

Swallow Roost Project *Newsletter*



This is the first edition of the Swallow Roost Project Newsletter. If you require further copies, then please contact Bridget Griffin at The Nunnery.

May 2003

Number 1

2002 A positive start!

We have had a very good take up of the project by ringers in 2002 with 22 sites registered (see map). We now have 100% of the data submitted electronically which is brilliant, many thanks to all of you for your hard work in collecting and computerising your data. This BTO project forms part of the EURING (European Union for bird Ringing) Swallow Project and all the data gathered will be submitted to this Europe wide databank.

Project aims

By collecting data on moult, physical condition and levels of fat accumulation of Swallows at autumn roosts we hope to be able to assess the pre-migratory strategies of different populations of Swallows. We also want to encourage more ringing of pulli Swallows to assist in identifying the catchment areas of the roosts and supplement existing information on Swallow movement patterns.

The project will run for the next two seasons so lets make them really count! As you can see from the map of registered sites we have fairly good coverage for the south and southeast of England. However, there are still many gaps elsewhere, and we especially need to encourage more take up in Wales, Scotland and Ireland. We have four new sites registered already for this coming autumn, Chelmarsh in Shropshire, a site in Staffordshire, a site in Cork, Southern Ireland and one in the Highlands, Scotland, which is an encouraging start, but we need more!



Map: Locations of Swallow Roosts Registered 2002



BTO collection

Results so far.....

Over 7,000 Swallows were ringed at roosts in 2002; the majority of birds were juveniles (Table 1). The highest numbers were caught in August when the juveniles gather in groups. The numbers of adults caught peaked in September, presumably because any late broods would have fledged by then. By October only the large roost site at Icklesham was still catching good numbers, but only juveniles suggesting that the adults leave earlier for the continent.

Table 1. Numbers of Juveniles & Adults caught per month 2002.

ROOST SITE	July		Aug		Sep		Oct	
	Juvs	Ads	Juvs	Ads	Juvs	Ads	Juvs	Ads
SOUTHWEST								
Slapton, Devon			676	35	98	34		1
Abbotsbury, Dorset			130	5	4			
SOUTH								
Titchfield Haven, Hants	14	1	211	10	56	4		
Farlington Marshes, Hants			179	38	14			
SOUTHEAST								
Icklesham, Sussex			550	41	686	60		651
Pitsea Marshes, Essex			109	17				
EAST								
Shotley, Suffolk	13	3	185	14	176	24		
Levington, Suffolk			151	5	114	2		
Orfordness, Suffolk			2		25			
Codicote, Herts			75	5	224	31		
Santon Downham, Norfolk	14	1	158	18	20	3		
WEST								
Much Marcle, H & F	6	1	54	1	9			
CENTRAL ENGLAND								
Swadlincote, Derbyshire		2	68	2	222	63		
NORTHWEST								
Ribchester, Lancs			2	1	63	4		
NORTHEAST								
Pocklington Canal, Humberside		1	67	3	74	7		
SCOTLAND								
Graemshall Loch, Orkney	53		151	3	148	12		1
Kilconquhor, Fife			41	10	331	36		
Castlandhill, Fife			37	4	165	35		
Black Isle, Highland			148	7				
IRELAND								
Pollardstown Fen, S Ireland			193	10	92	7		9
TOTAL CAUGHT	100	9	3187	229	2521	322	662	0

There was a total of 79 retraps reported, most of these coming from two sites. The roost on Orkney had a total of 27 retraps, the majority relating to birds originally ringed as nestlings on Orkney the same year. Only two retraps related to birds recaptured at the roost. The BTO roost site at Santon Downham in Norfolk also had mainly retraps of locally nesting adults and nestlings from the same year, 21 retraps in total. There were four same site retraps and two of these were birds ringed as juveniles the previous year.

There were a total of 14 controls where birds had moved more than 5 km. Most of the controls relate to birds ringed as nestlings in the same year, with the fastest movement of 431 km in 29 days, the bird moving from Highlands, late August to Lancashire in late September. By encouraging more ringing of pulli coupled with more Swallow roosts and take up of RAS projects on this species, (it makes an ideal candidate!) we hope that the numbers of controls and retraps will increase.

Looking at the sex ratio of birds that it was possible to sex, there is no significant difference, although the numbers are slightly biased towards females (Table 2).

