

Scottish Raptor

Bringing you the latest news from the Scottish Raptor Monitoring Scheme

I hope you have all had a wonderful and raptor-filled summer and early autumn. I'm sure the last few months since the previous newsletter have been very busy for those of you conducting raptor monitoring or any other field work. The Scheme has also kept us busy here at the Stirling office, where we have been working on the final stretch of the SRMS Online-system development and producing species specific trends amongst other things, more of which you can read below.



H. Bell

As pre-advertised in the previous issue, the SRMS 2018 Annual Report has now been published. In case you have not yet given it a read, it can be found on the Scheme's website at: <http://raptormonitoring.org/annual-report>.

In late July we received sad news that Jon Hardey, a key player in raptor monitoring and conservation in Scotland, including the development of the SRMS (and the writing of the 'Raptor Bible' field guide I'm sure most of you have referred to in the past) had unexpectedly passed away. We would like to celebrate his work and contribution to the Scheme as a key part of this newsletter and have therefore written a tribute to him as a raptor worker and a dear friend, which you can find below. Our thoughts are with his family and friends.

As always, this issue of the Scottish Raptor contains an update on latest SRMS developments and includes some very interesting contributions from others, both locally and further afield. Again, I would like to thank everyone who contributed towards the content and I hope you all enjoy reading it. If you would like to offer an article or propose a topic for a future issue, please get in touch!

For new readers, you can sign up to receive future issues of the Scottish Raptor direct to your inbox via the following link: <http://raptormonitoring.org/contact>

Nina Schönberg (SRMC)

Upcoming Deadlines for Data Contributors

As in previous years, the deadline for **data submission for 2019 monitoring is October 31st**.

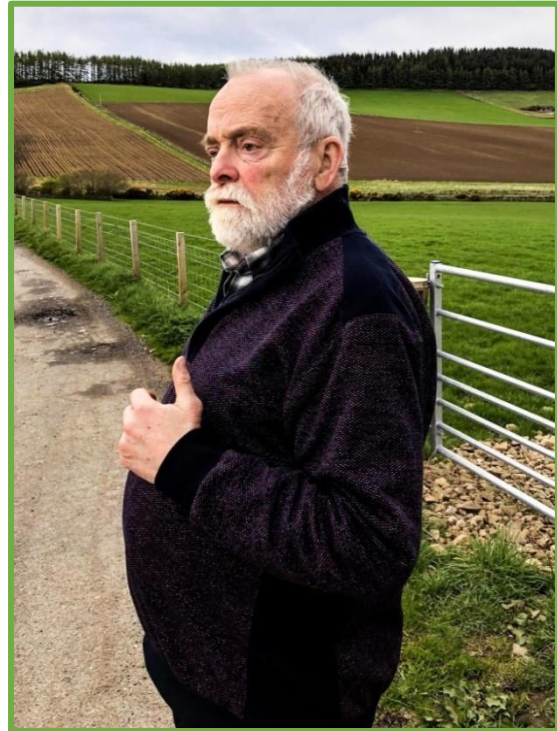
In addition to this, if you have not yet done so, please also **fill in and return the SRMS registration form by November 30th**, in order to have your data available for the production of the 2019 Annual Report. By filling in the form, among other things, most importantly, you can inform us about your preferences in terms of the sharing and use of your data. We would strongly encourage all data contributors to fill it in as otherwise your data cannot be used meaning that unfortunately the 2019 Annual Report would be incomplete. The form can be downloaded at <http://raptormonitoring.org/wp-content/uploads/2019/02/SRMS-Registration-Form.pdf> and should be returned to the SRMC either via email or by post (contact details at the end of newsletter).

