

Common Crane habitats in Britain



Common Cranes at Lakenheath Fen in 2007.

Andy Hay/rspb-images.com

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There are few more spectacular and elegant birds in Europe than the Common Crane *Grus grus*, no more so than when they flock and are engaged in courtship dancing and bugling. Luckily, after the species' absence from Britain of around 400 years, opportunities for such observations are becoming more frequent. Two birds arrived in the Norfolk Broads in the autumn of 1979 and started to breed in 1981. For the next 15 years breeding productivity was low but, since the late 1990s, it has improved considerably and numbers have steadily increased (Fig. 1; Stanbury *et al.* 2011). Over the last decade, Cranes have started to breed in new areas: on Humberside annually since 2002 and in the East Anglian Fens since 2007. In 2011, the British Crane population stood at 17 pairs, of which 13-15 bred and fledged a total of six young.

Cranes have also become increasingly frequent migrants to Britain, particularly along the North

Sea coast, as populations elsewhere in northern Europe have started to recover (Stanbury *et al.* 2011). Pairs now regularly stop off for extended periods during the spring and early summer. Many of these are thought to be sub-adults in the process of pair-bonding and these may act as a further source for recolonisation.

Cranes have also been released on the Somerset Levels and Moors as part of the Great Crane Project, a partnership between RSPB, Wildfowl and Wetlands Trust, Pensthorpe Conservation Trust and Viridor Credits, which aims to return breeding Cranes to other parts of their former British range. In August 2010, the first juvenile Cranes were released into the Somerset Levels, where up to 100 will have been released by 2015. In autumn 2011, there were 34 present in the area (Damon Bridge pers. comm.).

The future for Cranes in Britain currently looks promising, and it is likely that further range

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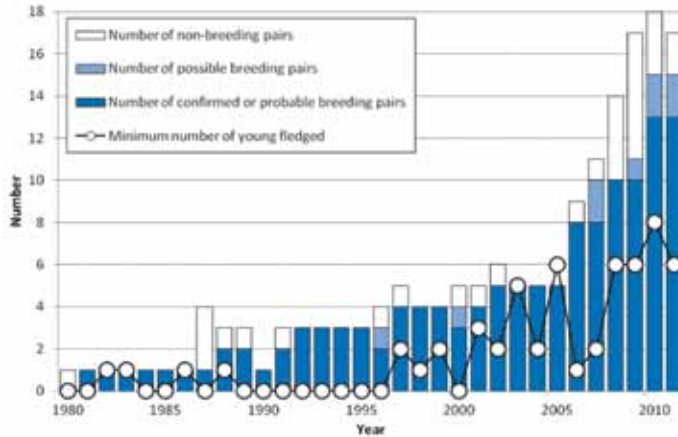


Figure 1 Trends in the breeding population and productivity of Cranes in the UK since recolonisation (data from landowners, site managers, conservation bodies and the UK Crane Working Group).

expansion will occur during the coming decade, particularly to other large wetland reserves. It therefore seems timely to summarise some of the species' requirements and potential limiting factors, so that appropriate management may aid further expansion.

The Common Crane is a very wary species, with exceptional eyesight. The Cranes' character has been described as similar to '...a pair of deer in a spring-time wood: quiet, secretive, watchful, often anxious, needing to be alone in their own space but determined to defend it. So, too, with Cranes in an April fen: hidden among reeds, immersed in solitude' (Sills in Buxton & Durdin 2011). For a species that stands about 1.2m tall, they can be surprisingly secretive during the breeding season, ready to retreat into cover at the first signs of disturbance. Indeed, although pairs were known to have been present at Lakenheath Fen for a month, it was not realised that they were breeding there until staff accidentally came across an active nest.

Over recent decades, the populations in mainland Europe have been relatively well studied, unlike in England. This was because of early secrecy surrounding the precise whereabouts of the newly re-established population and a desire to minimise human disturbance. Natural England, RSPB and the Norfolk Wildlife Trust ran a research project from February 2010 to March 2011, in order to understand better the factors limiting population growth, and to inform future management action for the British population (Stanbury *et al.* 2011).

