lapwings and together with farm ponds these are the primary habitats of great crested newts in the Park.

Farms throughout the dales and hills contain barns, ponds, copses, old trees, improved pasture, drystone walls with a small extent of traditional orchards, all of which provide refuge and food to a myriad of invertebrate and vertebrate fauna.

Threats
There are many common threats that can affect many farmland habitats and species such as agriculture intensification and the widespread use of pesticides and fertilisers. A few specific threats to each farmland habitat and species covered by this HAP are listed below;

Arable plants:
- Widespread herbicide use and improvements in herbicide efficacy
- The development of more competitive and nitrogen-responsive crop varieties and the increase in fertiliser applications
- The loss of marginal arable land to pasture or other land uses including development
- Mechanisation leading to more efficient seed-clearing techniques
- Changes in crop rotations
- Lack of information about the distribution of arable flora as important communities and rare species can easily be lost inadvertently.

Farmland Birds:
- Loss of safe nesting grounds
- Loss of summer and winter feeding grounds including availability of seed food and insect-rich foraging grounds

Hedgerows:
• Neglect including no cutting or laying resulting in hedgerows developing into lines of trees with many gaps.
• Too frequent and badly timed cutting leading to poor habitat conditions.
• Loss of hedgerow trees followed by lack of replacements.
• Use of herbicides, pesticides and fertilisers right up to the bases of hedgerows leading to nutrient enrichment and a decline in species diversity.
• Increased stocking rates, particularly of sheep, leading to hedgerow damage.
• Removal for agricultural and development purposes.

Arable field margins:
• Removal as a result of the loss of field boundaries.
• The use of herbicides and pesticides to intensify crop production.
• Increased winter-cropping causing the loss of winter stubble.
• The reduction in crop rotation including fallow land.

Traditional Orchards:
• Removal often as a result of pressure from development.
• Neglect.
• Increased imports of foreign fruits.

Ponds:
• Inappropriate management.
• Pollution, including both ground and air pollutants.
• Agricultural intensification such as nutrient run-off.
• Loss due to development.
• Natural succession as ponds gradually fill in with silt and debris.
• Variations in groundwater levels.

Requirements

Arable plants:
• Arable plants are annuals and need regular cultivation (every year or two).
• Herbicide and fertiliser applications need to be kept away from the field margins where the flowers are.
• A lower seed rate around the field edges can also help encourage wild flowers.

Farmland Birds:
• Providing safe nesting areas including; in-field nesting grounds to benefit species such as lapwings and skylarks and retain species-rich hedgerows as species such as yellowhammer favour nesting at the base.
• Providing summer and winter food including; seed availability by providing weedy over-winter stubbles and summer nectar rich flower mixtures along with insect-rich foraging habitats such as cultivated margins.

Hedgerows:
• Appropriate hedgerow management such as laying to produce a solid hedge.
• Appropriate species selection of local provenance when planting new hedgerows.
• Avoiding the use of herbicides at the base of hedgerows to increase ground flora.

Arable field margins:
• Prevention against drift of pesticides or fertilisers.
• Careful selection of areas to reduce competition from weeds.
• Time cultivation or cutting to suit the rare species present.

Traditional Orchards:
• Management of entire orchard habitat and not solely for the fruit trees.
• Appropriate management to create and maintain species rich ground flora and benefiting habitats such as dead wood to support invertebrate species.

Ponds:
• Prevention of pollution such as agricultural or road run-off.
• Change in farming practice such as by installing water troughs for livestock watering instead of using ponds which subsequently become silty.
• Maintaining a mix of stages of pond succession, from new ponds to well vegetated mature ponds, as well as creating ponds throughout the landscape to provide a network of pond habitats.
• Removal of non-native invasive species such as New Zealand pygmy weed.

Legal status
All of the farmland habitats covered under this HAP are listed of habitats of principal importance under the Natural Environment and Rural Communities (NERC) Act, as listed in Section 41. Species of principal importance are also listed under Section 41 including many of those discussed in this action plan.

The Conservation (Natural Habitats, &c.) Regulations 1994 (better known as the Habitats Regulations) implement the EU Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (better known as the Habitats Directive). Great crested newt is listed as 'European protected species of animals'. Amendments to this legislation came into force in August 2007.

Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the local planning authority.

Local action
The North York Moors National Park Authority’s Improving Habitat Connectivity Programme is creating, restoring and maintaining a wide variety of habitats across the Park by improving habitat quality, making habitats bigger and joining them so that wildlife can move freely through the landscape. All the habitats and species covered by this HAP fall under this Programme.

Arable plants:
• The Cornfield Flowers Project began in 2005 with a close partnership of the NPA, Carstairs Countryside Trust (CCT), Ryedale Folk Museum (RFM) and local naturalists
• The Cornfield Flowers Project followed on from the success of CCT who in 1999 bought a 10ha field near Silpho with NPA assistance as a refuge for threatened local arable flowers and to demonstrate to others what can be achieved.
• CPF have a demonstration cornfield and nursery beds at RFM to provide a seed source for arable flora and to give information to visitors about their significance.
• CPF have placed 2000 seeds each of Large-flowered hemp-nettle, Red hemp-nettle, Shepherd’s-needle, Corn buttercup, Night-flowering catchfly and Hairy buttercup in the Millennium Seedbank
• CPF’s dedicated volunteers propagate plants and collect seeds for reintroduction schemes.
Farmland Birds:
- National Park staff provide expert advice to landowners and managers regarding appropriate habitat management to benefit waders and other farmland birds.
- The National Park will carry out one survey of breeding waders on farmland in the Park during this HAP period.
- Academic projects through the University of Leeds are developing habitat suitability models for farmland bird species.

Hedgerows:
- The NYMNPA’s Traditional Boundary Scheme grant is restoring and creating traditional hedgerows and dry stone walls throughout the Park.
- The National Park are promoting the importance of hedgerows as habitats, habitat networks and areas of high biodiversity value.
- National Park staff provide expert advice on creating or gapping up hedgerows using native species of local provenance, the inclusion of in-boundary trees and varied hedgerow management such as coppicing and laying.

Arable field margins:
- The National Park are seeking to increased the number of arable field margins through North York Moors National Park Authority’s Improving Habitat Connectivity Programme.
- Assisting with Natural England’s Environmental Stewardship Schemes.

Traditional Orchards:
- North York Moors National Park Authority’s Improving Habitat Connectivity Programme is looking to help improve the condition of current traditional orchards in the Park.

Ponds:
- The National Park have created a number of ponds in the coastal region, creating a network of aquatic habitats.
- Some pond restoration projects are being planned with a specific focus on improving habitats for amphibians.

Links to other action plans

<table>
<thead>
<tr>
<th>Habitat Action Plans:</th>
<th>Species Action Plans:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coast</td>
<td>Bats</td>
</tr>
<tr>
<td>Species Rich Grassland</td>
<td>Wild Daffodils</td>
</tr>
<tr>
<td>Moorland</td>
<td>Rare butterflies and moths</td>
</tr>
</tbody>
</table>

Opportunities
- Cornfield Flowers Project demonstration days to encourage more farmers to get involved.
- Continue to work closely with local and national conservation organisations so that habitat connectivity is a nationwide achievement.
- Natural England’s New Land Management scheme will hopefully asset farmers in achieving high quality habitats to support wildlife.
- Further academic studies to provide more conservation tools, such as habitat modelling to assist conservation efforts on the ground.
• More community engagement and conservation activities such as restoring a local pond.

What can you do to help

Public:
• Report rare arable flowers or farmland birds to the National Park Authority using the online recording form on the National Park’s website:
• Get involved with surveying your local ponds, visit Freshwater Habitats Trust for more details.
• Volunteer for the Cornfield Flowers Project by growing arable flora from seed for planting out and/or identify fields with a rich arable flora or rare plants. Get in touch with the Cornfield Flowers Project Officer.
• Look out for community orchard groups.
• Leave arable flowers where they are for others to appreciate.

Landowners:
• Create wildlife friendly areas on your farm such as by creating arable field margins to benefit rare arable plants, farmland birds and insects.
• Look out for local events run by The Campaign for the Farmed Environment for advice on managing your wildlife, such as for barn owls and pollinators.
• Keep an eye for National Park grants to help restore your traditional boundaries.