Chapter 26

A New Home for the Osprey

Barrie Galpin, Rutland Ospreys Project Team

(The Rutland Ospreys project is a partnership between Anglian Water and the Leicestershire and Rutland Wildlife Trust)

Soon after the reservoir began to fill with water, a rare and rather special bird of prey, an Osprey, was recorded at Rutland Water for the first time on 4th May 1978. It was viewed with great excitement: sightings of Ospreys in England were very few in the 1970s. Who would have guessed that within 30 years these magnificent birds would be regularly breeding here and that the Rutland Ospreys would attract thousands of people to the county each year to see them? This chapter tells the story of the ground-breaking project based at Rutland Water which has re-introduced the Osprey as a breeding species to central England.



A male Osprey (John Wright)

A Little Osprey History

The Osprey that passed through Rutland in the spring of 1978 was almost certainly making its way north to breed in Scotland. It was one of a very small but growing population of about 40 adult birds that was becoming reestablished in the central highlands. Hundreds of years previously, Ospreys had bred commonly throughout Britain. Around the coast, in the wet expanses of the East Anglian fens, near rivers and lakes, wherever there was a plentiful supply of fish, the Osprey thrived. Shakespeare in *Coriolanus* referred to the Osprey, clearly indicating that the bird was common enough for the name to be readily recognised by theatre-goers at the end of the sixteenth century.

However, as a fish-eating bird of prey, the Osprey was not a welcome visitor to fishing lakes and fishponds. As the human population of Britain grew, as wet-land areas were 'improved', as the invention of the gun made it easier to kill wild animals, Osprey numbers fell. By the mid-nineteenth century persecution and habitat loss had become so extreme that there were no Ospreys left breeding in England. In the remoter parts of Scotland a few birds managed to survive for longer but by 1908 the species had probably become extinct in Britain.

An extract from *Notes on the Birds of Rutland*, by C Reginald Haines, published in 1907:

'OSPREY, Pandion haliaetus. (Fish hawk.)

An occasional visitor on its spring passage to the Burley and Exton Ponds [see note 1]. One came on the same day, and even almost the same hour, to the Burley Ponds every year from 1878 to 1883, staying thirty hours on each occasion. In 1884 it was shot at Coleorton in Leicestershire [see note 2] and another was not seen till April 2, 1886. Again in the spring of 1894 it was seen at Exton by W. Whittington, park keeper, and again on February 21 and March 5, 1898 [see note 3]. There is a stuffed specimen at Burley House, which was most probably shot at the ponds.



Male Osprey eating a Pike (John Wright)

The late Mr. R. Tryon describes the fishing operations of one which he watched at Burley Lower Pond – no doubt one of the above mentioned birds. It dropped like a stone with its wings slightly open, then rose from the water with what might have been a Jack in its claws.'

Notes:

1. The country houses of Burley on the Hill and Exton Hall, both to the north of Rutland Water, had large

estates. Their fishponds and lakes were stocked with fish which was an important food supply for both humans and passing Ospreys. Burley Fishponds were incorporated into the reservoir when it was built. They form the area known as Fishponds in the north-west corner of the reservoir. In the twenty-first century it is once again a good place to see Ospreys fishing.

- 2. Coleorton is in north-west Leicestershire, some 50km from Rutland Water. Haines assumes that this was the same Osprey but he must have had little way of knowing.
- 3. These are most surprising dates. If Whittington was right in his identification, in 1898 the Ospreys passed through the county on migration nearly a month earlier than their descendants a hundred years later.

A Revival of Fortunes in Scotland

After an absence of 50 years, a pair of Ospreys began to breed in the 1950s at Loch Garten. Probably of Scandinavian origin, these birds suffered repeated onslaughts from egg-collectors, but with the help of a dedicated team of nest-protectors, the number of Ospreys gradually began to increase. By the time Rutland Water came into existence about 40 Ospreys each year An Osprey nest were making their way north each spring and then south again in September, in a Scots Pine as they made their way back to the wetland areas of West Africa where they (Rutland spend the winter.

