

Back from the Brink – Species summary

Black-tailed Godwit

BftB project: SP02 Black-tailed Godwit Species Recovery Project

Project lead organisation: RSPB

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Partner organisation for species: WWT

Species name – common & scientific	Black-tailed Godwit (<i>Limosa limosa limosa</i>)
Photograph	 <p>© Jonathan Taylor / Back from the Brink</p>
Taxon group	Aves
Conservation status	Global: Near Threatened (IUCN) EU+UK: Endangered (IUCN) National: Red-listed (BoCC)
UK distribution	Restricted to two main breeding sites: the Nene Washes (c. 60% of pairs) in Cambridgeshire, and the Ouse Washes and adjacent sites (c. 31% of pairs) in Cambridgeshire and Norfolk. Small numbers of pairs also breed at one site in north west England (c. 2-5% of pairs) and one site in south west England (c. 2-5% of pairs), and one pair has been reported in southern Scotland (c. 2% of pairs).

Habitat associations	<p>Breeding (UK): seasonally flooded lowland wet grasslands with soft soil.</p> <p>Staging and wintering (East Atlantic flyway): freshwater and saline habitats, including swampy lake shores, pools, flooded grassland, irrigated rice fields, estuaries and lagoons with intertidal mudflats, sandy beaches, saltmarshes, and salt-flats.</p>
BftB work carried out:	
Survey & Monitoring	<p>Each breeding season*, from mid-March to mid-July, intensive monitoring of black-tailed godwits took place at the Nene and Ouse Washes. This monitoring covered:</p> <ul style="list-style-type: none"> • Population size and distribution – numbers and locations of pairs • Breeding success – nest survival, chick survival and productivity • Identification of threats – causes of breeding failure, predator types, predator abundance • Impact of interventions – the effectiveness of temporary electric fencing (nest and chick survival in fenced areas vs. unfenced areas), and the effectiveness of headstarting (survival, dispersal, and breeding success of released birds) • Local and migratory movements – marking of chicks and adults, deployment, and retrieval of geolocators, management of colour-ring sightings <p>* Activities were restricted in 2020 due to the coronavirus pandemic. Basic data including numbers of pairs and numbers of fledglings were gathered, but other monitoring activities were not permitted. Two chicks were marked, when limited fieldwork activities were permitted to resume late in the season.</p>
Sites habitat management works	<p>The project created eight scrapes across the project sites: four at the Nene Washes and four at the Ouse Washes. These scrapes have provided additional wet areas for foraging and improved the resilience of the habitat to dry conditions.</p> <p>The project installed anti-predator infrastructure at the Nene Washes and upgraded existing anti-predator infrastructure at a site adjacent to the Ouse Washes. At the Nene Washes, two anti-predator barrier fences (2km) and an anti-predator perimeter fence (5km) were installed. These fences contained 17 anti-predator gates. At the Ouse Washes, the project upgraded the perimeter fencing at the 75 ha Pilot Project site, a created wet grassland site managed for breeding black-tailed godwits. The upgrade improved the ability of the fence to exclude foxes and badgers.</p>

<p>Conservation 'interventions' incl. reintroductions & translocations</p>	<p>The project conducted a field trial of temporary electric fencing and gates and identified a design of fence that increased wader nest survival. As a result, temporary electric fencing was erected each year around key breeding fields at the Nene Washes. The project also undertook predator control and diversionary feeding.</p> <p>The project trialled the use of headstarting, where eggs were collected from the wild (under licence from Natural England) and the resulting chicks were reared in captivity until fledging when they were released at the Nene and Ouse Washes. Through headstarting, 155 fledglings were released 2017-2021. Preliminary analysis shows these birds are surviving, migrating, and breeding at the same levels as wild-reared birds. Headstarting has increased the breeding population at the Ouse Washes from 3 to 18 pairs and has helped stabilise the population breeding at the Nene Washes.</p>
<p>Technical advice provision</p>	<p>Project results and methods have been shared in 14 talks at conferences and meetings, including multiple International Wader Study Group conferences, the 2nd IUCN International Wildlife Reintroduction Conference, the 1st East Asian-Australasian Flyway Shorebird Science Meeting and two regional AEWA meetings of the North west-European breeding range states.</p> <p>Two papers have been submitted for publication in peer-reviewed journals: one on diagnosing the decline of the breeding population at the Nene Washes, and one on the outcomes of fencing trials.</p> <p>Advice on headstarting has been provided to conservation organisations and individuals considering similar projects for Eurasian curlew <i>Numenius arquata</i>, dunlin <i>Calidris alpina</i> and common scoter <i>Melanitta nigra</i>. Headstarting information has also been provided on the project website.</p> <p>The project team will continue to share results and provide advice by running two conferences in 2022 (a headstarting conference and a final conference) and submitting at least another two papers to peer-reviewed journals.</p>
<p>Links made with other taxa / conservation work?</p>	<p>Predator and habitat management activities – including the installation of fencing and gates, creation of scrapes and predator control – have enhanced the project sites for other ground nesting birds at the sites, including lapwing <i>Vanellus vanellus</i>, yellow wagtail <i>Motacilla flava</i> and corncrake <i>Crex crex</i>. The project findings have been shared with conservation organisations and individuals considering similar projects for Eurasian curlew <i>Numenius arquata</i>, dunlin <i>Calidris alpina</i> and common scoter <i>Melanitta nigra</i>.</p>