Jon Hardey (1950-2019)

Jon died on 19th July, aged 69, in Aberdeen Royal Infirmary. A long-term member of the North East branch of the Scottish Raptor Study Group, which he also chaired for several years, Jon was also instrumental player in the development of the Scottish Raptor Monitoring Scheme. He specialised in peregrine falcons, largely due to encouragement by his late idol Dr. Derek Ratcliffe, and had a huge store of information in all things peregrine, which he was only too willing to share. He remains known for his exceptional experience and skills in raptor fieldwork, his sense of humour and his ability to enthuse everyone around him (whether this was about raptors or rugby). The hills will be that much emptier without him.

Jon was born in Edgbaston, Birmingham, to Ronnie and Margaret Hardey in January 24, 1950. Attending Larchfield Prep School in Helensburgh, and later Sedbergh School in Yorkshire, he went on to Queens University in Belfast, graduating in 1973 with a BSc (Honours) in Zoology. He then moved to Aberdeen to take a MSc in Ecology in 1975, where met his wife-to-be, Lorna, on a field trip to the Bettyhill Field Station.

This is where Jon was introduced to Peregrine monitoring by Dr Derek Ratcliffe, (author of *The Peregrine Falcon*, 1980, 1993). The North East Scotland Peregrine population was critically important in Derek's classic unravelling of the effects of agricultural pesticides in eggshell thinning and catastrophic breeding failure in the 1950s and 1960s. The Peregrine populations in the Deeside and Angus hills, and in Speyside, functioned as a 'normal' population in one of the few areas in Britain with very low contamination risk. Building on the intensive survey work of the late Doug Weir and Adam Watson, and more recent monitoring by Roy Dennis and others, Jon sustained the peregrine



(J. Hardey)

monitoring effort, which provided a benchmark against which the recovery of other populations could be assessed as restrictions in the use of cyclodiene pesticides took effect in 1962-64.

Jon played an integral role in the establishment of the Scottish Raptor Monitoring Scheme, which was founded in 2002 in response to the government-led UK Raptor Working Group Report, published in 2000. The report recommended a range of actions on raptors, including the development of systematic monitoring methods. Jon was commissioned to lead a team producing a field guide for raptor surveys and monitoring, which was duly published in 2006 and has since had two subsequent editions. *Raptors: a field guide for surveys and monitoring* sets the standard for formal monitoring of birds of prey, and the field methods have been adopted across many European countries.

"I worked closely with Jon on the first edition of the field guide," remembers Chris

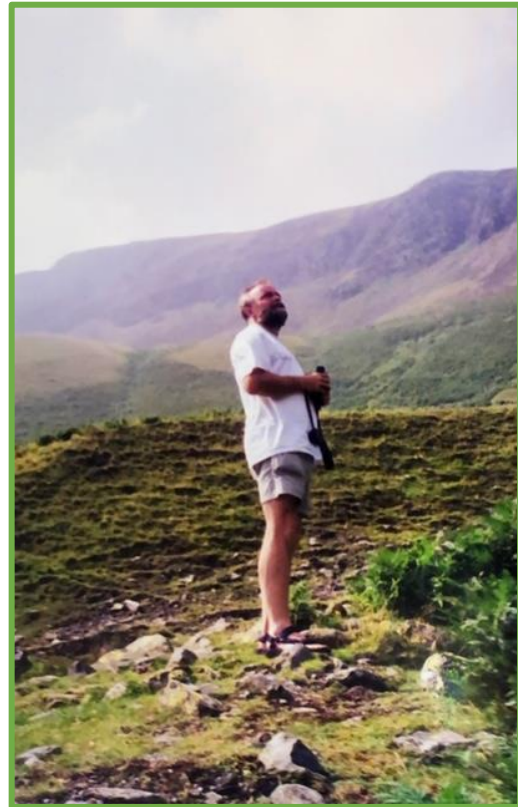
Wernham from BTO Scotland. "I helped him to collate the advice from his fellow raptor workers and edit all the text. I spent many hours on the phone to him, and had to quickly learn how to decipher his through-the-beard mumbles so that gradually our conversations didn't consist of sentences in which 90% of my words were "sorry I didn't quite get that"! Jon's depth of knowledge and love of raptors and wild places always shone through and inspired. He could appear gruff, but underneath he was always a warm and kind 'big bear', who loved kids and really cared about doing his best for human beings as well as birds"

