

# RASnews

The newsletter of the Retrapping Adults for Survival scheme



Number 13

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## Changing of the guard

**Another record year in 2011 as faces change in the RAS team**

Greg Conway may have only occupied the Demographic Survey Organiser post for two years but during this time his enthusiastic approach, coupled with the focus and dedication of RAS ringers, has driven the scheme forward rapidly. Data from 2011 have been submitted for 158 projects thus far, an increase of over 20% on the previous year, covering an impressive total of 57 species (see Table 1 overleaf). Now that the Atlas has finished, Greg is moving back to his previous post organising surveys and research for the at BTO, so will still be on hand to offer advice to the new RAS team. We would like to take this opportunity to thank him for all his hard work and to wish him all the best in his new/old role!

Greg's successor is Allison Kew, an 'A' ringer well versed in the ways of RAS, having operated projects on Blackbird, Siskin and Chaffinch since 1998. She has recently extended the suite of



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species she covers for RAS to include Woodpigeon and Collared Dove, taking part in a project designed to study survival rates of urban birds in Thetford. Allison also has extensive experience of ringing waders and gulls, is familiar with a wide range of catching techniques, from cannon nets to potter traps, and has colour-ringed a variety of species, all of which will stand her in good stead when it comes to answering your practical queries about RAS. Welcome to the team, Allison – we hope that you and all our RAS ringers have an enjoyable 2012 season.

Table 1. RAS projects summary.

Species	Projects		Adult retraps p.a.		Survival trend quality	
	> 5 years' data	Active in 2011	New in 2011	Average		Maximum
Eider	4	3		48	112	Uncertain
Manx Shearwater	2	2		108	291	Uncertain
Storm Petrel	5	5		109	508	Uncertain
Shag	3	1		29	57	Uncertain
Moorhen	1	1		9	10	Uncertain
Little Ringed Plover	0	1		.	.	n/a
Ringed Plover	1	0		63	98	Good
Dunlin	1	0		13	21	Uncertain
Common Sandpiper	2	1		18	50	Good
Kittiwake	3	1		34	109	Uncertain
Black-headed Gull	0	2		.	.	n/a
Lesser Black-backed Gull	2	2	2	61	133	Good
Guillemot	2	1		49	86	Uncertain
Razorbill	2	3		38	123	Uncertain
Puffin	1	1		120	236	Uncertain
Barn Owl	2	2	1	54	97	Uncertain
Little Owl	1	1	1	22	33	Moderate
Swift	1	1		24	48	Uncertain
Chough	0	1	1	.	.	n/a
Jackdaw	1	2	2	10	18	Uncertain
Firecrest	0	3	1	.	.	n/a
Blue Tit	1	1		32	72	Uncertain
Great Tit	4	4		41	108	Moderate
Willow Tit	0	1		.	.	n/a
Marsh Tit	1	3	1	40	55	Uncertain
Bearded Tit	2	2		35	95	Moderate
Sand Martin	18	12		39	237	Good
Swallow	7	5	1	15	49	Good
House Martin	5	2	1	15	54	Good
Wood Warbler	1	2	1	7	8	Uncertain
Willow Warbler	3	1		28	120	Unreliable
Whitethroat	5	1		19	54	Moderate
Sedge Warbler	4	3		15	53	Uncertain
Reed Warbler	7	7	2	42	135	Moderate
Starling	2	2		58	120	Uncertain
Dipper	3	6	4	15	35	Moderate
Blackbird	2	3		51	123	Moderate
Song Thrush	1	0		13	19	Uncertain
Robin	1	2		23	38	Uncertain
Nightingale	0	1	1	.	.	n/a
Pied Flycatcher	27	20		25	117	Good
Redstart	0	1	1	.	.	n/a
Whinchat	1	1		42	57	Moderate
Stonechat	2	2		19	48	Good

Species	Projects			Adult retraps p.a.		Survival trend quality
	> 5 years' data	Active in 2011	New in 2011	Average	Maximum	
Wheatear	2	2	1	27	52	Moderate
Duncock	1	2		15	27	Uncertain
House Sparrow	5	13	6	28	87	Good
Tree Sparrow	0	1		.	.	n/a
Tree Pipit	0	3	3	.	.	n/a
Chaffinch	5	5		72	182	Moderate
Greenfinch	1	1		32	48	Uncertain
Siskin	4	5		46	149	Uncertain
Twite	1	1		83	149	Moderate
Bullfinch	3	5	2	26	65	Uncertain
Hawfinch	0	1	1	.	.	n/a
Yellowhammer	0	3		.	.	n/a
Reed Bunting	1	0		11	16	Uncertain

## Another record year for RAS

A total of 32 new projects were registered for RAS in 2011, a tremendous response to the increased profile of the scheme over the past few years (Table 1), and we have already been contacted about many more due to start in 2012. Encouragingly, many involved species identified as priorities under the Demographic Targeting strategy (read more about this on page 7), including Dipper and House Sparrow. A significant number also included a large amount of historic data, enabling us to generate survival-rate trends in the first year of registration (see page 4 for more details). If you suspect that you too have a 'secret RAS' waiting to be set free from the confines of your database, then please get in touch with us at [ras@bto.org](mailto:ras@bto.org)!

