The re-introduction of the Common Crane in the United Kingdom (Great Britain) – the Great Crane Project – a cooperation between Crane protection Brandenburg in Germany and the British organisation the Royal Society for the Protection of Birds (RSPB), the Wildfowl and Wetlands Trust (WWT) and the Pensthorpe Conservation Trust

Duration: 2006 - 2014



The logo of the project

The common crane had been present as a breeding bird in Great Britain, including Ireland until ca. 470 years ago. The last documented brood was in 1542. But the destruction of habitats, fragmentation, draining of their wetland breeding localities and especially hunting drove this species to extinction as a breeding bird in the British Isles.

Until then, cranes had been a frequent roast on the nobles' tables. After this date, the only reminder of cranes in the UK were the names of more than 270 villages, towns or localities.

From the 1950s migrating cranes could be seen regularly crossing Great Britain and in autumn 1979 a pair of subadult cranes settled in the Norfolk Broads near Horsey, in Eastern England. The Norfolk Broads offered suitable habitats with numerous wetlands and the pair decided to stay there permanently. Two years later they started to breed. The population grew slowly, but steadily. Since 2002, pairs have also been breeding further north on the Humberhead Levels in Yorkshire, and five years later three breeding pairs were also found breeding across the fens of East Anglia. By 2010 there were 17 breeding pairs in the UK with a wintering population of ca. 50 birds.

At the beginning of the 21th century, two conservation charities – WWT (The Wildfowl and Wetlands Trust) and the Pensthorpe Conservation Trust started to think about how it might be possible to bring back this magnificent bird species to Great Britain and resettle them permanently there. These two groups joined forces with the UK's largest conservation organization - the RSPB (The Royal Society for the Protection of Birds) and found financial support from 'Viridor Credits Environmental Company' to provide a big part of financing. . It is not easy or cheap to bring back a whole species…

The first question was whether it would be possible to offer the tall birds the suitable living conditions they need to thrive. That meant at first to bring back water to places where it has been in former time which had served as safe breeding places for the cranes.

And it meant to introduce the idea to the public, the locals, the residents to win their sympathy and willingness to welcome the returnees.

Rewetting in an area mainly used for agriculture meant that it was necessary to get the local farmers on board and to win their agreement in the planning stages of the project because it would be necessary to share several fields and meadows with the birds. Cranes are well known for their ability to "harvest" fields for their forage and the farmers might demand compensation for damage.
To avoid conflict with the farming community, the RSPB decided to use a 500ha nature reserve as the heart of the Somerset Levels and Moors to be the focus for the reintroduction. This contained wetlands, undisturbed and large enough to make the project a success. This ownership and the

agreement of other private land owners made it possible to consider this project of reintroduction of the Common crane in Great Britain seriously.

In summer 2007 the RSPB and WWT sent a request to Crane Protection Germany NGO in Mecklenburg-Pomerania. Would they consider supplying crane eggs for incubation in Great Britain? This inquiry was forwarded to the crane protection group in the UNESCO-biosphere reserve "Schorfheide-Chorin" in Brandenburg, the northeastern part of Germany right on the Polish border. There the density of breeding pairs was the highest in Germany at all in this time. In an area of 1.300 km² there lived approx. 420 pairs. This is a density of three pairs per square kilometer. The head of this large protected area was Eberhard Henne. He was also the leader of the group of crane protection there. The group discussed this thrilling issue carefully and finally reached an agreement. As official partner, they formed a little association "Diversity of the biosphere e.V." in the protected area. This group was able to deal with all questions around the project much more independently than an authority of the state Brandenburg.

Logo of the German association

The leadership of "Diversity of the Biosphere e.V." was in the hands of Eberhard Henne and Beate Blahy. Both are very active in the field of crane protection, and had been so for many decades. The motivation to agree on a five-year-collaboration was that the Common crane, their favourite species, - would be getting a chance to return to its former breeding home.



Dr. Peter Newbery, representative of the RSPB, in the biosphere reserve, creating the English text of a draft – so it was without any mistakes (image: Blahy)

In the following years, several visits of the British partners took place, we signed an official agreement between the British and the German organization containing the bilateral commitments.

