Curlews in crisis

My Curlew year – Mary Colwell

Curlew and chick, Co. Antrim. Neal Warnock

My Curlew year began in January 2016, when I was standing alone in the cold and rain by the edge of the sea in Norfolk, watching Curlews feed on the mud of The Wash. It ended in November, at a smart golf club in central Ireland, surrounded by like-minded numeniophiles. The dining room had been turned into a temporary lecture theatre and the birds were images in PowerPoint presentations, next to graphs showing precipitous declines. The outside world – visceral and exciting – was being transformed into data and strategy. The Curlews in Crisis workshop, the first of three around Britain and Ireland, was a day of talks and planning. The audience was made up of conservationists, foresters, farmers, government organisations, gun clubs, birdwatching groups and passionate locals. This is conservation – taking the problems faced by wildlife out in the field and turning them into action points in meetings – although, in truth, I did not know that this was what I was taking on 11 months earlier, when looking at those winter Curlews and musing on the idea of a Curlew walk.

After a few weeks of planning, I set off in April from the west of Ireland to walk 500 miles, to finish back on the coast of eastern England about six weeks later. The aim was to go through Curlew country – to visit the places where they still thrive and those areas where they are now just a memory. I wanted to discover for myself what is happening to the Eurasian Curlew *Numenius arquata* and to meet anyone concerned about its future. Choosing to walk was deliberate. Walking is slow and gives time for talking and observing; you become involved in the landscape. It is the most ancient form of travel and we all identify with the idea of a journey of discovery, a pilgrimage, that cannot be done as meaningfully in a car. What I found was that one of our most loved and most common wading birds, the charismatic Curlew, a bird that has inspired so much literature, art and music, was on the edge of the precipice. In some places, the situation is desperate.

Officially, 66,000 pairs of Curlews breed in Britain and Ireland, which is one-quarter of the global breeding population and one-third of the European. I personally believe that the actual figure is lower than that, maybe even half. I discovered that there are no more than 400 breeding pairs in the whole of Ireland, North and South. There is perhaps a maximum of 800 pairs in the whole of Wales, while southern England (below a line from The Wash to Shrewsbury) has no more than 300 pairs. That leaves northern England and Scotland to house the remaining 64,500 pairs of breeding Curlews, a total which is very hard to believe. The northern moors are certainly the species' stronghold, but even so that is an improbably high number.

Even if I am wrong and there really are many tens of thousands of breeding pairs left in the UK, the situation is still a very serious one. It is not the number of adult birds that is so concerning, but it is the number of young being produced. Curlews are long-lived, surviving for up to 30 years, so

they may keep coming back to their breeding grounds year after year, but in most places they are producing very few fledglings. Sheer numbers of adults may be hiding the real problem, which is lack of recruitment. Too many eggs and young chicks are being preyed on or lost to agricultural activities, so much so that the population is no longer sustainable. At some point, we may see a sudden and dramatic fall-off of returning birds as this ageing population disappears, and I wonder if we are at that point now.

An electric fence protecting a nest (left) and a Curlew in a hay meadow (right), Shropshire. www.curlewcountry.org

The UK has in the last 20 years lost over half of its breeding population of Curlews, a staggering 119,000 birds, which equates to 5,500 fewer each year. In some of the species' former British and Irish strongholds the decline is breathtaking: in the Irish Republic, numbers have plummeted by more than 97%, in Northern Ireland by 90%, and in Wales by more than 80%. In the UK, the Eurasian Curlew has acquired the dubious accolade of being 'the most pressing bird conservation priority'.

The question is, of course, why? The answers are anything but simple. In this multi-use, crowded, highly-managed land things change very quickly, and they have changed at an increased pace in the 20th and 21st centuries. Land has been taken for farming, housing and industry, agricultural practices have changed radically to meet an increasing demand for ever greater quantities of cheap food, and infrastructure has spread more widely to meet the growing demands for goods and services. Add to this mix the measures needed to mitigate climate change, such as forestry, windfarms and solar farms, and it is easy to see how creatures that need space to thrive are being squeezed out. It seems also to be true that generalist predators such as foxes and crows do very well in our urban and disrupted landscapes, making a toxic mix of problems for many species, in particular for ground-nesting birds.