Habitats

The Common Crane is a wetland species, although it appears to be adaptable within this environment. On the Continent, Cranes live in a broad spectrum of habitats, from *Sphagnum* bogs, alder carrs, reedbeds, and mires within deciduous and coniferous forests to pools within farmed arable landscapes, steppe or even semi-desert areas. One feature common to territories within these habitats is an inaccessible nest site that offers seclusion and protection from land-based predators (Cramp

1980).

Habitats that appear suitable for breeding Cranes occur throughout Britain and range from the peatlands of northern Scotland to the fens of southern England. Apparently suitable areas vary considerably in size. In northern Scotland, the Flow Country (4,000km²) seems suitable but has yet to attract nesting Cranes. The nucleus of the current population is found in the Norfolk Broads, where there are about 80km² of grazing marsh, tall fen (including Common Reed *Phragmites australis*), wet woodland and peripheral arable land. In northern England, the species breeds in two large blocks of mire being restored, totalling around 40km² with the adjacent arable land (Craig Ralston pers. comm.). In contrast, smaller areas occur in Cambridgeshire where grazing marshes, each of 20-30km², act as flood-storage washlands for Fenland rivers and lie within an intensively managed farmland landscape. Smaller areas still – perhaps only 3km² – may be discrete, wetland nature reserves or privately owned, grazing-marsh farmland.

All except one of the 137 known breeding attempts in Britain have been within wetlands of at least 300ha. Whatever the size of these wetland areas, their true suitability for a successful Crane population may depend primarily on the degree of human-induced disturbance.

In British wetlands where Cranes already breed, it appears that, as a rule of thumb, the population occupies about 100-150ha per pair. Specific examples include seven pairs in 8km² (110ha/pair)

in the Norfolk Broads in 2010 and two pairs in 2.7km² (135ha/pair) at RSPB Lakenheath Fen from 2007 to 2011 (Sills unpublished reports to RSPB). However, where only one pair is present the year-round land use may be considerably larger – up to 500-900ha in northern England (Craig Ralston pers. comm.). On the Continent, breeding densities vary considerably. In open areas, such as bogs with sparse scrub cover, this may vary from 50ha/pair to 500ha/pair, but densities as high as 8-13ha/pair have been recorded occasionally at small sites (Johnsgard 1983).

Despite the rough measure of 100-150ha per pair in Britain, each pair may actually use and defend only a portion of that area during a given year. For example, at Lakenheath Fen, each of two pairs foraged on between 16ha and 23ha throughout the year from 2007 to 2011 inclusive.

In short, although to us a large area may appear suitable for breeding Cranes, only a proportion of it may be sufficiently unaffected by human disturbance. Within that proportion, the area actually used by a pair throughout the year may be very much smaller and, for nesting and chick-rearing, smaller still.

Nest sites

Crane pairs start to break away from any winter flocks in February and March, and begin to roost (in shallow pools) in the vicinity of potential nest sites, perhaps in an attempt to monitor general suitability prior to nesting. Indeed, they may be particularly vulnerable to disturbance at this time



Incubating female in the Norfolk Broads. Crane nests are constructed from dead vegetation, such as reeds, bulrushes or rushes. They are generally situated in shallow water, either within, at the edge of, or hidden within standing vegetation a few metres from open pools.

John Buxton

of year. In Britain, Cranes typically lay their first clutches between mid-March and early May. Nests are usually at least 1km apart, but very occasionally they have been found as little as 230m apart (Sills 2010).

It appears that the nesting habitat does not need to be particularly specific within the context of the wetland environment. Indeed, many large (>300ha) wetland reserves with a network of shallow pools and islands probably contain suitable areas. Cranes generally nest amongst emergent vegetation in shallow water (5-50cm), either within or in close proximity to an open pool. Over 90% of nesting attempts in Britain have been in Great Fen-sedge *Cladium mariscus* fen, Common Reed (standing or stubble after cutting) or bulrush *Typha* swamp.

