

## Introduction

This information sheet looks at some of the ways in which cycle paths can benefit wildlife. Cycling is one of the least disturbing activities and often allows you close views of animals and birds. It is also a very sustainable mode of transport and many conservation charities are encouraging visitors to arrive by bike in order to reduce the urbanisation of the countryside by motor traffic. If your visiting the countryside, why not try out a National Cycle Network route near you?

## Cycle Paths Benefit Wildlife

Over the last 20 years, Sustrans and its partners have built over 1,000 miles of traffic-free paths, often on disused railways, towpaths and other spaces. Unlike roads, sensitively planned cycle paths provide safe habitats where wildlife can thrive and safe corridors for species which need to move from one habitat to another. By 2005 Sustrans plans to have put in place 10,000 miles of National Cycle Network, one third of which will be traffic-free and beneficial to wildlife.

## Hedgerows



Hedgerows on York to Selby path Route 65

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The hedgerows alongside cycle paths are far safer for wildlife than those beside roads and are a much more stable asset than field boundary hedges as they are not subject to the vagaries of central government or EU agricultural policies. In the British countryside as a whole there has been a tremendous loss of hedges - 72,600 miles between 1984 and 1991.<sup>(1)</sup>

Some of the richest habitats in woodlands are the edges and good hedgerows are effectively two woodland edges back to back. Hedges are very valuable for nesting birds, for flowers and insects and for a variety of small mammals. The rare and protected hazel dormouse, which is supported by English Nature's Species Recovery Programme, actually lives at higher densities in species rich hedges than in woodlands which are considered to be its more usual habitat.<sup>(2)</sup> Hedgerows also form interrupted links between larger areas of woodland and are used as corridors by species such as squirrels.

## Corridors

Nowadays wildlife corridors are considered to be a key feature in an increasingly fragmented countryside. Countries such as Holland, Canada and France are actually constructing special habitat bridges to ensure that wildlife can cross roads safely.<sup>(3)</sup> and a part of the Department for the Environment, Transport and the Regions (DETR) now has a similar responsibility for encouraging such links in the UK. Sustrans owns around 1,000 bridge structures, mostly over or under roads, and many are ideal for use by wildlife. Where practicable they are already used by badgers, foxes, deer and even otters. Sustrans

is now carrying out research to see how it can improve its bridges for use by other species.

These bridges are also used by bats which roost inside the masonry of arched bridges. For these scarce and protected mammals, paths can be a vital resource. They provide excellent feeding grounds, long, uninterrupted flight lines with a variety of habitats yielding a range of different insect species upon which bats feed. In fact, according to "Managing Landscapes for Greater Horseshoe Bats" published by English Nature under the Species Recovery Programme, converted disused railway lines match very closely the criteria required for suitable habitat for these bats. They are also essential to enable some of the smaller bats to move around. These tiny creatures use hedgerows and other linear features as guidelines when navigating through open countryside and disused railway lines and canals are effectively long, continuous spine routes for flying bats.<sup>(4)</sup>

## Ponds and Wetlands

Ponds have been disappearing from the British countryside since the turn of the century. Cheshire, reputedly the county with the most ponds, lost 25% between 1969 and 1985 when numbers fell from 22,644 to 16,964. Meanwhile, between 1910 and 1970, Bedfordshire lost 82% of its ponds.<sup>(1)</sup>

It is often not possible to establish a pond as part of a road scheme because roadside banks naturally provide a well-drained environment which limits the range of habitats which can be established. Wetland communities must be developed outside the road corridor.<sup>(1)</sup>

Opening up old, flooded and

overgrown railway cuttings during cycle path construction can considerably improve them for wildlife. By placing the path on a raised causeway, (5) water can be retained alongside the path providing an ideal environment for a rich variety of plants and invertebrates as well as essential facilities for amphibians. Drainage ditches alongside paths can also be provided with removable dams to create a series of elongated pools.

Disused railway routes are particularly noted for supporting reptiles. The variety of embankments and cuttings, with their different aspects, provide an ideal environment for lizards, slow-worms and snakes. Furthermore the loose or stony material from which



A causeway in a flooded railway cutting creates an ideal wildlife environment - Lochwinnoch Loop path, Route 7 in

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they are built and the fact that rabbit holes are often found on these sites gives these creatures places in which to hide and to hibernate.

