



# Return of the red kite

The red kite reintroduction programme in England



working today  
for nature tomorrow

The red kite is one of Britain's rarest and most spectacular birds. It has a stunning plumage of black, chestnut, grey and russet, and glides effortlessly on long, finger-tipped wings, constantly twisting its deeply forked tail for control. As a result of an ongoing reintroduction programme, the kite is now a more frequent sight in several parts of England and it will hopefully continue to increase and spread to new areas in the coming years. Part of our wildlife heritage, lost through the past actions of humans, will then have been restored for all to enjoy.

## History

The red kite was once one of Britain's most widespread and familiar birds. In medieval times it was even found in some of our towns and cities where it played a useful role in cleansing the streets of refuse and, for this reason, was one of the first birds to be given legal protection. As standards of hygiene improved the kite was no longer able to live in urban areas and, in the countryside, it was wrongly seen as a threat to livestock and gamebirds and was persecuted relentlessly. By the end of the nineteenth century the species had been lost completely from England and Scotland. Only a handful of pairs managed to survive in remote parts of central Wales, where levels of human persecution were lower.

Despite the many changes that have affected the British countryside since the time when kites were last numerous, large areas of the lowlands are still highly suitable for them. Levels of human persecution are far lower than in the past as attitudes towards birds of prey have changed for the better; there are now laws in place that make persecution illegal and offenders subject to a heavy fine or imprisonment. Although the Welsh population has recovered (to well over 250 pairs in 2001) the breeding range has expanded only very slowly and the population has not spread back into western England.

## The reintroduction programme

In order to restore the red kite to England and Scotland, the Nature Conservancy Council (now English Nature in England) and the RSPB began a reintroduction programme in 1989. Over a five-year period, 93 young kites were released at each of two sites, one in the Chilterns of southern England and another in northern Scotland. The Chilterns' birds were taken as nestlings of 4-6 weeks old, mainly from north-eastern Spain where the kite is still common.

Each year up to 20 nestlings were imported and kept in specially built wooden aviaries for 6-8 weeks before being released into the wild in July or August. Food, in the form of animal carrion, was provided each day whilst

the birds were in captivity and for several more weeks following release. This ensured that the birds had a reliable source of food during the time that they were learning to adapt to life in the wild, mimicking the natural situation where adult kites provide their young with food for several weeks after they have left the nest.

Releases at the first two sites proved to be highly successful and have resulted in the establishment of self-sustaining populations in both areas. In 2001 at least 121 pairs bred in southern England, rearing well over 200 young, and 32 pairs bred in northern Scotland. It is hoped that these populations will continue to increase and spread naturally over the coming years.



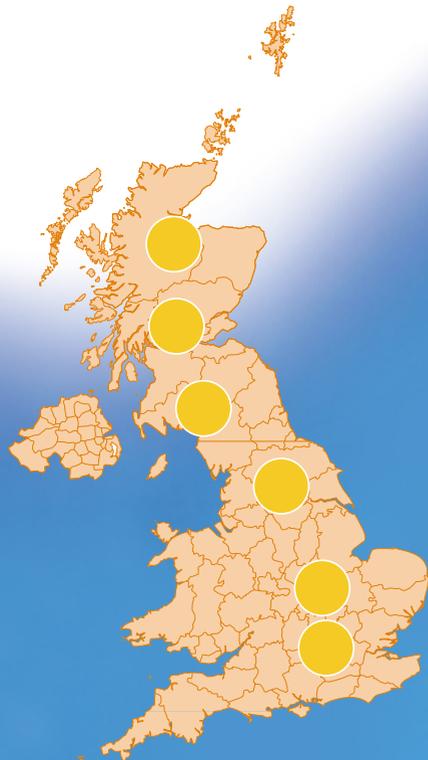
Kites are now, once again, breeding in several areas of England following reintroduction projects. (Carlos Sanchez Alonso, RSPB Images)

## Further reintroductions

In order to increase the rate at which kites are able to recolonise suitable countryside throughout Britain, further releases have taken place since 1995, in central Scotland, the English Midlands and Yorkshire. In the Midlands, a total of 70 birds, translocated from central Spain and from the expanding Chilterns' population, were released in 1995-1998. A viable population has already become established and, in 2000, the last year for which accurate figures are available, 16 pairs reared 22 young.

The Yorkshire project, based at the Harewood Estate just north of Leeds, began in 1999 when the first young kites, taken from nests in the Chilterns, were released. This project achieved one of its first targets in 2000 when a single pair successfully fledged two young. In 2001 no fewer than 8 pairs reared at least 15 young. Releases will continue in order to increase the chance that a self-sustaining population will become established in this area.

