

Watched Like Never Before...
the local economic benefits of
spectacular bird species

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Contents

Executive Summary	3
Introduction	7
White-tailed Eagle	11
Osprey	15
Red Kite	24
Bee-eater	31
Chough	33
Peregrine	35
Capercaillie	43
Montagu's Harrier	46
Hen Harrier	49
Seabirds	53
References	63

Acknowledgment

Allowing the public to enjoy spectacular birds invariably depends on the cooperation and efforts of numerous parties in setting up watch points and conserving the species themselves. Therefore, the RSPB is immensely grateful to the many organisations, landowners and individuals that contribute to the conservation and watching of the UK's birds, especially those covered by this report. Without them, the UK's public would not enjoy birds as much.

We are thankful to the Scottish Wildlife Trust, Scottish Seabird Centre and National Trust for providing data used in this report.

Executive Summary

Species are a powerful symbol of the conservation of wildlife and the environment. In conservation terms, all species are equal. However, to the 2.85 million people who go birdwatching in the UK, some species are more spectacular than others. The enduring popularity of spectacular bird species is reflected in visitor interest and enjoyment by millions of people; and in some cases is manifested as substantial local economic activity.

Sites hosting spectacular species need careful management. It is often important to ensure that rare nesting birds do not fail as a result of deliberate interference or over-enthusiastic public interest. But in a world of instant communication, total secrecy is neither possible nor necessary. Organisations such as the RSPB, National Trust and the Wildlife Trusts have adopted an approach of sharing the spectacle of wild birds with as many people as possible, commensurate with ensuring that the birds are not disturbed. Dedicated management can avert disturbance of sensitive species by birdwatchers (as with Montagu's harrier and capercaillie), and ensure that the habitat provides sufficient food. It can also enhance the local profile and economic benefits of species, and these can in turn help ensure their protection from illegal activities (as with peregrine and red kites).

A birdwatching spectacle

Spectacular birds attract attention from the popular media, which in turn stimulates the public to visit sites and watch them in new ways. As detailed in this report, the numbers of people watching spectacular birds are often significant. The resulting social and economic benefits can occur anywhere, from office-workers enjoying city-centre peregrines in their lunch breaks, to tourists visiting seabird colonies on remote islands. Birds are being watched like never before.

Nature surprises and inspires us precisely because each species is different. Halting the loss of biodiversity is the ambitious goal of European Union member states by 2010. Judging by the large number of people who have enjoyed the projects described in this report, its achievement would be a popular goal.

White-tailed eagle

The reintroduction of white-tailed sea eagles (sea eagles) to the west coast of Scotland since 1975 has resulted in a small self-sustaining and growing population. The birds have also become a tourism draw, and received significant media coverage in recent years. The Isle of Mull receives around 350,000 visitors every year, of whom two-thirds spend their holidays in Mull and 33% are day-trippers holidaying outside the island, or coming from home. In total, visitors spend £38 million on the island every year. Of this, between £1.4-1.6 million per year is attracted by the presence of sea eagles.

Osprey

Following the osprey's return to Scotland in the 1950s, the RSPB set up a nest protection and public viewing scheme at Loch Garten in the Highlands. From that initial pioneering pair, the UK population has increased to 200 pairs. The species has begun to recolonise England and Wales, and there are now nine sites in the UK at which the public can watch ospreys.

This recolonisation has had positive impacts on local economies. An estimated 290,000 people now visit osprey watching sites in the UK each year. They are estimated to bring total additional expenditure of £3.5 million per year to the areas around these sites, helping to support local incomes and employment, and probably making osprey the UK's top bird-tourism species. The sites also have educational benefits, receiving many visits from schools, and with local school and community groups contributing to their conservation.

Red kite

The successful re-introduction of red kites to England and Scotland has raised widespread interest not only amongst wildlife watchers but also amongst wider society. They have become a well-loved feature of the UK countryside, inspiring a sense of pride in local people, not least in Wales where the population has recovered from near extinction. The sight of a red kite adds value to the landscape and acts as a flagship species for raising public awareness of birds and wildlife. Kite areas each attract thousands of visitors per year. Wider benefits include providing a tourism marketing tool.

Bee-eater

Breeding attempts by bee-eaters in 2002 and in 2005 were the first two in the UK since 1955. A successful pair in Co. Durham attracted 15,000 visitors in five weeks and 4,000 people visited the watch point in Herefordshire in the 10 days before the nest

Watched Like Never Before

unfortunately failed. The popularity of these rare and colourful birds with the public was reflected in extensive media coverage.

Chough

In 1973, choughs became extinct in Cornwall, but in 2001 three wild birds returned to The Lizard, and in spring 2002 a pair bred for the first time in 50 years. In four years the pair have successfully reared 15 youngsters, a new generation of Cornish choughs. The Lizard offers visitors the opportunity to observe these rare and acrobatic birds from a watch point during the breeding season. Since its opening in 2003, thousands of visitors have come every year to enjoy these rare birds. In 2004, it was estimated that the presence of choughs attracted £118,000 to the Lizard area, supporting the equivalent of 3.2 full-time jobs.

Peregrine

Peregrines are well-known for being the world's fastest bird. In some areas, nesting peregrines still require protection from illegal disturbance and persecution. Protection of nest sites that are regularly occupied provide opportunities for peregrine watch points. The RSPB peregrine watch point at Symond's Yat Rock was established in this way, and was one of the first dedicated bird watching schemes away from a nature reserve. It is estimated to still attract over £0.5 million of visitor spending to the Forest of Dean each year.

Urban sites and high-powered telescopes are providing new opportunities to wow hundreds of thousands of people with the thrill of dramatic wild raptors. The eight peregrine-watching sites documented in this report receive over 120,000 visitors per year. Further sites are promoted at a local level, and via websites that show live picture of peregrine nests, all of which makes peregrines one of the UK's most watched birds.

Capercaillie

After years of declining population in the UK as a result of habitat loss, the rarity of capercaillie meant that birdwatchers' efforts to see them in the wild created another potential threat to their survival. The RSPB established capercaillie watching (*Caper-watch*) at its Loch Garten reserve in 2000. It has since attracted over 10,000 visitors, who bring increased tourism trade, estimated in tens of thousands of pounds each year, to Strathspey outside the peak holiday season.

Montagu's harrier

Between 26 June and 31 August 2004, a watch point arranged in conjunction with a neighbouring farmer to RSPB Frampton Marsh nature reserve, gave members of the

Watched Like Never Before

public the first ever opportunity to watch breeding Montagu's harriers at a proactively organised site in the UK. The 'Full Monty' project received significant media coverage and was visited by 5,660 people.

Hen harrier

Hen harriers are typical species of the UK's uplands, but their success is greatly restricted by illegal human persecution often associated with grouse moor management. Two projects to show people CCTV footage of hen harriers in Scotland have successfully engaged with thousands of people, from tourists to locals and schoolchildren. The local success of these schemes suggests that with the identification of further suitable locations, more opportunities for hen harrier watching would be taken up by the British public.

Seabirds

The shallow seas around the UK support species and habitats as rich as any in the tropics. The sites in this chapter demonstrate the sustained and increasing interest in seabirds around the UK, which suggests that seabirds have the potential to grow as a source of visitor activity. However, if recent breeding failures are part of a longer trend caused by climate change, this could lead to long-term loss of seabird colonies. The interest in seabirds of over 250,000 people a year described in this chapter suggests the negative impact that this could have on local economies.

Introduction

Species conservation

Species are a powerful symbol for wildlife conservation. They are the building blocks of biodiversity, providing a measure of the success or failure on the way that we look after the Earth. Some have obvious public appeal: people can identify, name and relate to a lapwing much more easily than to coastal floodplain grazing marsh, and so high-profile species can provide an impetus and support for habitat conservation. Having a specific focus often makes conservation sense.

Species are also a powerful means of engaging support and interest in wildlife conservation. Many of us have a favourite animal or a favourite bird. It might be the robin perching on the garden fence, or threatened species such as giant panda or tiger that most of us will never see. Often it is a dramatic or unusual species with which we had an encounter, a memory of a special day. Whether adult or child, that moment can trigger an interest in wildlife, and be the first step to caring about its future.

This report brings together, for the first time, an assessment of some of these opportunities. It does not claim to be truly comprehensive: there are other schemes, run by private individuals and conservation groups, which feature otters, badgers, dolphins, whales and other enigmatic animals. It illustrates the wide range of opportunities for people to see birds in the wild, up close and personal thanks to modern telescopes and binoculars.

The report also estimates the number of people who visit these projects and, where known, the economic benefit of these to the local economy. Watching birds is big business, with around 2.85 million adults going birdwatching in the UK (BRMB International, 2004). There is no recent estimate of the total value of birdwatching in the UK, but in the USA, wildlife-watching trips account for \$7.4 billion of the \$32 billion spent by the country's 46 million birdwatchers in pursuit of their interest (La Rouche, 2001).

Wildlife watching in the UK

When bird conservation in the UK was in its infancy, watching wildlife was often a very private affair. The first nature reserves were off-limits to the ordinary public, the sole preserve of the dedicated field naturalist, an understandable response to the risk of over-exploitation, of hunting, trapping and collecting, in the Victorian and Edwardian eras.

Following World War II, interest in wildlife grew, a product of increased leisure time and growth in concern about the environment. Charities, such as the RSPB, saw that

Watched Like Never Before

individual birds could tell powerful stories, and that allowing more people inspirational experiences of birds would ultimately benefit their conservation.

Special birds, such as avocets at Minsmere, ospreys at Loch Garten, and the staggering sound and smell of seabird colonies around the coast have become the stars of conservation. As the popularity of birdwatching has grown, they have also emerged as economic assets. A succession of RSPB studies has demonstrated the significance of birdwatching to some local rural economies in the UK (eg. Rayment and Dickie, 2001).

The origins of schemes featured in the report vary considerably. Some – such as bee-eaters and Montagu’s harriers - were set up because the birds are rare and public interest needed to be managed for the birds’ own security. Others – such as capercaillies at Loch Garten - originated to provide a focus for public interest, and so take pressure off birds at other popular sites. In many cases, projects began as covert schemes to protect the birds from egg-thieves or nest destruction, and have developed public involvement to enhance their protection, by increasing community interest. Generating an income for local people increases the birds’ security further.

Aren’t birds brilliant!

The RSPB’s *Aren’t birds brilliant!* (Abb) scheme offers large numbers of people the chance to see spectacular wildlife. By making it easy for thousands of people to see birds, we hope to raise awareness and support for bird conservation. The Abb scheme has grown, from 28 projects in 2002, to 45 in 2005, and it currently aims to provide at least half a million people with a memorable experience each year. There are around 60 projects planned in 2006, from white-tailed eagles in the west coast of Scotland, to blue tits watched using pictures from a nest box camera, shown via Closed Circuit Television (CCTV), in Buckinghamshire.

Since the mid 1980s, the RSPB has been running projects to show people birds. Some of the earliest projects were showing people herons, great-spotted woodpecker nests, and peregrines at Symonds Yat. The last of these is still running, and features in this report! Many of the species included in the scheme are birds of prey – peregrines, red kites, white-tailed eagles, hen harrier and ospreys, but also featured are several seabird boat trips, bee-eaters, capercaillie and choughs. To successfully engage with large numbers of people, Abb sites are usually located in areas that are busy (such as town centres or country parks) or that are tourist or holiday destinations. They often benefit from media coverage and local signage, and are promoted by the RSPB (eg. through www.rspb.org.uk/brilliant).

The success of Abb projects invariably depends on the support of numerous parties. In particular, we are grateful to the organisations we work in partnership with and our dedicated teams of volunteers. Without them, the UK’s public would not enjoy as many

Watched Like Never Before

birds. In 2004-2005, 690 volunteers across the UK contributed 20,894 hours of work to Abb projects, the equivalent to nearly 11 full time staff.

The RSPB aims for visits to an Abb site to leave the visitor with a good impression of the Society and its conservation work. The scheme has its own livery allowing it to be readily identified as a brand, with staff or volunteers on site to meet and greet, show people the birds through high quality optics and answer any questions. Visitors leaving their names and addresses are sent an end of season newsletter with news from all Abb sites, and an invitation to take part in other RSPB activities.

People who leave their personal details also provide a sample from which we can assess where visitors have travelled from to visit Abb sites. Whether people are from the local area, or visiting from farther away is an important distinction in assessing additional economic impact (see below). In several of the chapters in this study, we report data on the proportion of visitors who have travelled more than 40 miles to a site. As the average speed on A roads in England is just under 40 miles per hour, this distance represents approximately 1 hour's drive time (Chooi et al, 2003), and gives an indication of the percentage of people travelling from outside the local area.

Analysing the local economic impact of birdwatching

Nature conservation activities can bring significant local economic benefits through direct employment, reserve expenditures, use of contractors, agricultural operations, and spending by visitors (Shiel et al, 2002). This study reports some attempts to measure the value of spending at projects related to specific species.

Wildlife attracts visitors, and they spend money. Spending by visitors can benefit a wide range of enterprises in a local area, through direct, indirect and induced impacts, helping to provide income and employment for local people. These benefits are additional to, but often greater than, the direct economic impact of employment and expenditures by conservation organisations (Shiel et al, 2002).

The strength of these linkages varies for different types of people and activity. Many people are attracted to visit rural areas by pleasant landscapes, where nature conservation can benefit the mainstream rural tourism industry by helping to maintain and enhance the countryside and its natural features and wildlife. At the same time, increasing numbers of people are developing a more specialist interest in wildlife and visit rural areas especially because of their biodiversity value.

For many years, the RSPB has used surveys to assess the importance of wildlife, landscape and other features to the tourism sector, and hence to local economies. Typically, visitors to an area are asked how much money they have spent locally, and the importance of different sites or features in motivating them to visit the area. Their

Watched Like Never Before

motivations are crucial, as from them, it is possible to estimate the extra tourist expenditure that wildlife brings to that area:

- a) When the visitor is from the local area none of their spending is attributed to the site.
- b) When a visitor says the site is the main reason for visiting the area, 75% of their spend is attributed to the site.
- c) When a visitor says the site was one reason for visiting the area, 25% of their spend is attributed to the site.
- d) When the site was not a reason for them visiting the area, or visitors only decided to visit the site once already in the area, none of their expenditure is attributed to the site, as it has not played a role in attracting their spending to the local economy.

These are key economic distinctions. Rather than measure the total spending **by** people who have visited a certain species or site, they allow us to estimate the extra spending attracted to an area **because** of that species or site. This is what economists call additional spending, and allows us to measure of economic impact, rather than just levels of activity.

From visitor spending data, the RSPB has developed methods to estimate the impacts of this spending in terms of local jobs and income (Shiel et al, 2002). At 2005/06 prices¹, we estimate that the equivalent of one full-time local job is supported by every £38,650 of visitor spending.

Gathering data to allow these calculations is a complex task, and every effort is made to collect representative samples. However, in some cases constraints mean that estimates are based on relatively small sample sizes. In such cases, these samples are reported, so that readers can interpret the figures accordingly. In other cases, even though sites may attract substantial visitor numbers, many of whom may be from outside the local area, lack of appropriate survey data means no measure of additional economic impact is possible.