Table 2. Sex ratios of birds caught and sexed

Month	Number sexed	% Female	% Male
July	8	63	37
August	181	59	41
September	211	51	49
October	39	82	18
Total Sexed	439	57%	43%

Weights

Data on weights show that birds are gaining an average of 1-2g before leaving Britain & Ireland, (Fig 1). The bars on the graph represent confidence limits, so the wider the bar the smaller the sample size used. For example the data for juvenile weights in early October is very sparse as not many birds were caught. We cannot therefore be sure that the figure for average weight represents the true figure for the population in this month.

The data suggests that British Swallows are not putting on substantial fuel stores until they reach the Continent. In comparison data gathered on birds caught and processed in roosts in Italy shows that the birds can gain up to 6 g more weight before departure (Rubolini *et al* (2002) 33: 15-22).

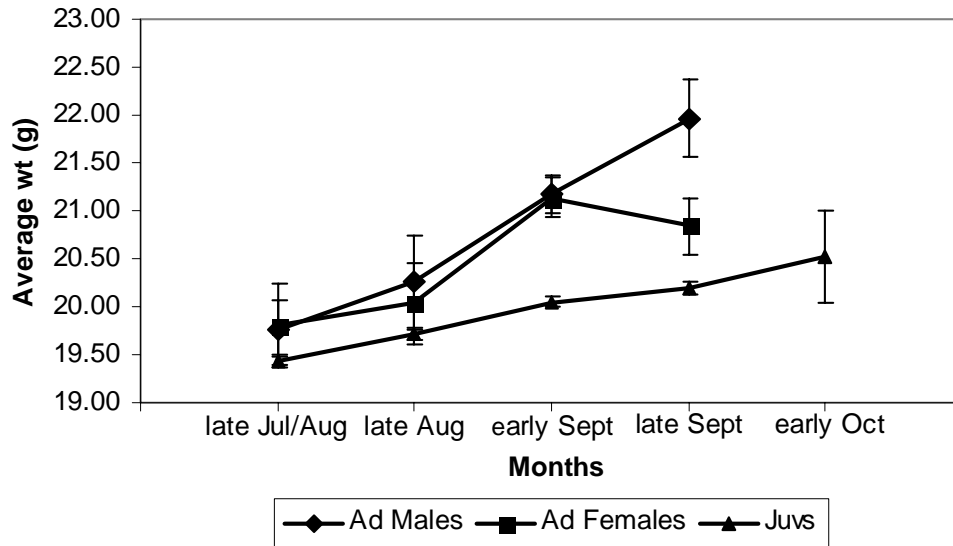
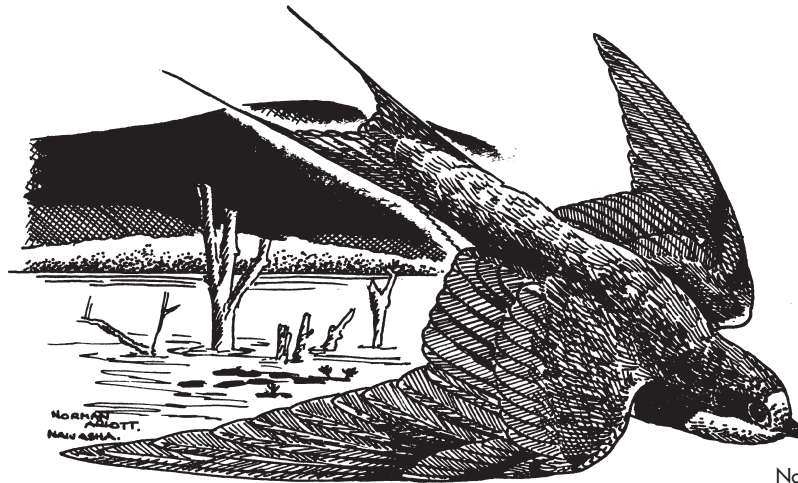


Figure 1. Average weights (g) of adults & juveniles over roost period 2002.

Maize Fields - a popular habitat for roosting?