To be fair, though, Curlews initially liked the changes which we made. In the first few decades of the 20th century, numbers in the uplands began to increase, probably as a result of the invention of the breach-loading gun and a spread of gamekeepering. The main predators of Curlews were reduced in number, and heather moorland, one of the Curlew's preferred habitats, was maintained. The birds did well. The excess moved down from higher ground and found suitable nesting sites on lowland farmland. Areas that had previously been Curlew-free now had wild songsters bubbling and 'curleeing' over the fields, bringing their evocative, haunting calls to working landscapes. They had been recorded on the Somerset Levels by 1900, and in Sussex by 1912, Wiltshire by 1916, Oxfordshire by 1925, Nottinghamshire and Berkshire by 1944, Buckinghamshire by 1946, and the Brecks in Suffolk by 1948 and in Norfolk by 1949. Traditional mixed farms provided varied habitats with meadows full of insects. Curlews could hide

Radio-tagged chick, Shropshire.
Tony Cross www.curlewcountry.org

their nests in the long grass and, as use of pesticides was low, the chicks could feed in the shorter, grazed areas. Hay was not cut until late summer, and then either by hand or with slow-moving machinery, by which time the chicks were mobile and many had already fledged. It was a match made in heaven, particularly if farmers carried out routine control of foxes and crows, which many did. But this idyll was not to last.

The industrialisation of farming in the second half of the 20th century is a tale frequently told. What was small and varied became large-scale and uniform. Chemical usage to reduce pests increased, and land was drained to make more productive grasslands. Predator control also decreased. The Curlew's world had shifted – we had moved the goal posts – and its numbers began to plummet.

The lowland part of my walk showed just how many huge problems Curlews face in farmed landscapes, brought about by nothing less than the overwhelming demand for food in an increasingly crowded country. It may be that their days as farmland birds are numbered, and that, unless urgent action is taken, they will now retreat to their traditional breeding grounds in the northern uplands. The numbers of fledglings in 2017 from the lowland Curlew populations speak for themselves. The floodplains of the rivers Avon and Severn hold about 40 nests and have produced only three chicks. The ten nests monitored on the RSPB's nature reserve of West Sedgemoor, on the Somerset Levels, have only three reported fledglings. There are no chicks from Dartmoor or from Cornwall. No success has been reported, either, from the New Forest, an area that used to be a southern hotspot, but which has seen a two-thirds crash in numbers over the last 20 years. There may be a handful of chicks fledged in other places, but the monitoring of them is difficult because of long grass. The only farmland location that has seen an increase is in Shropshire, where this year the Curlew Country Project has implemented predator control and fencing of nests after two years of total nest failure; this summer there were six fledglings from 22 nests.

All in all, southern Curlews are doing very badly, and it seems that we are watching them slip away. I find this dispiriting. Over the last century their wonderful calls have infused southern life, bringing joy to many. It would be a sad reflection on us if we cannot find it in our hearts to put in place the adjustments that are needed in order to allow them to carry on living alongside us. But that may be the decision we make – and it is undoubtedly up to us.

My walk also took me to the northern uplands, where the 'sweet crystalline cry' of the Curlew, to quote William Butler Yeats, was a truly uplifting sound. To find their nests (just a scrape on the ground) in damp, rough fields or heather moor, complete with four olive-and-brown speckled eggs, is a joy worth the long and frustrating search. If a Red Fox *Vulpes vulpes* comes into the nesting area, many Curlews, often joined by Lapwings

Good Curlew habitat in the Antrim Hills. Neal Warnock

Vanellus vanellus, rise together, yelping and barking in alarm. A full-on bombardment by a platoon of Curlews is quite an experience, and many would-be predators retreat. Curlews are not communal nesters, but they do prefer loose colonies where numbers provide some safeguard against the many threats which they face. Yet even in the uplands there is a steady fall in numbers.

The major Curlew conservation initiative, the RSPB's Trial Management Project (TMP), is based on the northern moors, and is part of its Curlew Recovery Programme. The RSPB is putting its efforts into the known heartland of Curlew populations, and has chosen six paired sites: one in Northern Ireland, one in Wales, two in northern England and two in Scotland. Each site is roughly 10km square, and all six are equivalent in terms of Curlew numbers and habitat. One of each of the paired sites is undergoing habitat management, predator control and liaison with farmers, while the other is a control site where business is as usual. TMP is a five-year project which began in 2015, and it hopes to tease out the main problems which Curlews face in upland areas and the specific requirements which they need in order to thrive.