Indeed, the success of the book rested largely on two of Jon's great strengths: his experience and skills in raptor fieldwork; and second, his strong connections with scores of raptor specialists who were only too willing to share their nuggets of knowledge and experience – which is not something that is done lightly. Jon was enthusiastic, highly motivated and persistent in putting to excellent use his and others' first-hand experience and knowledge of raptors, particularly peregrines.

"I remember vividly the conversations I had with Jon on the intricacies of peregrine monitoring, he and I both being enthusiasts for the species", recalls Patrick Stirling-Aird, a SRSG representative on the Scottish Raptor Study Group, when remembering his interaction with Jon.

Jon had an uncanny ability to build and sustain relationships with landowners, factors and keepers on shooting estates which enabled him to gain access on private estate roads. A keen and experienced bird ringer, his skills as a naturalist ran to dissecting in detail the prey remains in peregrine eyries to prove to doubting keepers that peregrines didn't just eat grouse. Jon was instrumental in setting up 'Operation

Falcon Watch', a joint agency approach to monitoring peregrines, ostensibly to stop egg collectors but also to look out for raptor persecution. His knowledge also extended to plants which his friends called 'weeds' much to Jon's disgust.



Jon in Yorkshire Dales, 1997. (J. Hardey)

His fieldwork trips were legendary both in terms of their duration and the levels of fortitude required to complete lengthy trips often starting at stupid o'clock in the morning and driving through the dark to a lonely car parking spot in the middle of no-where or even beyond that to places called 'Clatt', 'Lost', (yes really). This was often followed by a long march into a featureless wilderness into the cold and wet of a Scottish spring. He had very little regard for his vehicles as he would bump up estates roads most memorably in his red Fiat Panda a vehicle that looked very fragile but was very sturdy as several bone shaking shocks would testify to.

Fieldwork involved checking various sites for occupancy which usually involved long periods of observation just so we could hear a call or even catch a glimpse of the target species. Sustenance was key and he was always accompanied by a large 'piece' washed down with copious amounts of coffee. At the end of long days in the Cairngorms Lorna's mince and tatties were heated up over a camping stove in the gathering gloom of the Tomintoul car park, 'affa fine', as he was often heard to say.

As a bird ringer Jon risked life and limb to make sure as many peregrine chicks could be rung each season. 'Don't tell Lorna' would be the last thing he would say as he disappeared over a vertical cliff on a rope to ring the next brood of chicks, with his life expectancy dependant on a three feet metal spike driven into the cliff top. In his prime he would walk all day with a considerable pack on his back full of optics, climbing gear, food and waterproofs. When conversing with Jon, it was always best to be alongside to get the full experience as to be behind him in the wind and through squelchy ground the thread of his conversation was often lost which often resulted in the conversation being punctuated with lots of mmm's and yeah's.

Professionally, Jon was Principal Teacher of Biology at Westhill Academy, Aberdeenshire, from 1984 to 2000. Revered by generations of students for his inspirational teaching and hands-on laboratory classes, Jon was par excellence the gruff master who gave vent to wonderfully humorous and lasting memories which many pupils have since described as helping define their chosen paths. Described by one former pupil as 'a modern day Hagrid', Jon sustained his pupils' enjoyment with a

menagerie of study animals, including 'Cowpat' the toad, and 'Boris' the tarantula.

In 2003 Jon and colleagues published a key paper on the variation in breeding success of peregrines in North East, Central and South West Scotland from 1991-2000. Published in the book *Birds of Prey in a Changing Environment* (with a Foreword by Derek), this paper was instrumental in confirming that poor breeding success was linked to high levels of criminal persecution associated with grouse moors. On retirement, Jon took on various commissions from Scottish Natural Heritage and wind energy companies, specialising in surveys of montane birds, raptors and bats.