The British partners inspected and analyzed the biosphere's landscape thoroughly to find out what essentials were needed to satisfy a wild crane to stay and breed. "Ah, that's the point, so the whole landscape has to fulfil all the needs! OK – we can offer that!"

They released a feasibility study of the UK's habitats, which had a positive conclusion: yes, it would be feasible - for reintroduction – particularly if the habitats found in the Somerset Levels and Moors, in the South West of the UK were chosen as the initial release site. It would involve a large input of money and effort, but it would be possible.

As a next step they invited a group of German experts to evaluate the English areas selected for the cranes. Would they say yes? Would we recommend these UK habitats and landscapes as a potential new homeland for our cranes?

In September 2009 Guenter Nowald, Eberhard Henne and Wolfgang Mewes travelled to the Somerset Levels and Moors, and WWT Slimbridge to see the facilities for rearing the chicks, and the landscape where the releases were planned. They investigated the already prepared habitats and came to the same opinion: yes, that will work! The British did a really good job! Here the cranes will be happy with these diverse and rich offers of different biotopes and safe places to build a nest.



v.l.n.r: Damon Bridge, GCP project manager, RSPB, Dr. Eberhard Henne, Dr. Günter Nowald, Dr. Wolfgang Mewes and Nigel Jarrett from WWT, in front of the Slimbridge Wetland Centre during the visit in September 2009 (photo: RSPB)

Shortly before the realization phase should start, in March 2010, the British partners invited two other German ornithologists of Brandenburg to participate in a so-called "egg-seminar" to widen their knowledge about this issue.

So, Ulf Kraatz, experienced expert in ornithology, and myself flew to Bristol and took part in the seminar in the WWT Slimbridge facility. A whole day only around eggs! I didn't foresee that it would be possible to speak such a long time about eggs, even though we have a number of feathered livestock at home and eggs are a daily experience for me. But the professor (Prof. Dr. Charles Deeming), giving the lecture, did it with ease. Of course, in his mother language, and afterwards my brain was really exhausted from all the permanent translation. But we still had enough physical fitness to visit a pub, together with Damon, with Nick Upton – an excellent photographer – and Roland Digby and Amy King, who would be hand-rearing the chicks for the Great Crane Project. We had a really enjoyable evening!

On the next day we extensively visited the numerous bird enclosures at WWT Slimbridge with many exotic birds, and several cranes of the world as well. Many people strolled along the fences and pens on comfortable trails, through spacious areas and enjoyed the birds. Groups of children came along and were loud – like in German parks as well. We admired the size of the place and the way the pens and fences were integrated into the landscape. I noticed the many volunteers too giving information at any time to the visitors. Great! That is what we would love to have at home also.



Info-panel for visitor information at the WWT Slimbridge (Photo: E. Henne)

The technical preparations

After finishing all the preparatory work with the crane experts, the next phase was to make the applications to the British and German authorities. It isn't possible to simply take living crane eggs and transport them into another country without these permissions! Natural England in Britain and the Landesumweltamt in Brandenburg had to give their consent for both ends of the operation. For that purpose, we had to write the papers, to get agreement for the areas from where the eggs would be taken, and provide a detailed description of the planned procedure and the timeline. This all had to be carefully written down and submitted to the authority of environmental protection in Brandenburg. The next piece of the jigsaw was to apply for the consent concerning the CITES-agreement in the frame of the international Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora and the TRACES-certificate of the European Union to verify where to the eggs will go.

Last but not least we had to make sure that the German crane eggs would not bring severe illnesses or pests to Britain. In order to do this we used blood samples from German cranes that had been taken during the ringing season, sent to the veterinary team at WWT Slimbridge for examination. The result was negative - no pests, no 'Newcastle disease' or other notifiable diseases were present in our cranes in the Uckermark!