The red kite is superbly skilled in flight and can often be seen drifting effortlessly over the countryside with its head tilted downwards, scanning the ground for food.  
*(Chris Gomersall)*



Approximate location of release sites in England and Scotland

## Monitoring kites – the use of wing-tags

In order to build up as complete a picture as possible of the movements and survival rates of kites in the reintroduction areas, all released, and many wild-fledged, birds are given plastic wing-tags so that they can be identified in the field using a high-powered telescope.

The colour of the tag on the left wing indicates the area of origin (yellow – Chilterns, white – Midlands, orange – Yorkshire) and the colour of the right wing-tag indicates the year of fledging or release (green – 1998, black – 1999, pink – 2000, blue – 2001, white – 2002). We would welcome sightings of wing-tagged individuals away from the areas where kites have already become a familiar sight.



The moment of release as a red kite makes its first flight in the wild. *(Ian Carter)*

The reintroduction programme has provided an ideal opportunity to learn more about the red kite and how it fares in our modern lowland landscapes. The following sections summarise the results of monitoring and research carried out in England during the last decade.



Kites ready for release from their aviary in the Midlands. *(Ian Carter)*

## Diet and feeding behaviour

The kite is predominantly a scavenger and searches for animal and bird carcasses by drifting slowly over open countryside scanning the ground below. Some food is obtained by stealing from other birds of prey or scavengers such as crows. Invertebrates, small mammals and occasionally birds are taken as live prey.

The red kite is a highly adaptable bird and has an incredibly varied diet, taking whatever is most easily available

locally. The diet in England has been studied by direct observations of feeding birds, analysis of regurgitated pellets and by recording food remains found at nest sites. The results vary depending on the method used as, for example, small mammal remains show up well in pellets but are difficult to identify by direct observation of feeding birds. The two tables below give details of the most important foods taken by birds in the Midlands.

### DIET IN WINTER

Species/group	Feeding observations (%)	Occurrence in pellets (%)
Rabbit and hare	50	30
Rat	6	17
Wood mouse	0	12
Field vole	0	9
Pheasant	10	5
Pigeon	1	6
Earthworms	18	7

### DIET IN THE BREEDING SEASON

Species/group	Food remains at nests (%)	Occurrence in pellets (%)
Rabbit and hare	27	47
Rat	8	7
Mice and voles	1	7
Pheasant and partridge	25	6
Pigeon	19	16
Crows	10	2

## Movements and dispersal

Adult red kites only rarely undertake long-distance movements, tending to remain within 4km of their nest site throughout the year. In contrast, some first-year birds disperse away from their nest (or release) site and may range over considerable distances.

At least 40% of the birds released in the Midlands and Yorkshire undertook movements of more than 20km during their first year. Many dispersing birds subsequently return to the release area before making their first breeding attempt, as kites are reluctant to breed far from their natal (or release) area. This is one of the reasons why kites are

slow to naturally recolonise areas from which they have been lost, even when conditions remain suitable.

Occasionally isolated breeding pairs do become established well away from the reintroduced populations. In 1996 and 1997 a pair bred successfully in north-east Suffolk and in 2001 a pair reared at least two young in east Yorkshire. The extent to which such adventurous pairs are able to establish viable new populations will go a long way towards determining how quickly the red kite returns to its former status as a widespread and familiar bird.



Records of young kites (identified from wing-tags or by radio-tracking) that dispersed away from their release area 1995-2001.

## Social behaviour

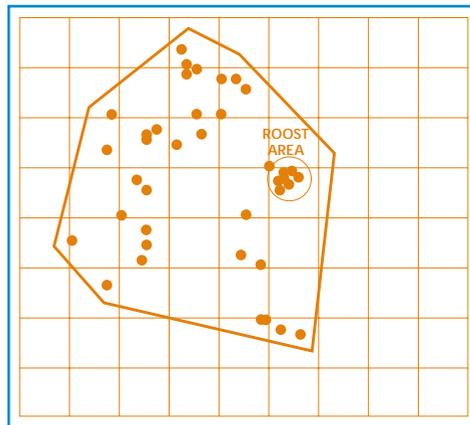
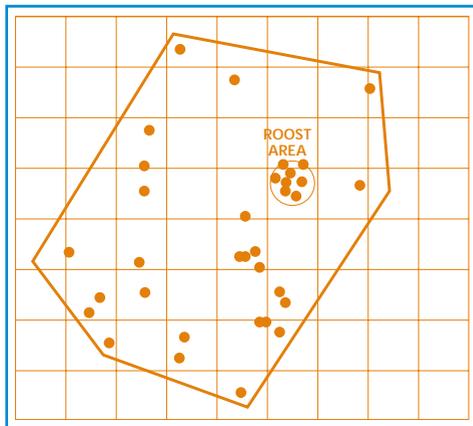
The red kite is a highly social species, particularly in winter, when large numbers of birds gather at the end of each day at traditional communal roosting sites. Over 200 birds have been counted circling together above a roost wood in the Chilterns, before settling in the trees for the night. Such gatherings involve mainly young kites as some adults roost close to their nest site throughout the year.

