

Scottish Raptor

Bringing you the latest news from the Scottish Raptor Monitoring Scheme

Since the last issue in May I have passed my year milestone for being in post. We have made some good progress with developing the Scheme over the last year – we've caught back up with the annual reporting, we have a new Scheme website, progress is being made with a much needed online data entry system and we have begun to develop our thinking around data flows and sharing of SRMS-held data. We have also begun to explore how we might encourage more people to get involved in raptor monitoring. However, there is still a lot to do and I look forward to seeing what the next year might bring. In this issue you will find updates on all of these developments in addition to some great articles from invited contributors that I hope you will enjoy reading. You can sign up to receive future issues of this newsletter via the following link: <http://raptormonitoring.org/contact>

Amy (SRMC)

RSPB/SNH National Golden Eagle Survey 2015

January to July this year saw tireless work across Scotland by members of Scottish Raptor Study Group and 6 full time RSPB fieldworkers scouring the ground for the RSPB/SNH National Golden Eagle Survey. Fieldwork came to an end on 31st July and surveyors have covered all 693 territories across Scotland, those known to have been occupied in recent years as well as also those which haven't been visited since the last national survey in 2003. Surveyors also carried out additional watches in areas with suitable habitat where there was no previous history of eagles breeding. As data are still being collated there are no results to report as yet, but the initial reports on the number of occupied territories in the Highlands (where most of the full time fieldworkers were surveying) is generally looking positive this year in comparison to 2003. However, initial reports coming in suggest that the breeding season in the West Highlands, especially up the West coast, has been particularly poor.

Huge credit is due to all the fieldworkers carrying out this work during one of the coldest wettest springs of recent years - with rainfall being well above and temperatures well below average. So, a huge thank you to all involved for a fantastic job! We are looking forward to receiving all of the data from the survey, once collated analysis can begin to determine the state of the nation's Golden Eagle population.

Daniel Hayhow (Conservation Scientist, RSPB)

SRMS 2014 Annual report now published

We are pleased to announce that the 2014 annual report has now been published. If you are a member of the SRSG a hard copy will be making its way to you via your SRSG branch Chair. Meantime you can access an electronic version at <http://raptormonitoring.org/annual-report>.



South Scotland Golden Eagles

Following the launch of a new project to support the Golden Eagle population in South Scotland a partnership is developing activities to underpin the work. RSPB Scotland, Scottish Land & Estates, Buccleuch Estates, Forestry Commission Scotland, Scottish Borders Forest Trust and SNH are working together on this. The Project Manager is Cat Barlow: <http://www.goldeneaglessouthofscotland.co.uk>. The work is guided by the report: http://www.snh.org.uk/pdfs/publications/commissioned_reports/626.pdf and the Scottish Code for Conservation Translocations: <http://www.snh.gov.uk/protecting-scotlands-nature/reintroducing-native-species/scct/>.

Des Thompson (SNH)

SRMS website launched

Check out the new SRMS website (<http://raptormonitoring.org/>). We are hoping that the website will be useful to our existing contributors but that it will also bring the Scheme to the attention of a wider audience. We are still in the process of adding new content and we would really welcome any feedback or suggestions for material to include.

2014 National Peregrine Survey

The sixth UK breeding survey of Peregrine was carried out in 2014, providing a **provisional estimate** of 1480 pairs in the UK and Isle of Man. This initial figure indicates that the Peregrine population in the UK has remained largely stable since the last national survey in 2002. However, this overall stability belies marked variation in the trends of Peregrine populations in different parts of these survey areas over the past 12 years.

Provisional estimates of the UK and IoM Peregrine population (numbers of breeding pairs)

Area	2002	2014	% change
Wales	283	249	-12
Scotland	571	509	-11
England	470	628	+34
Isle of Man	31	23	-26
Northern Ireland	82	96	+17
Total	1437	1480	+3

Peregrines are now distributed more widely and evenly than ever through the UK, due to decreases in Scotland, Wales and Isle of Man, and increases in England and Northern Ireland (see table). For the first time, the estimated number of breeding Peregrines in England is greater than that in Scotland, though these two countries still hold the majority of the UK's Peregrines.

The country-level changes described above, together with regional trends in peregrine breeding numbers and territory occupancy, suggest that, broadly speaking, Peregrine numbers have decreased in upland areas, remaining stable or increasing in many lowland and coastal areas. The association of Peregrines with wild and remote places in the UK grows increasingly tenuous, as numbers nesting on traditional inland crags decline, and the numbers occupying lowland quarries and man-made structures continue to grow.