Norman Arlott

(Notes from a roost project participant Tom Kittle)

In 2001 a big flock of Swallows appeared regularly in the evenings around a netting area while it was being prepared for a CES catch the next day. Come September a couple of successful catches were made and the results put up as a display at the SE England Ringers' Conference at Thetford. Later, at the Swanwick Migration Conference, the Euring Swallow Project was brought to the fore and subsequently the BTO Swallow Roost Project was announced. So, very conveniently, a ringing opportunity had presented itself at the same time as a national study.

It was suspected that the roost for the Swallows was in the reeds at Luton Hoo (about 10 miles to the west) and a number of visits were made there but no Swallows appeared in the evening. Could it be that the birds were going into a tiny reedbed adjacent a tiny river near where they had been caught? The site looked too small but a visit was made just in case. Walking down the track a large "reedbed" was noticed on the other side - a field of maize. Both the reedbed and maize field were watched from the same point and as dusk

approached the Swallows circled the whole area numbers gradually increasing from about fifty to the order of two hundred. Finally they came in low, two or three feet above the maize, and after a couple of passes dropped in. BWP mentions Swallows roosting in maize but almost as an afterthought. The roost was presumably well established as a Hobby - which paid a visit as light was failing, had also discovered it.

The maize field was established about ten years ago and it is not known when the Swallows first used it as a roost. It is possible that the flooding in the adjacent valleys in the winter of 2000/2001 was the trigger - 2001 was the first year they were in evidence in the evenings in any numbers during the autumn. It may have been the abnormal water table height (or insects coming from it) attracting them. In 2002 they were no more evident than in years preceding 2001.

2002 Activities

The BTO Swallow Roost Project asks for not only that a sample of birds should be trapped and measured but also that an estimate of the number of birds visiting the roost should be made by counting the size of the circling flock; and that

Ringing Results 2002

Date	Adult	Juveniles	TOTAL	Estimated Flock size
21/08/2002	2	56	58	100
30/08/2002	3	20	23	200
04/09/2002	18	7	91	200
11/09/2002	4	51	55	300
17/09/2002	9	101	110	500
23/09/2002	0	0	0	25
27/09/2002	0	1	1	2

counts should also be made on days when trapping was not carried out. The results of this are summarised below. Is it surprising that no subsequent retrappings were obtained? Did the swallows recognise the tape second time around or was there simply a big turnover of birds using the roost?

There was no gradual decline in the size of the roost. On 23/09/2002 half a dozen ringers turned up expecting at least another half century and all they did was to see a couple of dozen birds fly towards the roost site and disappear. A further visit a few days later confirmed the desertion, producing a single bird in the net while over head a mere couple of birds circled a short while, presumably the parents of the nearby clutch, a third brood, which still had to fledge.

Count Results 2002

Date	Estimated Flock size
25/08/2002	300
29/08/2002	200
02/09/2002	100
10/09/2002	100
14/09/2002	50*
18/09/2002	200

* this count was made from a different viewpoint.

Also on 12/09/2002 a count was made at another field but no birds were seen.

One year of working in the BTO Swallow Project has already produced some interesting questions on the habits of swallows roosting in maize fields which cannot be answered by a very localised study.

As a start, do the birds only roost in the field near where they were caught or are they generally dispersed throughout all the fields where maize had been sown? The difference in estimated flock sizes on ringing evenings (when a tape-lure was played) suggests that birds that are heading for other sites may be held back around the tape area. Or is the flock is just held together more tightly and so there appear to be more? By getting observers at other sites it would be possible to see if they were being used and, if so, does the flock size reduce or change the way it develops on evening when birds are being tape lured elsewhere.

The work outlined here took place in central Hertfordshire and Tom Kittle would be interested to hear from anyone who would be interested in taking part in widening the survey in that area. Please contact Tom by email: tomkittle@aol.com

Tom Kittle



Tommy Holden

The Wider Picture



The European Union for bird Ringing (EURING) launched the Swallow Project in 1997 with the aims of encouraging ringers throughout Europe to undertake specific studies of Swallows during breeding, pre-migratory and migratory periods, as well as in the wintering area of Africa. There has been very encouraging take up by many of the ringing schemes in Europe, especially Finland, Spain and Italy.

Work on autumn roosts have been undertaken in several countries. For example, in Finland ringers have been catching at autumn roost sites since the launch of the project in 1997. In 2000, for example, ringing was carried out in 29 reedbeds, of these, 21 sites ringed over 100 birds.