Outwardly entertaining in describing the antics of his mainly bearded field colleagues, Jon was shy and diffident. Sometimes impossibly incoherent with his distinctive burr, Jon could frustrate and excite in equal measure depending on whether or not you understood him. He was a fervent follower of the national rugby team, and enjoyed the prelude socialising, which often meant very late arrivals at Murrayfield. Kind and pointedly playing up others' special strengths, Jon could be both outrageously irreverent and schoolmasterly solemn.

John is survived by his wife Lorna, sons John and Paddy, daughter Alison, sister Nicky, and brother Mike; Rodge predeceased him.

Mick Marquiss, Robert Rae, Logan Steele, Des Thompson, Patrick Stirling-Aird and Chris Wernham

My Raptor Story - Ben shares his personal experience from studying raptors around Stirling University

When I was about six years old my mum brought a live and very feisty female Sparrowhawk into the kitchen - it had become tangled in some raspberry netting in the garden. I remember it vividly! I suspect that sowed some early seeds of interest, though I was terrified of it at the time!

In my early twenties I was doing a bit of soul-searching after starting off on the wrong career path. I got some books out of the library, one of which was *Seasons with the Kestrel* by Gordon Riddle. He's been studying Kestrels in Ayrshire since 1972 and his book was inspirational - it certainly helped with my decision to do a Zoology degree. Again though, I didn't really *do* anything with raptors.

It wasn't until many years later that I started to get involved in raptor monitoring. I attended a talk by Duncan Orr-Ewing about the great work that he and others had been doing on Red Kites and Buzzards. It was here that I realised that my skills as a (rock) climber might be useful for raptor work. Soon after this talk (2015 I think) I started doing a bit of tree climbing for a local friend, Staffan Roos, who had been studying Buzzards in the area. Over the course of the next few years we formed a formidable team, jointly monitoring territories and with me then climbing/abseiling and him ringing the chicks. The area that we covered was, with hindsight, far too large - seventy square kilometres in total. In 2017 (an exceptional 'vole year') we monitored seventy-two territories of a range of species. To be honest it was pretty exhausting, though hugely enjoyable.



Ben putting his climbing skills into use (B. Darvill)

When Staffan returned to his native Sweden to start a new job, I took a bit of time to consider what to do next. Covering the whole area on my own was out of the question, and even doing half of it seemed like too much. I settled on a much smaller area of 14 square kilometres, centred on Stirling University campus (where I work), with the aim of sustaining coverage in the long-term. The 2019 season was a pleasure, without it feeling 'too much', so hopefully I can keep it up.

“Each season I aim to monitor all breeding attempts of all raptors and owls (excluding Tawny) plus Raven, within this fixed area. The advantage of this consistent approach is that I can get a sense of whether various things change over time - e.g. number of pairs, average productivity and so on. The consistency of area and effort will, I hope, mean that the data that I collect will be particularly valuable to SRMS. “

If you were to stand up near Stirling Castle and look towards the Wallace Monument and beyond you'd be able to more-or-less see the whole of the area that I cover. It's a really picturesque bit of countryside which I hope will help me to sustain my enthusiasm for fieldwork. The habitat is quite mixed, including lowland arable, pasture, woodland, crags and upland - with Dumyat (418m) being the high point. I have about 16 Buzzard territories, six Kestrels, three Ravens, two Sparrowhawks, plus a couple of

rare Schedule 1 species which I have a licence to monitor and, in a good year, both Short-eared and Long-eared Owls.