I visited the southernmost TMP site in the Peak District, just outside Sheffield. As yet, it is too early for definitive results, but first findings were presented at the Southern Curlews Workshop, held at WWT Slimbridge in January 2017.

Sarah Sanders, who heads the RSPB's Curlew Recovery Programme, reported that, so

Rush-cutting with a Soucy machine on the RSPB Curlew Trial Management site, Glenwherry. Neal Warnock

Landscape before (above) and after (below) rush-cutting (RSPB Curlew Trial Management site, Glenwherry). Neal Warnock

far, Curlew numbers have increased on managed sites, that hatching success has increased and that this may be linked to the control of foxes. She confirmed that predator control is successfully reducing the numbers of foxes and crows at the sensitive breeding time of year, but control of predators is not enough on its own. Rushes, scrub and dense vegetation all require management, too, and undertaking work simply on one or the other is not sufficient. There are three more years of the TMP left, and many of us will be fascinated to see the final conclusions.

The most challenging aspect of the 500-mile walk was the uncomfortable fact that I saw more Curlews on managed grouse moors than anywhere else in the country. The increasingly bitter conflict between conservationists and moor-managers, centred on the illegal killing of birds of prey, draws in other species which benefit from intense management. Both Curlews and Hen Harriers *Circus cyaneus* are dependent on our finding a solution to this complex and highly charged dispute.

My Curlew walk resulted in three workshops and ongoing plans for the bird's conservation, but there is no certainty that Curlews will survive in many parts of Britain and Ireland. The immense problems which they face may well be ones which we choose not to solve. If we want these wild songsters to continue to inspire us and future generations, then we can do what is needed to ensure that they do. But we can also decide that birds such as Curlews, which do not add to the bottom line of anyone's spreadsheet, are dispensable. For me, that would be a tragedy.

Mary Colwell is a radio and television producer and writer whose latest book, *Curlew Walk – 500 Miles for the New Moon Bird*, will be published by HarperCollins next year. She has recently been awarded the Dilys Breese Medal by the BTO for her achievements in communicating ornithological science to new audiences.

Saving Curlews in Ireland – Alan Lauder, Anita Donaghy and Barry O'Donoghue

We have a mountain to climb if Ireland is to secure a future for breeding Curlews, a bird intimately linked to Irish culture and the country's landscape. It was estimated that there were more than 1,300 pairs of Curlews breeding in Ireland in the early 1990s (Lauder & Donaghy 2008). As data from the Bird Atlas 2007-11 came in, however, it became apparent that Curlews had declined significantly, in both numbers and range, prompting calls for the first dedicated national breeding survey of Curlews in the Republic. This work was coordinated by the National Parks and Wildlife Service (NPWS) between 2015 and 2017 and produced an estimate of only 137 pairs (O'Donoghue *et al.* in prep.).

Causes of decline

Long-term changes in land use are likely to be the primary cause of the decline. These changes, occurring mostly in the latter part of the 20th century, include loss and fragmentation of extensive farmland and wetland habitats, particularly in the uplands. Direct impacts include those from afforestation, agricultural intensification and large-scale turf-cutting. In addition, it is believed that indirect impacts relating to predation have played a significant part. As a result, poor breeding success, which in turn means low recruitment of birds into the breeding population, is reckoned to be the most limiting factor.

Early action

From 2011 to 2015, the INTERREG IVA HELP project undertook a range of measures specifically targeting Curlews in border counties (BWI 2015), including publicity about the bird's decline by BirdWatch Ireland (BWI) and the RSPB in Northern Ireland, regional survey work and pilot conservation-management efforts. This complemented conservation initiatives for breeding