¹ Estimated using GDP deflators from:
http://www.hm-treasury.gov.uk/media/272/1D/gdpdeflators_220306.xls

White-tailed Eagle

Summary

The reintroduction of white-tailed sea eagles (sea eagles) to the west coast of Scotland since 1975 has resulted in a small self-sustaining and growing population. The birds have also become a tourism draw, and received significant media coverage in recent years.

The Isle of Mull receives around 350,000 visitors every year, of whom two-thirds spend their holidays in Mull and 33% are day-trippers holidaying outside the island, or coming from home. In total, visitors spend £38 million on the island every year. Of this, between £1.4-1.6 million per year is attracted by the presence of sea eagles.

Introduction

The white-tailed eagle is the fourth largest eagle in the world, and the pale head, large yellow beak and trademark white tail of adults make it one of the UK's most spectacular species. Sea eagles were formally widespread across the British Isles, on the coast and inland. Large-scale habitat changes (marsh drainage, deforestation and increase in sheep ranges) and targeted persecution and killing led to substantial decreases in population and range. After the last known individual was killed on Shetland in 1918, the sea eagle was extinct as a breeding species in the UK. A reintroduction programme by the government's Nature Conservancy Council that began in 1975 has now achieved a small self-sustaining and growing population (33 pairs).

White-tailed eagles have a wide and varied diet consisting of carrion and live prey, which sometimes includes small lambs. Studies have shown the majority of these to be stillborn, sick or weak, but some healthy lambs are taken. Under its Natural Care programme of grants, Scottish Natural Heritage (SNH) offers eagle management schemes in parts of Scotland (including the Isle of Mull) to assist with positive management of sea eagles (and golden eagles on Mull). Sea eagles have also now become an increasingly popular and welcome part of the UK's natural heritage, and provide an additional and increasing source of important revenue to local economies.

The Isle of Mull

Tourism is an important part of the economy on the Isle of Mull in the Inner Hebrides off the west coast of Scotland. People come to the island for a variety of reasons, attracted by the stunning scenery, the island's history, heritage and culture, festivals, local produce and in particular the island's rich diversity of flora and fauna. In recent years, the popularity of the BBC children's programme Balamory which is largely filmed

Watched Like Never Before

in Tobermory on Mull, has attracted large numbers of new visitors, including families and young children.

Since 2003, there has also been a major increase in the wildlife television coverage focusing on Mull. The island's wildlife has featured in 10 recent BBC programmes, each with audience figures in the millions. The sea eagles tend to top the bill in these programmes along with whales, porpoises and dolphins, golden eagles, otters, basking sharks, seals and red deer. The RSPB Film Unit also produced a major film on sea eagles called 'The Eagle Odyssey' which has been shown at many venues around the UK and has won awards at international film festivals.

Sea eagle watching on Mull

Since 2000, the Sea Eagle Viewing Partnership, established by Forestry Commission Scotland (FCS), the Mull & Iona Community Trust (MICT), RSPB Scotland and SNH, has allowed many visitors to see sea eagles at a nest in the wild. The sea eagle public viewing and protection is supported by the Heritage Lottery Fund. The FCS land at Loch Frisa is believed to be the only place in the world where direct and organised public viewing of a nest occurs. Visitors come to the island hoping to catch a glimpse of the eagles throughout the year, although the bulk of visitors come from Easter to October.

In order to estimate what contribution the sea eagles make to Mull's tourism-based economy, an RSPB survey took place during summer of 2005. In total, 400 parties representing 1,381 people were interviewed. Unlike other RSPB studies, the survey treated the whole of Mull as one visitor site. Interviews took place at five different locations. Local people were screened out of the sample, so that all those interviewed were day-trippers and holidaymakers to the island.

Survey results

The survey revealed that:

- Two-thirds of visitors (67%) were holidaying in Mull, and the rest had come to Mull for the day.
- Parties holidaying in Mull on average spent £119.55 per day they visited the island. Most of this expenditure was equally distributed in accommodation, meals, and fares and petrol.
- Other visitors are day-trippers, of whom 9% had travelled from home and 24% from other holiday destinations.
- Day-trippers' average expenditure on the day they visited the island was £55.78 (this excluded accommodation, fares and petrol).
- Of all parties interviewed, 17.25% of parties were interested in sea eagles.

Watched Like Never Before

- 1.5% of total parties declared they had come to Mull mainly because of sea eagles.
- 12.75 – 15.75% of parties mentioned sea eagles as one of the reasons to visit Mull.

Informants were asked: *'When planning your daytrip/holiday which, if any, of these factors influenced your decision to visit Mull?'* Informants were then shown a list of 12 possibilities including *'the chance to see the sea eagles'* as one of these; 69 respondents, 17.25% of the total, selected this option. These people were then asked whether the sea eagles were a main reason or one of the reasons for their visit to Mull. Fifty-one answered 'one of the reasons', six 'main reason' and twelve 'not sure'. The findings are sensitive to the interpretation given to these 12 answers. Therefore, we calculated a range of results based on treating the 'not sure' answers as 'one of the reasons' or on discarding them (ie concluding that sea eagles were not a reason for them to visit Mull).

The survey used a careful sampling strategy, so it is assumed to be representative of the 350,000 visitors per year to Mull. As table 1 shows, spending by visitors to Mull is estimated at £38 million/year.

Group	% of visitors to Mull	Number of visitors	Number of parties	Expenditure per party per day, £	Length of visit, days	Total spending, £
Holidaying in Mull	67	234,500	67,971	119.55	4.45	36,160,410
Day-trippers	33	115,500	33,478	55.78	1	1,867,417
Total	100	350,000	101,449			38,027,827

Economic benefits of sea eagles on Mull

The economic impact of sea eagles on Mull is estimated by taking a proportion of the expenditure by those parties who included sea eagles as a reason to visit Mull. We have attributed 75% of expenditure to those who had sea eagles as a 'main reason' to visit. Parties who had sea eagles as 'one of the reasons' on average gave 4.9 reasons for visiting. Therefore, 20% of their expenditure is attributed to the sea eagles.

As table 2 shows, allocating this percentage of expenditure means that out of the £38 million per year of tourist expenditure, between £1.4 and 1.6 million is attracted by the presence of sea eagles. Using the multiplier described in the introduction, this level of spending is estimated to support 36 – 42 full-time equivalent jobs on Mull.

Role of sea eagles in choosing to visit Mull	% of visitors		% of spending attributed to sea eagles	Total expenditure attributed to sea eagles (£)	
	low	high		low	high
one of reasons	12.75	15.75	20%	969,710	1,197,877
main reason	1.5	1.5	75%	427,813	427,813
Total	14.25	17.25		1,397,523	1,625,690

Discussion

Another way to estimate the economic impact of white tailed eagles is by looking in detail at the characteristics of the parties visiting Mull with an interest in sea eagles. This method is less appropriate due to small sub-sample sizes, but it estimates that the total amount of expenditure attracted by sea eagles ranges from £1.45 to 1.69 million per year, which reinforces the above result. Further analysis reveals that the sub-sample of people interested in sea eagles on average spent 6.47 nights on Mull, compared with the 4.45 night average stay amongst visitors. Allowing for this would increase total estimated expenditure to over £2 million per year.

A study in 1999 (Warburton), estimated total visitor spending on Mull at £38.4 million. This is remarkably similar to the £38 million identified in this survey, which represents around 9% of the £406 million brought by tourists to the region covered by Argyll, the Isles, Loch Lomond, Stirling and the Trossachs (Visit Scotland, 2003). These data give confidence that the survey's findings are an accurate reflection of visitor activity on Mull.

Conclusion

Sticking to conservative assumptions, and taking into account comparisons with other studies, the visitor spending attracted to Mull by sea eagles is estimated at £1.4-1.6 million per year.

Osprey

Summary

Following the osprey's return to Scotland in the 1950s, the RSPB set up a nest protection and public viewing scheme at Loch Garten in the Highlands. From that initial pioneering pair, the UK population has increased to 200 pairs. The species has begun to recolonise England and Wales, and there are now nine sites in the UK at which the public can watch ospreys.

This recolonisation has had positive impacts on local economies. An estimated 290,000 people now visit osprey watching sites in the UK each year. They are estimated to bring total additional expenditure of £3.5 million per year to the areas around these sites, helping to support local incomes and employment, and probably making osprey the UK's top bird-tourism species. The sites also have educational benefits, receiving many visits from schools, and with local school and community groups contributing to their conservation.

Species background

The osprey is a magnificent bird of prey, with a wingspan of over 1.5 metres, and well known for its spectacular plunges into water to take fish. Wintering in West Africa the birds return each spring to build and refurbish their large stick nests. The osprey was once a familiar sight in the skies of England and Scotland. However, during the nineteenth century the species, along with many other birds of prey, suffered heavily from human persecution, the last recorded breeding took place in Scotland in 1916.

The return of the osprey to the UK is still shrouded in a little mystery, but in the 1950s birds began to turn up in Scotland once more, and the first confirmed breeding was in 1954. In 1958, the birds started to breed at the now famous Loch Garten site in Strathspey and the RSPB set up 'Operation Osprey', a 24-hour protection watch.

In the UK, the future now looks bright for the osprey. It continues to expand in Scotland, and recommenced breeding in England in 2001 and Wales in 2004:

- In Cumbria, the Lake District Osprey Project is a partnership of Forestry Commission England and the RSPB, supported by the Lake District National Park Authority, local landowners and English Nature.
- In Wales, the Glaslyn Osprey Project is run by The RSPB, supported by a local forum. Ospreys first bred near Porthmadog in Wales in 2004. RSPB manages a public viewing scheme at Pont Croesor, near Porthmadog.
- A project by the Leicestershire and Rutland Wildlife Trust and Anglian Water to translocate young Scottish ospreys to central England has established breeding at Rutland Water.

Watched Like Never Before

The UK osprey population has now reached 200 pairs (RSPB, 2005). The potential threat from egg collectors means that resources still have to be put in place at the newly established sites in England and Wales to ensure the birds are left in peace. The development of controlled public watching schemes at nine UK sites has helped to reduce disturbance pressure on other sites. These also support a significant tourism industry, so increasing the support for their protection and conservation.

Estimates of the economic impact of osprey watching

Loch Garten, Highland

Ospreys recommenced breeding in Scotland in 1954. In 1958 the birds started to breed at the now famous Loch Garten site in Strathspey and the RSPB set up 'Operation Osprey', a 24-hour protection watch. The following year, when three chicks hatched successfully at the site, the RSPB took the then bold step of breaking the news to the media and inviting in the public. Some 14,000 people visited the site in just 6 weeks that summer.

In 1975, the RSPB purchased the land around the osprey's nest at Loch Garten. Ospreys have since nested annually at Loch Garten, and over two million people are estimated to have visited the site. RSPB involvement in Strathspey has also grown, and Loch Garten now forms part of RSPB's 13,713 ha Abernethy nature reserve.

Visitors to the Osprey Centre averaged 49,000 per year between 1959 and 1990. A study by Guffogg in 1996 analysed the economic impacts of the 46,000 visitors to the reserve that year. Guffogg estimated that expenditure attributable to the Osprey Centre and reserve totalled £44.89 per person for holidaymakers and £4.16 per person for day-trippers. He calculated that visitors to the reserve that year spent a total of £5.8 million in Badenoch & Strathspey, of which £1.7m could be attributable to the reserve itself (Rayment, 1997).

This figure reflects a substantial contribution from the Osprey Centre to the local economy. Furthermore, there is evidence that the Osprey Centre plays an important role in encouraging people to visit Badenoch & Strathspey, even if only a small proportion of their time in the area is spent on the reserve itself (Shiel et al, 2002).

Since 1989, osprey numbers have steadily increased in Scotland, and the species has become easier for people to see around Badenoch and Strathspey. Therefore, the uniqueness of the Garten Osprey Centre as a place to see ospreys in the UK has diminished. This may explain why visitor numbers have fallen, averaging 33,600 per year between 1998/99 and 2000/01. Updating Guffogg's figures to 2000 prices and visitor numbers, Shiel et al (2002) estimated that the reserve attracted £1.4 million of visitor spending into the Badenoch and Strathspey economy each year.

Watched Like Never Before

Visitor numbers to the Loch Garten Osprey Centre have fluctuated in recent years. The presence of osprey chicks is a major draw for visitors. In 2002, 2003 and 2005 there were no chicks at the site, and visitor numbers were lower in those years as a result. The expenditure of visitors was estimated to have been £1.5 million per annum. However, in 2004, a successful breeding season coincided with major publicity associated with the 50th anniversary of the ospreys returning to Scotland, resulting in 42,600 visitors. In line with the analysis by Guffog and the predictions by Shiel et al, the spending in the local economy as a result of the Loch Garten ospreys in 2004 is estimated at £1.89 million.

Dodd Wood and Whinlatter, the Lake District

Ospreys returned to breed in Cumbria in 2000, the first English breeding since around 1900. In 2001, a pair nested near Bassenthwaite Lake in the Lake District. The public can watch ospreys in the Lake District through an *Aren't birds brilliant* project at Dodd Wood and Whinlatter, run in partnership by the RSPB and Forestry Commission England, with the support of The Lake District National Park Authority. In 2003, a visitor survey was carried out at these sites. The survey interviewed 971 respondents, who answered on behalf of the group they were visiting with; representing a total of nearly 3,000 people.

The level of visitor spending is estimated based on the following information and assumptions. The Dodd Wood and Whinlatter sites attracted an estimated 100,000 visitors during the osprey breeding season. 42% of visitors visit both sites, meaning that 70,500 individual visitors visited the Dodd Wood and Whinlatter sites.

The economic impacts of the visitor spending were calculated using the economic multipliers established by Shiel et al (2002). Spending by the 11% of visitors who described themselves as 'living locally' were not included in the analysis, as it is not additional to the Dodd Wood and Whinlatter area. For the 25% of visitors for whom the ospreys were the 'main reason' for them being in the Dodd Wood and Whinlatter part of the Lakes, 75% of their daily spending was attributed to the presence of the birds. For the 33% of visitors for whom the ospreys were 'one of the reasons' for them being in the Dodd Wood and Whinlatter part of the Lakes, 25% of their daily spending was attributed to the presence of the birds.

The survey revealed that visitors to the sites spent a total of £1.68 million during their visits. Of this, £420,000 of spending has been specifically attributed to the presence of the ospreys. This provided much needed help to the rural economy of Cumbria, in an area hard-hit by the effects of Foot and Mouth Disease.

Porthmadog, Gwynedd

RSPB set up an *Aren't birds brilliant* osprey watch point at Pont Croesor on the river Glaslyn near Porthmadog in North-West Wales in 2004. In 2005, McCraight visited UK

Watched Like Never Before

osprey-watching sites during research for her dissertation (McCraight, 2005). She carried out a visitor survey at Pont Croesor and estimated visitor spending using a similar methodology to that described for Dodd Wood above:

- Pont Croesor attracted 73,000 visits during 2005.
- In total, the visitors spent £1.225 million in the local economy.
- Of this, £750,000 of visitor spending was attributable to the presence of the ospreys.