## Meadows and Grasslands

Meadows and permanent unimproved grasslands form another



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Cycle route verges provide ideal conditions for wildflowers, Route 7 in County Durham

habitat which is rapidly disappearing from the British countryside. Between 1949 and 1984, 95% of lowland neutral grasslands were lost and between 1934 and 1972, more than 75% of chalk grassland had gone. (1) And this disappearance of grassland has continued. Between 1992 and 1997, a further 122,000 hectares were lost, the equivalent of 100 football pitches every day. (6)

When hundreds of miles of branch lines were closed in the mid 1960s and with the change from steam to diesel or electric power, lineside management changed and many thousands of hectares of previously flower rich grassland alongside railway lines were lost under blankets of bramble while others are under increasing threat from other species.

There is still time to rescue some of these grasslands, especially in cuttings, by removing scrub and small trees, and one of Sustrans' main management aims is to encourage diversity by only planting trees where appropriate.

## Disturbance

There is increasing evidence that cyclists cause very little disturbance to wildlife. This is because their movements are predictable, in that they tend to stay on metalled paths

rather than wandering at will, and they stop infrequently. A study carried out on open grassland on the Dutch island of Terschelling between July and September when relatively high numbers of tourists on bicycles were present, showed that cycling was the least disturbing of the activities taking place in the area (see table below). (7) In an internal report, the Royal Society for the Protection of Birds (RSPB) has said that "the swift passage of a cycle through a wood is probably the least disturbing human activity possible".

The National Cycle Network now passes through a wide range of different wildlife sites without any apparent problems. For example, Route 93 follows the foreshore alongside Belfast Lough in Northern Ireland, an Area of Special Scientific Interest, (ASSI, the Northern Irish equivalent of the SSSI), a Specially



© Julia Bayne

Bird watching on Route 93 overlooking Belfast Lough

Protected Area (SPA) and a Ramsar Site. In order to screen users, a bund with planting and fencing has been erected with a viewing area for bird-watching cyclists. In the late winter of 2000, the local senior conservation officer of the RSPB confirmed that the numbers of waders had not fallen in spite of public access. (8)

## Education

Disturbance to birds expressed as a percentage of the total visible disturbance. The movement of cyclists was predictable as they preferred metalled cycle paths.

Source: Tensen and van Zoest

Source of disturbance	Curlew	Gull	Oystercatcher	Bar-tailed godwit
Small aircraft	39	27	18	23
Walking person(s)	31	17	65	32
Agricultural activities	10	7	4	8
Cows	1	1	0	1
Cyclist(s)	0	0	0	1
Natural	11	24	0	16
Unknown reason	8	24	0	16



Visiting cars destroy the countryside their drivers have come to see

Cycle paths provide a valuable resource for wildlife education both for members of the public and as part of school projects. Wildlife which lives alongside well used paths becomes accustomed to the presence of people. This applies in particular to birds, so that good views can be obtained of otherwise shy species.

Paths which reach into towns - green corridors through urban areas - frequently pass schools or are easily accessed by them, enabling these areas to be used to study ecology and practical conservation. Many schoolchildren benefit from cycle routes as part of their practical environmental education, as well as, of course, using them to travel to school.

## Traffic and the Countryside

In 1992 the Countryside Commission (as it then was) warned of a trebling of traffic in country areas by 2025 unless trends could be changed.<sup>(9)</sup> It

indicated that this would completely transform the countryside.<sup>(10)</sup> But, unfortunately, there is little sign yet that this trend is changing and, indeed, every year road traffic volumes in Britain are rising. The number of cars and lorries on Britain's roads rose by 33 per cent between 1979 and 1997 and an area the size of Leicestershire is now taken up with roads.<sup>(11)</sup> In 1994, 59% of all countryside day journeys were by car, yet nearly half of these trips were five miles or less,<sup>(10)</sup> a distance easily covered on a bicycle.

## Wildlife and Traffic

More than 50,000 badgers, a seventh of the adult population, are run over on Britain's roads every year.<sup>(12)</sup> A total of 2,000 individual animals were killed on just 32 miles of road in Surrey between 1987 and 1993. The number of corpses in 1993 was double that in 1987.<sup>(13)</sup>

A recent study by the Hawk and Owl Trust of a typical stretch of English trunk road recorded 155 owl deaths between 1995 and 1998 of which 102 were barn owls. Extrapolated nationally, this accounts for almost a fifth of the adults and a quarter of the juvenile population.<sup>(14)</sup>

Every spring when amphibians migrate to their breeding ponds, increasingly large numbers are squashed on the roads. Between 20% and 40% of the breeding populations became road casualties each year in the late eighties.<sup>(15)</sup>