New registrations included eight novel RAS species – Lesser Black-backed Gull, Little Owl, Tree Pipit, Nightingale, Redstart, Chough, Jackdaw and Hawfinch – and survival trends have now been generated for 46 species (Table 1). Of these, nine have been classified as 'good' and a further 11 as 'moderate' – the accuracy of the trends for these and the other species covered by RAS will continue to improve as new projects are added and data runs increase in length.



PHOTO: EDMUND FELLOWES

The species generating 'good' trends are those where the probability of re-encountering birds is greatest. While this is to some extent influenced by the number of birds caught, it is the proportion of the breeding population that can potentially be captured or resighted that is of greatest importance. Thus, a RAS project that records the majority of breeding territories in a defined area may produce better results than one that catches more birds but only focuses on a subset of the breeding population, *eg* part of a seabird colony. In the latter case, colour-ringing can be particularly effective, as demonstrated by the Lesser Black-backed Gull projects, as a much larger proportion of the colony can be searched for marked birds than can be trapped.

# Lesser Black-backed Gulls and Little Owls join the fold

The addition of new RAS projects in 2011 extended species coverage, as Greg Conway and Dave Leech explain.

The response from ringers to our request for new RAS projects in 2011 was fantastic. Some of you dug out long-term data sets from your archives and submitted them through IPMR, while others started brand new projects that will hopefully provide their first estimates of survival rates as the birds return to breeding sites this year. The additional data submitted both extended the range of species for which we are able to produce survival trends and increased the accuracy of those trends that we are already generating.

Annual survival estimates were produced for six new species in 2011 – Lesser Black-backed Gull, Puffin, Moorhen, Little Owl, Jackdaw and Twite. Results were mixed, with some projects yet to resight sufficient numbers to produce accurate survival estimates, but overall the trends were very encouraging.

Trends for Lesser Black-backed Gull, based on data from two studies operated in Suffolk and Glamorgan that both date back to 2003, suggest that survival rates over this period have varied between 50% and 80% but have not shown any directional trend (Fig 1a). A colonial-nesting species such as this is well suited to colour-ringing studies and the fact that these projects had both been collecting data already meant that all the ringers needed to do was to register them as a RAS – in terms of ringing and resighting activity, nothing has changed, but we are now able to



PHOTO: GEORGE H. HIGGINSBOTHAM

produce annual results which the groups involved can interpret and use to publicise their work.

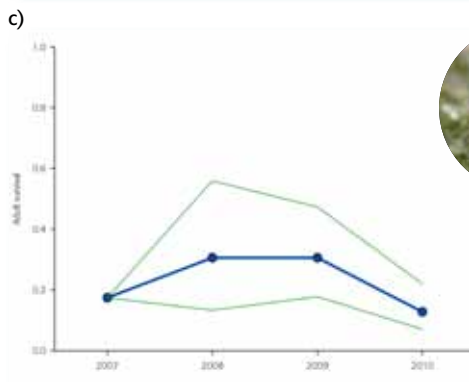
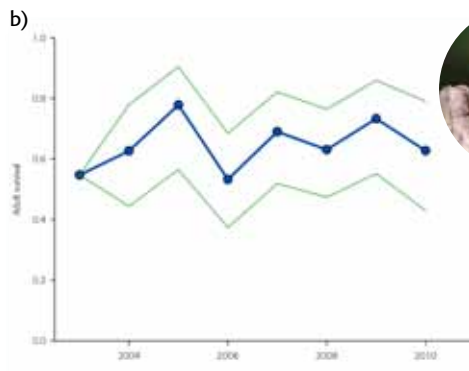
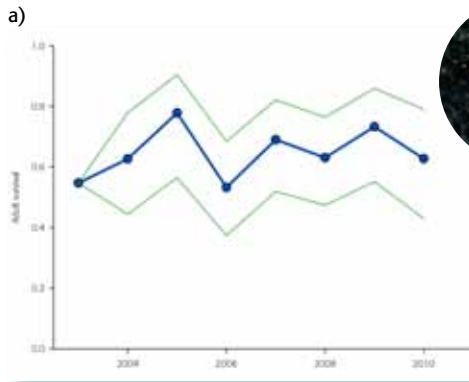
Little Owl survival estimates can be produced from 2006 onwards thanks to data from a project in Lincolnshire. Fluctuating between 60% and 80% (Fig 1b), the values for the last two years are the lowest, suggesting that the recent run of severe winters may have increased mortality, a trend also apparent in the results for Dipper and Bearded Tit. Twite is the other new addition that has already produced a moderate trend. Stretching back to 2007, thanks to a study in Highland, the data show an adult return rate of between 20% and 30% (Fig 1c).