This ongoing redistribution of Peregrine numbers across Britain is probably being driven by multiple factors. Food supply is likely to be important; changes in numbers and availability of prey are likely to be having an effect in many areas. Illegal persecution continues to restrict numbers and productivity of breeding Peregrines in some regions, particularly where pigeon racing is practiced and where there is intensive management for red grouse shooting (e.g. as the paper by North-east Scotland Raptor Study Group in the latest edition of *Scottish Birds* highlights). In contrast, decreases in lowland persecution during the 20th century and the ban on organochlorines have had positive influences on numbers, and allowed Peregrines to expand into many areas where they were previously absent. But more work is needed, particularly on food supply and its role in limiting Peregrine numbers, in order to diagnose the cause of regional declines, and identify measures to halt or reverse them.

Mark Wilson (Research Ecologist, BTO Scotland)

Oot and about

The end of May was action packed. I enjoyed a pleasurable (and somewhat blustery) day out with Rab Rae, Chair of North-east Scotland Raptor Study Group to visit a Golden Eagle nest site in the Cairngorms. Unfortunately not a goldie to be seen, though the nest had been built up so had clearly been occupied earlier in the season. The same weekend I joined members of the Highland Raptor Study Group on their Moorland training day (you may remember that we reported on their successful woodland training day in the last issue). For this event I joined eleven members to visit moorland areas up near Brora where Brian Etheridge and Jim Craib were able to share their knowledge and experience on surveying upland species. I joined Brian and three other members to check out a valley for Hen Harrier and Merlin. Alas, the weather was not too kind to us, and a perched Merlin that we saw briefly was swallowed up by a blizzard.

The following weekend saw me attending Scotland's Big Nature Festival where BTO had kindly given me space on their stand to promote the Scheme. Over the course of the weekend I managed to sign up 26 people who were interested in finding out more about the new SRMS initiative which we will be piloting next year (see below). Interest in the SRMS was also kindled by a joint presentation that Alan Heavisides and I delivered – we were a sandwich – I was the bread describing the SRMS and how people could get involved either side of Alan who was the filling and was able to inspire people through describing his long-term study of Merlin in the Lammermuir Hills.

In late June I had a very enjoyable evening with Mike Steward of Central Raptor Study Group, as he ringed three broods of Barn Owls in the Stirling area.

The SRSB Autumn meetings are currently underway and I am enjoying doing the rounds to hear first-hand how the recent breeding season has gone.



Learning more about our Kestrels in Ayrshire



Graham Anderson (Lothian & Borders RSG) & Anna-Marie Ford (Central RSG) assisted with tagging at one of the sites

In the last week of June when the young were nearing fledging, with the help of Dave Anderson, six young kestrels were tagged two from each of three broods in the long term study area on the Ayrshire/Dumfries and Galloway border. The aim was to tag one of each sex from each brood but we were thwarted by the fact that of the 14 young only three were males and two of these were in the same brood.

As far as we know this is the first time Common Kestrels have been satellite tagged in Europe though some work has been done with the Lesser Kestrel.



Pupils from Kirkmichael Primary School who named one of the tagged birds.

north of Dumfries and a third going down to the Solway coast and then perversely coming back north again. Their progress can be followed on the website www.riddle-kestrel.com. It has been a huge learning curve and both Roy Dennis, and Jennie Birrell of RSPB Scotland, have been very helpful with the downloading of the data. If sponsorship can be obtained it is hoped to continue the project next year.

As part of the ongoing work to try and shed some light on the Kestrel's decline in Scotland, a pilot project was set up this season to try and gain more information on the dispersal, movement and mortality of young kestrels when they vacate the natal site. Not without some difficulty it must be said, a licence was obtained, Roy Dennis sourced the tags, and sponsorship of £18,000 was raised by myself to cover the not insubstantial cost of the equipment and satellite downloads. Sponsorship was generously given by Natural Research, the Scottish Ornithologists' Club and the two local Raptor Study Groups, South Strathclyde and Dumfries and Galloway.



The tag is tiny weighing only 5 grams.

It was certainly a new experience handling broods at this stage of the cycle which is normally avoided as they are prone to exploding prematurely from the nest. They were all very feisty, blood was spilt and it wasn't theirs!