Rutland Water, Leicestershire

The Rutland Osprey Project, a partnership between Anglian Water and the Leicestershire and Rutland Wildlife Trust based at Rutland Water Nature Reserve, has translocated young Scottish birds to central England and has established breeding ospreys.

McCraight (2005) also conducted a visitor survey at the Leicestershire and Rutland Wildlife Trust Reserve at Rutland Water in 2005. From her analysis, visitor spending at the site is estimated as follows:

- The Rutland Water Reserve attracted 35,000 visits during 2005, in total they spent an estimated £678,000.
- Of these, 25,000 visits were made during the osprey-season, from April to mid September.
- 40% of visitors are locals, 34% are day-trippers and 26% are holidaymakers staying in the local area.
- Average spending is £7.86 by day-trippers, and £52.95 for holidaymakers.
- Ospreys are the main reason for visiting the area for 37% of people, and for 52% they were one of the reasons for visiting the area.
- Allocating a proportion of spending (as described under 'Dodd Wood' above), it is estimated that £154,000 of visitor spending in the local area is attributable to the presence of the ospreys.

Method for estimating visitor spending at un-surveyed sites

Not all UK osprey-watching sites have been covered by visitor surveys in recent years. Therefore, a method is needed to estimate their economic impacts based on the average spend from other sites.

The average spend by visitors to Loch Garten is significantly higher than at the other sites surveyed. The figures at Garten may be exceptional for a number of reasons, reflecting the high media profile and greater development of osprey-related facilities at the site (McCraight, 2005). Therefore, the average spend from the three other surveyed UK sites is taken to represent the typical spend from the un-surveyed sites. The additional spend at the surveyed sites ranged from £5-10 per head, with an average of £7.17 per visitor.

This range reflects the factors captured in the visitor survey work at the different osprey sites. They are used below to estimate the additional spending that other UK osprey-watching sites attract to their local economies. They may be an over or under-estimate for each of these locations, but are believed to be a fair estimate of spend. If anything, they are conservative given the presence of these sites in some traditional tourism areas, where a relatively high proportion of visitors may be attracted to stay overnight in the area due to the presence of the ospreys.

Loch of the Lowes, Perthshire

The Scottish Wildlife Trust operates osprey watching facilities at their Loch of the Lowes reserve near Dunkeld in Scotland. The reserve has a purpose-built osprey watching hide, and a visitor centre with live CCTV camera footage of the birds. It is only open during the osprey-watching season from late March to September. It is run with considerable help from volunteers, who provided 1,805 hours of work in 2005.

The reserve receives approximately 25,000 visitors per year, which in 2005 included 13 groups on educational visits. Using the method outlined in the box below, the ospreys at Loch of the Lowes are estimated to attract an additional £188,000 per year of visitor spending to the local area.

Aberfoyle, Central Scotland

Forestry Commission Scotland operates osprey-watching facilities at David Marshall Lodge in the Queen Elizabeth Forest near Aberfoyle in Scotland. During 2005, it received approximately 34,000 visitors. Using the method outlined in the box above, the ospreys at Aberfoyle are estimated to attract an additional £244,000 per year of visitor spending to the local area.

Tweed Valley, Borders

The Tweed Valley osprey project includes two osprey-watching facilities, in Glentress Forest and at Kailzie Gardens, near Peebles in the Scottish Borders. These sites attract visitors for a variety of reasons, but in 2005 were estimated to receive 10,000 osprey-watching visitors (McCraight, 2005).

Using the method outlined in the box above, the ospreys in the Tweed Valley are estimated to attract an additional £72,000 per year of visitor spending to the local area.

Wigtown, Dumfries and Galloway

Dumfries and Galloway Council operates osprey-watching facilities at Wigtown. They are estimated to have received 23,000 osprey-watching visitors. Using the method outlined above, the ospreys at Wigtown are estimated to attract an additional £165,000 per year of visitor spending to the local area.

Scotland

The majority of the UK's ospreys nest in Scotland, and a major part of the UK's osprey watching occurs in Scotland. The five Scottish sites detailed above attracted approximately 125,000 visitors in 2005. These visitors spent an estimated additional £2.19 million in the areas around these osprey sites – a substantial contribution to the Scottish rural economy. In Scotland, ospreys are an iconic species and a major conservation success story; they are both a cultural and economic asset.

Watched Like Never Before

Fig 1. Map of osprey watching sites in the UK, 2005.

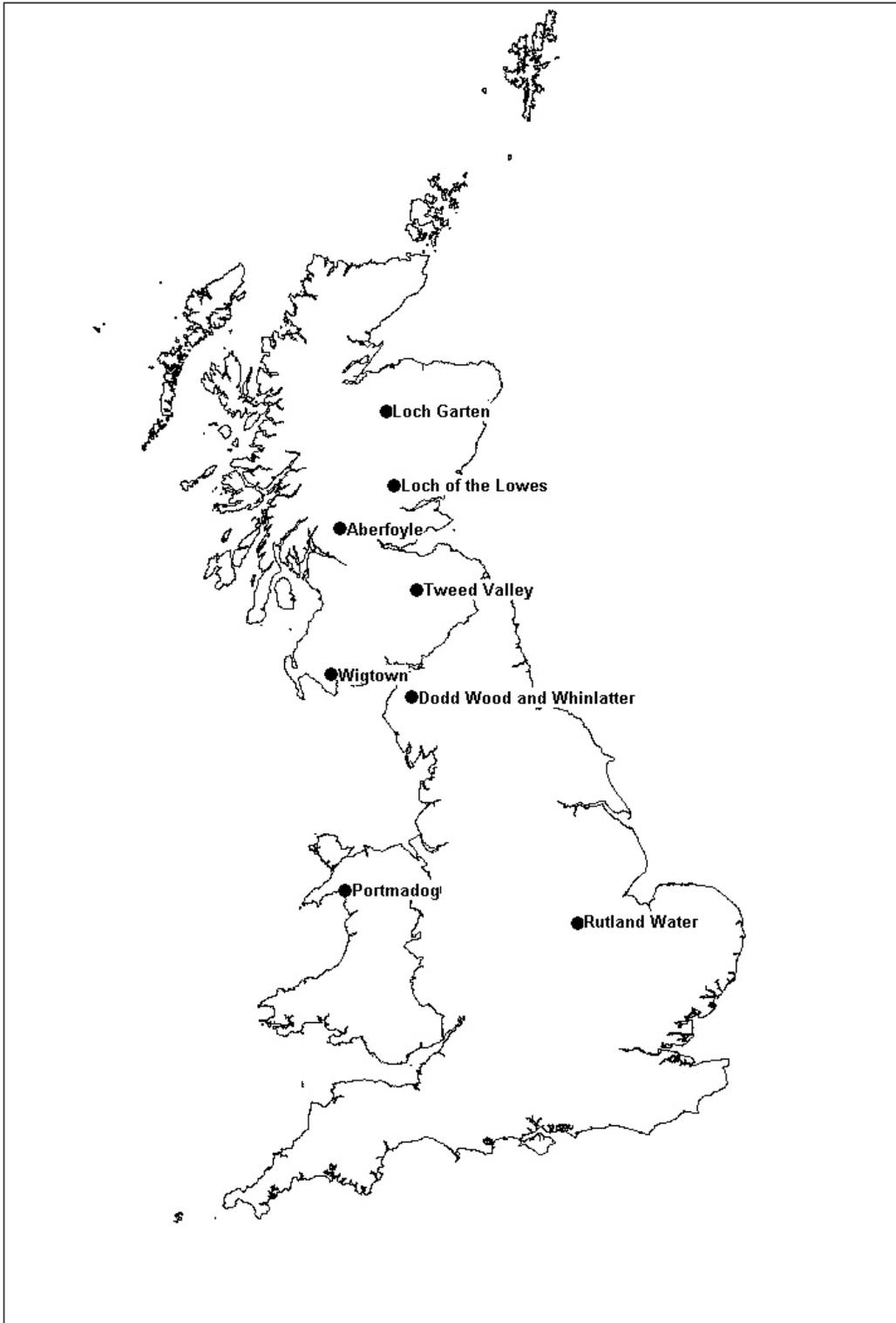


Table 3: Estimated scale of UK osprey watching, 2005		
Site	Estimated Visitor Numbers	Estimated Visitor Spending, £
Loch Garten, Highland	33,000	1,499,000
Loch of the Lowes, Tayside	25,000	188,000
Aberfoyle, Central	34,000	244,000
Tweed Valley, Borders (two sites)	10,000	72,000
Wigtown, Dumfries & Galloway	23,000	165,000
SCOTLAND	125,000	2,190,000
Bassenthwaite, Lake District	70,000	429,000
Rutland Water, Leicestershire	25,000	154,000
ENGLAND	90,000	582,000
Porthmadog, Gwynedd, Wales	73,000	748,000
TOTAL	293,000	3,521,000

Discussion

Table 3 shows some significant variations in the spending by visitors to osprey-watching sites in the UK. Some of this can be explained by the differing methods used to estimate the spending, with conservative methods being used where comprehensive data collection has not been carried out.

Further differences in the levels of spending are probably due to different visitor patterns and characteristics in the areas where osprey sites are located. Higher levels of spending are associated with:

- Traditional tourism areas where a higher proportion of visitors will stay overnight, and
- Areas where tourists are more interested in wildlife generally, and therefore where ospreys are more likely to motivate their visit to the area.

The high figures at Loch Garten are a reflection of all these factors. Strathspey is a popular tourism destination, with wildlife being a major draw. Moreover, detailed survey work in the past has revealed the important role that the RSPB's reserve and facilities at Loch Garten plays in attracting tourists to holiday in the area (Rayment, 1997). Other osprey sites may play a similarly important role in their local area's tourism, but this has yet to be revealed by detailed study.

The visitor spending from the Lake District osprey watching site give an interesting contrast to Loch Garten. The Lake's ospreys attract significant numbers of visitors, who spend substantial amounts of money, but the additionality of that spending attributable to the ospreys is much lower. This might be explained by the importance of factors

Watched Like Never Before

other than wildlife, like landscape and heritage, in attracting visitors to the Lake District. Also, the relative accessibility of the site to day-trippers may mean fewer people whose primary motivation is to watch ospreys need to stay overnight.

Conclusion

The osprey, a fish-eating bird of prey, experienced a sharp decline in the UK and other parts of Europe in the nineteenth century, as a result of persecution by humans. The species' successful recovery has been supported by a wide range of organisations and individuals. This includes the efforts of many landowners and managers, the government and conservation groups with the help of hundreds of volunteers. Ornithologists from the Scottish Raptor Study Groups continue to spend many hours each spring monitoring the birds. The recent partnerships in Cumbria and the developing one in Wales will continue to expand the opportunities to show these exciting birds, and other wildlife, to the public.

Total spending by visitors to osprey-watching sites in the UK is estimated at around £6 million per year. Of this, nearly £3.5 million is the additional spending by osprey-watchers in the local economies of the UK's nine viewing sites. While Loch Garten, the UK's first osprey-tourism site has had fewer visitors in recent years, it still makes a significant contribution to its local economy. In the rest of the UK, osprey watching has boomed. The economic value of osprey watching, and the enjoyment people gain from it, seem likely to continue to increase in the foreseeable future.

Red Kite

Summary

The successful re-introduction of red kites to England and Scotland has raised widespread interest not only amongst wildlife watchers but also amongst wider society. They have become a well-loved feature of the UK countryside, inspiring a sense of pride in local people, not least in Wales where the population has recovered from near extinction. The sight of a red kite adds value to the landscape and acts as a flagship species for raising public awareness of birds and wildlife. Kite areas each attract thousands of visitors per year. Wider benefits include providing a tourism marketing tool.

Species background

The red kite is one of the UK's largest birds of prey with a wingspan up to 195 cm; only the eagles and osprey are larger. It has striking chestnut-red body plumage and upper tail with contrasting pale head. Its deeply forked tail is obvious in its free and accomplished flight.

The red kite is found in a wide range of farmland and upland habitats. Forests, woods or clumps of mature trees are required for safe nesting and roosting sites, but it requires extensive open areas for foraging - farmland, pasture, rough grassland and heath, preferably on productive land. The red kite is principally an opportunistic carrion feeder, being too weak-footed to kill any prey much bigger than a half-grown rabbit.

With the red kite relatively rare today, it is hard to believe that in medieval times it was a common bird, and was even found in central London in sizeable flocks. Following intense persecution in the 18th and 19th century, it became extinct in England in 1871 and in Scotland in 1879. A small population of red kites, that had survived persecution, remained in the old oak woods in the undisturbed upland valleys of mid-Wales. Due to the low rate of chick production the Welsh population appeared slow to spread out of Wales to recolonise its former range.

The red kite in the UK is probably the subject of the longest running species conservation programme in the world, starting with nest protection at the beginning of the 20th century.

The UK re-introduction programme

The UK re-introduction programme run by RSPB, English Nature and Scottish Natural Heritage, with support and sponsorship from many other bodies, started in 1989. Red kites are now established in several areas of England and Scotland, and their range and

Watched Like Never Before

numbers are expanding rapidly. It is estimated that there are currently more than 800 breeding pairs in the UK, with Wales hosting the biggest population.

Chilterns, Central England²

The red kite has become a very visible and a well-loved feature of the Chilterns, which was the first area in England to which red kites were reintroduced. Between 1989 and 1994, kites from Spain were imported and released into the Chilterns and they started breeding in 1992. In 2005, the population was estimated at around 250 breeding pairs. Since 1999, chicks have been taken from the Chilterns to re-introduction sites in other parts of England and Scotland.

Starting in 2000, the Red Kites in the Chilterns project was set up in partnership by the RSPB and the Chilterns Conservation Board. The project had more than 30 regular volunteers and played a role in raising public interest in both red kites and the landscape and wildlife in the Chilterns. The number of people taking part in various activities such as organised talks and walks has increased since the start of the project from 450 to over 2,400 in 2004. Since 2003, an education programme has worked directly with an average of twenty schools per year, and over one hundred local schools have requested an education pack.

The re-introduction of red kites in the Chilterns is proving popular with local tourism offices and authorities as well as local businesses. During 2004-05, the Chilterns Conservation Board worked with local businesses to promote themselves using red kites, through a grant from the South East England Development Agency. This helped to foster local pride in the Chilterns through the special public interest in this popular bird of prey and to identify and bring potential benefits to the local economy.

Red kite related work is continuing in the Chilterns, led by volunteers, with support from the Chilterns Conservation Board. Funding comes through a public donation scheme and the sale of merchandise, such as videos and DVDs of nestwatch footage and about the reintroduction. The Nestwatch project, organised by the Chilterns Conservation Board, started broadcasting live images to a local garden centre in 2004. Visitor numbers, and associated turnover, have increased at the centre as a result, and the project was repeated in 2005 and will be run again in 2006.