Pied Flycatcher continues to be the most popular RAS species, the number of projects contributing data rising from 12 to 26, allowing us to produce incredibly accurate trends back as far as 1990 (Fig 1a, p 6). Survival rates appear to have fluctuated around the 40% mark over the last two decades, but show no long-term trend. Given that Nest Record Scheme (NRS) data indicate a similar stability in breeding success over the past 20 years, this suggests that changes in either first-year survival or juvenile settlement patterns may be driving the population decline of 51% identified by the Breeding Bird Survey (BBS) over the same period. Development of tagging technology over the coming decades may help to provide more information on both these parameters for species with low natal site fidelity.

Though not a priority species due to the significant amount of monitoring that takes place across CES sites, Reed Warbler continues to be a popular RAS species, providing detailed site-specific information about return rates. The addition of two new projects in 2011, has brought the total to seven and enabled us to extend the survival rate trend back to 1990. Results are similar to those generated by CES, with return rates holding steady at around 50%. NRS results suggest that productivity per nesting attempt has risen by almost 20%, which may go some way to explaining the increased abundance recorded by BBS volunteers over the same period.

Results for many other species have received a substantial boost thanks to the registration of additional projects in 2011, many of which successfully employed colour ringing to increase sample sizes (read more about this on page 8). For the first time, RAS results have been incorporated into the annual *BirdTrends* report ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)), with survival rate trends up to 2010 included for six species; Common Sandpiper, Sand Martin, Swallow, Dipper, Pied Flycatcher and House Sparrow.

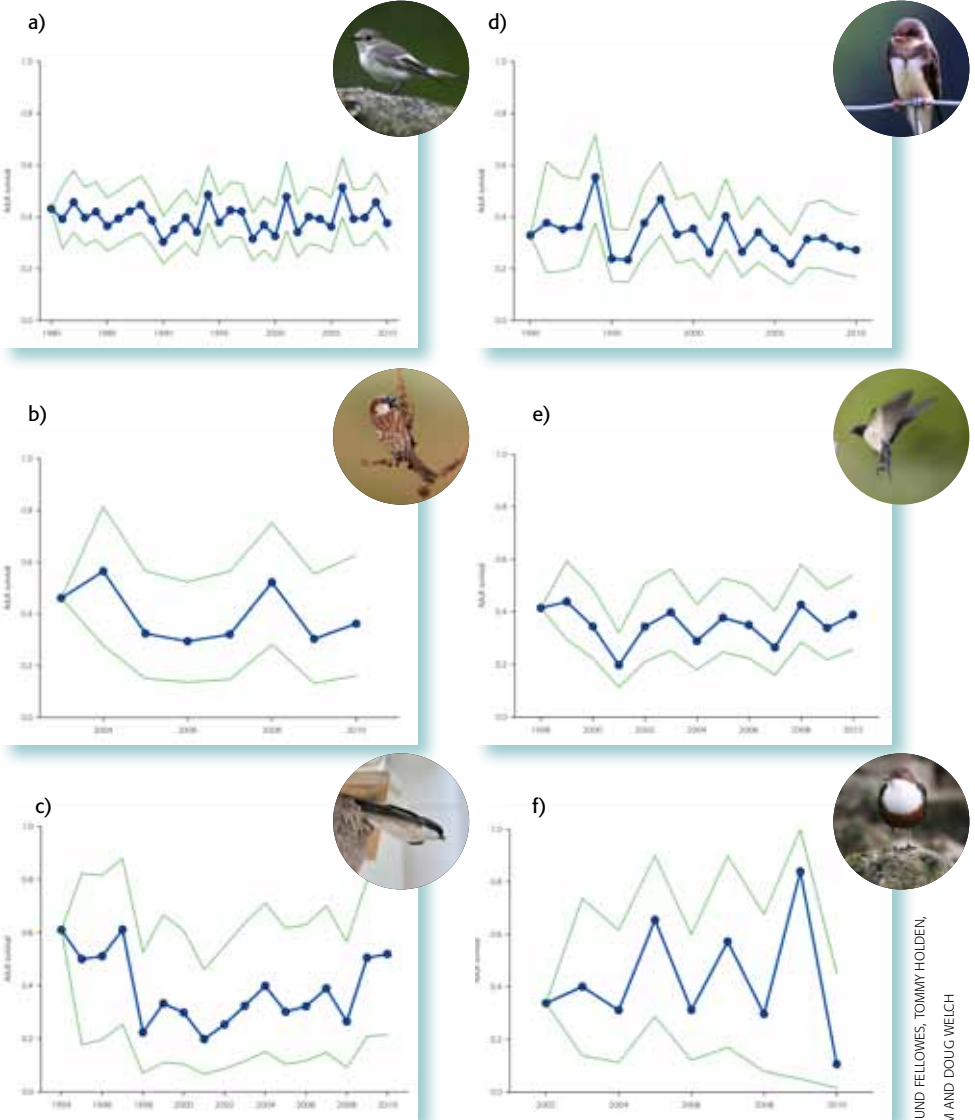
We hope to extend the species coverage further in future, so if you are in the position to help, by either starting a new project or registering an old one, get in touch at [ras@bto.org](mailto:ras@bto.org). We'd like to sincerely thank everyone who has contributed thus far and we wish you all the best in 2012.