Young Buzzard at a nest. Here you can see well the "greening up" of the nest, which is a good indicator that a Buzzard nest is active even if you cannot see or hear any activity from down below (B. Darvill)

My season starts fairly early in the New Year with checks on Raven territories and then extends through, with increasing intensity, until July. Time and energy permitting, I aim to visit each known territory multiple times to get a sense of what is going on, and to spend enough time in or near other areas such that if something new pops up I have a reasonable chance of detecting it. My personal preference is to visit nests once they have well-grown chicks to get an accurate pre-fledging count and if possible to get the birds ringed, too. The climbing and abseiling is my favourite part of the season.

What advice would I give to someone relatively new to raptor monitoring?

Firstly, be realistic about what you can sustain. A smaller area consistently covered in the long term will be of more scientific value (e.g. for trend production) than a multitude of nests here and there covered sporadically. It will also be an ongoing pleasure, rather than a source of guilt. Secondly, don't worry too much about not being an expert. I wasn't when I started and I'm still not. Get out in your patch regularly and the pieces of the jigsaw will gradually fall into place. You will probably miss things in the first year but if you accept this fact it's very rewarding getting

to grips with it all. Successful breeding attempts are fairly conspicuous late in the season (with begging young etc) so if you are persistent you'll get your rewards.

Funniest moment?

Type 2 fun, for sure - but sniffing a mystery item that a pair of Red Kites had used to decorate their nest and discovering that it was a used colostomy bag...

Most memorable moment?

There have been plenty, so this is a tough choice, but it is hard to top the experience of helping John Calladine (Senior Research Ecologist at BTO Scotland) to catch and satellite tag (read more about this below!) one of the adults of a Short-eared Owl pair that I was monitoring. This bird then travelled extremely widely and revealed some unexpected things. It has been very rewarding playing a small part in this fascinating research work.

I want to finish with a word of thanks for the many people who have helped me with advice and information over the years, and continue to do so. There are too many to mention everyone, but special thanks to Staffan, James, Colin, Kevin, Dave, Duncan, Mike and more. I'll try and pass it on.

Ben Darvill (BTO Scotland and CSRSG)

Oot and About-FLS Raptor Training Days

In early June the Scheme organised two raptor survey training days for the staff of Forestry and Land Scotland (FLS), one near Inverness and one near Peebles in the Scottish Borders.

The days included an indoor training session, led by Dr. Ben Darvill, the Development and Engagement Manager from BTO Scotland (more about his raptor monitoring experience above) and supported by local raptor experts from the Scottish Raptor Study Group, who were there to share their knowledge and tricks of the trade when it comes to raptor monitoring. We had a great turnout for the two events, with a total of 29 attendees of different levels of raptor experience. It was great to see everyone asking questions and sharing their personal experiences, and discussing how monitoring takes, and more specifically should take place, in the context of forestry.

After the introductory indoor session to the species and their monitoring, we enjoyed our lunches, which also provided a great opportunity to catch up and discuss the morning session, and headed outdoors to put this information into the practical context on the field. Fortunately, weather was on our side on both days, and we were lucky to see or hear signs of Ospreys, Goshawks, Sparrowhawks, Buzzards and I believe someone even spotted a Red Kite!

As a first of their kind, we hope that these training events can act as a catalyst for future training sessions by the Scheme with expert support from Scottish Raptor Study Group members. Huge thank you goes indeed to Brian Etheridge, Andrea Goddard, Adam Richie, Tony Lightley and Eve Schulte, who made themselves available for these workshops and were there to share their local knowledge and to answer any questions.

Nina Schönberg (SRMC)



Tony Lightly and Eve Schulte demonstrating the characteristics of a good vantage point (VP) survey site in the Scottish Borders (N. Schönberg)



Ben Darvill conducting indoor training at the Northern workshop (N. Schönberg)

Marsh Harrier breeding in Central Scotland!

For many years the Marsh Harrier has been a rare passage bird in Central Scotland RSG area, with annual occurrences mostly in the autumn along the Forth estuary. Most of these birds have been assumed to be linked to migrating birds from the Tay breeding population. In recent years there have however been a number of spring records of birds, which have not resulted in our knowledge in any confirmed breeding attempts.