Cranes do not necessarily require large expanses

Annual life cycle of a Crane.

	January	February	March	April	May	June	July	August	September	October	November	December
Post-breeding flocks												
Pairs disperse to breeding sites												
Protracted egg-laying period												
Chick-rearing and moulting												
Crane passage through Britain												



Two newly hatched chicks on an exposed nest in Yorkshire. Nests are vulnerable to flooding as the cups are often only 5-10cm above the water level when constructed. Kevin Bull



Young family feeding on rough grassland in the Fens. The young leave the nest soon after hatching and are fed by the adults bill-to-bill until they gradually become self-sufficient. Andrew Stanbury

of emergent vegetation within an area of wetland, and have successfully nested in association with relatively small reed-fringed pools (as small as 100m² in 2010). At Lakenheath Fen's reedbeds, from 2007 to 2011 inclusive, both pairs initially nested in open areas (including water) of 0.2ha to 0.4ha, but progressively selected far smaller nest-sites (2-30m²) within dense Common Reed with 5-30m-long access paths to larger pools (Sills 2010). The presence of open areas near the nest, in

the form of either shallow pools or short vegetation, may be a crucial feature, as it allows easy take-off and landing for a species that has a 2m wingspan.

Pre-fledging foraging habitats

Incubation lasts between 28 and 31 days. After the eggs hatch, the family typically forages close to the nest site for the first week or more but, as the chicks get older, the parents expand their pre-

A chick at about six weeks of age feeding with its parents on grazing marsh in the Norfolk Broads. Andrew Stanbury



fledging foraging area and escort the chicks over greater distances to favoured feeding grounds. In Britain, grazing marshes, hay meadows, rough grasslands and field margins seem to be particularly important foraging habitats, but arable land, featuring fields of beetroot, fallow, sugar-beet, potatoes and maize, are also used. A preliminary study at Lakenheath Fen in 2009 suggested that food items were more plentiful in ungrazed fen compared with sheep/cattle-grazed fen, which may explain why the birds seemed to prefer the former habitat (Sills 2010)

Cranes nesting and/or foraging in Great Fen-sedge prefer

areas that have been cut in one of the previous three years (Buxton & Durdin 2011). These areas, being shorter and less dense than older stands, probably aid accessibility and vigilance. This generally corresponds with research undertaken on the Continent, which showed that families tended to avoid tall (>1m), dense vegetation types that are difficult to move through, such as Oil-seed Rape *Brassica napus oleifera* (Nowald 2001). Moll (1972) described a situation in Germany where the nest of a Crane was surrounded by dense Great Fen-sedge. He thought that the young had died because they were unable to penetrate the dense vegetation. Re-establishing cutting rotations in areas of unmanaged sedge in the Broads may prove beneficial.

Cranes are almost exclusively diurnal feeders. They are opportunistic, and find their food through visual cues. During the breeding season they are omnivorous, typically probing for, and picking at, a wide range of plant, vertebrate and invertebrate food items. Research on the Continent has shown that large invertebrates are a significant part of the diet during the chick-rearing period (Meine & Archibald 1996; Nowald 2001). In Britain, Cranes have been known to take beetles (including ground beetles, chafers and water beetles), flies, spiders, both adult and larval dragonflies, moth and butterfly larvae, true bugs, earwigs, gastropods (including amber snails *Oxyloma*) and earthworms, as well as small rodents, ducklings and even Avocet *Recurvirostra avosetta* chicks (Stanbury in prep.; Buxton & Durdin 2011). It is thought that grasshoppers and their allies are a main dietary component, although this is not yet proven. Plant material probably remains an important food source for adults, as they have been observed cropping areas of Reed Canary-grass *Phalaris arundinacea*, digging up rhizomes of sedges and stripping the seedheads of larger grass species, such as Tall Fescue *Festuca arundinacea*.

