



Wildlife friendly mitigation: some examples

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Some background

Unusually for an NGO we own a lot of land.

We are the 7th biggest landowner in the UK, after the Forestry Commission, Ministry of Defence, the Crown Estate and others.

We have over 320,000 acres (130,000 hectares) and rising, mainly as nature reserves.

Much of this is farmed in one way or another, often for grazing cattle or sheep – which win prizes at agricultural shows.

Example 1: Hope Farm



Arable: Simple measures big benefits

In 2000 we purchased an average arable farm (180 Ha) in Eastern England to demonstrate it was possible to be environmentally friendly whilst maintaining and enhancing income.

Switched from Wheat-Wheat-Oilseed Rape rotation to Wheat-Oilseed Rape-Wheat-Field Beans.

Also increased fertiliser use efficiency.

Together these have resulted in approximately 20% reduction in fertiliser-related emissions of GHGs since the rotation was changed.

2016 rotation: winter wheat, oilseed rape, spring barley, linseed, field beans and millet.

Improving soils

The soil was bad when we moved in.

We not only changed crop rotation with more legumes (old fashioned but good) but increased cover crops immediately after harvest through to spring.

This protects soils over-winter from erosion, prevents nutrients from leaching into watercourses and improves the soil structure during winter to slow down run off clay soil.

Graze sheep to take off cover crops – people pay us.

With no easy access to farmyard mulch, we used green compost from the local council, 1600 tonnes last autumn: black oats and vetch, forage rye and vetch, and forage rye, vetch and daikon raddish.