Good or moderate survival rate estimates have been produced for several new species in 2011 a) Lesser Black-backed Gull, b) Little Owl, c) Twite.

# RAS survival trends in 2011

Long-term trends for these species currently producing the most accurate survival estimates.



Current survival trends for those species currently experiencing the best RAS coverage a) Pied Flycatcher b) House Sparrow c) House Martin d) Sand Martin e) Swallow f) Dipper

# RAS target species

**What makes a species a RAS priority?**  
**Greg Conway and Dave Leech explore**  
**the Demographic Targeting Strategy.**



PHOTO: ROB ROBINSON

**C**ES currently provides good data on adult abundance and breeding productivity for 24 species but, given the suite of habitats covered, it is unlikely that this coverage will increase significantly with the addition of further sites. The principal role of RAS is therefore to provide survival data for other species and/or habitats. If productivity can be monitored simultaneously via the Nest Record Scheme, then the power to interpret population trends is increased still further.

The Demographic Targeting strategy (see [www.bto.org/targeting-strategy](http://www.bto.org/targeting-strategy)) has identified a list of priority species for which more data would be particularly valuable. Those listed in Table 1 are species for which we do not yet have sufficient ringing data to produce a national survival trend, but which may be suitable candidates for RAS. Table 2 lists those species for which the production of regional trends is a possibility should a few more projects be registered – increasing our knowledge of spatial variation in survival will help us to understand how mortality is influenced by factors such as climate and habitat type.

At present, we have focused on terrestrial birds, but JNCC and BTO are in the process of conducting a similar review of data held for marine species. While seabird colonies can provide the ideal opportunity for RAS studies, with absolute numbers and breeding site fidelity both high, the probability of recapturing returning adults amongst the throng can be relatively low and may vary significantly between individuals. As a result, errors around the survival estimates produced at some sites can be large, even if the number of recaptures is high. We are currently investigating the use of analytical methods to help increase the accuracy of these estimates – the use of colour-marking, allowing individuals to be searched for even if they have moved to another area within the colony, can also very significantly improve results.

RAS projects can be registered for any species, not just those listed above, where at least 30 adults are likely to be recaptured/resighted each breeding season. If you think that your study population could make a useful contribution to RAS, please feel free to contact the RAS Organiser for more advice ([ras@bto.org](mailto:ras@bto.org)).

**Table 1. Species for which data available to construct survival trends are currently limited.**

**Common Sandpiper**  
**Dipper**  
**House Martin**  
**Jackdaw**  
**Kestrel**  
**Little Owl**  
**Marsh Tit**  
**Redstart**  
**Ringed Plover**  
**Sparrowhawk**  
**Stonechat**  
**Swift**  
**Tawny Owl**  
**Tree Sparrow**  
**Wheatear**  
**Willow Tit**  
**Wood Warbler**

**Table 2. Species for which regional survival trends could potentially be produced with the addition of more RAS projects.**

**Barn Owl**  
**House Sparrow**  
**Pied Flycatcher**  
**Sand Martin**  
**Starling**  
**Swallow**



# Colour-ringing for RAS

**Which species best lend themselves to colour-ringing? Mark Grantham and Dave Leech advise.**

**A**ttempting to recapture adults of many species at their breeding site is challenging. Thankfully, recent advances in colour-ring manufacture now permit most species to be individually identified in the field.

Fitting colour rings is only the first step – you must also ensure that enough time is set aside during the breeding season to resight birds. The effort needed to generate the minimum number of resightings should not be underestimated, especially with dispersed passerines; this is key to the success of your RAS project. Well-targeted promotion can encourage other ringers and birders to help, but be aware that the accuracy and volume of their records is unlikely to be as high as your own and you cannot rely solely on the efforts of other people.

## Types of colour ring

There are three basic types of colour ring: single colour, striped and coded (engraved). Deciding

### Target species

Of the RAS priority species, many readily lend themselves to colour-ringing studies, including:

**Seabirds:** Lesser Black-backed Gull, Herring Gull, Kittiwake.

**Waders:** Oystercatcher, Ringed Plover, Common Sandpiper.

**Wildfowl:** Mute Swan, Greylag Goose, Canada Goose.

**Passerines:** Dipper, Whinchat, Stonechat, Wheatear, Wood Warbler, Marsh Tit, Willow Tit, Jackdaw, Starling, House Sparrow, Tree Sparrow.