Black Isle, North Scotland

The Black Isle is situated in Ross and Cromarty, a district of the Highland region of Scotland immediately north of Inverness. The Highlands of Scotland Tourist Board (HOST) promotes the Black Isle as a naturalist's paradise, with nature reserves and

² : <http://www.chilternsaonb.org>

Watched Like Never Before

visitor centres facilitating viewing of red kites, seals and dolphins. Scottish Natural Heritage and the RSPB reintroduced red kites to the Black Isle between 1989 and 1994. The reintroduction has been successful with 39 nesting pairs raising 83 young in 2005, although suspected illegal poisoning has prevented the population from growing more rapidly. Red kites have become very popular and well known among the local population.

In 1997, the RSPB and HOST established a red kite watching facility at North Kessock Tourist Information Centre (TIC). The use of closed circuit television cameras allows visitors to the centre to watch live footage of nesting kites. In 2000, a study revealed that red kites brought additional visitor spending of £116,000 per year to the region (Rayment and Dickie, 2001). The presence of red kites was estimated to support more than three full-time jobs and adds £35,735 per year to local income. In 2005 prices, this is equivalent to £131,00 of additional visitor spending. Red kite watching helps to strengthen tourism trade through the low season months. Several B&Bs and hostels promote red kite viewing and kites are used on the logo for the rural footpath network on the Black Isle. An award-winning and local best-selling organic beer, Red Kite Ale, is produced by Black Isle Breweries.

Rockingham, Northamptonshire³

In 1995 to 1998, after the successful reintroduction in the Chilterns and further releases in Scotland, 70 red kites were translocated to the East Midlands. In spring 1997, the first four pairs of red kites nested in Rockingham Forest, between the Welland and Nene river valleys. Although there is still some timber production, its woodlands are mainly managed for nature conservation and public recreation. Since 1998, at least 175 red kite chicks have fledged from the site, boosting the total number of kites in the Rockingham Forest area to approximately 300 individuals.

The Red Kite at Rockingham scheme started in 2001, as a partnership project run by English Nature, Forestry Commission England and the RSPB, with support from the SITA Trust. The project's web cams feature live footage of a pair of nesting red kites, and organised activities including guided walks, evening talks and family fun days, have all helped to attract visitors. Since its start, the number of visitors has grown to about 12,000 each year. RSPB survey data shows that in 2005, over 60% of those visiting the kite scheme lived more than 40 miles away. These visitors from outside the local area suggest that the kites may attract additional spending to local businesses.

³ www.rspb.org.uk/birds/brilliant/regions/england/rockingham.asp

Harewood Estate, Yorkshire⁴

In the summer of 1999, young red kites were released into the wild on the Harewood Estate, near Leeds, in the first stage of the Yorkshire Red Kite Project, a partnership between the RSPB, English Nature, the Harewood Estate and Yorkshire Water. The young birds came from the successful wild breeding population in the Chilterns. The project has been a huge success, with the newly established breeding population rearing over 50 young in 2005.

Harewood Estate is immediately north of Leeds, containing the famous Harewood House and gardens that attract over 300,000 visitors a year. It is estimated that over a million visitors have enjoyed the red kites since the re-introduction project began. In addition, around 30 volunteers put in more than 1000 hours per year in 2003 and 2004. Volunteers contributed to the development of red kite activities by leading guided walks and by manning a viewing platform. Local schools have also taken part in the project with schoolwork and visits to the sites.

Dumfries and Galloway⁵

Red kites were reintroduced to South West Scotland near Loch Ken in Dumfries and Galloway, in 2003. The Galloway Kite Trail has been developed by RSPB Scotland, with assistance from Making Tracks, Scottish Natural Heritage, Forestry Commission Scotland, Dumfries & Galloway Raptor Study Group and local businesses. The trail includes various facilities around the loch: footpaths, watch points, information points, CCTV (in summer), release aviaries and RSPB Scotland's Ken-Dee Marshes Reserve. These are all good places to see kites and other wildlife, and visitors to the RSPB's reserve have increased from 8,000 to 12,000 per year since the reintroduction of the kites. A feeding station with a hide has been established at Bellymack Hill Farm near Laurieston, kites are present there throughout the year with over 30 often seen together during the winter.

Red kites are becoming a tourism earner for Dumfries and Galloway. The opportunity to watch spectacular red kites in lovely scenery on the Kite Trail around Loch Ken is attracting thousands of visitors. More than 15,000 visitors have visited the Trail since it opened in October 2003. Some local businesses such as hotels and B&Bs are partners in the Kite Trail project and display unique information panels about the kites' history and biology.

Local business are kept up to date with the latest information on the kites which they pass on to their guests. The trail is helping to strengthen a sense of 'ownership' of the kites felt by local communities and tourist operators. Supporting the trail helps the local

⁴ www.rspb.org.uk/birds/brilliant/regions/england/redkitesyorkshire.asp

⁵ <http://www.gallowaykitetrail.com/>

Watched Like Never Before

population of red kites by making them a financial asset to the area. Eight red kites were illegally poisoned in South West Scotland in 2003, so the birds needed all the community support they could get to help them establish a viable breeding population in Dumfries and Galloway. With twelve breeding pairs in 2005 and no confirmed illegal poisonings for over two years, the trail appears to be helping both the kites and the local economy.

Northern Kites, Gateshead, Tyne & Wear⁶

The Northern Kites initiative, established in 2004, is a partnership between English Nature, The RSPB, Gateshead Council, Northumbrian Water, The National Trust and Forestry Commission England, with additional funding from The Heritage Lottery Fund and the SITA Trust. The project has a budget of £180,000 a year for 2004 – 2009 and employs the equivalent of four full-time staff.

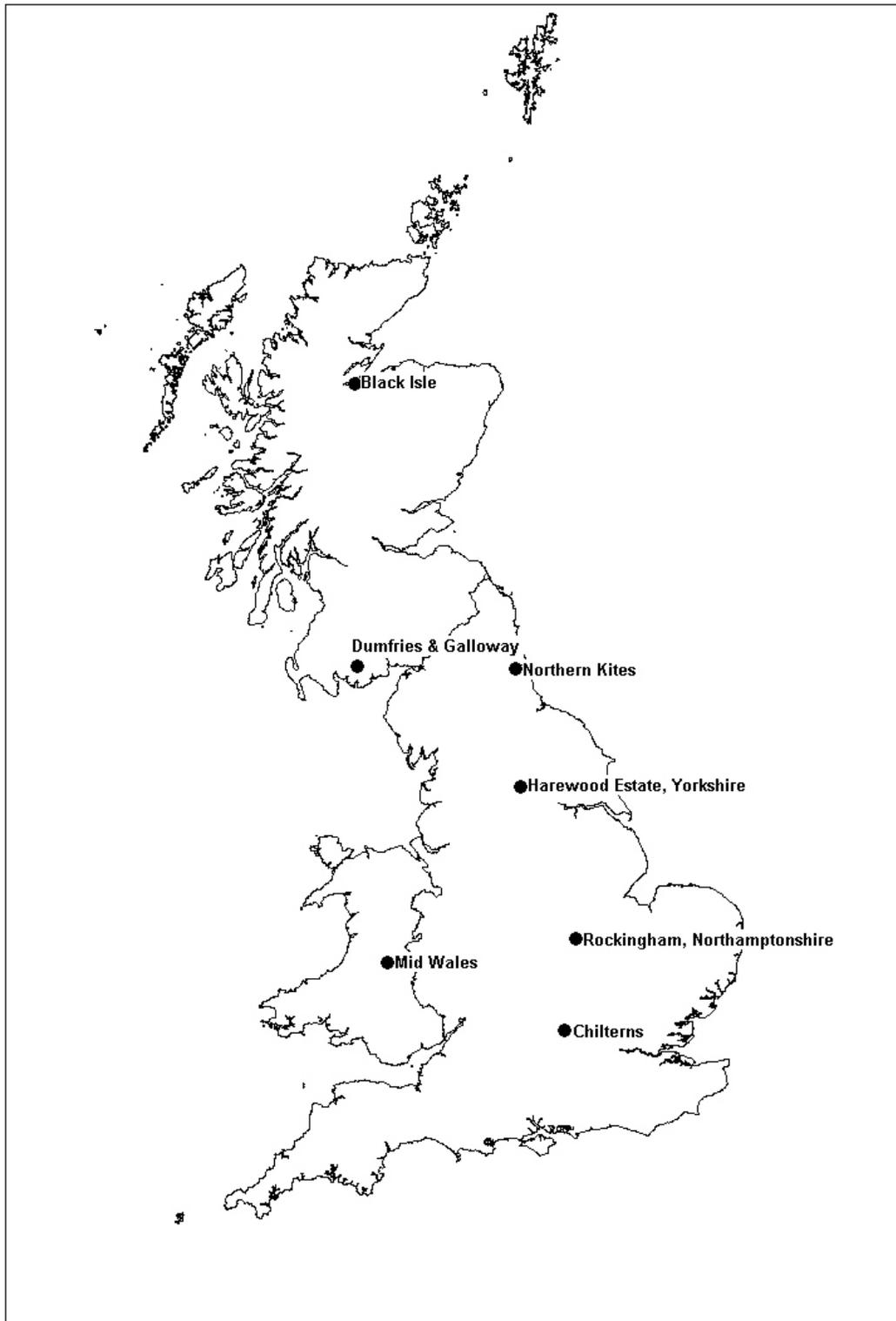
The project released twenty birds in 2004. Shortly after, local schools were given the opportunity to adopt a kite, and they get regular reports on its activity. In 2005, 41 birds were released, and further releases are planned in 2006. Lots of positive feedback has been received on the back of the return of this amazing bird to the edge of a major conurbation. Public support for the Northern Kites project has been positive, with an estimated 4,000 people watching the kites in its first year. One local pub close to where most of the kites winter has reported a noticeable upturn in weekend business, as a result of people coming out to see the kites.

Since its start, the project has received significant support from volunteers, who contributed close to 3,000 hours during the first 18 months. David Anderson, MP for Blaydon, in his maiden speech to Parliament, referred to the Northern Kites Project as one of the iconic, defining features of his constituency, just a few miles from the centre of Newcastle.

⁶ www.northernkites.org.uk

Watched Like Never Before

Fig 2. Map of red kite watching sites in the UK, 2005.



Mid Wales

Rural Mid Wales supports the native British population of the red kite. Red kites have become an important marketing tool attracting many visitors to the region. They have helped to define the image of Mid Wales, and to diversify a rural economy over-reliant on agriculture.

Largely funded by European Union cohesion funds, the Kite Country project was launched in 1994. The project was successful in stimulating the tourism industry and raising awareness of birds of prey and the environment. Kite Country centres received 148,000 visits in 1995/96. These visitors were estimated to have spent £5.4 million in the Mid Wales economy, £2.9 million of which can be attributed to the Kite Country project. This expenditure was estimated to support local income of £860,000 and 114 FTE jobs (Rayment, 1997).

The local tourism sector uses red kites to advertise the region. Information about red kite watching facilities is available from most B&Bs, hotels and hostels and the kite appears on a wide range of leaflets and posters, its silhouette features in shop windows and forms the logos of various companies and local authorities.

The red kite's successful reintroduction to the UK means it is now a much more widespread species than in 1996 when the Kite Country project's economic impact was measured. However, red kite watching schemes are still active in the area. A project at Nant-yr-Arian, in partnership with the RSPB and Forestry Commission Wales, started in 2004. In its first year, 5,500 visitors enjoyed the opportunity to watch red kites over a 2.5 month period, including 140 pupils from local schools.

At other locations in Mid-Wales, such as Gigrin Farm, farmers have set up commercial red kite watching stations. The Welsh Kite Trust has played a major part in raising the profile of kites in Wales. Red kite watching remains a draw for visitors to the environment of rural Mid-Wales.

Conclusion

The reintroduction of red kites in England and Scotland, and its conservation in Mid-Wales, have made this spectacular species part of the landscape in many parts of the UK. Rather than attracting people to a single location (such as a nest site), kites become part of an area's countryside. Therefore, it is difficult to precisely measure the level of visitor interest they attract. Nevertheless, it is clear that tens of thousands of people each year enjoy watching kites in each of the reintroduction areas. The reintroduction of red kites can be seen as an investment that gives people an opportunity to enjoy wildlife, and gives local economies an extra marketing tool.

Bee-eater

Summary

Breeding attempts by bee-eaters in 2002 and in 2005 were the first two in the UK since 1955. A successful pair in Co. Durham attracted 15,000 visitors in five weeks and 4,000 people visited the watch point in Herefordshire in the 10 days before the nest unfortunately failed. The popularity of these rare and colourful birds with the public was reflected in extensive media coverage.

Species background

Bee-eaters are breathtakingly colourful birds with turquoise underparts and tails, bright yellow throats, chestnut heads and backs, green eye markings, and a black eye stripe. They are insect-eating birds, feeding on a wide variety of flying insects. Normally a southern European species, these exotic-looking birds normally nest no closer to the UK than central France.

Bee-eaters are a rare migrant to the UK, and an even rarer breeding bird. After a pair in Sussex in 1955, the species did not nest in the UK for 47 years, until a pair arrived in Co. Durham in 2002. In 2005, another pair tried to nest in Herefordshire. The RSPB worked to ensure both nest sites were not disturbed by people, and to arrange visitor access so that the public could enjoy these spectacular birds.

Watching bee-eaters in the UK

Durham

Bee-eaters nested at Bishop Middleham Quarry Durham Wildlife Trust (DWT) nature reserve in Co. Durham during 2002. The pair of bee-eaters arrived in the Bishop Middleham area on 3 June, a totally unexpected arrival so far north.

After a few days, the birds began nest construction, and RSPB and DWT quickly set up special management arrangements at the site. A 24-hour watch on the nest was mounted to safeguard the birds from egg thieves or accidental disturbance. An *Aren't birds brilliant* watch point was opened to the public on nearby farmland after the chicks hatched on 23 July, with the farm owner charging £2 for parking.

The RSPB and Wildlife Trust successfully recruited a small army of local volunteers to help run the site. They helped watch over the nest and helped visitors enjoy views of the birds using telescopes provided by the RSPB. Two youngsters eventually fledged from the nest burrow on Saturday 24 August. They remained in the area with their parents for a short period before the group were seen heading south on migration.

Watched Like Never Before

The event received significant media coverage, featuring on the front page of the Daily Telegraph, and the BBC 1 o'clock news. There was also substantial coverage in local news bulletins and media, with newspapers reporting Bishop Middleham being 'put on the map' by the bee-eaters. The Northumbria Tourist board were quoted as saying that their presence could have attracted £100,000s of visitor spending and introduce Co. Durham to a new audience.

Visitors' economic impacts are difficult to estimate, but people running businesses in Bishop Middleham reported increased trade – the landlady of one local pub saying that "*There have certainly been a lot of people calling for bar meals or a drink while here to see the birds*". In the region of 15,000 people are estimated to have visited the watch point in five weeks to enjoy views of one of Europe's most colourful birds.

Herefordshire

Another pair of bee-eaters nested at White Hall Farm, near Hampton Bishop in Herefordshire, in 2005. Knowledge of the birds' presence did not reach the RSPB until the nest contained chicks. However, by this time news of the birds was spreading amongst birdwatchers. In an attempt to protect the nest from disturbance and to provide birdwatchers with safe viewing of the birds, the RSPB hastily arranged an *Aren't birds brilliant* scheme in conjunction with the local farmer.

