

NW Twite Project

Colour-ringing programme, September 2007 update

The Twite is a red-listed bird species of conservation concern because of a widespread long-term contraction of its breeding range and a decline in numbers. The South Pennines remain the English stronghold of breeding Twite but conform to this worrying picture. National and Local Biodiversity Action Plans have highlighted the need for accurate data on Twite breeding biology and movements as efforts are made at all levels to halt its decline.

An intensive colour-ringing study of Twite in the South Pennines and on the coasts of Lancashire and Cumbria has been under way since the autumn of 2002. With much help from lots of people who have submitted sightings of the colour-ringed birds, it has been possible to clearly confirm the wintering and breeding grounds of these birds. The most significant movements are illustrated on the attached map, while numbers ringed and recaptured and the colour combinations in use are also detailed.

The map shows that Twite from the South Pennines SPA and birds that appear to move through in autumn, spend at least some of each winter mainly on the east and south-east coasts of England, with just a few moving to the west coast. The ringing of 345 Twite nestlings in the SPA confirmed that birds breeding there still go east and south-east in winter. However, until now, it was completely unknown that the majority of Twite wintering on the Lancashire and Cumbria coasts seem to breed on Scottish west-coast islands and on the Scottish mainland. A few of these colour-ringed coastal wintering birds have also been seen in the same winter, or subsequently, on the coast of Lincolnshire. Additionally, two birds ringed in the South Pennines were found breeding elsewhere in subsequent years, one in Scotland and one in Wales. Despite this small amount of cross-dispersal, the data have highlighted a clear need to cater for these two populations separately in formulating overall species conservation plans and in developing cross-border co-ordination to implement them. That situation may be replicated in other areas of England and possibly Wales and Ireland.

All ringing of full-grown birds has been carried out on sites where Nyjer seed has been put down to attract them and make them more easily visible. In some cases birds have apparently been encouraged to remain over winter in the general area of such sites, where previously flocks were not seen in that season. On one occasion at a feeding site where 74 Twite were present, 72 had been colour-ringed, indicating a relatively long-staying group. A network of feeding stations was established in the South Pennines with great support from CJ Wildbird Foods and the RSPB, while United Utilities provided the rings and access to reservoir gathering grounds. Supplementary feeding fulfils a useful role in ensuring seed supplies at times of shortage where, in otherwise suitable breeding or wintering areas, a previously adequate natural wildflower-seed resource is diminishing in response to changes in land management. The upland locations of the feeding/ringing sites preclude their use by many other species and a very close watch is kept for signs of any of the diseases, particularly trichomoniasis, which can be spread where birds feed in numbers. Ideally, if land management around these places can be returned to a more sympathetic regime over time, the supplementary feeding can be discontinued. The RSPB and English Nature (Natural England) have been very active in encouraging farmers to develop twite-friendly practices across the SPA.

The ringing programme is continuing at the established sites to monitor breeding performance as far as possible; to refine ageing and sexing data and to try to establish the origins of the hundreds of Twite which may not come from the South Pennines, but pass through in September and October each year. Sightings north of the current feeding stations are very few and additional ringing sites will be operating soon.

So, we still really need every sight record of colour-ringed Twite anywhere in the UK, every single time you see any. Please send them to us by phone, letter or e-mail to either:-

David Sowter, 5 The Grove, Penwortham, Preston PR1 0UU
01772 749220 Mobile 07957 265797
davidsowter@freenet.co.uk or

Ian Harper, United Utilities, Rivington WTW, Bolton BL6 7RN
ian.harper@uuplc.co.uk

We will let you know where and when the birds you tell us about were ringed and will be happy to provide further information on progress of this project if you ask. The chart will help you to work out broadly where a colour-ringed bird originated from – but please make sure that you tell us the dates and places every time you see them. Map references are very helpful. If we have your e-mail address, future progress reports can be sent to you if requested.

Historical details and the current situation

The ringing programme was initiated in 2002 and capitalised on a feeding station which had been operated from 1997 at Light Hazzles by Brian Leecy before being expanded to Cant Clough at Burnley and the Lancashire coast at Heysham, largely following the discovery that Twite were quite partial to Nijer seed. Soon afterwards, a nestling colour-ringing scheme was incorporated as a consequence of Andre Raine starting a PhD at the University of East Anglia - in part replicating, but also extending, the work done by Andy Brown *et al* in the South Pennines in the 1990s.