## Pollution and Habitat Destruction

Not only do new road schemes threaten wildlife and its habitats but road traffic itself is extremely polluting. Motor vehicles are responsible for 28% of the carbon dioxide produced in Britain every year.<sup>(16)</sup> CO<sub>2</sub> is the main greenhouse gas contributing to global climate change and increasing numbers of major "weather events" are likely to occur world wide as a consequence of this pollution. "Nine of the past eleven disasters to which we have responded have been caused by extreme weather conditions," said Malcolm Rogers, Head of Policy for Christian Aid, in May 2000.<sup>(17)</sup> Such disasters are man-made and should no longer be considered natural.<sup>(18)</sup> Their effects continue to be devastating not only to people but to wildlife too.

Noise and general disturbance from roads can cause problems for a range of bird species living as much as a mile away. More than half the 43 songbird species in a recent survey were found in lower densities close to roads, probably due to traffic noise.<sup>(19)</sup>

## Countryside Traffic

Much of this traffic is, in fact, generated by countryside attractions such as wildlife reserves and country houses, the opportunity for country walks or drives through our beautiful countryside. With at least 5 million people belonging to various wildlife and heritage organisations, there is a real opportunity for those organisations and bodies who attract visitors to the countryside to consider ways of encouraging their guests to arrive by means other than the car.

The National Trust, in partnership with Sustrans, has included in its handbook for the year 2000 details of the National Cycle Network. For each of its sites lying within three miles of the Network, there is information on the nearest route and its number. All

Cycle paths built on disused railways are excellent corridors for urban wildlife - Bath to Bristol Path, Route 4.





Route 4 through Richmond Park, London

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hungry cyclists will buy more than sedentary motorists.

### Other Facilities

On large properties and estates, cycle nature trails, which go further afield than those for walkers, can be provided using estate roads, tracks and paths. Guided cycle trips are another possibility.

### Who will benefit?

The encouragement of more cycling in rural areas could help slow down, and eventually reverse, the increase in car usage. It will also help to change attitudes so that, instead of improving country lanes for cars to go faster, we start to install traffic-calming measures or impose speed limits which encourage non-motorised use and make the roads safer for wildlife.

At the same time, the positive provision of segregated cycle paths presents an opportunity to establish and manage facilities of significant benefit to wildlife.

### What You Can Do

You can insist on walking and cycling routes being included in the management and development plans of your favourite sites.

You can also walk or cycle whenever possible. Distances of two miles or less are quite walkable and you can easily cycle up to five miles. Try to think of these alternatives rather than simply jumping into a car.

Ask any wildlife, heritage or countryside organisation of which



Badgers often dig their setts in the banks of disused railways converted for cycling and walking.

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you are a member to promote cycling as an integral part of its operation and as its positive contribution to the transport debate.

### References:

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4. Walsh, A. and Harris, S. (1996) Factors determining the abundance of vespertilionid bats in Britain - geographical land class and local habitat values. In The Journal of Applied Ecology 33, pp. 519-529.
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6. Meadow Madness (March 1999) Report published by the Council for the Protection of Rural England.
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8. Pers.com.
9. Countryside Commission, (1992)

the Wildfowl and Wetlands Trust sites are within five miles of the Network and to encourage visitors to arrive by bike, some sites have secure locking facilities. In its handbook, the RSPB includes details of the nearest railway station to each site and is working with Sustrans to connect as many as possible of its 20 most popular sites to the National Cycle Network. English Nature is also keen to promote non-motorised access to wildlife sites.

Cycling is clearly a valid option and sites, centres and other attractions need to cater for bike riders in a positive way.

### Getting There

Cycle friendly routes should be planned from the nearest station and National Cycle Network route, if necessary negotiating permissive paths to create links. The creation of a separate cyclists' entrance keeping them away from cars and allowing them shortcuts to a privileged cycle park can help promote cycling.

### On Arrival

Free, secure and well-located cycle parking should be provided, with some form of surveillance. Alternative locking facilities instead of Sheffield racks, which are not always suitable for a countryside setting, can be provided - see Sustrans free leaflet FF17 'Cycle parking in rural areas'.

### Encouraging Cyclists

A cheaper entry fee for those arriving by sustainable transport works well and can often be recouped in the café or tea room where

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35 King Street, Bristol BS1 4DZ  
Tel: 0117 926 8893 Fax: 0117 929 4173  
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