The Herefordshire bee-eaters attracted significant media coverage, featuring on BBC Midlands TV, and in national and regional newspapers. Unfortunately, the nest was destroyed by a predator, so the breeding attempt failed. However, during the 10 days the site was open, it attracted approximately 4,000 visitors. RSPB survey work at the site revealed that 60% of visitors were locals – coming from within 40 miles of the site. Therefore, the bee-eaters attracted approximately 1,600 people from more than 40 miles away, whose spending is likely to have had a small positive effect on the local economy during the brief existence of the watch point.

Conclusion

The bee-eater is an extremely rare breeding bird in the UK. Nesting birds need protection from illegal activities, but can also attract people who wish to enjoy watching them without disturbance. During their brief presence (10 and 32 days), watch points at the two recent British breeding attempts attracted around 400 people per day - a significant number of people.

Breeding bee-eaters provide enjoyment for thousands of people. Such numbers are sufficient to potentially have had a small positive, if short-lived, economic effect in the communities local to the sites, both of which would not otherwise have a wildlife draw.

Chough

Summary

In 1973, choughs became extinct in Cornwall, but in 2001 three wild birds returned to The Lizard, and in spring 2002 a pair bred for the first time in 50 years. In four years the pair have successfully reared 15 youngsters, a new generation of Cornish choughs.

The Lizard, in Cornwall offers visitors the opportunity to observe these rare and acrobatic birds from a watch point during the breeding season. Since its opening in 2003, thousands of visitors have come every year to enjoy these rare birds. In 2004, it was estimated that the presence of choughs attracted £118,000 of visitor spending to the Lizard area, supporting the equivalent of 3.2 full-time jobs.

Species background

The chough (pronounced 'chuff') was once widespread around the coast of the UK, but declined from the early 19th century to a low of around 300 pairs. Over the past few decades, numbers have slowly started to increase in response to positive land management changes. There are around 500 pairs, mainly in Wales, the Isle of Man and western islands of Scotland.

Choughs are part of the crow family. They have red beaks and legs, and make an excitable, high-pitched 'chi-ow' call, from which they get their name. Choughs are extremely acrobatic and their tumbling display flight is an impressive and memorable sight. Cornwall was once a stronghold for choughs, which are deeply rooted in Cornish culture - they are depicted on the county's coat of arms alongside a miner and fisherman. Businesses and organisations use their name, and many refer to them as Cornish choughs. They also feature regularly in Cornish legend, and rumour has it that King Arthur was transformed into a chough when he died, the red feet and beak representing his violent, bloody end.

Choughs can be seen along much of coastal Wales and there are good populations on the Isle of Man and on Islay in Scotland. They also have a foothold in Northern Ireland. The choughs on the Lizard and west Cornwall are the only wild choughs resident in England.

Conservationists and farmers have worked together for years to create better conditions for choughs in Cornwall. Work to restore the coastal habitat of short vegetation that choughs depend on, now takes place through the Cornwall Chough Project, set up by the RSPB, the National Trust, English Nature and the Rural Development Service.

Watched Like Never Before

In 2001, three wild choughs settled in west Cornwall (Cornwall Chough Project, 2004). In 2002, nesting began, and a team of dedicated volunteers kept a round-the-clock watch to protect the birds from egg-collectors. The pair has successfully fledged four broods, and many of these young birds can be seen feeding on the cliffs and fields around The Lizard and west Cornwall. To give the public a chance to see the choughs in the wild, an *Aren't birds brilliant* watch point was set up from early April until mid June in the National Trust car park at Lizard Point. Fortunately, these sociable birds are oblivious to the excitement they raise, thus carrying on with their daily routine of foraging on the cliffs and fields around this dramatic peninsula.

Economic impact of choughs in Cornwall

In 2004, the RSPB conducted a survey to gauge the importance of the choughs as a factor in attracting people to The Lizard, and to find out what contribution, if any, the birds are making to the local economy. The survey took place between 26 April and 31 August via self-completion questionnaires, handed to visitors on the conclusion of their visit. More than 200 completed surveys were collected, representing the views of 535 visitors.

It is thought that 250,000 people visit The Lizard every year, of which an estimated 18,000 visited the watch point in 2004 and 2005. Holidaymakers made up the vast majority of visitors (81%), but local people (6%) and people making day-trips from home (14%) were also attracted to the site. Further data gathered in 2005 are consistent with these results, showing that 86% of visitors travel more than 40 miles to come to The Lizard. The average expenditure by holidaymakers was £26.79, three times more than visitors on a day trip, who spent an average of £8.86. Total expenditure by visitors to the watch point, excluding locals, on the day of their visit, amounted to £407,563.

Choughs were the main reason for visiting The Lizard for 30% of the parties; a further 34% stated that the choughs were at least one of the reasons for visiting, while 30% said they only decided to visit once in the area. The share of visitor spending attributable to the choughs is estimated by allocating 75% of expenditure if choughs were the main reason, 25% from those for which it was one reason, and nothing for those who decided to come once in the area. Results show that in 2004, choughs brought £118,000 to the Lizard Point region. Using the economic multipliers established by Shiel et al (2002), adjusted to 2004 prices, it is estimated that the choughs support 3.2 full-time equivalent jobs.

Conclusion

The return of the chough to the Lizard, provides the public with an opportunity to see Cornwall's symbolic species from a watch point during the breeding season. Thousands of visitors come to enjoy these rare birds, and in 2004, it was estimated that the presence of choughs attracted £118,000 of visitor spending to the Lizard area.

Peregrine

Summary

Peregrines are well known for being the world's fastest bird. In some areas, nesting peregrines still require protection from illegal disturbance and persecution. Protection of nest sites that are regularly occupied provide opportunities for peregrine watch points. The RSPB peregrine watch point at Symond's Yat Rock was established in this way, and was one of the first dedicated bird watching schemes away from a nature reserve. It is estimated to still attract over £0.5 million of visitor spending to the Forest of Dean each year.

Urban sites and high-powered telescopes are providing new opportunities to wow hundreds of thousands of people with the thrill of dramatic wild raptors. The eight sites documented here receive over 120,000 visitors per year. Further sites are promoted at a local level, and via websites that show live picture of peregrine nests, all of which makes peregrines one of the UK's most watched birds.

Species background

The peregrine is a large and powerful falcon. To many people, it is the epitome of British birds of prey, with its speed, flying skill and hunting prowess. For many conservationists, it is also a symbol of recovery. The strongholds of the breeding birds in the UK are the uplands of the north and west and rocky coasts, although as numbers have recovered, they have adapted to living close to humans, nesting on electricity pylons and ledges of tall buildings, even right in the centre of London.

Peregrines have suffered persecution from gamekeepers, falconers and pigeon fanciers, and were a target for egg collectors. The population crashed as a result of secondary poisoning from organochlorine pesticides, such as DDT, in the 1950s and '60s. Better legal protection and control of pesticides have helped the population to recover considerably. Nevertheless, the breeding population is only around 1,500 pairs, and numbers declined in north and west Scotland, north Wales and Northern Ireland during the 1990s.

UK peregrine watch points

Peregrines are not easy birds for members of the public who are not experienced birdwatchers to see. But they are a charismatic species; their long wings and relatively short tail enable them to hunt in flight for medium-sized birds, such as waders, pigeons and small ducks, and make them well known for being the world's fastest bird, capable of speeds well over 100 mph in a dive. These factors might explain the popularity of the

Watched Like Never Before

increasing number of peregrine watch points that have been set up in the UK in recent years.

Watch points for peregrine nests are, by nature of the birds' breeding activities, temporary projects that may change from one year to the next. However, many nest sites are regularly occupied, allowing some visitor facilities to be developed. Peregrines often occupy ledges in steep inaccessible locations in both urban and rural areas, such as natural cliffs, in quarries or on tall buildings. Urban sites offer unique opportunities to allow the public to see one of the UK's most charismatic birds of prey. Rural sites often also have other interest for visitors – such as other wildlife or dramatic landscapes.

Sites with significant visitor facilities for which details are known are described individually below. However, peregrine watching takes many different forms in the UK. In particular, nest sites are often 'watched' remotely via nest-cameras. Most famously, a pair in central London was featured in this way on the BBC's Springwatch programme in 2005, which averaged 3.4 million viewers (BBC, pers comm).

CCTV-style pictures of peregrines have been placed on the web from several schemes around the country. In addition to those mentioned below, nest sites from which peregrines are viewable in this way include: Wick Quarry in Gloucestershire⁷; and Sussex Heights⁸. At some sites, visitors can readily see peregrines even though specific facilities are not provided to help watch them. These sites are not featured in detail below, but examples include Avonmouth Gorge in Gloucestershire, RSPB's South Stack nature reserve on Anglesey, and Grey Mare's Tail National Trust for Scotland Nature Reserve in the Moffat Valley, Dumfries & Galloway.

Symonds Yat, Gloucestershire

Symond's Yat Rock is a wooded limestone outcrop at the northwestern edge of the Forest of Dean. Peregrine falcons bred at Symond's Yat Rock until their population crashed in the 1950s. A pair returned to breed successfully in 1982, but failed the next year when their nest was robbed. This prompted the RSPB to approach the Forestry Commission to establish a nest protection and viewing scheme in 1984, which has operated every year since. Information Assistants and volunteers are present from April to August each year, showing the birds to visitors, providing information about them, and securing support through membership recruitment and donations.

In 1999, Andrew Case carried out a visitor survey at Symond's Yat. He estimated that Symond's Yat Rock Peregrine Project attracted extra visitor spending of £551,000 to the Forest of Dean area, supporting 18 FTE jobs (Rayment and Dickie, 2001). In 2005, its 23rd year of operation, RSPB staff and volunteers kept the watch point open daily

⁷ Source: <http://www.peregrinewatch.info/> accessed 6/3/06.

⁸ Source: <http://www.regencybrighton.com/birds/2005/> accessed 6/3/06.

Watched Like Never Before

during the breeding season. From April to August, 42,500 visitors came to witness the spectacle of breeding peregrines.

In 1999, Case found that 3% of the watch point's visitors were locals. RSPB survey work in 2005 found that 3% of visitors lived within 40 miles of the site. Therefore, it is assumed that visitor spending still occurs today in a similar pattern to 1999. The current economic benefit of the site can be calculated based on the 1999 data. Allowing for inflation and changing visitor numbers, Symond's Yat Rock *Aren't birds brilliant* peregrine project is estimated to have attracted extra visitor spending of £557,000 to the Forest of Dean area in 2005.

London

A pair of peregrines first occupied a ledge at the top of the University of Westminster, opposite Madame Tussaud's, in 2003. After their failed attempt, a nest box was installed at the end of the year. In 2004, once the chicks were well grown, the RSPB set up a popular five-day telescope watch point. That winter, the University installed a high-quality camera to look along the ledge, and into the box. In Spring 2005, the birds returned to the University later than expected, but the family duly appeared as stars of the BBC's Springwatch TV programme

In 2005, the RSPB also ran an *Aren't birds brilliant* event to watch the peregrines from nearby Regent's Park for a month while the chicks were in the nest. Over 6,750 people visited the Regent's Park watch point between 18 June and 17 July.

The RSPB then arranged a watch point at the Tate Modern art gallery for a further month, when the pair, as expected, took their young across the River Thames to base their activities around the top of the Tate's chimney. The watch point at the Tate received 31,278 visitors during August 2005.

Both watch points used the trailer from the RSPB's Wildlife for All⁹ project as a base, with four telescopes available for the public to watch the birds. They were staffed by a rota of about 70 volunteers from the RSPB's London Groups. Comments in visitor books included special thanks to the friendly and informative volunteers, among thousands of expressions of surprise and delight at seeing the birds.

Malham Tarn, North Yorkshire¹⁰

The RSPB and Yorkshire Dales National Park Authority (YDNPA) set up an *Aren't birds brilliant* project in 2005 to allow the public to watch breeding peregrines. The birds are watched through telescopes on the rocks in Malham Cove, a beauty spot in the National

⁹ See p 13 in <http://www.rspb.org.uk/policy/Economicdevelopment/wellbeing.asp>

¹⁰ Source: http://www.yorkshiredales.org.uk/section_news_detail.htm?id=1567§ion=MainNews

Watched Like Never Before

Park. The project came in the wake of a report showing that since peregrines returned to the Yorkshire Dales in 1978, those in areas managed for grouse shooting fledged markedly fewer young on average than sites away from grouse moors (Court et al, 2004).

The watch point was run by staff and volunteers from the two organisations. In 2005, more than 21,000 people visited the watch point in three months. The site has other interesting wildlife on view, and is a popular beauty spot, so it is not possible to attribute these visitors solely to the presence of peregrines. However, RSPB survey work in 2005 established that over 70% of visitors came from more than 40 miles away. The enthusiastic response of visitors to the Tarn, and the dozens of volunteers who have helped with the project, point to the success of the scheme, that provides an additional source of enjoyment to a visit there.

Exeter Cathedral, Devon

For the past 10 years, peregrines have nested on St Michaels and All Angels church in Exeter. In 2004 a camera was installed by eco-watch, a daily feed was broadcast live on the RSPB website and into the Royal Albert Museum in Exeter. Between April and the end of July 2005, an *Aren't birds brilliant* project showed CCTV footage on a large screen in the Royal Albert memorial museum, and was visited by 15,000 people. A website featuring pictures received over 10,000 hits. 400 people also came to watch the peregrines at special events from the top of a multi-storey car park.

Dare Valley, Mid Glamorgan

An *Aren't birds brilliant* project in the Dare Valley Country Park in Mid Glamorgan was disappointed by the failure of its pair of peregrines to nest in 2005. However, volunteers helped visitors to gain good views of the birds, which remained on territory in the Valley. The 2,000 visitors to the site included 170 local school children.

Falls of Clyde, Lanarkshire¹¹

The Scottish Wildlife Trust runs a peregrine watching scheme at their Falls of Clyde reserve. Peregrine have bred at this site since 1998. During the five-month breeding season, the Trust employs a warden, who protects the site 24 hours a day. In 2005, volunteers contributed 780 hours to help manage the site.