As information has begun to accumulate, additional ringing sites have been used in South Cumbria at Borwick Rails and Askam-in-Furness; at Donna Nook on the Lincolnshire coast; Walberswick on the Suffolk coast, then from Spring 2005 at Banks on the Ribble estuary, Fly Flats in 2006 and Deerhill in 2007.

Numbers of Twite colour-ringed at each site to 30.09.2007

Year	Cant Clough	Light Hazzles	Fly Flats	Deerhill Reservoir	Heysham	South Cumbria	Donna Nook	Banks	Walberswick
2002					13				
2003	546	335			298				
2004	247	176			113	84	2		
2005	169	232			42	127		37	2
2006	79	251	3		24	48		43	22
2007	36	110	15	199	-	5	-	23	
Totals	1079	1104	18	199	490	264	2	103	24

A running total of 3281 full-grown Twite plus 345 nestlings, giving a grand total of 3587 birds to date.

Catching is not based on a constant effort approach and is affected by weather, bird activity and differing logistical constraints relating to each site, but as we proceed, the potential to glean more information about the birds' movements and condition increases with each occasion they are re-sighted or re-caught. Both tables also show the efforts of the North Lancs, South-west Lancs and Leigh Ringing Groups together with individual ringers in South Cumbria, Suffolk and Lincolnshire. Oldest bird resighted to date is at least 3 years and 3.5 months old. A Belgian-ringed bird has been photographed at Light Hazzles and details are awaited.

Total numbers of birds re-caught at each site to 30.09.2007

(Figures in parentheses are the numbers of birds from other sites included in each total)

Year	Cant Clough	Light Hazzles	Fly Flats	Deerhill Reservoir	Heysham	South Cumbria	Donna Nook	Banks	Walberswick
2002									
2003	562(29)	74(30)			187(2)				
2004	308(16)	37(10)			161(3)	7(1)	1(1)		
2005	199(4)	114(27)			80(3)	36(7)		18(4)	1
2006	115(22)	122(24)	0		2(0)	28(3)		13(4)	5/(4)
2007	49(4)	64(15)	(1)	21(11)	-	3	-	41(1)	
Totals	1320(83)	531(106)	1(1)	21(11)	430(8)	74(11)	1(1)	72(9)	6(4)

A running total of 2455 birds re-caught, including 234 birds from other sites (termed "controls")

During the course of the ringing programme –

A pre-dated paper on Twite numbers from the 1999 Twite Survey – *Status of breeding Twite (Carduelis flavirostris) in the UK* – was published in BTO Bird Study 53 (2006), pages 55-63, by RHW Langston, T Smith, AF Brown and RD Gregory

Andre Raine completed his PhD "*The breeding ecology of Twite (Carduelis flavirostris) and the effects of upland agricultural intensification*" at the University of East Anglia. An extract based on Andre's PhD "*Migration patterns of two populations of Twite (Carduelis flavirostris) in Britain*" by A Raine, DJ Sowter, AF Brown and WJ Sutherland appeared in BTO Ringing and Migration 23 (2006) pages 45-52. It focused on the differing destinations/origins of the South Pennine and Morecambe Bay birds.

PowerPoint presentations about the overall study have been/will be delivered at the following events with posters/handouts –

East Lancashire Ornithologists Club, Pendle, Oct 03– DS
 Twite Seminar, Leighton Moss, January 2004 – AR.DS
 BTO NW England and N Wales Ringers Conference, Daresbury, November 2005 – DS
 North of England Upland Birds Conference, Durham CC, November 2005 – AR.DS
 BTO NE Ringers Conference, Durham University, March 2006 – DS
 WWT Bird Fair, Martin Mere, November 2006 – AR
 Scottish Ringers Conference, Braemar, November 2006 – DS
 BTO Annual Conference, Swanwick, December 2006 – AR/DS
 University of Third Age, Bird watching group, Skipton October 2007.

Poster displays and handouts have been provided

For BTO Annual Conferences, Swanwick 2003-2007 and other regional BTO conferences, including annually at Scottish Ringers Conference; for RSPB reserves nationally and through local network; for people who report sightings and for Bird Clubs requesting information.