Do consider any other species, which can be easy to see but difficult to re-catch during the breeding season.



PHOTO: MARCIN FABER

**Resident species that regularly visit feeding stations are good target species for RAS, with engraved colour rings now available for almost any size of bird.**

which type of ring is best for your study will depend on two factors:

### i) Readability

Several factors influence readability, including the type of ring (coded rings are generally harder to read), size (and the font on coded rings), colour, distance from the observer and the morphology and behaviour of the bird.

Individually coded rings can now be produced to fit most species. However, whilst an engraved ring on a Black-headed Gull might be read at 150 m, one on a small passerine, such as Bullfinch, will only be readable to 20–30 m (50–70 m with a good telescope). Bear in mind that engraved rings may be more difficult for observers with poor-quality optics or limited experience to read. You must also consider the behaviour of your RAS



PHOTO: MARCIN FABER

**Figure 1.** Marcin Faber at [www.colour-rings.eu](http://www.colour-rings.eu) reports that, at 100 m, image quality decreases and digits on light rings are more easily misread. Even at close range, the digits on white and yellow rings can appear smaller than those on black rings.



species; it will be far easier to read colour rings on a singing Whitethroat perched on a hedge than on a Garden Warbler skulking in a thicket. Distinct, bright, primary colours are preferable to muted, light shades. Be aware that colour rings, particularly those made of UV-unstable celluloid, can fade, so red may quickly turn pink. Darvic and Salbex are UV-stable and therefore more reliable, particularly for long-lived species. The combination of colours on a coded ring can also affect readability; tests with rings suitable for large gulls have shown some interesting results (Fig 1).

### ii) Number of combinations required

A coded ring with two characters will give approximately 625 combinations per colour, with three characters offering 12,000 combinations. For plain colour rings, the number of combinations is determined by the number of colours available and the ring positions. Typically, a combination of three colour rings and a BTO ring are used, with two rings on each leg. The position of the BTO ring, specified by Ringing Scheme staff, is used as a project identifier. If the position of the BTO ring is fixed, using four colours will give 64 combinations, while the addition of a fifth will give 125 combinations, and further colour additions will give 216, 343 and 512 respectively.

### Which birds to ring

As combinations are limited, it is important to preferentially mark those birds that are more likely to remain within the study site during the breeding season; these are typically adults (if they can be distinguished) rather than juveniles, which may disperse more widely. For migrants, ringing on the breeding ground is the only option and the same is true of many residents. It is feasible, and often advantageous, to mark sedentary species, such as Marsh Tit, Willow Tit and House Sparrow, during autumn or winter, when they may flock or concentrate at feeding sites. However, resighting effort must focus on the breeding season when birds are least likely to move off-site.

Colour-ringing pulli is also worthwhile for species with high natal fidelity (where many



PHOTO: LEE BARBER

**Plain colour rings may be easier to read for observers with poor-quality optics.**

juveniles return to the breeding site) and adult catching options are limited (eg Cormorant and Lesser Black-backed Gull).

### Acknowledgements

Thanks to Marcin Faber at [www.colour-rings.eu](http://www.colour-rings.eu) for the information on reading colour rings. See the full report on his website.

### How to register a colour-ringing project

First, you need to complete a colour-ring project application form, which can be downloaded from [http://blx1.bto.org/ringers/ringers/ringing\\_forms/index.htm](http://blx1.bto.org/ringers/ringers/ringing_forms/index.htm).

Specify any preference you have for the combinations, colours and type of rings, which will be checked to ensure there is no conflict with existing projects. Please wait until your project has been confirmed by Ringing Scheme staff before ordering rings, as modifications to colours and types may be required. If you need advice or wish to discuss your project, please email [colour.ringing@bto.org](mailto:colour.ringing@bto.org).

# How heavy are your hirundines?

**Geoff Myers explains how his Swallow RAS project has revealed body mass changes during the breeding season**

I must have scrambled over more farmyard paraphernalia and 'junk' than anyone else in the history of ringing. I carry out a RAS study of Swallows at Snilesworth, near Osmotherley, a beautiful wooded valley on the North York Moors, where the hill farms have the typical small stone buildings beloved of these birds. These buildings are not ideal for modern farming and many are used for 'storage'. To set nets and visit nests I have learned the technique of keeping my balance whilst climbing over anything from barbed wire to gearboxes. The upside of all this is the pleasure and satisfaction of learning about the Swallows and the very good friendships I have made over the years with the farming and gamekeeping community.



Female Swallow weights decrease through the breeding cycle.



PHOTO: TOMMY HOLDEN

Being a nest recorder who rings, back in 1998 when RAS studies were first introduced I was very keen to get started as I saw the opportunity to link ringing with nesting and get a good insight into the life of a particular species. I chose Swallows as I knew I could find all the nests and safely catch the adults as they visited. I did of course record biometrics, an analysis of which is the reason for writing this article.