<p>Wider engagement & advocacy activities?</p>	<p>The project delivered 18 talks to local community groups in person, and two virtually (due to covid-19) and provided 19 outreach sessions for local school children and two for local university groups. The project also gave 55 behind-the-scenes tours at WWT Welney.</p> <p>The project created and maintained a dedicated website and posted a total of 33 blogs which were also shared via the Back from the Brink website. Project resources were downloaded from the project website over 1,700 times.</p> <p>The project ran Twitter, Facebook, and Instagram accounts with a combined following of over 4,800 by August 2021. Social media posts receive a relatively high level of engagement and an online initiative to create a flock of godwits in summer 2020 reached over 260,000 accounts.</p> <p>Twelve press releases were produced over the life of the project, which were picked up by national and local media. 13 radio interviews were given for BBC Radio Cambridgeshire, BBC Radio Norfolk and BBC Radio Somerset, and the project was featured on four BBC television programmes: Look East, The One Show, Springwatch and Morning Live.</p>
<p>BftB results obtained:</p>	
<p>Recorded Distribution (in BftB focal areas)</p>	<p>In 2017, two sites were occupied:</p> <ul style="list-style-type: none"> • the RSPB Nene Washes, and • the WWT Lady Fen complex, adjacent to the Ouse Washes <p>In 2021, four sites were occupied:</p> <ul style="list-style-type: none"> • the RSPB Nene Washes, • the WWT Lady Fen complex, adjacent to the Ouse Washes • the RSPB Pilot Project site, adjacent to the Ouse Washes, and • the WWT managed section of the Ouse Washes.
<p>Recorded Abundance of species populations</p>	<p>Numbers of breeding pairs in the Fens (i.e. breeding at both the Nene Washes and the Ouse Washes and adjacent sites) increased over the project period 2017-21, from 38 to 53 pairs.</p>

<p>Other results documented?</p>	<p>Productivity was measured each year 2017-2021. In year one (2017) wild productivity at the Nene Washes was 0.14 fledglings/pair. In year two (2018), productivity was 0.45, above the level required for stability. Wild productivity in the following years, however, was low: 0.18 in 2019, 0.09 in 2020 and 0.06 in 2021.</p> <p>With headstarting, productivity was significantly boosted at the Nene Washes, to 0.94 in 2018, 0.64 in 2019 and 0.54 in 2021. As a result, the 5-year average productivity at the end of the project was 0.47, above the level required for stability and sufficient to permit population growth. Across the Nene and Ouse Washes, the 5-year average productivity at the end of the project was 0.93, and without headstarting, would have been 0.22.</p> <p>Individual marking and tagging of godwits was undertaken throughout the life of the project. In total, 320 chicks were ringed, of which 266 received colour-rings, and 18 adults were colour-ringed. 302 Passive Integrated Transponders (PIT tags) and 68 geolocators were deployed (26 on adults, 42 on fledglings) and 14 geolocators were retrieved through the capture of returning adult birds.</p> <p>Re-sightings of colour-marked individuals from the flyway and within the UK have added to the understanding of local and migratory movements. In the UK, colour-marks and PIT tags have been essential in monitoring breeding success and breeding locations as part of this project, which has increased understanding of natal philopatry and nest-site fidelity.</p> <p>Outside of the UK, up to the end of July 2021, we received 237 sightings of 59 individuals at 60 sites, including sites in Portugal, Spain, France, Belgium, Austria, Germany, the Netherlands, Morocco, Senegal and Mauritania. Many sightings have come from the Tagus Estuary in Portugal, improving our understanding of the importance of this site for the UK breeding population. A large number of the re-sightings from outside the UK are reported by a dedicated team of ring readers from the Netherlands whose work is funded by the University of Groningen and the Global Flyway Network.</p>
<p>Species Recovery Curve progress made</p>	<p>From Step 6 'potential recovery solutions have been trialled the causes of rarity and/or drivers of decline should have been identified and the remedial action required to bring about recovery should have been identified and articulated', to Step 7 'the most promising solutions have been embedded within 'business as usual' for the appropriate delivery mechanism'.</p>
<p>Other measures of species recovery progress? e.g. FCS</p>	<p>Footprint Ecology assessed species recovery progress in August 2021. A summary of the results is provided here.</p> <p>Green Status: 66.67% (based on 2 sites alone, not possible to calculate if extended to whole indigenous range).</p> <p>FCS: Can be applied at local scale but needs to take into account vulnerability of the population in being dependent on two main locations.</p> <p>RSPB SRC: 'Recovery'; R2 or R3.</p> <p>NE SRC: Step 8</p> <p>BFTB SRC: 7</p> <p>The challenges for this species relate to how the historic distribution, range and habitat are defined and how these are then used to set</p>

	<p>future targets. The species went extinct as a regular breeding species in the 18th century, and evidence suggests it occurred at a range of wetland sites, including raised bog. The population is now focussed around two washland sites where predation rates are high and there are risks from flooding. Ultimately, the future potential for recovery will relate to the extent to which breeding birds can be established on a wider range of wetland sites, ideally large sites with reduced predation and flooding risks.</p>
<p>Recommendations for future work:-</p>	<ul style="list-style-type: none"> • Continued management of the Nene Washes and Ouse Washes and adjacent sites for breeding waders including black-tailed godwits, maintenance of anti-predator infrastructure and predator control, and further creation and management of wet grassland habitat adjacent to the Ouse Washes. • Continued monitoring of black-tailed godwit abundance, distribution and productivity at all key breeding sites in the UK. • Production of an adaptation strategy for climate and land-use related habitat change at the Nene Washes. • Production of a National Species Action Plan for black-tailed godwit including commitment from stakeholders to implement the actions, which could include increasing the extent of available breeding habitat at the Ouse Washes, further habitat modifications at the Nene Washes and in the wider landscape to reduce predation, and potentially the establishment and/or supplementation of breeding populations at other suitable sites.