We succeeded in overcoming all the barriers and in spring 2010, we began with the practical part of the project. It was planned to collect 24 eggs each year for five consecutive years. The eggs were to be incubated as close to hatching as possible, and then transported first to an incubator in Germany, and then, in batches to an incubator in the facility at WWT Slimbridge, UK. center. After hatching, the chicks would be reared by costumed carers until fledging age. After this they would be transported the 50 miles to Somerset into an aviary on the RSPB's West Sedgemoor nature reserve, and then released. And so, this is what we and the partners did…

Every year both the UK and the German teams wrote reports, describing exactly what went on and what had happened within that particular year in the project.

We needed to find a location where the UK crew could stay for the short time during the egg-collection period. It was essential to have a clean room for the big incubator, and with space to do the egg-checking and several measurements.

This place was the "Glambecker Muehle", an old mill in a very remote location within the Scorfheide-Chorin forest and nature reserve. The mill was reconstructed recently and offered all that was needed. The location was in the ownership of a conservation foundation which had been collaborating for years with the biosphere reserve – the old house was the ideal place for all duties in the project time in Germany. The only problem: no internet access…



View onto the Glambecker Muehle –nice place to stay for the Crew

The project activities in the biosphere reserve "Schorfheide-Chorin"

On the German side the annual work started every year in the middle of March. Eberhard and me, Beate searched intensively for crane pairs and later for their nests and eggs. We recorded the coordinates of the nests and tried to identify the date of laying as exactly as possible. It was important that we knew where the nests were, because it was not permitted to collect eggs from sites in SPA- or nature protected areas were. Egg collection was only allowed from within the wider landscape within the Biosphere Reserve.

The UK team came over each year from the middle of April, after the local team had identified ca. suited 40 nests. Taking the eggs has been full of surprises every year: circa one third were destroyed already by predators, a few were "to old" and the chicks already hatched or hatching.

So, it was of advantage to have a reserve in order that we could collect the needed 24 eggs every year.



Egg-collection – the first clutch! (Photo: Damon Bridge)

After finding the eggs they had to be "examined". We used the egg-calculator, developed by Moriz Rauch on the basis of the database of Wolfgang Mewes. The calculator is able to, using weight, length and width of an egg, to predict the date of hatching.

It was always thrilling to see the prediction of the calculator and to compare it with our own estimated data. It mostly corresponded – and if not, we could be sure that the egg was a relay.
This ability to calculate the age of the eggs was very valuable and the British team were delighted with the results

Sometimes we found infertile eggs, two times we collected them but their strong smell (stinky eggs) made very quick clear that they wouldn't hatch.

One egg we found was predated by a raccoon but it was too big, he couldn't bring it away from the nest. But his teeth had left marks on the egg shell, penetrated it and killed the chick within.



Harry is working with the Egg-calculator(Photo: B. Blahy)

The number of 24 eggs was defined by the British partners, regardless of the official consent for 30 eggs as the size of the facility and the number of available staff at WWT Slimbridge limited us to this number.

In Germany, every project year in mid and end of April the egg-taking period took place. The official veterinarian of the county came to the mill, inspected the eggs and handed the TRACES-consent over. These papers were essential to cross the borders luckily. After this short three-week period the British crew left the German project area. They drove the eggs back to WWT Slimbridge over two trips by car - a twenty-hour nonstop trip crossing the continent and heading through the channel tunnel to reach their destination in England, usually in the early hours of the morning.

During this journey the eggs were laid safely in little transport-incubators, which got energy from special batteries. To avoid any shock or vibration the crew had the incubators on their laps – particularly on the bumpy cobbled roads within the Biosphere Reserve. The successful hatching of the eggs a few days later made clear that it had worked very well, and each sensitive load arrived in good health.

Only in the first project year the eggs traveled by aircraft, with Lufthansa permitting the trip with pleasure and for free, but it came clear that it was more practical to use cars for the transport. For us, the German partners, the farewell was both: sadness that the wonderful days were over so quickly again, but also the relief that all was done, no accident, no failing.

Over these five years of the project – it was not only the direct project team that came over for work but also film crews, photographers and also management staff of the British organizations to see the progress of the project. They were also really interested to see the landscape, and to understand how conservation of the landscape is carried out in this part of the world.