Osprev Project)

Osprey Facts and Figures

Found in every continent except Antarctica. European race migrates to Africa for the winter. North American race migrates to South America. Two races do not migrate - one resident in the Caribbean, one in south-east Asia and Australasia. Wingspan: male 147 to 166cm, female 154 to 170cm. Length: male 56 to 60cm, female 57 to 62cm. Weight: male 1,400g, female 1,600g.

Apart from Eagles, they are Britain's largest bird of prey. Food is almost exclusively live fish, both fresh and salt water species.

Fish are caught near the surface of the water by plunge-diving feet first.

Nest built in prominent position, usually in a tree-top.

Ospreys are semi-colonial, preferring to nest close to other Ospreys. Males particularly favour a nest site close to where they themselves were

Usually lay three eggs which take 35-42 days to hatch.

Young fly about 53 days after hatching.

Juveniles migrate, entirely on their own, at the age of three months.

They stay in West Africa until they are two or three years of age.

Usually ready to breed at the age of three to five years.

Once established, they use the same nest with the same mate every year. Average life span about 15 years - maximum about 25 years.



Osprey in flight (Chris Lythall)

An Increase in Osprey Sightings

During the 1980s and early 1990s, as the Scottish population grew and as the habitats around the reservoir developed, more Ospreys were seen each year passing through Rutland. In 1994 a female stayed the whole summer, raising hopes that some might eventually breed. To encourage this, artificial Osprey nests were erected on platforms and in the tops of trees around the reservoir. This work was carried out by staff and volunteers working for the Leicestershire and Rutland Wildlife Trust, the local conservation organisation which, from the very beginning of the reservoir's history, had managed the Nature Reserve at the west end of the reservoir on behalf of Anglian Water.

Right: Erecting a nesting platform at the Burley Fishponds (Rutland Osprey Project)







Above: Building a tree nest (Rutland Osprey Project)

Left: A pole nest is occupied (Rutland Osprey Project)

A Bold Idea: Osprey Translocation

During the early 1990s ornithologists began to experiment with new ways of re-introducing species to areas in which they had become extinct. The technique of translocation had been used successfully with White-tailed Sea Eagles and Red Kite in the UK. Young birds are taken from their parents and moved to a new location where they are fed and cared for until they are self-sufficient. They learn to fly in their new surroundings and when they are old enough they breed there. In the USA similar techniques had been used to help the Osprey population recover in areas where the birds had been hit by the ravages of DDT. No one had yet tried to translocate the European subspecies of Osprey but in 1995 Nature Reserve Manager Tim Appleton and Roy Dennis of the Highland Foundation for Wildlife began to formulate a plan to translocate Scottish Ospreys to Rutland Water.

The idea quickly received the backing of the Leicestershire and Rutland Wildlife Trust. Crucially, Anglian Water pledged financial support, allowing long-term plans to be drawn up. Before licences could be granted, it was necessary to consult national and local organisations on the impact the project might have on landowners, fish farms, fishing clubs and conservation societies. International criteria concerning the translocation of species had to be satisfied. In order to ensure that the Scottish Osprey population was sufficiently stable to allow removal of young without significant impact, an independent population analysis was carried out. A steering group was set up and a detailed proposal submitted to the licensing bodies. Finally, licences were granted to translocate a limited number of young birds from Scottish nests to be released at Rutland Water over a period of six years.

Translocation of Young Ospreys

The first phase of Osprey translocation from Scotland to Rutland Water

commenced in 1996 and continued for a further five years. During this period between eight and twelve chicks were moved each year. A total of 64 had been moved by the end of this phase.

Chicks were moved when they were between five and six weeks old. No more than one was selected from each nest, usually where there was a brood of three. They were then transported to Rutland Water by road overnight. On arrival they were placed in special pens built on Lax Hill, overlooking the reservoir. Whilst in captivity, they were fed on fresh trout from the Horn Mill fish farm and progress was constantly monitored by a large volunteer project team. They were

released when they were able to fly, by which time they were eight to nine weeks old. From this point on they took ever-longer flights around the reservoir, but they continued to be fed and monitored by the project team. At the age of three months they all migrated south.