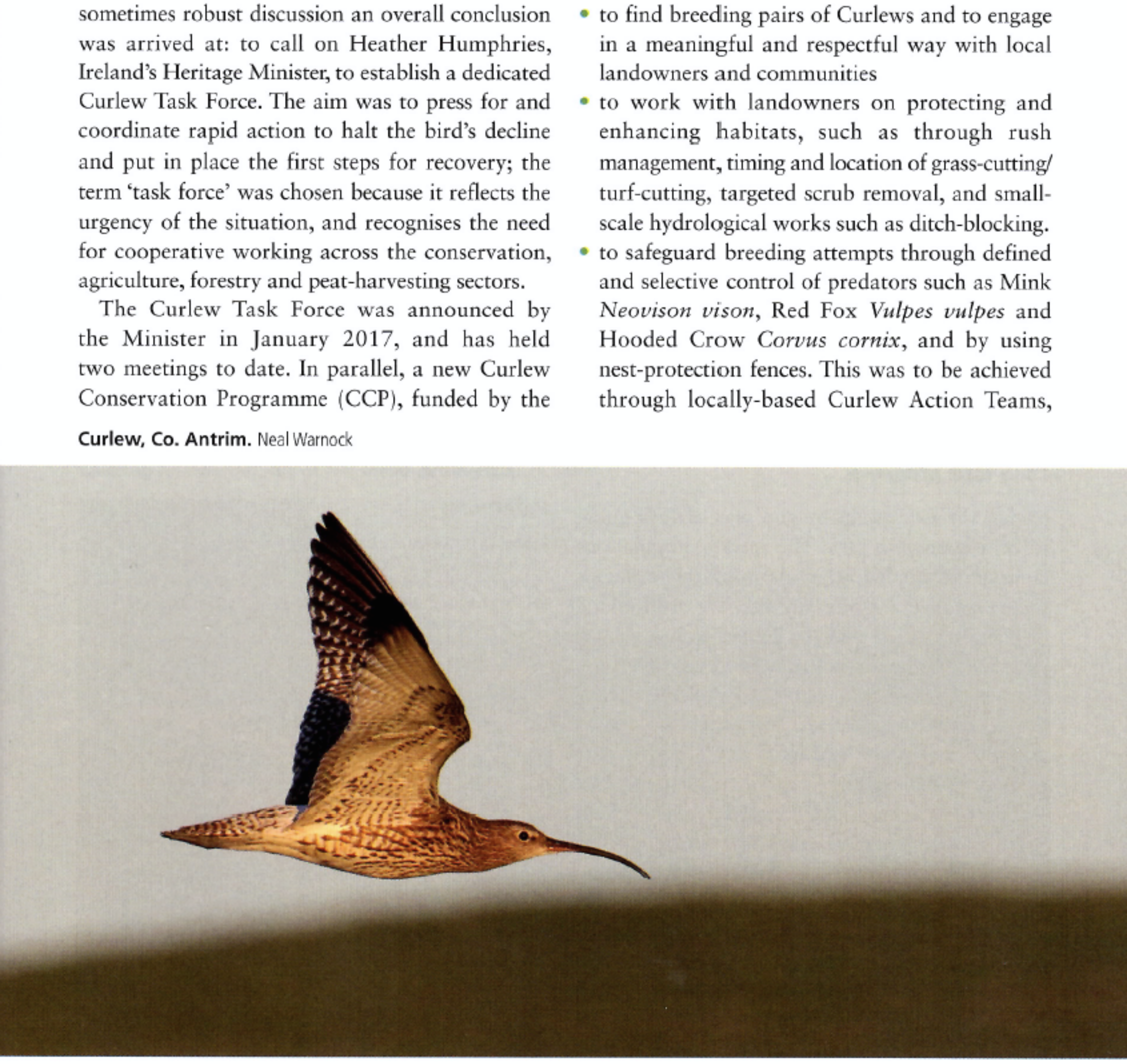
waders by the NPWS and BWI more generally at sites such as the Shannon Callows, an important area for many ground-nesting birds, beside the River Shannon in central Ireland, and the Mullet Peninsula, in County Mayo, as well as at the RSPB's Portmore Lough reserve, in County Antrim, Northern Ireland.

Establishing a task force

Mary Colwell's walk, as much as anything else, facilitated an Irish Curlews in Crisis seminar, in November last year, which attracted a large audience of decision-makers and conservationists and received further media coverage. Through frank and sometimes robust discussion an overall conclusion was arrived at: to call on Heather Humphries, Ireland's Heritage Minister, to establish a dedicated Curlew Task Force. The aim was to press for and coordinate rapid action to halt the bird's decline and put in place the first steps for recovery; the term 'task force' was chosen because it reflects the urgency of the situation, and recognises the need for cooperative working across the conservation, agriculture, forestry and peat-harvesting sectors.