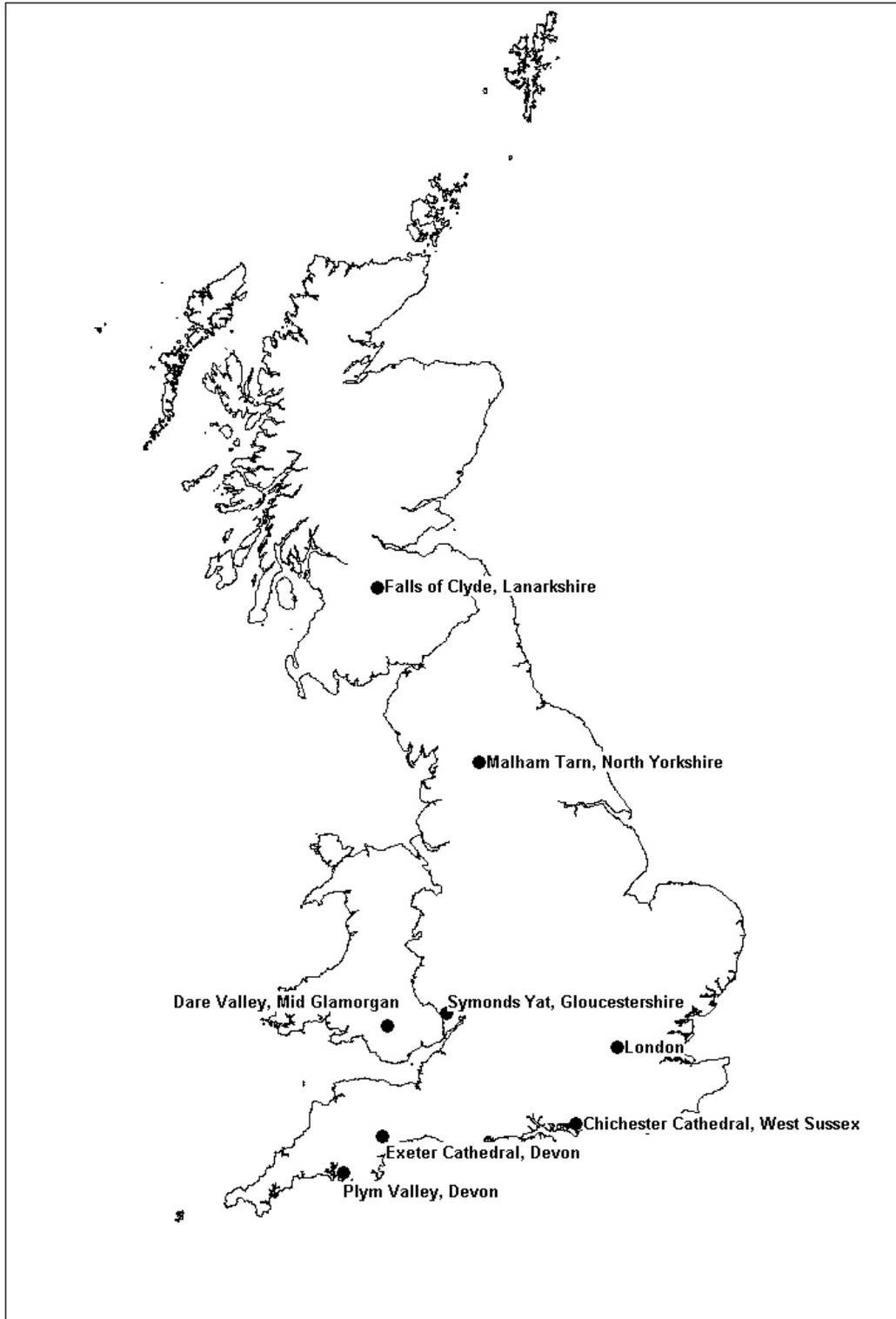
The nest is also monitored via CCTV cameras, pictures from which are shown in the reserve's recently refurbished visitor centre and on the internet. The Falls of Clyde peregrines received significant coverage in the Scottish press in 2005. The reserve

¹¹ Scottish Wildlife Trust, pers com.

Watched Like Never Before

attracts 80,000 people per year. Approximately 20,000 of these visit the Peregrine watch point, and about 9,000 use the visitor centre.

Fig 3. Map of organised UK peregrine watch points featured in this report.



Plym Valley, Devon¹²

Peregrines regularly nest on the cliff face of Cann Quarry, Plymbridge Woods, near Plymouth, highly visible from the Sustrans National Cycleway on the Cann Viaduct, which cuts through the woods. Peregrines in the area had been the target of deliberate persecution. In 2000, birds breeding in Plymbridge Woods were found dead after bait, laced with poison, was lowered into their nest. After this terrible incident, the National Trust set up a joint scheme with the RSPB to protect the birds with covert surveillance cameras, helped by a team of local volunteers and support from local companies. In 2002, the London Camera Exchange of Plymouth and Plymouth Caravan Centre helped launch the peregrine scheme and volunteer wardens were appointed. Peregrines have nested successfully in each year since.

A special peregrine watching platform, with several telescopes, is open at Cann Viaduct most weekends between Easter and the end of July. Volunteers, co-ordinated by the National Trust's seasonal warden, welcome the visitors and provide the latest information on the birds. Special facilities are available for people with disabilities and for children.

The project has successfully engaged with the local community. Plymouth College of Further Education organised a live webcam – believed to be the first to show a peregrine nest site in a natural setting. Leigham Junior School, with which the Trust has set up a Guardianship scheme, organised educational activities relating to peregrines.

The Wrigley Company, whose factory adjoins the woods, made a generous financial contribution and its buildings were used to site radio equipment for the video transmissions. Nearly 20 commercial organisations have been involved with the project, which has also received Aggregates Levy Sustainability Funds from English Nature. Approximately 60,000 people are estimated to pass the viaduct watch point each year, and in 2002, at least 4,500 visitors stopped to enjoy the scheme.

Chichester Cathedral, West Sussex

A pair of peregrines bred on Chichester Cathedral in 2005, successfully rearing four young. Between early May and late June, an RSPB *Aren't birds brilliant* scheme enabled 4,000 people to watch the birds and learn about their lifestyles. The project also showed television pictures of the peregrines to visitors in the cathedral's tearoom.

¹² Source: http://www.nationaltrust.org.uk/main/w-chl/w-countryside_environment/w-nature/w-nature-projects/w-nature-projects-plym_peregrines.htm

Conclusion

Peregrines have made a welcome recovery, moving into towns, a new habitat that they have not previously exploited, but where they can live well. These urban sites and high-powered telescopes are providing new opportunities to bring the thrill of dramatic wild raptors to people during a working day, and an added feature to the weekend tourist trail. Particularly in some rural areas, some nesting peregrines still require protection from illegal disturbance and persecution.

The RSPB peregrine watch point at Symond’s Yat Rock, Forest of Dean, was one of the first dedicated bird watching schemes away from a nature reserve, but it has led the way, such that hundreds of thousands of people have been wowed by these spectacular birds. In the long-term, this can only be good for their conservation. Visitor numbers at peregrine watch points are summarised in the table below.

Site	Number of Visitors
Tate Modern	31,000
Regent’s Park	6,700
Chichester Cathedral	4,000
Exeter Cathedral	15,000
Dare Valley	2,000
Plym Valley	4,500
Malham Tarn	Up to 21,000
Symonds Yat	42,500
Falls of Clyde	20,000
TOTAL	Over 120,000

Breeding peregrine watch points were visited by over 120,000 people in the UK in 2005. This figure includes people watching birds via public screening facilities, but excludes the millions who enjoyed TV footage of peregrines. Further peregrine-watching activity involves people logging on to webcams featuring peregrine nests, all of which makes peregrines one of the UK’s most-watched birds.

Capercaillie

Summary

After years of declining population in the UK as a result of habitat loss, the rarity of capercaillie meant that birdwatchers' efforts to see them in the wild created another potential threat to their survival. The RSPB established capercaillie viewing (*Caper-watch*) at its Loch Garten reserve in 2000. It has since attracted over 10,000 visitors, who bring increased tourism trade, estimated in tens of thousands of pounds each year, to Strathspey outside the peak holiday season.

Species background

The capercaillie is the largest grouse in the world and in Scotland is mainly associated with semi-native Scots pinewoods and pine plantations. A large part of the population is now found in Strathspey – with a significant proportion of the population on RSPB-owned land. Male capercaillies display to females at communal gatherings, known as leks.

The last known record of native Scottish capercaillie was from 1785 in Aberdeenshire. By the second half of the nineteenth century, Scottish forests were largely felled and the species is thought to have become extinct. Following extensive reafforestation, the species was successfully reintroduced from 1837 onwards and quickly recolonised much of the pinewood of northern and eastern Scotland. From the early 1970s, the species went into a sustained decline, to just 1,100 birds in 1999. Since then, the population has increased to approximately 2,000 birds, at most, in 2004.

All of the key sites for capercaillie are now involved in conservation projects for the species and significant funding has been attracted, particularly from the European Union (EU). The EU LIFE-funded Capercaillie project involves spending around £100,000 per year on habitat management, monitoring and communications for the species. This is directly supporting jobs in forestry on private estates throughout rural Scotland, whilst achieving the aim of conserving capercaillie. The conservation work being carried out on these sites is based partly on management experience at the RSPB's Abernethy nature reserve, and on research work carried out by the Centre for Ecology and Hydrology and RSPB.

A significant benefit of managing pinewoods for capercaillie is that the work benefits most other pinewood specialists. The capercaillie can therefore be regarded as an 'umbrella' species. For example, many commercial pinewoods have been altered to make them more structurally diverse – this creates habitat niches for a wide range of invertebrates from wood ants to specialist pinewood beetles. The continuing existence

Watched Like Never Before

of capercaillies in the UK is down to the efforts of many expert and enthusiastic organisations, forest owners, land managers and individuals.

Watching capercaillies in the UK

The capercaillie is a secretive bird and is very difficult to see in the wild. As the population declined in the 1990s, the activities of some birdwatchers caused significant disturbance at some leks. In response to this, a code of conduct was endorsed by leading birdwatching magazines and organisations (RSPB, 2004), and the RSPB trialled a *Caper-watch* at the RSPB Loch Garten Osprey Centre in 2000. The site is lucky enough to have lekking capercaillie in the area that surrounds the osprey nest. The birds are usually on view from dawn at the existing osprey-watching facilities. If the birds cannot be seen from the Centre, dedicated *Caper-watch* staff will escort visitors to another hide, just 30m away, to get views of the birds. There are also three remote-controlled CCTV cameras situated in the area, from which pictures of lekking capercaillie can be relayed to the Centre.

The *Caper-watch* runs from 1st April to the third-weekend in May, the period when the birds are usually on show at the Osprey Centre. The Centre is open between 5.30am and 8am and then re-opens at 10am for osprey watching.

The chances of seeing capercaillie well at *Caper-watch* are much higher than anywhere else. For example, in 2005, the facility was open for over seven weeks and capercaillie were seen on more than 80% of the mornings. Such a success rate would not be possible away from an organised setting.

In parallel with the *Caper-watch* scheme, birdwatchers' activity at other capercaillie sites has decreased markedly. Therefore, the scheme has been very successful as a means of showing large numbers of people capercaillie in the wild in a controlled and managed way, whilst reducing disturbance elsewhere. The RSPB currently charges *Caper-watch* visitors to use the facility. The rates are £1 for members and £3 for non-members. This helps cover the costs of the extra staffing required to run the event.

Year	Approximate number of weeks	Number of visitors
2000	4	791
2001	7	1,532
2002	7	1,857
2003	7	2,017
2004	7	1,944
2005	7	2,020

Economic impact of Caper-watch

The *Caper-watch* scheme has attracted over 10,000 visitors (table 5) during its 6 years to date. An average of 30 to 40 attend each morning, but peak mornings can attract over 100 capercaillie watchers. The scheme has achieved its primary aims of reducing disturbance to capercaillie, whilst still affording people the opportunity of seeing this wonderful bird.

Capercaillie watchers also have a positive effect on local businesses in the Strathspey area. Visitors travel long distances, from all over the UK, to attend *Caper-watch*. The need to be at the site at dawn, when capercaillies lek, means their presence gives the local B&B sector a boost at a time of the year when otherwise it is relatively quiet. Birdwatchers need accommodation and proprietors are recommending to their guests that they attend *Caper-watch*.

Compared to the osprey, capercaillie is an equally spectacular, and even more sought-after, species in the UK. Therefore, it is likely that capercaillie-watchers spend a similar amount as a result of their visits to see capercaillie at Loch Garten as the sites' osprey-watching visitors do (see osprey chapter).

Through comparison to osprey visitors spending, it is roughly estimated that the capercaillie visitors spend £90,000 each year in Strathspey. Some of the economic activity associated with *Caper-watch* is undoubtedly displaced. In other words, it was occurring anyway, based on birdwatchers visiting the Highlands of Scotland to see capercaillie at other locations, or to see other species, such as osprey.

The *Caper-watch* scheme provides a relatively easy way to see birds that birdwatchers previously lacked. The scheme attracts press every year, with coverage on BBC Scotland TV and radio, which raises awareness of the plight of the capercaillie, and publicises Strathspey as a visitor destination. Therefore, at least a proportion of spending by visitors to the *Caper-watch* scheme, is probably additional.

Conclusion

The rarity of capercaillies in the UK meant that birdwatchers' efforts to see them in the wild created another potential threat to their survival. The RSPB established *Caper-watch* at its Loch Garten reserve in 2000, since when it has attracted over 10,000 visitors. These visitors bring increased tourism trade to Strathspey outside the peak holiday season. *Caper-watch*, and efforts to conserve capercaillie in Scotland, have secured benefits estimated in tens of thousands of pounds to the local economy each year, and raises awareness of the bird's needs. A major programme of conservation action, which itself provides employment for local people, is aimed at bringing capercaillies back from the brink of extinction in Scotland.

Montagu's Harrier

Summary

Between 26 June and 31 August 2004, a watch point arranged in conjunction with a neighbouring farmer to RSPB Frampton Marsh nature reserve, gave members of the public the first ever opportunity to view breeding Montagu's harriers at a proactively organised site in the UK. The 'Full Monty' project received significant media coverage and was visited by 5,660 people.

Species background

The Montagu's harrier is one of the UK's rarest and most graceful birds of prey. Its breeding range is confined to warm temperate parts of Europe, and the low-lying steppes of southwest Asia. It is essentially a lowland species, traditionally favouring fen, marsh, rough grassland, heath, moor and sand dunes. In recent years in the west of its range, there has been a strong trend towards nesting on arable farmland. The Montagu's harrier is one of the few raptors that is fully migratory, western European birds wintering in sub-Saharan Africa, whilst Asian birds migrate to India.

Britain lies at the western edge of its distribution, and historical data show no widespread abundance of the species in this country. Nest sites are largely restricted to the south and east of England. The twentieth century population peak appears to have been in 1953, when 30 nests were recorded. A decline followed and in 1974 no nest sites were known; at this time the Montagu's harrier was effectively extinct as a UK breeding species. Numbers have recovered, and since 1985 there have been between 5 and 12 nests annually, mostly in winter-sown barley, wheat or oilseed rape. It remains an extremely rare breeding bird in the UK.

Watching Montagu's harriers in the UK

The rarity of Montagu's harrier means it is only regularly seen at a handful of locations in the UK. These sites are generally not promoted, either to protect the nesting birds or because of the difficulties with public access. However, regular breeding sites tend to become increasingly well known to birdwatchers as they become established. These have often been wardened to reduce the threats to nests from egg collecting, over-zealous photographers and birdwatchers, and to help landowners avoid accidental disturbance.

Informal watch points have in a few cases been managed as part of the conservation measures, but with limited promotion to birdwatchers. The most well known of these watch points was in Norfolk at the Montagu's Harriers longest established breeding site

Watched Like Never Before

in the UK (RSPB) and others have been in Dorset (RSPB) and the New Forest (Forestry Commission).