Young Ospreys ready for release from Lax Hill (Barrie Galpin)



A young Osprey takes a rest from learning to fly (Rutland Osprey Project)

The Volunteer Force

The translocation captured the public imagination and a growing number of volunteers of all ages and types joined the team helping to care for and monitor the Ospreys. Some were local retired people with a lifetime interest in conservation and wildlife. Others were young people for whom watching the majestic Osprey provided an introduction to a wider delight in the natural world.

Norman Gordon remembers joining the project in 1997, having retired from the Health Service and seeking outdoor activities:

'I was one of a team involved in monitoring the progress of the young birds which had been brought down from Scotland and were being cared for in newly constructed pens on Lax Hill with minimal human contact. We kept them under constant observation during daylight hours and watched them thrive on a generous diet of Rutland trout. After release we kept an eye on them as they gradually increased their range, flying around the reservoir until, at the end of August, they left on migration. It was altogether a very rewarding exercise and was heartening to see these magnificent birds around the reservoir and to share the pleasure with the many visitors.'

Tim Mackrill was just fifteen years old when he joined the volunteer team in 1997:

'I can still vividly remember my first monitoring shift in a rather rundown caravan at the foot of Lax Hill. The eight juveniles translocated to Rutland Water in 1997 had just been released and were enjoying their new-found freedom, making short but increasingly competent flights between their favoured perches. To see up to eight Ospreys in the air together was a truly memorable experience and I was instantly hooked. I still get that same buzz when I see the birds, but I couldn't possibly have guessed where that first monitoring session would lead '

A decade later in 2006 Tim became the Project Officer, heading a team of nine staff and over 110 volunteers.

Tracking Migration by Satellite

When the young translocated Ospreys left each September it was thought that they probably went to West Africa where Scottish Ospreys were known to spend the winter. However, little was known of the migratory routes of British Ospreys. In 1999 a decision was made to follow some of the young birds as they migrated south, using the latest satellite technology. From 1999 to 2001 fourteen of the Rutland juveniles were tracked and, for comparison, so also were some birds from



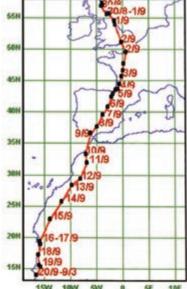
A fairly typical autumn migration: S18 was a young adult male, who was thought to have bred for the first time in 2000 (Rutland Osprey Project)

Scotland (seven adults and two juveniles). Using a harness, small radio trans- Data from the mitters were carefully fitted to the birds. Signals from the radios could be Osprey detected by very fast moving satellites on polar orbit around the earth. The transmitters is system was able to calculate the latitude and longitude of the transmitting detected by radios and, by contacting the processing centre in Toulouse, it was possible satellites and to learn the daily positions of the Ospreys during their migration. As the relayed via the data arrived, maps were constructed showing the routes taken by the ground receiver Ospreys and reports were published on the project website, creating consid- to the processerable interest and excitement.

ing centre

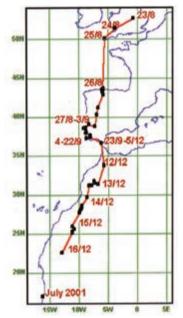
Several of the adult birds from Scotland used a fairly (Rutland direct route to the wintering grounds. They tended to fly Osprey Project) south through England, crossing the English Channel into France and continuing south through central or eastern Spain. They crossed into North Africa near, but not necessarily at, Gibraltar, then through the passes of the Atlas Mountains. The adults crossed the Sahara desert in about five days, shortening the distance over the fish-free zone by maintaining a relatively western route. They then settled for the winter in wetland areas in parts of West Africa, particularly Senegal.

The data showed that the birds almost always rested at night and occasionally would break the journey with a stopover for a day or more at a favoured spot along the way. The average total distance travelled was about 4,000km in an average of 29 days (ignoring stopovers).