Before taking the eggs away: filming and taking pictures for documentation (Photo: B. Blahy)

On two occasions we were joined by Dr Alison Morgan from the UK. Damon, project manager, asked me in a call if he could bring Alison the next time that we were catching cranes. Alison is qualified by the BTO (British Trust for Ornithology) to ring/band birds in the UK - but had never ringed cranes. She would be necessary to ring the future generations of young UK cranes. When she came I was totally surprised: a gentle, slight woman with shortcut curly silver hair and very intensive looking eyes. She joined our team banding cranes in the biosphere so she could learn all the practical aspects. She is perfect in my eyes.

On one of the middle years of the project, we even hosted an artist, Melanie Tomlinson - who came to join us and got inspirations by observing the birds in their natural environment. Melanie went on to work with many school and community groups in the UK using the cranes as her inspiration and to help inform these communities about the returning birds.

Rearing phase and release in England

The first phase – hatching, rearing, regular health checks, and teaching the young cranes to find food in nature – took place within the special facilities that had been constructed at WWT Slimbridge. Head aviculturalist Nigel Jarrett was in charge during this time. He has the most excellent expertise in these issues.

Along with Nigel there was a small team of dedicated crane carers. They were together with the chicks all day long and helped them to find the way into a cranes' life. They wore special costumes to disguise their human form and spent all the time totally silent around the cranes.

The WWT team used the same 'puppet rearing' methods that had been used in the U.S.A. to preserve the last whooping cranes, nearly extinct in the last century and rescued at the last second using this way to raise the few chicks. Since then it was well known: the carers had to do their work in crane suits, silver grey and covering the whole body including the head. All sounds were given from recorders which played cranes' voices always in the suited situations. Under any circumstances the carers had to avoid that the chicks could see humans or hear their voices. What a duty!

The crane chicks were also taught to learn about predators. A blond dog, on a long lead, served as "fox" and scared the chicks whilst and the "parents" played crane warning calls, and lead the chicks safely away from the danger.

This work demanded strict discipline and long days, because cranes use to get up very early in the morning and need lots and lots of exercise. Additionally, it was not very comfortable in the costumes, very warm during the summer time and they had to move a lot. But the chance to raise little crane babies for England's nature, to bring back a magnificent species to the home land was challenging and meaningful, none of the staff complained about anything. Especially Amy proved herself as "crane mum", she loved the cranes from first day on – but wasn't allow to tell them that.



Young cranes in their pen in July 2013 – still under the net (foto: WWT)

Amy King, member of the WWT, was the head teacher of the crane school. She commented on her work in 2014: "*This year's Crane School class have really thrived. They've love their daily walks and this year we drafted in 40 volunteer 'PE teachers' who took the birds for more than 700 hours of exercise. I've worked with the Great Crane Project since day one and it has been the most unforgettable experience. Some of the first birds that I raised have had chicks of their own now. It's just wonderful to know that they're out there, living wild in our landscape once again.*"
https://www.birding247.co.uk/16-young-great-crane-chicks-graduate-from-last-ever-school-class.html

After ten weeks the chicks fledged and were transported from Slimbridge to the new home land: on the Levels and Moors in Somerset, in the Southwest of England. Only now began their real lives in the wild.

After three weeks in an enclosed aviary in Somerset, the prepared enclosures were opened. The young cranes used their new-found freedom of movement and very quickly took flight – but returned to the safety of their fox-proof enclosure. The cranes quickly investigated the landscape and found dispersed decoys, crane sculptures made of painted wood, standing on fields and meadows and offering food in absence of humans.



Young birds beside a decoy, they quickly learned that there is always food. (Photo: Nick Upton)

The birds were observed around the clock by the project staff and many volunteers. They observed the young cranes and logged a lot of data. They registered the birds' behavior and as well as any occurring problems.

The residents living in the region were informed long before the cranes arrived. They knew about the project and were happy about this big event and the return of this amazing species. The project staff had from the beginning, and always in a very transparent and clear manner informed about all steps in the project. They involved children and school classes to learn more about this bird species, gave lessons at school and invited interested people to take part in the work around all preparations. So people were really enthusiastic to hear the first calls of cranes and if so they called the staff at the RSPB West Sedgemoor Reserve were the project is located, to tell it.