The RSPB/English Nature Harrier Protection Scheme was launched in 1983. It works closely with farmers to protect nesting marsh and Montagu's harriers, especially crop nesting birds from potentially harmful but routine farming operations in Norfolk and Lincolnshire. The harrier scheme relies on, and owes its success to, the cooperation and support of the farmers involved. However, until 2004, the opportunity to watch Montagu's harriers had never been advertised to members of the public in the UK.

The Full Monty

In June 2004, the RSPB set up an *Aren't birds brilliant* project to allow members of the public to watch a pair of Montagu's harriers nesting on its Frampton Marsh Reserve in Lincolnshire. Because of the risk of egg collectors targeting the birds, the site was only promoted once the eggs had hatched. Nest protection watches were carried out prior to hatching.

Between 26 June and 31 August 2004, the RSPB's watch point, named 'The Full Monty' was open and gave members of the public the first ever opportunity to watch Montagu's harriers at a proactively organised site in the UK. In addition to manning the official watch point, visitors at other entry points to the reserve were managed through information signs, highlighting the risks of disturbance to nesting harriers, placed along the Frampton Marsh sea bank.

An agreement to access the watch point was made with neighbouring farmer at College Farm, Jonathan Fowler, and the landowners, Crown Estates. A flat field at the end of the farm approach track was set aside for use as a car park. The farmer's involvement enabled the smooth running of the scheme, which was designed to ensure the successful nesting of the Montagu's harriers, and to get across positive messages about birds of prey, and cooperation between conservationists and farming.

An RSPB exhibition trailer was brought to the site, and a small marquee was erected at the watch point, doubling as a hide and a shelter. The trailer acted as a base for the RSPB staff and 45 RSPB volunteers who staffed the watch point. The volunteers worked a total of 1,464 hours, worth over £9,000 to the Society. Car parking charges raised £5,384, a proportion of which was paid to the farmer, Jonathan Fowler to cover his costs and inconvenience. A sale of Montagu's harrier artwork by Steve Cale made £616.60, and certificates designed by local artist Neil Smith raised £143.35 for Frampton Parish Council, which contributed towards the cost of installing a bench in the Parish.

The Full Monty received significant media coverage, including television coverage on regional news programmes; four radio interviews; CEEFAX coverage; numerous articles

Watched Like Never Before

in the local and national press; coverage on the RSPB and BBC News websites, and daily updates to phone and website information services for birdwatchers.

On completion, the project was judged a success, with the Montagu's harriers successfully fledging two young. The scheme engaged positively with many members of the public, and received 5,660 visitors. Many had travelled very long distances to reach the site, including visitors from Scotland, northern England, Wales, Cornwall, and Kent. Some decided to stay in accommodation in the area, and combined a visit to see the Montagu's harriers with trips to other nearby sites, but many had come solely to Frampton Marsh for the day. Many more local visitors often made return trips to the site, and visitors asked the site staff to pass on their gratitude to the farmer, Jonathan Fowler, who had allowed access through his land.

The project also received a number of letters from visitors. This extract from one letter sums up the positive feedback received:

"Many thanks to all concerned for setting up, and organising of this watch point. Our visits to the site were so enjoyable, and we feel very privileged to have been able to watch these birds in flight, see the chicks being fed, and flying too. Please pass on our thanks to the Project Managers, and all the volunteers who really did a first class job. We were welcomed on site, given up to date information, and told when the birds were flying. We realise this site was on private land, so thanks to the landowner too, and on a light-hearted note, the Portaloo was much appreciated. All in all, a first class project. "

D.H.(Newark, Notts.)

Conclusion

'The Full Monty' gave members of the public the first ever opportunity to watch breeding Montagu's harriers at a proactively organised site in the UK. The site was arranged in conjunction with a neighbouring farmer to RSPB Frampton Marsh nature reserve. The watch point represents an example of successful cooperation to allow the public to view a rare breeding bird, and protect it from disturbance. The 'Full Monty' project received significant media coverage and was visited by 5,660 people in two months.

Hen Harrier

Summary

Hen harriers are typical species of the UK's uplands, but their success is greatly restricted by illegal human persecution often associated with grouse moor management. Two projects to show people CCTV footage of hen harriers in Scotland have successfully engaged with thousands of people, from tourists to locals and schoolchildren. The local success of these schemes suggests that with the identification of further suitable locations, more opportunities for hen harrier watching would be taken up by the British public.

Species background

The hen harrier is one of the UK's most charismatic and beautiful birds of prey. There are around 806 territorial pairs in the UK and Isle of Man, of which an estimated 633 territorial pairs are in Scotland (Sim et al in prep). In summer, the hen harrier breeds on upland moors and in young forestry plantations. In winter, some hen harriers move down into the lowlands or the coastal zone. The species receives special protection under the Wildlife and Countryside Act 1981.

The hen harrier was formerly widespread and common across much of the open landscape of the UK. During the nineteenth century, the species was driven to extinction on the Scottish mainland by Victorian game preservers and became restricted to Orkney as a UK breeding bird. After the end of World War II, the population started its recovery on the mainland, in part aided by the expansion of forestry plantations that was taking place at that time, but also assisted by changing human attitudes towards birds of prey. The alternative habitats provided excellent hen harrier breeding sites and a haven free from much of the human persecution still prevalent on grouse moors.

Moors managed for red grouse provide suitable habitat for hen harriers, and they take some red grouse alongside their main prey of small birds and mammals. This has brought the species into conflict with some grouse moor managers, who claim that it is impossible to manage a commercial driven grouse-shooting business in the presence of hen harriers. A number of practical measures are currently being developed by a range of partners to try to resolve these conflicts and ensure the protection of hen harriers.

Although it receives the highest level of protection under UK and European Union wildlife legislation, the hen harrier still suffers from widespread illegal persecution. Adults are routinely shot, trapped and poisoned, eggs and young destroyed in the nest, and nesting attempts deliberately disturbed. Persecution is the principle threat to the species in Scotland and England: RSPB research estimated that 11-15% of the female hen harrier population is killed annually on grouse moors in Scotland, and if the persecution

Watched Like Never Before

stopped, the hen harrier population would increase by 13% per annum (Etheridge et al, 1997).

Watching hen harriers in the UK

Hen harriers can be a difficult species for members of the public to see in the wild, as they tend to nest in remote locations and wander widely during the breeding season, particularly whilst hunting. The male hen harrier also tends to spend little time at the nest so as not to attract attention to its location. The female hen harrier is cryptically plumaged, in order to provide camouflage when nesting on the ground. However, hen harriers are an active species and this combined with their tendency to have large broods of young ensures a good public spectacle.

Two projects in Scotland, at Clyde Muirshiel Regional Park, Renfrewshire and Forsinard, Highland, have successfully enabled public viewing of hen harriers via CCTV systems. Further hen harrier viewing projects are being planned, for example on the Isle of Arran, North Ayrshire. Additionally, hen harriers are part of the wider wildlife spectacle that attracts people to the UK's moorlands, in places like the Forest of Bowland, Lancashire and Orkney (see seabird chapter).

Clyde Muirshiel, Renfrewshire

Hen harriers have been breeding in Clyde Muirshiel Regional Park for about 50 years, with the support of sympathetic landowners and farmers. The Muirshiel *Aren't birds brilliant* project is a partnership between the RSPB, Clyde Muirshiel Regional Park, the Scottish Ornithologists' Club, and Scottish Natural Heritage.

By showing hen harriers to people and generating public interest and enthusiasm for the birds, the project aims to raise awareness of the species' conservation needs. The project has successfully brought live footage of nesting hen harriers to the public, between June and July in each of its three years of operation.

In 2005, two cameras were set up near a hen harrier nest (one beside the nest, and one further away showing the wider landscape), both bringing live pictures to the Muirshiel Park Visitor Centre. This allowed viewing of close-up pictures of the nest, and of the adult birds commuting to the site with prey. A third screen showed highlights from the 2004 nesting activity, and highlights from the 2005 nest later in the summer when breeding was complete.

The facility of three television screens ensured that there was always something for the public to see at the centre. In addition, staff and volunteers were at hand to enthuse visitors and provide interpretation. Display boards also gave information on the hen

Watched Like Never Before

harriers, and 14 guided walks allowed small numbers of visitors to watch wildlife on the moor and look for hen harriers.

Over 8,000 people visited the hen harrier project at the Muirshiel Centre. Many local visitors returned several times to see the progress of the chicks, while other visitors came from all over the UK, and Europe, USA, Zimbabwe, Australia, and New Zealand. There was significant interaction with the local community: ten volunteers contributed 676 hours to the project, mainly assisting with interpretation of the footage and leading guided walks. 650 primary school children from 29 schools were given a talk and shown a highlights package of the birds. Most of these children visited Muirshiel, but talks were also given to four schools during the winter. Props such as hen harrier pellets and feathers were used, as well as selected clips of video footage.

Forsinard, Caithness and Sutherland

Forsinard RSPB nature reserve comprises over 7,000 hectares of active blanket bog - deep peatlands at the heart of the internationally important "Flow Country" of Caithness and Sutherland. Birds, including golden plover, dunlin, greenshank, hen harrier and merlin, breed on the reserve. A variety of interesting plants, such as sundews and bogbeans, dragonflies and other insects can be seen. Access is provided via a visitor centre at Forsinard railway station, a bog pool trail, regular guided walks and roadside viewing.

The RSPB acquired Forsinard nature reserve in 1995, following a highly successful public appeal, with co-funding from the EU LIFE-Nature programme. A survey in 1997, by Macpherson Research, estimated the extra spending the reserve attracted to Caithness and Sutherland from its 4,200 visitors at £185,000 (Rayment and Dickie, 2001). Since 1997, the reserve has attracted about 5,000 people a year, so these benefits have probably been maintained.

Since 1997, a CCTV system at Forsinard has provided pictures of a hen harrier nest in the reserve's visitor centre. Approximately half of the reserve's visitors come during the hen harrier breeding season (May to July). When possible, live footage is shown in the visitor centre, with recorded tapes of previous action played after that on a second screen. Live pictures from the nest enhance the visitor experience to Forsinard and greatly contributed to the enjoyment of many visitors.

Visitor centre staff at Forsinard noticed that visitors were more likely to join the RSPB when live pictures of hen harriers were available. Analysis of recruitment data since 2001 supports this trend. The membership recruitment rate (as a proportion of the people visiting the centre), is around 50% higher for the months when live footage was shown in the centre, compared to both recruitment between May and July when live pictures were not available, and the overall recruitment rate during the last 5 years.

Watched Like Never Before

However, it should be noted that due to this short period of analysis, the difference is not statistically significant.

The Bowland Festival

The Forest of Bowland is an Area of Outstanding Natural Beauty covering 800 km² in Lancashire and North Yorkshire. In spring, Bowland's farmland attracts thousands of lapwings, snipe, curlews and redshanks, and the sparsely wooded gullies are perfect for the ring ouzel, one of the most distinctive British thrushes. Management of the heather moorland, some of it for grouse-shooting has helped to maintain populations of other birds, such as golden plovers and curlews, and these moors, large areas of which are owned by United Utilities, are the national stronghold for the few hen harriers that now breed in England.

The Bowland Festival gives local people and visitors alike opportunities to learn about local heritage and rural life, and a chance to experience first-hand what local landowners and farmers are doing to manage the land for the benefit of wildlife. Hen harriers are one of a handful of star-birds that are part of the attraction of the festival, that can be observed on popular 'moorland safaris'.

The Bowland Festival has been held for 6 days in June in each of the last three years, attracting 1,200 to 2,000 visitors each year. The impact of the festival on the local economy has been assessed by a series of small visitor surveys. The surveys found that at least three-quarters of people had come to Bowland from outside the local area in order to visit the festival. On average, the festival is estimated to have attracted £9,800 of additional expenditure each year to the Bowland area.

Conclusion

Two projects to show people CCTV footage of hen harriers in Scotland have successfully engaged with thousands of people, from tourists to locals and schoolchildren. Hen harriers are also a feature of the wildlife that attracts people to the Bowland festival in Lancashire. The local success of these schemes suggests that with the identification of further suitable locations, more opportunities for hen harrier watching would be taken up by the British public.

Seabirds

Summary

The shallow seas around the UK support species and habitats as rich as any in the tropics. The sites in this chapter demonstrate the sustained and increasing interest in seabirds around the UK, which suggests that seabirds have the potential to grow as a source of visitor activity. However, if recent breeding failures are part of a longer trend caused by climate change, this could lead to long-term loss of seabird colonies. The interest in seabirds of over 250,000 people a year described in this chapter suggests the negative impact that this could have on local economies.

Introduction

UK seabirds

Over 40,000 species, representing about a half of the UK's wildlife, are found in the seas around the UK. Inflow of Atlantic water into the Irish and North Seas replenishes the nutrients vital for the growth of plankton, which fuels the whole of the food web. This process is enhanced by inflows from major river systems like the Thames and the Rhine. The combination of shallowness, mixing of water masses and mosaic of seabed habitats all combine to make UK waters among the most productive and diverse in the world.

Although many fish stocks are now badly depleted by commercial fishing, these waters still sustain small shoaling fish such as sandeels and sprats, which dominate the diet of many seabird species. In addition, the growth of trawl fisheries in the last century has provided a bonanza of waste food for scavenging seabirds (fulmars, gulls, great skuas and gannets) in the form of discarded fish and offal from vessels. It has been estimated that North Sea seabirds consume about 600,000 tonnes (t) of prey annually, including 200,000t of sandeels, 100,000t of discards and 70,000t of offal.

Excluding waders and wildfowl, the seabird populations of Britain and Ireland total around 8 million individuals belonging to 25 species. With some of the largest seabird colonies in Europe, the Northern Isles hold the largest numbers and greatest diversity. Shetland alone has around 1 million breeding seabirds, making it one of Europe's great wildlife spectacles and tourist attractions.

Many of these populations are also internationally important. For example, Shetland holds 60% of the world's breeding population of the great skua or 'bonxie', most of the remainder residing in Iceland. Significant proportions of the global populations of other seabirds are also reliant on UK coastal and offshore waters, most notably Manx shearwater (69% nest in UK) and northern gannet (59%).

Colonies as multi-purpose hubs

Whether it is puffins beetling into burrows with a beakful of sandeels, guillemots and kittiwakes nesting precariously on soaring cliff ledges, or gannets carpeting rocky outcrops like a blizzard, big seabird colonies pulse with the noise and raw energy of a thriving metropolis. Seabird colonies serve as an information-sharing centre on the daily whereabouts of food supplies, as well as a dating agency for finding mates, and strength in numbers for protection against predators.

Pairs often reclaim the same nest-site year after year, ensuring a rendezvous for renewing their pair-bond after months apart in the winter quarters. Ringing has shown that some Manx shearwaters live to be over 50 years of age, during which they may have commuted around 8 million km (5 million miles) between their Irish Sea nesting burrow and wintering grounds off the coast of Brazil. Some seabirds also perform remarkable feats during foraging for their young. A remote underwater camera surveying an oilfield offshore from Aberdeen recorded a guillemot diving 90m below the surface. The physiology which enables auks to survive the pressure at such astonishing depths is little understood.