Juvenile Ospreys do not migrate with their parents or with other Ospreys. Their ability to reach the wintering grounds is presumably inherited through the genes of their parents: genes that have been honed through natural selection over many generations. It was known that, like most birds, a very high percentage of young Ospreys do not survive to join the breeding population and the expectation was that the hazards of initial migration would be one of the major causes of early death.

T03, a juvenile male, like the majority of juveniles, started off from Rutland Water in a south-westerly direction. After Land's End, it was soon faced with the largest 'lake' it had ever seen in the form of the Bay of Biscay. Other tracked juveniles did not survive this hazard but T03 made the



The migration of T03, a juvenile male, from Rutland Water in 2000 (Rutland Osprey Project)

716 km crossing in 24 hours. He made his way south with extended stopovers in southern Spain and Portugal until early December. Transmissions ceased as the bird was crossing the Sahara desert, leading us to assume that the bird had perished. However, the transmitter revived seven months later from the West African coast, proving that the bird had certainly completed the crossing of the desert.

The migration maps of all the satellite-tracked birds, together with flight statistics and analysis are displayed on the Rutland Ospreys website (www.ospreys.org.uk).

The Return of the Osprey – A Series of Milestones

Although it was interesting to learn where the young Ospreys went when they left Rutland, what was crucial was that some of them would return here. It was not until 1999 that the first milestone was reached when the first of the translocated birds was identified back beside the reservoir. He had a white ring with the letters 08 on his left leg, identifying him as one of the 1997 contingent. He arrived on 29th May, stayed for several days, caught fish of various species and was often seen sitting on the artificial nests and perches in Manton Bay, the south-west corner of the reservoir. His return as a two-year-old raised hopes that he might return in future years to breed on the nature reserve. In Scotland, male ospreys do not usually breed until they are at least four years old, but they often establish territories in their second or third year, so the behaviour of 08(97) was certainly encouraging. However, another male from the 1997 translocation also returned later in the summer of 1999 and it was this bird 03(97) who was later to become the first of the Rutland Ospreys to breed.

2000 – Another Milestone

Both 08(97) and 03(97) returned early in 2000 and they were joined by two more males that had been released in 1998. 08 began to entertain crowds of visitors to the Lyndon Nature Reserve by adding sticks to an artificial nest. He then attracted a passing female. It was too late for them to breed but she stayed all summer. She was not a translocated bird, but it was a second milestone for the project: not only were the males returning but Scottish females were noticing, and could perhaps be enticed to see Rutland Water as home in future years.

While 08 and his female were cavorting in the media glare of Manton Bay, 03(97) had quietly begun to build his own nest in the top of a half-dead oak tree on private land in a very secluded corner of the county.

2001 – The First Breeding

The winter passed in hope and anticipation. The four male Ospreys returned in the spring of 2001 but sadly 08's female from the pre- Above: Osprey vious year did not return. That year he attracted at least three unknown 08(97) with a females for short-term relationships and 08(97) came to be known as female in Rutland's most eligible bachelor.

Meanwhile, 03(97) was certainly getting it right. He returned early, (John Wright) enlarged the nest he had built for himself the previous year and by the end of April had lured one of 08's females to join him. She laid eggs and by early June it was clear that there was a chick in the nest. For the first time in 150 years there was an Osprey chick in central England and a major milestone of the project had been achieved.



Manton Bay



The first juvenile Osprey in its nest (Rutland Osprey Project)

Ups and Downs

Since 2001 the male 03(97) has returned to breed in his private nest site every year. By 2007 he had fathered a total of fifteen chicks all of which fledged successfully. In 2003 his original mate did not return, but her place was quickly taken by a three-year-old female, the first translocated female to return to Rutland. She has returned each year and the pair have become excellent, experienced parents.



An Osprey nest at the top of a tree with an chicks (John Wright)

Every year a close watch is kept over the Osprey nest, particularly during the incubation period. The number of volunteers has grown to over 100 each year and they record fascinating data about the breeding process. For adult and three example, the project team has learned when and what species of fish are brought to the nest, the proportion of time that the male and female spend incubating and the number of times that the nesting pair have to defend the nest against other birds, particularly Red Kites, Common Buzzards, other Ospreys and, amazingly, Greylag Geese!