Studies in mainland Europe have shown that

pairs with flightless young typically forage over an area of 100-200ha, and chicks can be led several kilometres from their nest site to find productive feeding grounds (Nowald 2001; Leito *et al.* 2006). In northern England, a similar figure of 88ha is given for a foraging area of restored mire and adjacent arable (Craig Ralston pers. comm.). However, in southern England the pre-fledging foraging areas appear to be smaller. Exploratory research in 2010 suggested areas of approximately 19ha and 35ha for two families in the Broads and 17ha in the Fens. However, at another Fenland site (Lakenheath Fen) the pre-fledging foraging areas used by successful pairs between 2007 and 2011 were less than 5ha in size (Sills 2010). Currently, it is not known whether this is a response to high food biomass and availability, low human disturbance, or constraints on movement imposed by a railway embankment and a wide river.



Large concentrations of cranes at traditional stopover and wintering sites in Europe create a wildlife spectacle that attracts thousands of visitors. Nick Upton/rspb-images.com

Cranes in winter

Cranes are solitary and territorial in the breeding season, but usually gregarious during migration and in winter. Unlike Cranes on the Continent, British birds appear to be largely resident. Currently, the wintering population, including the released birds in Somerset, is in the region of 90 individuals.

The Broadland population continues to use grazing marshes during the winter, but the birds

Management for breeding Cranes

Since the recolonisation of Britain, most of the Cranes' breeding attempts have been in large wetland reserves. Habitat availability does not appear to be limiting breeding-population growth, but it is unclear whether human disturbance may be a constraint on numbers in certain areas, now and in the future. The breeding population in the Broads has not increased so much as one would have expected, considering recent productivity and the large area of apparently suitable habitat available. There seems to be regular emigration from this area, so it appears that it may not be able to accommodate any further expansion.

Nevertheless, given the current population trends in the native population and the release of young birds into Somerset, it seems likely that Cranes will colonise new sites and areas in the near future. We have only a basic understanding of Crane ecology in Britain, but the species is relatively well studied elsewhere in Europe. They appear quite adaptable and breed in a range of undisturbed wetland habitats. From purely a habitat point of view, Cranes would probably fit into many existing wetland reserves containing a mosaic of pools and grassland without the need for significant changes in management. However, a number of basic measures could be put in place to help to facilitate range expansion and maximise breeding productivity, the first three of which are probably the most critical.

Disturbance

Any land management within nesting areas, such as reed-cutting, should be completed by early February. This should minimise disturbance during the birds' 'settling' period and may encourage earlier nesting; a longer period would then be available if a replacement clutch became necessary. Other human activity should be reduced to almost zero in nesting, foraging and roosting areas from mid-February to July. If summer management (e.g. sedge-cutting) is carried out, or if visitors have access to the site, at least 200m should be left undisturbed around nesting and foraging areas during this period. From August to January, the level of human activity in foraging areas may be less critical, as birds, including fledged young, can fly to quieter places. Alternatively, the erection of screens may be appropriate in certain circumstances.

Hydrology

Constant water levels should be maintained throughout the incubation period to stop nest sites either drying out or becoming flooded; note the water level when incubation starts. Ideally, perimeter ditches (wet fences) more than 1.5m deep should surround nest and roost sites, to discourage potential land-based predators. A range of water depths should be created by providing several pools in the birds' breeding home range. Whether used for nesting, roosting or chick foraging, at least one or two pools should retain open water throughout the summer.

Predation

Predator control should not be seen as a substitute for the provision of good habitat, and priority should be given to mitigating predator impacts through habitat manipulation, such as those outlined above. If predation remains a serious problem, consideration should be given to controlling predators, principally Fox, but including American Mink. It is important that a thorough plan be developed when undertaking any mammalian control.