At the North East Ringers' Conference in February 2009, Chris Redfern gave a presentation in which he explained brood patch codes and stressed the importance of recording this information. In explaining that we need to know much more about how body weight varies during incubation and chick rearing, he showed how the weight of the bird can be used as an indicator of its condition and related to its breeding cycle from the state of the brood patch. Listening to him I realised that I had some very rich data within my Swallow records. Whilst the state of the brood patch will give at best only a fairly rough indication of the precise point in the breeding cycle, I knew for a large proportion of my Swallows exactly what was in the nest at the time of weighing. What's more I had visited most nests four or five times and so could work out the point of progress of the nest to within a day or two. And I had biometrics for the males as well, including tail length. I spoke to Chris afterwards and we agreed that I would send him my data which he would analyse.

So how did we go about this work and what was the result? I had to calculate the date of the start of incubation of all nests to which I could assign an adult. My first step was to look at all

those nests for which I knew this date, *ie* those I had visited during egg laying or hatching. From other visits to these nests I calculated the mean time it took to reach young stages IP (in pin), FS, FM and FL (feather small, medium and large). This provided a template to apply to other nests and count back from the young stages to arrive at the date of start of incubation. I was confident that this date was accurate to within two or three days. It was then over to Chris to analyse the data and see if it told us anything.

Allowance was made for the time of day of weighing and the overall size of the bird, as indicated by its wing length, and graphs were produced plotting the weight of the bird against the date of the start of incubation. It was exciting at first sight of these graphs to see a distinct result. I will summarise briefly what was learned.

Weight of females (Fig 1) peaked three days before egg laying commenced. It then declined over the period of incubation and chick feeding and the pattern was repeated with subsequent broods. There was a clear difference between females and males. Males did lose weight during first broods (Fig 2) but to a much lesser extent than females. Although the sample size for males during second broods was small, there was no significant change in body weight.

My thanks go to Chris for analysing the data and writing up the majority of the paper.

For more information from this study please see: **Myers, G.W. & Redfern, C.P.F. (2011) Bird Study, 58 248–256.**

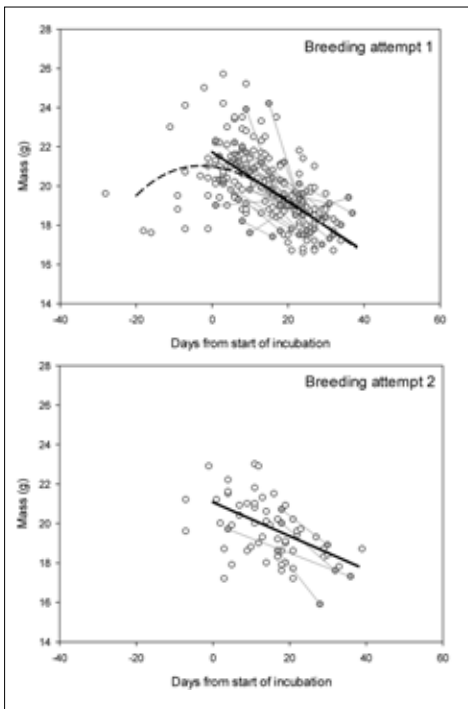


Figure 1. Weight of females against days from starting incubation.

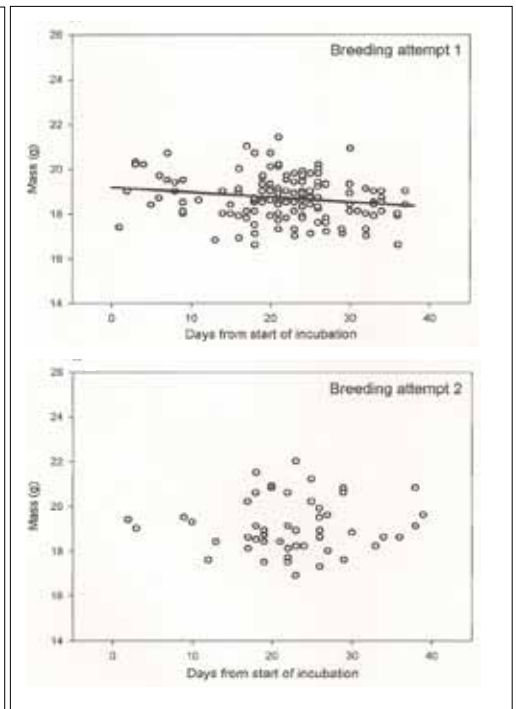


Figure 2. Weight of males against days from starting incubation.