In 2003 another pair of translocated Ospreys bred, once again using a nest away from the reservoir in a remote corner of the county. They produced two chicks in 2003 but the female did not return and the nest has not been used successfully in subsequent years.

And what of 08(97)? Every spring he was returning to Manton Bay. Every spring he was building up an artificial nest. Every spring he was having relationships with at least one female. But every summer he was alone again in Manton Bay. Why should this be? – theories abounded!

Taking Stock in 2005

By 2005 a total of twelve of the Ospreys translocated between 1996 and 2001 had returned to the UK. One female had returned to Scotland, breeding there for several years. Two males, having attracted females, were discovered breeding in Wales in 2004. However, nine Ospreys had returned to Rutland Water. Of these seven were males and two females, reflecting the gender composition of the translocated group. It had been thought that, as with American translocation schemes, males would be more likely to be site faithful and would easily be able to attract breeding females from other populations. However, our experience was showing that translocated females would readily breed here if they returned and the gender imbalance had lessened the chances of more nests being established. Therefore in 2005 a second phase of translocation took place with nine young females and two male birds being moved to Rutland from Scotland in the hope of increasing the rate at which the population would expand.

Each year growing numbers of people were coming to Rutland in the summer hoping to see the Ospreys. Most were successful thanks to 08's exploits in Manton Bay, and thanks to the volunteers and staff who mounted public watch-points to watch him. However, we were disappointed that no pairs of Ospreys were breeding at a nest-site where the public could watch the breeding process from a safe distance without fear of disturbing the birds.



An Osprey cruise on the Rutland Belle (RO)

Ospreys had certainly become a popular part of the Rutland county scene: there were proposals to name roads in their honour; a hotel had an Osprey restaurant; there were regular Osprey cruises on the *Rutland Belle* and the local and national media often ran features about the Rutland Ospreys. A survey in 2005 estimated that £154,000 of visitor spending in the local area was attributable to the presence of the Ospreys here.

Events in 2006

On 24th March 2006 male 03(97) arrived back at his regular breeding nest near Rutland Water. He was just two days later than the previous year, but looking in superb condition after his long flight from the wintering grounds in (presumably) West Africa. Field Officer John Wright was watching and taking photographs less than 24 hours after the breeding male's return. John said, 'The nest is the worst I've ever seen. It's virtually a huge ball of soil and turf without any sticks holding it together'. So there was lots of work for 03 to do before his mate 05(00) also returned. He didn't have to wait long because she arrived on 31st March, although it was time enough for 03(97) to have a brief flirtation with a passing Scottish female.

05(00) produced three eggs and after incubation for 37 days the first egg hatched. Soon it was possible to see three tiny heads above the rim of the nest. Yet again this pair produced a full clutch, bringing their total of chicks to twelve since they first got together in 2003.

On 30th June, with the chicks not yet able to fly but with their legs fully grown, it was safe to take them briefly from the nest and fit the rings that will enable them to be uniquely identified in the future. Getting up to the nest was no easy task but the task was made easier thanks to the loan of a 'cherry picker' by British Telecom. The chicks were gently lowered, one at a time to the ground where they were quickly weighed, measured and ringed. At this stage it was possible to make a very good estimate of their sex – two females and a male. The male was given a maroon ring inscribed AA, the larger female a yellow ring inscribed 7T, and the second female a silver ring, also inscribed AA. There was a very large difference in size – the male weighing just 1,350g and the bigger female a whopping 1,800g.

By 12th July with fresh westerly winds, the chicks had been exercising their wings, beating the air and doing lifted hops on the nest. A few days later all three young birds were flying.

The Next Milestone

Another exciting development in 2006 was the arrival of an unidentified male Osprey in the afternoon of 11th June 2006. The bird was fishing near the fisherman's car park overlooking the north arm of Rutland Water. Through a process of elimination and a sighting elsewhere it was confirmed as 5R, a male who was hatched on 6th June 2004, his parents being 03(97) and 05(00). Prior to this he had intruded briefly at the breeding nest before being chased away by 03(97): not a particularly warm home-coming from his father. He had also been sighted at Coombe Abbey Country Park near Coventry at 5am on 11th June. The distance between Coombe Abbey and Rutland Water is about 56 km as the crow flies, perhaps only an hour's flight for an Osprey.