It is possible significantly to reduce numbers of Foxes at a site only by controlling them over a large area. Controlling Foxes on a small nature reserve surrounded by unkept land, or carrying out control only half-heartedly, is unlikely to have any significant effect on numbers of Foxes at the reserve. The most efficient strategy for reducing Fox numbers during the breeding season is to use methods developed to help breeding waders. A concentrated period of control by shooting should begin in late January and continue into spring. However, welfare considerations may preclude the shooting of adult Foxes from early April to early June, when some vixens have dependent cubs (Ausden *et al.* 2009), although this is not illegal in the UK. A range of methods should be considered to make shooting more efficient and targeted, such as the use of trail cameras to help to predict the occurrence of individual Foxes, the placing of auditory or scent lures to attract Foxes closer, and the use of high seats.

Other considerations

Cranes tend to avoid nesting and foraging close to cattle during the breeding season and, ideally, livestock should be excluded from favoured breeding areas until young Cranes have fledged. Livestock-free areas could be included in designs for major areas of wetland creation. However, the use of stock-netting should be avoided, as it can act as a barrier to unfledged young.

Where nest sites or favoured chick foraging areas are becoming colonised by tall, dense vegetation (e.g. Common Reed, Great Fen-sedge, Reed Canary-grass), selected areas should be cut or grazed, preferably between October and December.

Any habitats created for Cranes should be away from areas with a high density of flight hazards such as power-lines.

Any new wetland area created for nesting Cranes should cover between 0.3ha (smallest wetland compartment in 2010) and 2ha, containing several open pools of various sizes (minimum of 100m²) and depths. If fringes (over 5m wide) of full-height, ungrazed Reed can be established around any of the pools, they may help to reduce the impact of nearby disturbance, as well as deter predatory mammals. Ideally, the created area should be close to at least 20ha of undisturbed foraging habitat, such as wetlands, hay meadows, ungrazed grassland, or grazing marsh.



Great Crane Project birds feeding in a sacrificial Barley crop in Somerset. Nick Upton/rspb-images.com

also feed on the surrounding arable fields, taking advantage of spilt grain in stubbles, and newly drilled or newly germinated cereal crops, as well as waste potatoes. Indeed, potatoes are particularly favoured during the winter, and farmers in the Broads regularly leave out piles of waste potatoes as a supplementary food source. The Cranes seem to prefer slightly soft potatoes, and avoid those that have become too frosted. Maize is also a favoured winter food source and sacrificial maize crops have been provided for the released birds on the Somerset Levels. Members of the recently formed and now resident Fenland population – 15 in December 2011 – forage in the same range of habitats, on friable, peaty soil, but move between three main wetland areas (and their adjacent arable land) depending on where food is most available.

Threats

The Crane remains a rare breeding species in Britain, but over the last decade the breeding population has increased annually by around 13% (Stanbury *et al.* 2011). This is due largely to an increase in breeding success, which between 2008 and 2011 stood at 0.52-0.67 fledged young per breeding pair/year. However, it is worth noting

that this is still lower than in many of the expanding populations in mainland Europe, which typically produce 0.7-0.9 fledged young per breeding pair/year (Mewes 2006; Prange 2006). The British population remains vulnerable to human disturbance, predation and collisions with fixed objects.

Disturbance

After habitat availability, disturbance by humans is likely to be the main factor limiting the long-term Crane population in Britain. Cranes are susceptible to human disturbance throughout the year, but most significantly when they are selecting nest sites (February onwards), incubating eggs and safeguarding unfledged young – sometimes until September. Crane families need to forage throughout the majority of daylight hours to enable the flightless young to grow rapidly. Too much disturbance can adversely affect foraging efficiency and reduce breeding success (Nowald 2001).

Across their range, Cranes generally prefer isolated breeding territories with nest sites well protected from disturbance. Habitat selection for nesting and foraging in agricultural landscapes is strongly influenced by human-induced disturbance, such as farming activities or road traffic (Nowald 2001). Over recent decades, Cranes

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breeding in Scandinavia and central Europe have begun to use smaller and less wild wetlands within intensively cultivated landscapes. In north-east Germany, they now regularly breed in small (<1,000m²) wet depressions in the middle of agricultural fields. These birds have become more tolerant of the presence of humans (Meine & Archibald 1996), but a number of studies have shown that Cranes within such areas tend to suffer a lower breeding success compared with those in isolated locations (Leito *et al.* 2005; Toland 1999).