So, in spring 2019, I decided to go down to various parts of the inner Forth estuary to look at suitable habitat and to see if I could pick up Marsh Harriers, or indeed anything else of interest. On 27 April, I identified a second summer male Marsh Harrier over suitable reed bed nesting habitat, and he was joined on 30 April by a female bird. My interest was now really sparked! I admit that I was relatively unfamiliar with the second summer male plumage of Marsh Harrier, this bird only showing a faint grey under wing patch and no grey on the upper wing or tail. According to the literature, this male bird was unlikely to breed, however previous experience with other native Harrier species told me not to discount this possibility.

On 12 May, I observed display of high soaring, parallel flying and calling, then some nest building with large clumps of long reeds being carried by the birds into an extensive area of reed bed. Whilst I had some experience of monitoring Marsh Harriers, when I lived in Germany in the 1980s, I decided that this was a good opportunity to learn as much as I could about this special raptor species. It was for me



Female Marsh Harrier in flight. (© P. Hillion)

like starting out raptor monitoring again, and provided a bit of an interesting diversion from my usual Red Kite study area in Stirling and west Perthshire.

By the week commencing 22 May, I was convinced that the female bird was incubating. At this point, I took some very helpful advice from Steve Moyes of Tay Ringing Group and Harry Bell of TRSG, both with extensive experience of the Tay Reed Beds Marsh Harriers, for monitoring hints, and also to understand what actions I should avoid, in order to give the birds the best chance of a successful outcome. Steve advised me that Marsh Harriers were very sensitive to human disturbance during the incubation phase, so I kept my distance from the birds, however this was not particularly an issue given their choice of nest site on an island. Somewhat more in hope that anything

else, I did ask the BTO to add Marsh Harrier to my Schedule 1 ringing permit, and this was arranged. I was though secretly beginning to believe that the young Male Marsh harrier could do the business and effectively provision his female partner sitting on the nest!

During May, and early June I was amazed at how difficult the birds were to observe, even though I had a precise fix on the nest site. Some local birders reported seeing a "female" Marsh Harrier regularly foraging near the M9 motorway, some 7 km from the nest. I am convinced that this sighting was actually of the largely brown male bird. I persisted with visiting the site, and on 29 June I had the fabulous sighting of the first food pass. So hatching had taken place, and I was pleased that this timing accorded precisely with my calculations from reading the Raptor Monitoring Manual and looking at incubation period details. Also looking at the literature, and taking advice from Harry and Steve, this breeding pair of Harriers were beyond the most extreme dates for laying and hatching in Scotland. During June and July, you may also remember that we had some very heavy rain events in the Stirling area, one of which resulted in the collapse of the Tesco supermarket roof!

I was also looking at some high tides that appeared to be close to the nest site on a number of occasions. On both accounts, I feared the worse for the breeding Marsh Harriers, however the food passes kept happening, and with ever more frequency as the weeks passed, and with the female bird also out foraging, as you would expect as the chicks got larger. On 8 August, I eventually saw 3 young Marsh Harriers on the wing,

jumping up from the reeds during a food pass by the female Harrier.

"This was it then, the first confirmed successful breeding of Marsh Harriers in the CSRSG area, and from my perspective almost as good a feeling as finding the first Red Kite nest in Scotland for over a century on the Black Isle in 1992! I have been monitoring raptors in Central Scotland since 1994, and we do not get many new breeding species of raptors in our area, although we are now fully expecting both White-tailed Eagle and Hobby to arrive soon. I was ecstatic, and over the next few weeks I went down regularly to see the young Harriers on the wing. Some of the brood were still around by at least the 9th September. "

As a foot note, the Raptor Monitoring Manual does not actually tell you the usual brood size of Marsh Harriers. I am though reliably informed by Steve that a brood size of three is also typical of the Tay Marsh Harrier population. Bring on next summer, and hopefully this is just the start of Marsh Harrier colonisation of the Forth, and given the amount of suitable nesting habitats we could support a reasonable population of this species, I would have thought. However, always the optimist, Steve tells me not to get my hopes up too much, as false dawns have happened elsewhere with this species!