Profit and wildlife

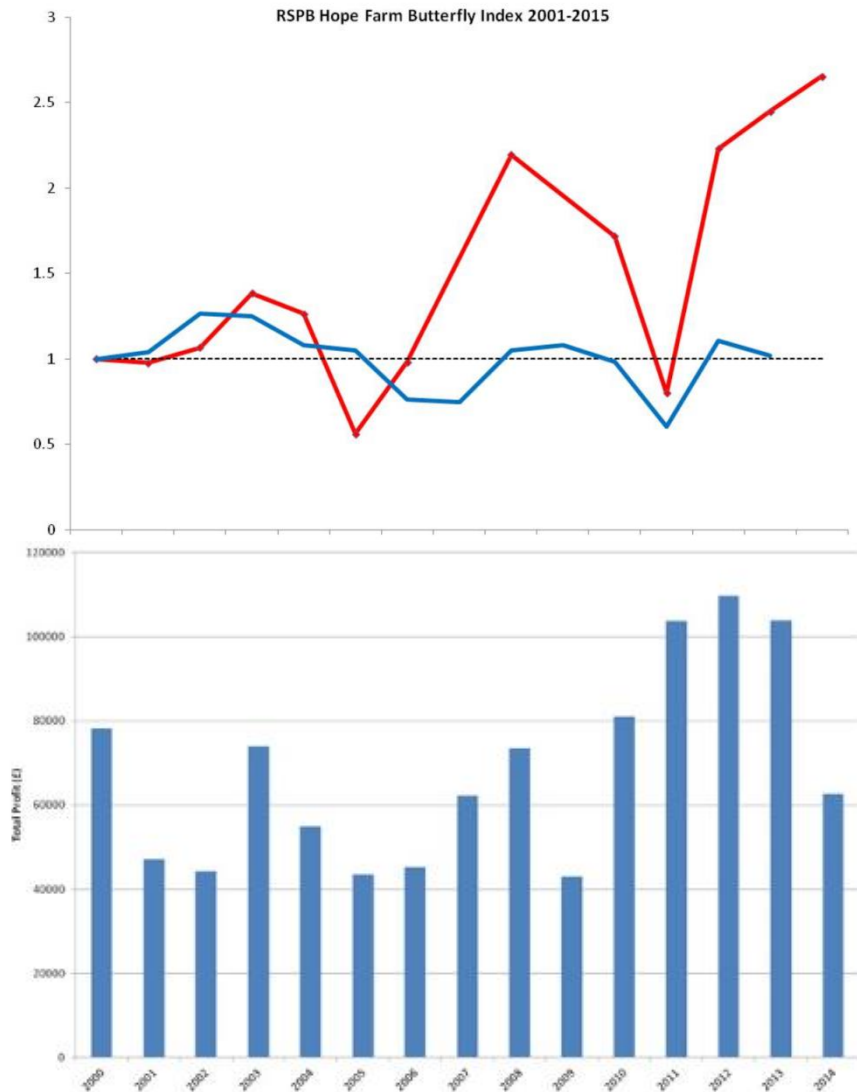


Table 1. Maximum counts of key farmland birds at Hope Farm during winters 2000/01 and 2015/16.

	Winter 2000/01	Winter 2015/16
Kestrel	1	4
Grey partridge	0	38
Lapwing	0	151
Stock dove	0	16
Woodpigeon	216	799
Skylark	35	84
Jackdaw	0	23
Rook	1	68
Starling	11	479
Tree sparrow	0	7
Greenfinch	42	11
Goldfinch	1	12
Linnet	0	108
Yellowhammer	2	723
Reed bunting	3	58
Corn bunting	0	13

Saltmarsh/grazing marsh

Under pressure from threats including land reclamation and nitrogen pollution, these may now become Europe's first line of defence against the rising seas.

Managed realignment involves moving flood defences inland, allowing the seawards area to revert to saltmarsh. This can sequester 2.1 tonnes of carbon/hectare/year.

Saltmarshes provide highly effective flood prevention. They act as dynamic buffers reducing the need for manmade flood defences inland.

Saltmarshes support an amazing array of wildlife, including species such as redshank and ferruginous duck.

Saltmarsh can still be used for extensive livestock grazing.

Freiston Shore



Creating marsh/saving people

We purchased Freiston Shore (773 ha).

With the UK Environment Agency, the sea bank was breached in 2002. The 66ha of land flooded fully reverted to saltmarsh in less than eight years.

This saltmarsh improves the flood defences protecting 80,000ha of valuable agricultural land, the town of Boston (population 64,600) and several villages.

The new RSPB Freiston Shore reserve now records over 150 bird species each year.

Although a current Habitats Scheme commitment prevents grazing the new saltmarsh, other parts of the reserve are grazed by cattle and it is hoped to extend this to the new saltmarsh in the future.

Peatland restoration

Peatlands cover only 3% of the world's land area but are estimated to hold almost a third of all soil carbon.

But peatlands are in trouble. Across Europe (including western Russia) almost half of all peatlands have been degraded, destroyed, drained for agriculture or covered with plantation forest.

When peat soils are drained the carbon that has been stored in the soil for thousands of years is released as CO₂.

Degraded peatlands in the EU emit about 174 Mt CO₂/year.

As well as being an important carbon store peatlands have a vital role in maintaining drinking water quality, in water regulation, and often buffer drought and flooding.

They are fairly useless for agriculture.

Belarus peatlands



Peatland restoration in Belarus

Peatlands cover 15% of the land surface area in Belarus but more than half (1,505,000 ha) of this area has been drained for agriculture, forestry and peat extraction.

Heavy soil degradation on some sites has made using the land unprofitable for agriculture and frequent peat fires on these abandoned peatlands pose significant risks for the environment and for human health.

With our BirdLife Partner (APB Belarus) and others, we had a pilot project to restore about 15,000 ha, preventing the release of about 30,400 tonnes of CO₂ equivalent per year.

Belarus is home to 40% of the global population of Aquatic Warbler, a threatened wetland bird.



670 ha

IN WALLASEA ISLAND, 670 HECTARES OF WETLAND CREATED BY A UNIQUE PARTNERSHIP OF CONSERVATIONISTS AND ENGINEERS IS PROVIDING WATERBIRD HABITAT AND DEFENCE FROM COASTAL FLOODING
PHOTO BAM NUTTALL LTD