In Britain, Cranes have so far tended to breed in secluded areas of wetland. From the early days of recolonisation, the species' vulnerability to disturbance was recognised and measures were implemented to limit any impacts. As the species has colonised new areas this has been more difficult to control, and human disturbance, both direct and indirect, has led to the loss of broods. If Cranes were to start colonising more disturbed landscapes in Britain, it would be interesting to see if their breeding success could sustain populations in such areas.

It is difficult to determine what level of human activity constitutes a problem, as this will vary according to topography, vegetation and the behaviour of individual breeding pairs. During 2010, some pairs with young appeared relatively relaxed when foraging in the open 200-300m from a busy path, while others reacted adversely to people and machinery more than 500m away. It has been suggested that Cranes can become increasingly tolerant of regular – and predictably safe – human activity and may recognise individual vehicles and people. Conversely, they may become alarmed by unusual and potentially threatening activities.

Predation

Predation is considered to be the main threat to Crane breeding success in Britain and is thought to be the primary reason for the slow rate of expansion in the early years of recolonisation. Only a limited amount of information is available on Crane predation in Britain, because of the birds' secretive nature and conservationists' self-imposed restraint in studying the birds. Much of the evidence is speculative and very few events have actually been witnessed. Cainism (i.e. the stronger chick kills the weaker one) has been recorded in some Crane populations and this, together with

other forms of breeding failure (such as nests being flooded), may have inflated perceived predation rates. Further research is needed to evaluate these factors.

The Fox *Vulpes vulpes* is believed to be the main predator of Cranes and it has been known to take eggs and chicks (even at ten weeks old) in Britain. Marsh Harriers *Circus aeruginosus* are thought to have a much lower impact, but have been seen taking small chicks in two incidents. Other potential predators in Britain are thought to include members of the crow family, American Mink *Neovison vison* and Otter *Lutra lutra*. Unfortunately, there has been no quantitative study of the relative impact of each of the likely predators, and causes of failure are based on rather fewer observations than we might wish.

Fluctuating water levels during the nesting season can amplify these problems, as they can either allow access by land-based predators or lead to a nest being flooded. Interestingly, hatching success in the Norfolk Broads appears to be about 50%, but elsewhere in the country it is over 90%. It is not known whether this is directly linked to water-level control or predator interactions. However, a study at Lakenheath Fen showed that, from 2007 to 2011 inclusive, two pairs of nesting Cranes enjoyed 100% hatching success at nest sites surrounded by deep water (over 1.5m) and wide reed-fringes and where precise water-level control was possible (Sills, unpublished reports to RSPB). Later in the summer, when safe nesting/roosting pools may become dry, a Crane family may have to resort to roosting on the disused nest of another bird (Mute Swan *Cygnus olor* etc.) or create a temporary platform by flattening vegetation over a water-filled ditch.

Cranes are capable of defending their nests and young from predators, including Foxes, and this has been observed at several sites in Britain. There is little information available on Crane and predator interactions in different habitats. For example, for a Crane family foraging in rank, dense vegetation, it may mean that a passing Fox either is less likely to spot the Crane chick during the frenzied attack by the chick's parents or is more able to sneak up on the chick once its location is known. Conversely, in short vegetation (grazed marsh), the adult Cranes may have earlier warning of a Fox's presence, but the Fox may more easily see the chick and have an unhindered run towards

it. If clutches or chicks are lost, Cranes may re-lay within three weeks, but replacement clutches are more susceptible to failure.

Collision with fixed objects

Because Cranes are large, heavy birds, their manoeuvrability in flight is much less than that of smaller birds. This, and the fact that they often move around in flocks, makes them vulnerable to collision with objects such as overhead power cables. As a result, high rates of injuries and death have occurred in a number of crane species worldwide (Haas *et al.* 2005). Collisions are believed to represent the leading cause of premature adult mortality of Cranes in their Spanish wintering grounds (Alonso *et al.* 1992). Research has suggested that species of crane have 'blind spots' within their frontal visual field and this may explain why they are so vulnerable to power-line strike (Martin & Shaw 2010).