Kites benefit from foraging in loose groups as this improves their chances of finding food, and animal carcasses are often large enough to satisfy the appetites of several birds. Communal roosting has probably evolved as a means of ensuring that groups of birds

are together in the same area at the beginning of each day so that social foraging is possible.

Kites in England do not usually travel more than about 4km from their roost in order to find food and utilise an area of up to 20-30km<sup>2</sup> during the winter.

The roosts tend to break up in spring as new pairs move away to potential breeding sites. Unlike many birds of prey, kites are not territorial and defend only a very small area close to their nest from other kites. Foraging areas are shared and active nests are often only a few hundred metres apart.



Each dot represents a location, determined by radio-tracking, for two individual kites during the course of a single winter (the background squares are 1km x 1km).

## Nest sites and breeding

The nest is a large and untidy structure built of sticks and lodged in the fork of a tree, usually either close to the edge of a wood or near to a clearing or woodland ride. This is because the adults have a large wing-span and so need a fairly direct aerial route to the nest site.

Nests are often 'decorated' with rags, paper or plastic, a habit that was known to Shakespeare when he wrote in *'The Winter's Tale'*, "when the kite builds, look to lesser linen." This was a reference to the kite's habit of stealing washing which, in those days, would often be left out on hedges to dry. In recent years all sorts of different items have been found in kites' nests in England, including gloves, a (unsuccessful) lottery ticket, handkerchiefs and even ladies' underwear!

Teddy bears are a particular favourite; two halves from the same unfortunate individual were found in a Chilterns nest and a bear's head was found in a Yorkshire nest in 2000.

Nest decoration may serve to show other kites in the area that the nest is in use or it may simply be the result of the male trying to show-off his nest-building prowess to his partner.

Breeding productivity in England is high, with an average of about two young fledged per breeding pair. This is double the level of productivity found in central Wales showing that the drier, more food-rich lowland countryside is far better suited to kites than the damp and unproductive uplands of mid-Wales.



Some kite pairs in England have only a single chick but two or three is the most common number and occasionally four chicks may be reared. (Jan Carter)

## Mortality and threats

The biggest cause of death for kites in England is illegal poisoning. Baits, laced with poison are left out in the open, in most cases in an attempt to kill crows or foxes rather than kites. They are, however, completely indiscriminate and because kites are such efficient scavengers they are often first on the scene with unsurprising results. Since the start of the reintroduction project, 20 kites have been found killed by illegal poison baits in England and because only a small proportion of birds that die are ever found, this represents only the tip of the iceberg.

A further threat is from accidental poisoning when kites feed on rats that have been poisoned with second-generation anticoagulant rodenticides. These have replaced warfarin in many areas but are far more toxic. When poisoned rats die out in the open there is a risk that they may be scavenged by kites and other species, sometimes with fatal results.

In order to reduce the threat to kites it is better to use less toxic products such as those based on warfarin or coumatetralyl in areas where rats have not developed resistance to them. It is essential to follow product label



This incident, involving a hare carcass laced with mevinphos, resulted in the deaths of at least three young red kites. (Ian Carter)

instructions and make sure that regular searches are carried out for dead rats so that they can be disposed of safely and do not become available to scavengers.

Other threats include shooting, electrocution on overhead powerlines, and collision with vehicles when feeding on road-kills.

Despite the varied threats faced by kites in our modern countryside, overall survival rates of released red kites are high. At least 50% of birds survive their first year and over 90% of adults survive from one year to the next. This means that the red kite is almost certainly here to stay and we hope that, in the coming years, more and more people will have the chance to watch our most spectacular bird of prey in their local countryside.

## Acknowledgements

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and Midlands during 1989-1997 and would like to thank the Junta de Castilla y León, Servicio Territorial de Medio Ambiente y Ordenación del Territorio de Segovia y Salamanca.

For further information, or to report sightings of red kites, contact Ian Carter at English Nature, Northminster House, Peterborough PE1 1UA, RSPB's Doug Simpson c/o Estate Office, Harewood Yard, Harewood, Leeds LS17 9LF, or Nigel Snell, 2 Hambleton Mill, Henley-on-Thames, Oxon, RG9 3AF.

Young kites in their first year are paler than adults and have a distinctive pale line across the upperwing. (Chris Gomersall)





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