Duncan Orr-Ewing (CSRSG)

If you want to read more about Marsh Harriers, you can access the relevant Raptor Manual chapter referred to above here:

<http://raptormonitoring.org/wp-content/uploads/2015/05/Raptors-2014-Marsh-Harrier.pdf>

SRMS Online and Species-specific Trends –Where are we at?

As hinted in the introduction, and previous newsletters, we are now at the cusp of producing some rather exciting pieces of work here the SRMS. Read below an update on the production of species specific trends and the looming launch of the SRMS Online-recording system.

Dr. Mark Wilson, a Research Ecologist working for BTO Scotland, who also sits on the SRMG (<http://raptormonitoring.org/about-the-srms/srmg>), is in the process of producing trends for SRMS focal species, using all 16 years of data gathered by the scheme since it started in 2002. These trends show how various demographic measures (including territorial occupancy, number of pairs; proportion of pairs fledging at least one offspring; and fledged brood size of successful pairs) have changed over time in key study areas. He has already produced provisional trends for four species; Kestrel, Hen Harrier, Merlin and Peregrine. In relation to the significance of these

trends, Mark explained: "As well as being informative in their own right, these trends are an important step towards delivering some core aims of the SRMS. For example, they will be used in discussions with raptor workers to help us improve our understanding of annual variation in coverage. Such understanding is crucial to making inferences about changes in population size from SRMS data." Once trends for individual study areas are agreed, the

next step will be to assess the potential for combining these to produce regional or national trends and to highlight gaps in monitoring coverage. These, in turn, can be used to help guide the work of the Scheme and its partners to improve our knowledge about raptor populations in Scotland.

For SRMS online, further testing has taken place and feedback based on this has been compiled. Based on this, a list of priority modifications has been identified, in order to make the system better fit for purpose, which we aim to deliver by launch, in order to have the system available for use for the 2020 breeding season. Thank you goes again to those who took time to help us with the testing of the system and provided their feedback, which was extremely useful. Training on the online system is planned for January 2020.

Nina Schönberg (SRMC)

If you are interested in attending a SRMS Online training event, please contact the SRMC by the 30th of November, so that she can evaluate the level and geographical spread of interest and accommodate this when organising these events.



Many of you probably have heard of Mark, who does a considerable amount of work towards the Scheme behind the scenes, especially on the data side of things, so here he is, ringing Barn Owls near Falkirk! (A. McKerracher)

Tracking Short-eared Owls

-Can it help to interpret monitoring data?

Among the more challenging species to monitor, Short-eared Owls do seem to go that 'extra mile' to keep their habits under wraps. Largely nocturnal but still capable of making extended appearances in daylight, they can at times give the impression of being showy birds. However, many breeding attempts can go undetected; especially those that fail to reach the later stages of chick rearing when demands on provisioning adults can be high and necessitate more frequent daytime activity. Added to this are marked fluctuations in breeding numbers in any particular area associated with their nomadic tendencies and low tenacity to breeding sites exhibited by at least some individuals.

Since 2017 BTO has been working with a small team of dedicated enthusiasts to track these birds with high precision GPS-satellite tags. To date, nine have been tagged in Scotland and are starting to reveal aspects of their ecology that will be used to guide management of the areas they inhabit. Initial findings show how they select areas of grassland for hunting and generally avoid areas dominated by heather and how they use different home ranges successively throughout the year but make occasional exploratory visits elsewhere. We have found that females usually leave their young before they are fully independent with the males remaining to rear young alone and the post breeding period appears to be a period of high mortality risk. Sequential breeding attempts can be distant and occur even within the same season. One female likely bred twice



Home ranges occupied by one tagged female Short-eared Owl during three breeding seasons (2017-19). Red triangle (n = 3) show actual breeding attempts. Yellow circles (n = 8) are other areas occupied for some time between late March and early July.

in a single season at sites 1000 km apart (in Scotland and Norway). Movements outside of the breeding season also differ markedly between individuals and also by the same individuals between seasons. For example, a bird that remained close to its breeding area in Scotland throughout 2017, spent part of summer 2018 in Norway and the following winter in the south of Ireland and in south-west England.