There have been no documented cases of Cranes colliding with cables in the Norfolk Broads, but there have been five cases elsewhere in Britain. Collision with power-lines could potentially affect the rate of recolonisation in Britain. Mitigation options include removing the earth wire, which is usually the highest, thinnest and therefore most dangerous of the power-lines, or, alternatively, fitting markers to the earth wire, a practice which has been shown to reduce Crane collision rates elsewhere in the world (Davis 1998; Jenkins *et al.* 2010).

Safeguarding Cranes and their breeding sites

Cranes are protected, as are any wild birds, but do not enjoy additional protection from disturbance during the breeding season afforded by Schedule 1 of the Wildlife & Countryside Act 1981. The species was added to Schedule 9 in 2010, which means that a licence is needed to release them into the wild. During the early days of the recolonisation, when the species bred at one location, their breeding site was protected because the area was designated an Area of Special Protection (AoSP), which prohibits public access and disturbance.

Since the late 1990s the species has bred at other



Common Crane with a broken wing, recently killed by flying into overhead power-lines in Germany. Nick Upton/rspb-images.com

sites in Britain. Currently, nearly all the Crane pairs breed on sites with some form of protection, these being either Sites of Special Scientific Interest (SSSIs) or nature reserves. No Special Protection Areas (SPAs) have yet been designated specifically for Cranes in Britain (Stroud *et al.* 2001), although all the regular breeding sites in the Broads and Yorkshire are within SPAs designated for other species, as are the likely breeding areas of Cranes in the Somerset Levels and Moors SPA (UKCWG in prep.). Virtually all of the country's significant wetlands are notified as SSSIs under domestic legislation, as SPAs under European Directives and as Ramsar Sites of Global Importance, so prospects for effective conservation by statutory means elsewhere are good.

Britain currently has a range of remote wetland sites apparently suitable for breeding Cranes but with unquantified degrees of human disturbance. Cranes may colonise and breed in the wider countryside, but it is uncertain whether breeding productivity in such areas will be sufficient to sustain numbers. The promotion of landscape-scale conservation initiatives – which would support the creation of large wetland sites with disturbance-free zones – could help to accommodate any population expansion once existing sites become fully occupied.

The future

The future for Cranes in Britain currently looks positive and it is hoped that the population will continue to expand. It is currently unclear what

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size of population the country could ultimately sustain, as this depends largely on which wetland habitats they eventually colonise.

There appears currently to be in the region of 1,500km² of potentially suitable breeding habitat in England, using Wetland Vision (www.wetland-vision.org.uk) data. Although much of this may prove unsuitable for various reasons, aspiring towards an English breeding population in the low hundreds does not seem unrealistic.

At wintering and stop-over sites, artificial feeding with sacrificial crops (e.g. maize, grain etc.) and feeding stations have been shown to bolster small crane populations elsewhere in the world (Davis 1998). Many of these have created wildlife spectacles, which have attracted considerable public interest and inspired annual celebrations such as the 'Festival de las Grullas' in Spain and the 'Festival of the Crane' in the USA. Numbers in Britain are unlikely to reach those seen elsewhere but, if the recovery continues, winter gatherings may reach three figures and the Crane may prove a useful 'flagship' species to raise public awareness and support for wetland conservation. Whatever happens in the future, Cranes, as ambassadors of nature, are now bringing further elegance, drama, wildness and soul to the marshes and skies of Britain.

The UK Crane Working Group

The UK Crane Working Group (website: <http://sites.google.com/site/ukcraneworkinggroup/home>) is the official umbrella organisation for conservation bodies, land-managers and other private individuals concerned with Crane conservation in the UK. The aims of the group include monitoring the population and providing advice to landowners and land-managers on Crane habitat requirements. The group would be interested to receive sightings of Cranes away from the core areas, and particularly records during the breeding season. All records will be treated in confidence.

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