The Curlew Task Force was announced by the Minister in January 2017, and has held two meetings to date. In parallel, a new Curlew Conservation Programme (CCP), funded by the Department of Culture, Heritage & the Gaeltacht, was started in time for the 2017 breeding season (NPWS 2017). This focused on six key areas holding an estimated 41% of the Republic's Curlew population: the Stacks Mountains, in County Kerry; Lough Ree, on the River Shannon in central Ireland; North Roscommon–Leitrim; north Monaghan, on the border with Northern Ireland; and County Donegal. This work was complemented by the national agri-environmental scheme (GLAS), the INTERREG V Co-operation Across Borders for Biodiversity (CABB) project, and further local initiatives by NPWS and other groups. The initial approach of the CCP has been three-fold:

- to find breeding pairs of Curlews and to engage in a meaningful and respectful way with local landowners and communities
- to work with landowners on protecting and enhancing habitats, such as through rush management, timing and location of grass-cutting/turf-cutting, targeted scrub removal, and small-scale hydrological works such as ditch-blocking.
- to safeguard breeding attempts through defined and selective control of predators such as Mink *Neovison vison*, Red Fox *Vulpes vulpes* and Hooded Crow *Corvus cornix*, and by using nest-protection fences. This was to be achieved through locally-based Curlew Action Teams,



Curlew, Co. Antrim. Neal Warnock

which contact landowners to survey for Curlews and arrange management, carry out predator control, and protect nesting areas when they have been identified. An important job has been the establishment of a Curlew Champion for each area; this role, for the most part fulfilled by someone from each local area, is an integral link between the project and the community.

Initial results and a daunting outlook

Only two of the key areas, the Stacks Mountains and Lough Ree, achieved productivity levels above the target of more than 0.6 chicks per pair during this year's breeding season, the other areas having much lower success, although in each one at least some pairs produced young. Already, the CCP has been reviewing its first (trial) season, with an eye on the future. The conservation programme has been broadly welcomed, most importantly by local landowners, and it is hoped that this support will grow in future years.

Long-term prognosis

Saving the Curlew in Ireland was always going to be a mammoth task. The species' populations continue to decline at an alarming rate and it is not an exaggeration to say that we are looking at certain local extinctions, and likely national extinction, without serious and widespread efforts to reverse the trend. In winter 2017/18, the Curlew Task Force will be addressing realistic objectives for the short term and will start to examine a strategy to augment emergency conservation efforts. The success of localised increases at two sites in recent years provides some hope that a population can be sustained to provide a base from which to build. The challenges in an Irish rural landscape that has been highly degraded for Curlews will almost certainly remain, and simple, realistic objectives centred on population survival and local increases at key sites are therefore likely to be the focus for the foreseeable future.

Curlew, Co. Antrim. Neal Warnock

Acknowledgements

We thank all those who attended the Curlews in Crisis conference in Higginstown in November 2016. We thank also Minister Heather Humphreys for establishing the Curlew Task Force, and everybody involved in the Curlew Task Force and CCP. Finally, we are indebted to Mary Colwell for her inspiration.

References

Balmer, D. E., Gillings, S., Caffrey, B. J., Swann, R. L., Downie, I. S., & Fuller, R. J. 2013. *The Bird Atlas 2007–11: The breeding and wintering birds of Britain and Ireland*. BTO Books, Thetford.

BirdWatch Ireland. 2015. End of an Era: The HELP project delivers significant benefits for breeding waders. eWings 65. www.birdwatchireland.ie/Publications/eWings/eWingsIssue65February2015/TheHELPprojectdeliversbenefitsforwaders/tabid/1440/Default.aspx.

Lauder, C., & Donaghy, A. 2008. Breeding Waders in Ireland 2008: A Review and Recommendations for Future Action. *Unpublished report to NPWS.*

National Parks & Wildlife Service. 2017. Curlew Conservation Programme. https://www.npws.ie/research-projects/animal-species/birds/curlew-task-force-august-2017

O'Donoghue, B. G., Donaghy, A., & Moran, P. (in prep.) The first national survey of breeding Curlew in Ireland.

Alan Lauder is the chair of the Irish Curlew Task Force and is an independent ornithologist and wildlife consultant. **Dr Anita Donaghy** is Head of Species and Land Management for BirdWatch Ireland. **Dr Barry O'Donoghue** is Head of Agri-Ecology for NPWS.