Much data has been gathered from these ringing studies at roosts in Europe and some analyses have been undertaken. For example data on fat accumulation at roosts suggest migration strategies may differ between western populations and those passing through central and eastern Europe. Data was analysed from five countries (UK, Spain: western populations passing down Iberian Peninsula and Finland, Switzerland & Italy: eastern populations). The increase in body mass in birds migrating through Italy for example is higher compared to western populations, which may relate to the different distances to overcome across ecological barriers such as the Mediterranean. Body mass starts to increase from the end of August, suggesting that Swallows can cross the Mediterranean and Sahara without substantial refuelling.

If you want to read more on the results from these and other studies check out the papers listed below:

Robinson R.A., Crick H.Q.P and Peach W.J. (2002) Population trends of Swallows *Hirundo rustica* breeding in Britain - *Bird Study* 50:

Rubolini, D., Gardiazabal Pastor A., Pilastro A. and Spina F. (2002). Ecological barriers shaping fuel stores in barn Swallows *Hirundo rustica* following the central and western Mediterranean flyways - *Journal Avian Biology* 33: 15-22.

There is also information on results from Europe on the EURING Website www.euring.org.

With the funds from the BTO Swallow Appeal **you, the ringers**, can now contribute data from our UK population back into this EURING databank. It also gives us the opportunity to do some detailed analysis, which may assist in determining reasons for the local declines seen in Britain since the 1980's. The preliminary results from 2002 already suggest that our Swallows may be adopting a different strategy to those roosting across the Continent, using the UK roosts as brief stopover points before taking on more substantial food stores on reaching the Continent.



Tommy Holden

News items

Taking Biometrics at Roosts



Dawn Balmer

The instructions for measuring tail length in the Swallow Roost Manual are not too clear, which has led to some confusion on which measuring rule to use. I have now amended the instructions but to ensure you are all using the same method please only use an **UNSTOPPED** rule slid along the underside of the retrices, do not use the free third primary rule for tail measurements.

I am sure you are all aware now that measurements need to be recorded to the nearest 0.5 mm and that it is only necessary to record tail fork in adult birds.

Bridget Griffin

New version of IPMR available now!!

A new version 2.1 is now available which replaces version 2.02 and the pilot version 2.10f which most of you will be using. A new release of IPMR version 1 is available to those that cannot use version 2. The v2.1 new release has been altered to make inputting and flagging of SRP data easier. The SRP field is now in tab order sequence at the start of inputting in both list and form styles, so you just have to remember to fill in the SRP code and project registration number on the first record and set the copy down facility on (double click in field to turn it yellow).

We recommend all Swallow project ringers who are currently on the pilot version of IPMR to upgrade to v2.1. Those of you unable to use 2.1 should upgrade to v1.2. These can be downloaded from the BTO Website or a CD can be obtained from the Ringing Unit (ringing@bto.org).

It is recommended that all users, even those already with v2.02 or v2.10f, upgrade to v2.1 using the full release (rather than the smaller upgrade) as Excel export and enhance backup compression software is shipped with the full release.



Dawn Balmer

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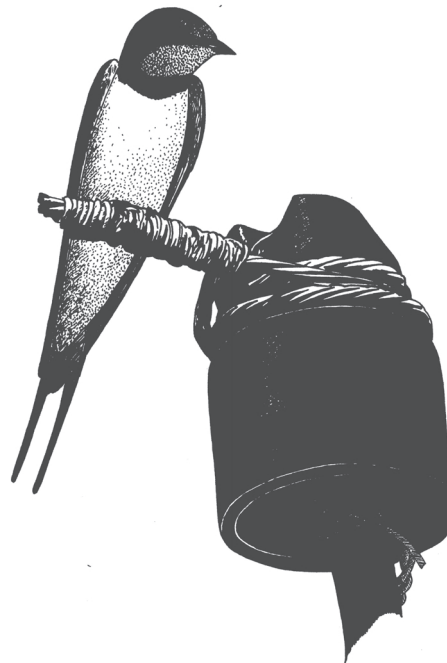
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More information on the Web at:
www.bto.org/ringing/swallowroostproject

SWALLOW Newsletter If you
are interested in writing
something for forthcoming
issues of the newsletter, please
contact Bridget Griffin.
Budding artists are also
welcome to submit Swallow or
Swallow related drawings for
inclusion.



Steve Carter