# RAS: Rings Auks on the Shiant

**Jim Lennon of the Shiant Auk Ringing Group tells us about the logistic challenges of their annual expedition.**

The uninhabited Shiant Isles are located in The Minch, between Skye and Harris. The three main islands, Eilean Mhuire, Eilean a' Taighe and Garbh Eilean, comprise 218 hectares and house 200,000 seabirds, supporting nationally important populations of Puffin (8.4%), Razorbill (1.3%) and Shag (1.4%).

I first visited the islands in 2006, on a trip organised by Adrian Blackburn. There is a bothy on Eilean a' Taighe which the owner, Tom Nicolson, allows visitors to use, and we spent several days there ringing seabirds in gorgeous weather. Once I found out that systematic seabird ringing and monitoring had ceased on the islands in the 1980s, it was case of when, not if, I would return. The next visit was in 2008, during which, with founder David Steventon, we re-activated the Shiant Auk Ringing Group (SARG).

We are only on site for two weeks each year, so careful planning is needed to get the most



PHOTO: JIM LENNON

out of each visit. Straddling June and July allows David to continue the JNCC seabird counts he started in the 1970s and means we also catch the Razorbill fledging peak. While the Puffins are still on eggs or small young and therefore less active, we still find them easy to catch by setting wader nets along the contours on the grassy 45° slope of Airighean a' Bhàigh, located on the north face of Garbh Eilean. By using standard nets at standard locations for standard times, the chance of recapturing individual adults is high enough to enable us to qualify for RAS.

Using two teams, we set two 18 m three-shelf Ecotone wader nets at permanent numbered pegs for two hours at a time, then walk the nets to the next of the eight pegs. In order to keep our effort constant and avoid same-day retraps, team A cover pegs 1 to 4 and team B pegs 5 to 8 on the first session and then we reverse the order on the second session. We undertake the ten-hour

stint twice per annual visit, each session about a week apart, catching approximately 1,000 Puffins per year.

In Puffin colonies there can be a substantial number of non-breeders that could potentially skew the adult survival data. These birds have a uniform black feather moult and fewer bill grooves, whereas 'breeders' possess a mixture of grey/brown and black feathers. We have been careful to look out for these young birds and fortunately we catch very few on the RAS. The situation is helped by the nature of the Airighean a' Bhàigh slopes, which mean we do not catch



8.4% of the national Puffin population breeds on the Shiant.

PHOTO: JIM LENNON



**Mist nets on the slopes of Airighean a' Bhàigh**

wheeling birds, just those coming and going to and from their burrows. While it's early days for the project, we are already getting an encouraging number of retraps (see Table 1). Many caught in the same net from year to year.

Siting the RAS at Airighean a' Bhàigh allows us to build on the monitoring started by David Steventon and others. Around 10,000 Puffins have been ringed here since 1970, so we have the added bonus of retrapping some aged birds, including EB38387, retrapped in 2010 which, at 35 years 11 months 13 days, is currently the oldest ringed Puffin in Britain & Ireland. Movements between colonies are unusual, so a control of a 32-year-old bird ringed as a fledgling on Sule Skerry, Orkney, was a nice surprise last year. We have also started to computerise the data from the 1970s and 1980s as a separate RAS, so in 10 years' time we will be able to compare survival estimates across the decades; will annual

adult survival rates still be 92%, as recorded 30 years ago?

In 2006, the feeding Puffins were mainly bringing in pipefish to their burrows. Thankfully, they appear to have gone from the diet as sandeel and other fish returned, but since 2009 we have monitored the situation by collecting dropped 'beakfuls' of fish for identification and measurement.

It's great to see the range of emotions triggered, particularly in folk new to Puffin ringing, ranging from joy (ringing tick and trophy picture taking) to outrage and pain (bitten and clawed), breathlessness (walking up and down Airighean a' Bhàigh) to satisfaction from a job well done (plus the prospect of supper and a dram back at the bothy). On a fine day there's nothing like it. Great views across to Lewis and Harris, and glimpses of White-tailed Eagle and Minke Whale passing by in The Minch, all make it a magnificent place to be ringing.



PHOTO: JIM LENNON

**Table 1: Numbers of Puffins ringed & retrapped at Airighean a' Bhàigh RAS site 2008-11.**

	2008 <sup>1</sup>	2009	2010	2011
New birds	522	907	977	557
Retraps	12	49	183	236
Total	534	956	1,160	793
% retraps	2.2%	5.1%	15.8%	29.8%
(Footnotes)				

<sup>1</sup> Only one session at pegs 1-6 in 2008; pegs 7 & 8 added in 2009.

10,000 Puffins have been ringed in the Shiantis since 1970.



# Pied Flycatchers in the Southwest; a retro-RAS

**Malcolm Burgess explains how he was able to provide 56 years of Pied Flycatcher records to RAS**

Increasingly we are being encouraged to take a more structured, project-based approach to ringing. RAS projects are often thought of as being difficult because of the number of adult captures required each year, which may be challenging for some species. However, many suitable projects are already in existence; all that is missing is project registration and a few clicks of a mouse.