This new knowledge is helping us understand the ecology and requirements of Short-eared Owls, but does it improve our ability to monitor the species? It will do, once we have followed enough birds to understand their movements. However, the initial results show there is considerable scope for misinterpretation. For example, one female occupied no less than 11 home ranges in three consecutive breeding seasons, the most distant being 1500 km apart (see map). Perhaps it is just as well that these birds range largely undetected, otherwise we could easily over-estimate their numbers. Our aim is to tag up to ten more birds over the next three years to firm up our understanding of this most challenging but fascinating species.

To find out more about the project and to help with the appeal to secure funding for the ongoing work, go to: www.bto.org/seo-tracking.

Many many thanks to all those owl enthusiasts who have helped me with this work to date, and especially to Neil Morrison for his never-failing enthusiasm!

John Calladine (BTO Scotland)



The bird shown in the map being tagged in Stirlingshire, May 2017 (C. Wernham)

The case of the declining Common Kestrel in Northern Ireland.

My name is Kez (no, really) and I am a PhD student at Queen's University, Belfast investigating the ecological factors that influence the distribution and abundance of kestrels in Northern Ireland. I want to understand how kestrels choose habitat for foraging during the breeding season, and how that habitat affects their ability to hunt and reproduce in a habitat with less suitable breeding sites and fewer prey available.

Kestrels are encountered too infrequently in monitoring programs (such as BBS) for any annual trend indices to be generated for Northern Ireland, and they do not have a dedicated monitoring scheme. Although they seemingly survived the DDT pesticide crisis of the 60's and 70's, according to the Pan-European Common Bird Monitoring Scheme their population has shown a decline of 35% per year since the 1990s and in the Republic



Kez excitedly holding her first Kestrel chick! (K.Armstrong)

of Ireland, they show an annual rate of decline of 3% per year.

One of the more interesting questions is what they are eating on an island such as Ireland, which has only 27 species of terrestrial mammal (including only 4 species of rodent – brown rat, field mouse, house mouse and

pygmy shrew) compared to 43 species in Britain, and 204 species throughout Europe. Limitations on the abundance of prey can keep predator populations low, and we know from other studies that kestrels show temporal variation in response to fluctuations in the availability of their prey. Kestrels are a vole-specialist, and here in Northern Ireland they must have adapted their diet to a vole-less habitat.



Six c. 10 day old Kestrel chicks about to be ringed in Co. Down after having been closely monitored by NIRSG volunteer Massimo all season (K.Armstrong)

The first year of my PhD has been a fact-finding mission, and with the help of the Northern Ireland Raptor Study Group, BTO's Birdtrack and monitoring schemes and volunteers, I have been able to use citizen science and volunteer reports to identify 20 territories each held by a pair of kestrels for the breeding season and with Dr Eimear Rooney from NIRSG, we were able to ring the first brood of my PhD! Already we are building up an interesting picture of kestrel habitat, with a preference shown for territories containing bog, grassland and conifer plantations.

The next step for this winter is to analyse all of the pellets and prey remains that have been collected from nest sites across the country and to set up the field experiments for the next breeding season. I would be very interested in analysing pellets from other sites across the UK (especially in areas with voles) so please get in touch with me at bit.ly/KestrelsNI if you would be interested in collecting some pellets from any kestrel sites near you!

Kez Armstrong (Queen's University, Belfast)

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