5R(04) was the first naturally-reared chick to return to England or Wales for 150 years and so it was a real milestone for the project. But four weeks later there was even better news when 5R's twin sister from 2004, 5N, was

also identified. The new arrival was first spotted on an artificial nest on Lax Hill. It was clearly a female because of the attention she was receiving from two males displaying above. The newcomer moved off to the Manton Bay area and it was soon possible to glimpse the green ring on her right leg and to read the characters 5N. It was hard to believe but the entire 2004 brood from the Rutland nest had returned as two-year olds.

5N immediately became the focus for 08(97)'s well-honed courting techniques. The young female seemed very impressed by the fish he brought her, by his substantial nest and by its proximity to her own natal site. The pair remained together throughout August 2006 until they migrated. The project team had spent every winter since 2001 hoping that 08's female consort from the previous year would return in the following spring to breed on the publicly viewable nest in Manton Bay. Every year the team and, no doubt, 08 himself had been disappointed. Now at last 08 had attracted a locally bred female who would have no instinct drawing her to breed in a natal site in Scotland. Surely, at long last the spring of 2007 would bring better news for Rutland's famous bachelor-Osprey?

Successes in 2007

The end of March is always an anxious time waiting for Ospreys to arrive back from Africa. In 2007 we were delighted to see the regular breeding pair arrive back at their nest. We were very relieved to see 08 arriving and repairing the Manton Bay nest too. However, we were ecstatic to see 5N join him on 6th April and it immediately became clear that 08's bachelor days were over. The pair of Ospreys bonded immediately and set about creating a truly enormous nest on top of the old structure on a post in the middle of the bay. Eggs were laid, and the inexperienced pair took it in turns to incubate them. Hatching occurred and it soon became clear that there were two chicks in the

protected and fed their rapidly growing offspring.



nest. Through some of the heaviest rain ever seen in Rutland, the adults Female 5N and

The regular breeding pair was also quietly getting on with raising a familanding on ly of three chicks so the volunteer force was at full stretch monitoring two their Manton nests. At Manton Bay monitoring duties included helping visitors understand Bay nest in what was happening. This was no small task, for news of an easily viewable early April Osprey nest brought enthusiastic visitors in their thousands from all over the 2007 country. By early August about 20,000 visitors had walked from the Lyndon (John Wright) Hill Visitor Centre along to two hides from where breathtaking views of Osprey family life were to be had.

Five healthy youngsters was excellent but there was further good news during the summer of 2007. In 2005 the regular breeding pair had produced three young and two of the three were also recorded back in the county as two-year olds. One of these, a female was courted by another of the translocated males and showed every sign that she too would breed in future years.

male 08

Osprey family life on the Manton Bay nest in June 2007. Female 5N feeds the two tiny chicks as male 08 looks on (John Wright)



The Future

New Osprey populations usually take many years to grow to about ten pairs when they become self-sustaining and safe from the impact of disease and natural catastrophe. In Scotland in the 1950s the recolonisation was slowed by the ravages of egg-collectors and in the Forest of Orleans in France the population also hovered at a few pairs for many years before it achieved a critical mass. It remains to be seen whether the same will be true in Rutland.

Here the species has much in its favour: a plentiful fish supply, a wealth of potential nest sites, and an enthusiastic and dedicated team of local people who are determined that there will be no disturbance of the breeding birds. Until recently the survival of the colony has been very dependent on the safe return from migration of a handful of individual birds that were translocated from Scotland. However, we are now seeing their numbers being swelled by young birds that were born and bred in Rutland. It is beginning to look more certain that these very special birds of prey will become an ever more frequent sight in the English Midlands. Rutland Water seems almost certain to go on providing a new home for the Osprey.

The Rutland Ospreys website (www.ospreys.org.uk) has a detailed history of the project together with very regular news and pictures during the summer months.