Populations in flux

The size of the UK's breeding seabird populations has been carefully monitored since the 1960s. Since then, total numbers along the coastline have increased from 4.4 million to nearly seven million, not counting those gulls, terns and cormorants that breed inland. The most recent census ('Seabird 2000') has shown significant increases in several species such as northern gannet, great skua and common guillemot. However, others have declined markedly. Those that qualify for red listing (i.e. decreased by 50% in the last 25 years) are roseate tern, and probably also arctic tern, arctic skua and European shag.

The drivers of change are complex and vary between species and regions. With climate change, the North Sea has warmed by up to 1°C in just 25 years, causing southern plankton to replace cold water species, in turn providing less nutrition for sandeels and the seabirds that depend on them. Suddenly, seabirds whose life cycles evolved over millennia to coincide with abundant prey are struggling to feed their young and this has precipitated major breeding colony failures in recent years. At the same time, the collapse of whitefish stocks has resulted in fewer fish of late being discarded at sea, to the likely detriment of scavenging seabirds such as great skuas and gulls. On the plus side, global warming is beginning to attract southern fish species such as anchovy and squid into our seas, and in future these may help to compensate for the loss of traditional prey in seabirds' diets. What is certain is that the in-built resilience of seabirds gives them a fighting chance to adapt to new pressures in a highly dynamic marine environment.

Seabird watching in the UK

Individual seabird species like puffins, terns and gannets are striking, dramatic and well known. Combining this with the densities of seabirds that occur at breeding sites around the UK's coast makes them one of our most spectacular species groups. This abundance contrasts with the other species in this report, for which a location with one pair make a focal point of bird watching interest. However, seabirds generate the same public interest in a discreet site that concentrates visitor and tourism activity on a pair with other spectacular species.

There are many locations where people can enjoy seabirds around the coast of the UK in summer. This chapter describes a selection of seabird watching sites, including a number that can be accessed via dedicated boat trips. However, it is by no means a comprehensive catalogue, and it omits other sites where marine wildlife, particularly birds, support significant tourism activity, such as the Isles of Scilly in Cornwall.

Wildlife tourism on Orkney

The Orkney Islands, located off the northern tip of Scotland, support a wealth of wildlife. There are spectacular seabird colonies, and other breeding birds include a variety of waders, ducks, birds of prey, corncrake and red-throated diver. Orkney also provides habitat for rare flowers and mammals. The RSPB has no fewer than thirteen reserves on the islands. The other main attractions of Orkney to visitors are its history, archaeology, and the quality of the landscape.

Tourism is an important sector of Orkney's economy. In 2000, 81,000 summer visitors were estimated to bring tourism revenues of £18 million to the islands. The RSPB estimated that £1.3 million of this spending could be attributed to Orkney's birds and wildlife, which were thus estimated to support 36 FTE jobs on the islands (Rayment and Dickie, 2001). Orkney received an estimated 107,500 visitors in 2005, which suggests that the importance of tourism to its economy, and the importance of wildlife to the islands, have not diminished.

The future of the tourism industry depends on the protection and management of Orkney's outstanding natural and historic environment, including the conservation of the marine environment. Local businesses are increasingly promoting themselves through wildlife. The number of companies offering wildlife activities has increased in recent years. However, 2005 was a terrible year for nesting seabirds on Orkney, with almost total breeding failure for many species. This presents a clear threat to the economic activity supported by seabird tourism on Orkney.

Rathlin Island, Northern Ireland

Rathlin is an island of 7 square miles, lying off the northeast coast of Northern Ireland, with just 80 inhabitants. Each year, around 25,000 recreational visitors travel to Rathlin. Visitors to the RSPB watch point at the West Lighthouse enjoy amazing views of seabird colonies, including puffins, kittiwakes and fulmars, and have increased from 6,000 in 1996 to 11,000 in 2005.

A survey on Rathlin in August 2000 found that 78% of visitors to the island watched birds and/or other wildlife during their visit. The study estimated total spending by recreational visitors on the island at £245,000 per year, supporting at least 7 FTE jobs locally. In addition, the island ferry employs 8 full time crew and 2 full time and one seasonal office staff. As at least two-thirds of the ferry's traffic is estimated to be recreational passengers, about 7 FTE jobs in the ferry operation can be attributed to the tourists attracted to Rathlin (Rayment and Dickie, 2001). Designation of Rathlin as a Marine Nature Reserve would help to protect its scenery and wildlife, which are a valuable resource to the local economy.

The RSPB employs one full time warden and one visitor and community officer, who are part of the island's resident population. In addition, a residential volunteer scheme has been running for 4 years, and between 15 and 20 individuals come each summer to help warden both birds and visitors. They stay on the island between 2 weeks and 2 months, providing additional revenue to the islanders.

Since 2004, the RSPB has organised various events to encourage visitors to come to the island. At the end of April or early May 'The Birds Return' celebrates the arrival of birds in the breeding colonies. In mid June, 'The Seabird Extravaganza' takes place at the peak of the breeding season; it is a great chance to enjoy the seabird spectacle. The most popular event is 'Bye bye puffin', held at the end of July before puffins leave the island. In 2005, it attracted 600 visitors in 3 days. Media interest in the events results in enquires about the presence of puffins, and stimulates ferry bookings and visitors to Rathlin.

Throughout the season, RSPB staff welcome visitors off the ferry and at the west lighthouse watch point, which lies 4 miles from the harbour. Other visitor services on the island provide transport, food, and accommodation.

Bangor, Northern Ireland

An RSPB *Aren't birds brilliant* Project in 2005 enabled school children and visitors to watch nesting black guillemots, one of the scarcest of the UK's breeding seabirds. More than 1,000 school children were involved in an education programme in 2005 to learn about the black guillemots. This was followed by events during July and August, which

Watched Like Never Before

attracted over 3,000 people. Activities including boat trips, guided walks to watch the black guillemots on the pier, and footage of their chicks from a camera placed in a nest.

The Scottish Seabird Centre, Firth of Forth¹³

The Scottish Seabird Centre in North Berwick, an attractive coastal town within easy reach of Edinburgh, opened to the public on 21 May 2000. Overlooking the Firth of Forth, the site aims to raise greater awareness, appreciation and understanding of Scotland's rich natural heritage. It operates live interactive cameras on islands in the Firth of Forth. Visitors to the discovery centre can see and hear wildlife in action, and can control the cameras themselves. The live pictures can also be seen on the internet.

The Forth supports year-round wildlife interest. From February to October, visitors can observe bird life on the Bass Rock gannetry. The Seabird Centre has exclusive rights for guided boat trips landing on the Bass Rock to observe the gannet colony, the largest single island colony in the world. In spring to early summer, visitors can also enjoy close-ups of a wide variety of seabirds, including puffins. During the winter, visitors can watch a 200 plus strong breeding seal colony on the Isle of May National Nature Reserve. The Centre's staff and volunteers deliver a range of educational activities, including live interpretation, for people of all ages, including families and school groups.

The Seabird Centre has attracted 1 million visitors since 2001, an average of 200,000 per year, of which 60,000 per year actually enter the discovery centre. The Centre is estimated to bring over £1 million into the local economy every year and supports the full time equivalent of 35 jobs (DTZ Piedad). Community involvement is also vitally important for the success of the Centre, which enjoys the support of over 4,000 members and 50 active volunteers.

Puffin Cruises, Firth of Forth

In May and June 2005, the RSPB ran *Aren't birds brilliant* puffin cruises in the Firth of Forth. The trips sail around the Forth islands to watch seabirds, in particular puffins. Over 400 people joined the four cruises, with the support of over 60 hours of volunteer time.

¹³ www.seabird.org

Watched Like Never Before

Fig 4. Map of selected seabird watching locations in the UK, 2005.



Land's End, Cornwall

The RSPB Wildlife Discovery Centre on the cliff top at the Land's End visitor attraction offers stunning views out to sea. The RSPB has been at Land's End for about 25 years, and the centre is open daily from April until October. Using powerful telescopes, the RSPB's two staff help visitors see close-up views of some of the wonderful wildlife of the Cornish coast, including breeding seabirds and marine mammals. During 2005, the discovery centre received 18,000 visitors.

Bempton Cliffs, Yorkshire

The RSPB Bempton Cliffs nature reserve supports colonies of 200,000 nesting seabirds. It is the best place in England to get close-up views of breeding seabirds, and has good educational facilities. A short walk from the purpose-built visitor centre are a number of specially-created cliff top watch points, where the massed ranks of seabirds can be seen.

The seabirds are best seen from April to August, but the RSPB centre is open all year for gifts and refreshments. In 2000/01, 42,200 visitors to Bempton Cliffs spent an estimated £406,000 in the local economy (Shiel et al, 2001). Based on 55,000 visitors in 2005, and correcting to 2005 prices, the visitor spending resulting from reserve visits is estimated at £582,000.

People have also been watching seabirds at Bempton Cliffs from boat cruises for 20 years. These are organised with the support 312 hours of volunteer effort from the RSPB local group, and depart from Bridlington harbour. On average 16 trips are organised per year, and in 2005 an additional trip was run for the RSPB's youth branch, Wildlife Explorers. Half the cruises take place between May and July to see breeding seabirds. The last 8 cruises take place in September and October, targeting migratory species such as skuas and shearwaters.

The success of the boat trips is reflected in the fact that the majority are sold out; they carried 1,656 passengers in 2005, generating an income of £14,000. Further spending is undoubtedly brought to the local economy from visitors attracted to the area, some of whom stay overnight as the trips depart early in the morning.

Clyde Cruises, Firth of Clyde

The Firth of Clyde along Scotland's central-west coast is one of the richest areas for marine life in Scotland. Many species of seabirds make a home in the Firth of Clyde including good numbers of black guillemots (known locally as 'tysties') which often reside in the ferry terminals and harbours along the Firth. Perhaps the most famous focal point in the Firth is the RSPB Ailsa Craig nature reserve, which has been managed by the Society since 2004 under agreement with the Marquis of Ailsa.

Watched Like Never Before

Throughout summer 2005, an RSPB *Aren't bird brilliant* project staffed by volunteers showed people seabirds from boats on the Firth of Clyde. The volunteers provide information on the birds, their conservation and the management of marine areas. They met with approximately 2,000 passengers sailing around Ailsa Craig, on the world's last ocean-going paddle steamer The Waverley, and on the Caledonian MacBrayne Ardrossan-Brodick (Arran) commercial ferry service. The work is supported by the Crown Estate's Marine Stewardship fund.

Fowlsheugh, Aberdeenshire

The cliffs of Fowlsheugh are one of the top seabird colonies on mainland Scotland, with up to 130,000 birds nesting on the cliffs. The RSPB runs *Aren't birds brilliant* seabird safari boat trips to watch seabirds from nearby Stonehaven. The trips, which have been running for 10 years, give a unique view of RSPB Fowlsheugh reserve, visiting the cliffs in the evening to watch the nesting seabirds. They are staffed by RSPB volunteer guides, who meet the people arriving for the trip and provide information on the birds and ongoing work at the reserve.

Local press coverage and listing on tourism sites and guides have made the trips popular, with most trips being fully booked. The trips have proved the best way to provide a viewing spectacle for the cliff-top reserve. Over 200 people enjoyed the trips in 2005, with numbers being limited by unsuitable weather and the small size of the available boat.

Farne Islands, Northumberland

The Farne Islands off the coast of Northumberland are used by over 100,000 pairs of breeding seabirds, about 55,000 of which are puffins (National Trust pers comm.). They thus are one of Britain's most important seabird colonies. They also have historical religious interest, including the chapel dedicated to St. Cuthbert 600 years after his death in 687 AD.

Boat trips to the islands run from Seahouses, a village that relies heavily on tourism. In total, between 80,000 and 100,000 people visit the Farnes each year. Of these, 40,000 visit two of the islands that take landings, while others watch wildlife from the boats. According to local boatman William Shiel, whose boats carry approximately half of all traffic, wildlife is the main attraction for the vast majority of visitors.

Splash Point, Seaford

Splash Point near Seaford has one of southern England's only breeding colonies of kittiwakes. On average, around 700 active nests have been recorded every year. Since 2001, the RSPB has organised an *Aren't birds brilliant* watch point that allows people to

Watched Like Never Before

experience the sights, sounds and smells of the seabird colony, one of Sussex's wildlife spectacles. In 2005, more than 2,600 people enjoyed views of the thriving seabird city during the course of the two long weekends in which the watch point was set up.

RSPB volunteers help visitors watch the birds through telescopes. They also provide information about the birds with the aid of an information display. The watch point received around 500 visitors per day in 2005.

Liverbird Cruise, Mersey Estuary

Since 2004, the RSPB has organised *Aren't birds brilliant* boat trips in the Mersey Estuary in conjunction with the Liverpool Museum. The cruises sail to the estuary mouth in search of seabirds in August and September. In 2005, three boat trips took place, which were attended by 900 people. One trip was specifically for families, on which children learnt about birds and marine wildlife through various activities and a quiz.

South Stack, Anglesey

More than 4,000 seabirds breed on the cliffs at South Stack RSPB nature reserve. Visitors can watch live TV pictures of the breeding seabirds at the Ellin's Tower and Lighthouse visitor centres. In 1998/99, 43,000 visitors to the reserve spent £418,000 in the local area. Based on 36,000 visitors in 2005, and correcting to 2005 prices, the visitor spending resulting from reserves visits is estimated at £405,000.

Table 6. Visitors to selected seabird watching locations in the UK, 2005	
Sites	Number of Seabird Visitors
Orkney	Part of 100,000 visitor economy
West Lighthouse, Rathlin, Northern Ireland	11,000
Bangor, Northern Ireland	4,000
Scottish Seabird Centre, Firth of Forth	60,000 – 200,000
Land's End, Cornwall	18,000
Bempton Cliffs reserve, Yorkshire	Main attraction to reserve's 55,000 visitors
Farne Islands, Northumberland	c. 100,000
Splash Point, Sussex	2,600
South Stack, Anglesey	Main attraction to reserve's 36,000 visitors
Total	250,000 - 400,000
Boat trips	Number of Visitors
Firth of Forth	400
Bempton Cliffs boat trips, Yorkshire	1,650
Firth of Clyde	2,000+
Fowlsheugh, Aberdeenshire	2,600
Liverbird Cruise, Merseyside	900
Total	7,550

Conclusion

Coasts offer many opportunities for recreation and environmental education. Seabirds have long been an attraction to tourists, and therefore attracted spending to local economies in some areas of the UK, such as Orkney. The sites covered in this chapter demonstrate the sustained interest in seabirds around the UK. As table 6 shows, they attracted between 250,000 and 400,000 people to watch seabirds in the UK in 2005.

This chapter also reflects the expansion of seabird-watching centres and boat trips activities in recent years, a trend which is continuing in 2006. These factors suggest that seabirds, and marine wildlife, have the potential to grow as a source of visitor activity in the UK. However, climate change and poor management of fish stocks represent threats to the future success of these activities.

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