The UK team frequently released a newsletter and published a website including a blog which reported about progress of the cranes, told their several life stories and won the sympathy of the inhabitants. Beautiful images of the birds illustrated the thrilling story of the reintroduction of this long time missed species.



Some British colleagues f.l.: Harry Nevard, (Beate Blahy), Amy King, (Eberhard Henne), Richard Archer, in the background John D. , not member of the team **(Photo: Damon Bridge)**

The huge amount of work, organization and coordination was mainly done by Damon Bridge, the head of the project for the RSPB. Now, afterwards we can see and appreciate the big performance he did, always with a friendly smile, and all his colleagues with him.

We met many of the people dealing with the project issues over the years. Beside Damon there was Nigel Jarrett, employee and expert in all kind of birds at WWT, an ornithologist and scientist, getting what it takes to bring back a new bird species and enabling it to thrive

The young and cheerful Amy, so fun-loving but absolutely reliable in all questions around their protégés.

Harry Nevard, even younger, but full of passion for his work and a dedicated member of the team. Roland Digby, a tall chap with a big personality – and long flowing hair. It was mostly with Roland and Amy that we ventured into the swamps to collect eggs.

Richard Archer, the official conservation officer for the RSPB in Somerset always ready to help if anybody needed a hand. We appreciated his readiness for political discussions and his historical knowledge in all issues of the UK's history and learned a lot from him.

And unforgettable: Peter Newbery, species reintroduction specialist for the RSPB. He was our first contact in the beginning of the project preparations and he fulfilled all of our naïve visions about how an English gentleman behaves. Always polite and friendly, compassionate and never losing his patience – that was Peter. He died during the project time, much too early, much too young. This sad news has put a shadow of the project. We will never forget him and what he did for the common crane in Great Britain.

A short summary

Again, and again we noted how exactly, scientifically and conscientiously the British partners worked, always quality ranked before amount and speed. So was the outcome of the project: it became a real success.

After five years of egg-collection there lived 93 young cranes with Uckermark origin freely in southwest England, the first few pairs had shown breeding attempts. By the end of 2015 none had bred with success… but this was to follow



A flock of immature cranes – watchful, looking around and showing the normal behavior of wild cranes (Photo: Nick Upton)

Them who are able to calculate easily find out that 5x24 eggs finally results a number of 120 cranes, not 93. And the first losses happened during the hatching phase, with not all eggs hatching into also a bottleneck in the development phase, not all eggs hatched a healthy chick. During the rearing phase there were also several sad days because some of the young birds had to put down. There were no infectious illnesses but other causes led to severe health impairments without a chance to recover. You have to bear in mind that a chick has to grow from 220 grams to 3,5 kilograms, and learn to fly within nine weeks. This is a dramatic change and stress on the young, growing body. If there are any lacks of minerals, vitamins, nutrients in the food or the inability of the little bird to deal with in the adequate manner it doesn't work. The phenomenon of "bowed" and "splayed" legs sometimes occurred – it is unknown in the wild (or never observed) and these chicks didn't survive.

After release into the wild one young crane collided with an overhead cable and died. There was a lot of local concern, and the RSPB team worked with the energy trust to mark cables with bird protection markers to make them safe Foxes predated t a few birds, even though fox numbers were being controlled through shooting to protect the population. Post-mortem examinations of the predated birds often found them to be burdened with parasites or other illness or injury.
In 2020, 10 years after the first releases, the released population numbered 51 birds meaning a survival rate of 55%. That is much more than ever counted in the wild. (the normal percentage ranges between 25 and 35 %).

27 pairs of release project birds were observed with breeding attempts in the UK in 2020, with this breeding population including some '2nd generation' birds. They fledged four chicks (reproduction rate of 0,27)

Since the beginning of the project 31 chicks have been raised with 27 of them surviving. They live alongside the 51 birds of the first generation and together they make a population of 78 birds. (all numbers taken out of the annual report of the RSPB 2020)

Now, in the year 2021, four more young birds have been banded, and look very likely to make it to fledging. The end of the egg-introduction phase didn't mean the end of the project. Year after year the birds are monitored and observed closely – particularly at breeding time. Many birds from the first release years wore radio transmitters which provided a good overview and information about the locations where they lived and moved. All cranes raised in at WWT Slimbridge were banded with coloured rings, following the rules of the European Crane banding project. The responsible person for this is Damon Bridge again.