Southwest England has many nest-box schemes aimed at attracting Pied Flycatchers. Some have been running for decades, including the scheme that I have been involved with over the past 14 years at East Dartmoor National Nature Reserve. As part of my own research, which I carry out with the University of Exeter and Natural England, I investigate trends in dispersal behaviour and how this has changed over time.

To do this, I initially required ringing data from local nest-box schemes, as natal dispersal between them is not uncommon. I also required nest monitoring information to work out first-egg date, clutch size and nest success, so I could examine the lifetime consequences of dispersal. While collating these data, I quickly realised that, although most of the nest-box schemes were monitored by (or had links to) bird ringers and many adults were captured each year, very few (four out of 22) submitted data to the Nest Record Scheme, despite collecting high-quality, multi-visit records. Some schemes were starting to lapse and several monitors were at the point of retiring. These valuable historic data were starting to be lost – a great shame, as these records enable us to look back in time as well as exploring recent trends.

Following a meeting with all

the Dartmoor-based schemes, the Southwest Pied Flycatcher Monitoring Network was born, now supported by the Devon Bird Watching & Preservation Society, BTO and Natural England. The Network's aims are to maintain long-running and important data sets by providing replacement boxes and identifying new monitors, to standardise recording methods, to collate and store historic data (providing all records to the Nest Record Scheme) and to train new monitors in nest recording.

I also encourage ringers who previously only ringed nestlings to capture adults. Schemes that do not do so generate biased dispersal data, as nestlings can only be recaptured as adults at other woodlands, although most will return to their natal wood to breed. An equally valuable by-product is the creation of new RAS projects which also inform us about



PHOTO: AMY LEWIS



adult survival rates.

Together, the Network's data are readily available for the various research projects that I have developed and also serve as an efficient way of monitoring the regional population. This gives many of the box schemes more purpose by becoming a monitoring tool, much liked by landowners, and has become a way of better directing and sustaining them.

My intensive study focuses on the East Dartmoor NNR, which holds the largest population of Pied Flycatchers in southwest England, currently about 75 pairs, constituting two separate RAS projects. Part of the reserve, Yarner Wood, has monitoring and ringing data back to 1955 and is the third-longest-running nest-box scheme in the UK. I received funding to computerise historic data,



PHOTO: JEZ BLACKBURN

**To get the most out of your Pied Flycatchers, why not catch and ring the adults as well as the nestlings and submit nest records.**

including inputting all ringing data into IPMR. I catch nearly all the adults; females during their second week of incubation and males when they are feeding young. Several articles in past *RAS News* (issues 3 and 4) demonstrate how to trap adults safely, and I use the trap shown in *RAS*

*News* 3 (see 'Download *RAS News*' on the RAS pages of [www.bto.org](http://www.bto.org)). The majority can be caught within 10 minutes, and I find that even those initially reluctant to push past the trap will usually do so when I return a few days later.

To turn 56 years' worth of ringing data into a RAS all I had to do (OK, after the data had been entered into IPMR!) was to create a submission file for each year and estimate trapping effort. Trapping effort was simply the total number of different days in which an adult was trapped in each year. Within the Southwest Pied Flycatcher Monitoring Network there are many more historic RAS schemes to be registered, and I suspect there are a very large number nationally. So, if you really want to get the most out of your nest-box scheme, don't just ring the nestlings – capture the adults and submit nest records too.



**Malcolm monitors 75 pairs of Pied Flycatchers in the East Dartmoor NNR.**

PHOTO: MARK R TAYLOR

## RAS submission deadlines

Please do your best to submit your RAS data by **31 October**. Early submission means that we have more time to check and analyse the data and can provide timely results.

Remember, to qualify for your 2012 RAS refund, all RAS submission files must be received by the RAS organiser by **28 February, 2013**.

Data submissions should be sent to:  
**ras@bto.org**

## Do you need extra help with your RAS project?

If your RAS project could do with some additional help from other ringers, please post a request on the BTO Ringers' Forum (see below), or contact the RAS Organiser (**ras@bto.org**), who would be pleased to request help from ringers in your area.

## BTO Ringers' Forum

If you have not already done so, please do join the BTO Ringers' Forum. This is a great way to obtain help and advice, and share experiences, on all manner of ringing and catching issues. To join, please send an email (including your name and permit number) to:  
**btoringers-subscribe@yahoo.co.uk**

## RAS News Number 12, Spring 2012



The newsletter for the British Trust for Ornithology's Retrapping Adults for Survival scheme

For further copies, contact:  
**RAS Organiser:** Allison Kew,  
BTO, The Nunnery, Thetford,  
Norfolk IP24 2PU  
**Phone:** 01842 750050  
**Email:** ras@bto.org

**Editors:** Greg Conway, Allison Kew  
and Dave Leech  
**DTP:** Jane Waters  
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