The observation data suggest that although the majority of the population remain within the Somerset Levels and Moors some birds spread out of the core area to breed. The first "migrants" were seen more easterly and northerly of the Levels and Moors So it seems that the hope of the British conservationists will come true and that the cranes will conquer their old homeland in Great Britain again, slowly, but permanently.

As one of the valuable outcomes of the project we appreciate the strong relationships with our British colleagues and friends. Brexit can't affect these and we hope to meet again, whenever!

The work for the Great Crane project for us has been an inspiring, enthusiastic time of collaboration, founded on professionalism and our shared common obsession for this fascinating and truly magnificent bird.



Last image in April 2013 - the goodbye-picture after finishing the egg-collection term with Damon, Eberhard and Beate (photo: private)

After completing the fifth egg-collection phase at the end of April 2014 the German part of work in the biosphere reserve was finished, aside from the last reports to write and the photo-documentation for our archives. So, Eberhard and me were surprised to get an invitation to come to England again to join a big celebration ceremony to mark the end of these five years of the Great Crane Project. It took place in Stoke St. Gregory, close to the RSPB's West Sedgemoor Nature reserve, where the birds had been released. Together with the project partners we participated in the party there, prepared carefully by the project team together with Somerset Artworks with artists, musicians, the local schools, businesses and communities in the "Willow & Wetland Visitor Center", an interesting facility dedicated to the old handcrafts around working with willows and all materials belonging to it.

A little regional market offered all products of the local residents, most of them on the basis of apples. The cider from Somerset is famous and well-known in the country. After the sundown we experienced a very emotional, moving lamp-lit procession, carried out by children, costumed as cranes with lanterns on their heads. It was a fantastic evening. Hundreds of people were there and it was really visible that the humans loved the birds and they were proud to be selected to be able to offer them a safe place to return.

The stay in England was a key moment for me, reminding me of the reason why I had got involved so intensively.

We can't be sure that the wonderful landscapes of the Schofheide-Chorin biosphere reserve, blessed with its unbelievable diversity of biotopes, will remain an ideal breeding location for the common crane forever The last few years have shown dramatically, how fast all what we know and love in our homeland can change. The actions of water have imprinted the landscape of Brandenburg for thousands of years, but we humans haven drained it with eagerness and diligence, removing our our bogs and swamps, building thousands of ditches, and lowering the water levels within our lakes. We have straightened the river's flow, and flattened what seemed to be uneven. We have made all the landscape suitable for our own necessities and havn't thought about the consequences and the natural needs of all the other organisms, living in the same places as us…

The last three years, climate change, running at full speed, has made visible what happens if no water comes down from heaven, and the temperature rises. It was a foretaste of what meteorologists and scientists have been predicting for three decades: Brandenburg is on the way onto a steppe and will suffer from significant lack of water.

Cranes will lose their basis of existence, because they strictly depend on water in the landscape for different purposes. In a landscape, changing into a steppe, the common cranes can't exist any longer. In the last few years we have seen serious declines in the number of offspring produced each spring. Nowadays we wouldn't be able to serve as partners for another Great Crane project…



Dried out alder swamp – the "Falkenbruch"

So it is simply good to find a new (old) suitable homeland for them. Being part of the group of enthusiastic people who realized it, is a deep feeling of satisfaction. In the day before the project celebration we were out in the fields together with Damon to visit the areas where the cranes now live. We could see the free ranging and flying young cranes in the levels and moors in Somerset. They still stemmed from the Uckermark in Brandenburg, but soon, soon – that was the hope – would genuine English cranes fly over the pastures and meadows!

And so exactly it has come…
Good luck for now and in the future! For the team and for all the coming crane generations.

Steinhöfel, 27th July 2021
Beate Blahy



The new cranes' homeland in Somerset (photo: E. Henne)