All the young successfully left the nest and to date five are transmitting. Whether due to equipment malfunction or mortality no data has been forthcoming from one bird. After a period when the birds stayed relatively close to their natal sites there has been some movement, one bird heading over to an area south of Biggar in the eastern Borders, another travelling to just

Gordon Riddle (Chair South Strathclyde Raptor Study Group)



SRMS online data entry – some of your questions answered

Progress is being made with a much needed data entry system for the SRMS. This is being built as part of the larger Demography Online being built by the BTO. Mark Wilson and I have been working really closely with the BTO IS team and we have recently finalised the SRMS online requirements document which is what was needed in order to be able to create the build specifications that the IS Team work to.

Q: When will the new system be up and running?

A: We aim to have this system ready for roll-out to all SRMS volunteers during the 2017 breeding season. Whether you are a self-confessed computer numpty or a computer genius, if you would be keen to help test the system during the 2016 breeding season I would love to hear from you. In the meantime, please continue to submit your data via the SRMS spreadsheet.

Q: What will be the main advantages of the new online system over the existing SRMS spreadsheet?

A: The online system will bring many advantages to the user, including:

- easier, less repetitive data entry with mapping functionality.
- easier dissemination and sharing of information about site coverage, occupancy and breeding status, particularly within a breeding season, making it easier for groups of raptor workers to coordinate fieldwork (with permissions agreed between those involved).
- ability to generate a wider range of standard reports for SRMS volunteers and other interested parties.

The online system will also improve the consistency and usefulness of data being collected by the SRMS, through:

- enabling recording of per-visit information, so that failure rates can be calculated in a standardised way.
- ensuring greater consistency in entering of site details, making it easier to link sites across years, which is important for deriving robust trends.
- allowing reporting of both coverage and survey effort, which are important for deriving robust trends.
- improving the process for dealing with authorised data requests, allowing data to be accessed more rapidly and efficiently than is currently possible.

Q: How will I access the new system?

A: The new data entry system will be accessed through the new SRMS website. You will have a unique username and login. As this data entry system is being built for the SRMS by the BTO, if you are currently a registered participant in BTO surveys this is likely to be the same user name and password that you use to submit data for these surveys.

Q: When I input my data to the online system, where does it go?

A: All data submitted through the online data entry system will be held on a secure server at the BTO in Norfolk where the SRMS online data entry system is being built, hosted and administered.

Q: Who will be able to see, edit and use my data?

A: You will be able to see and edit your own data. Amy (SRMC) will also be able to see and edit your



data, though any edits made will be immediately flagged with you, and only incorporated into the final dataset after you have approved them. There will be flexibility within the system to enable your data to be viewed and edited by others, according to your wishes. I will be consulting with members of all SRSG branches to discuss the appropriate permission levels and Groups for them. As now, the data you submit to the SRMS will continue to be owned by you. As described above, we hope that this system will enable us to make these data more useful for conservation purposes than is currently the case. However, the individuals and organisations who can use the data, the details they can access, and the uses the data can be put to, will all be strictly delimited by restrictions that will be agreed with you.

Q: I am a ringer. Will I need to enter the same data twice?

A: Ringers will be able to enter all ringing data into the SRMS system, from where it can be submitted to the BTO Ringing Scheme without the need to re-enter and re-submit it through IPMR or paper schedules. Reporting on Schedule 1 licences will also be possible through the on-line system.

Q: I don't have access to a computer. Will someone be able to enter my data for me?

A: I would encourage everyone who can to give the new system a try, but it will be possible for someone else to enter your data for you with your permission.

Q: I work in a remote location with a dodgy internet connection. Will there be offline capability?

A: Unfortunately current funding does not cover the development of an app to allow users to enter data into the system when off-line. In order to ensure that we can support the requirements of off-line users, we will be liaising with raptor workers as the system develops and will be keen to get feedback from as many of you as possible. Development of an app has been identified as a priority and funding is currently being sought for this development.

Q: Will training be available?

A: We will be looking to the SRMS Training Working Group to provide a steer on training requirements and provision. We will definitely make some available!

Unlocking the mysteries of Short-eared Owls

Ever since I was a schoolboy I have loved birds. Watching their habits and finding their nests. I was always excited as the breeding season approached, looking forward to adding to my "species nest totals".

This trend continued for many years until my first sighting of Short-eared Owl hunting. At that time I had no idea the following weekend owl watching would turn into a twenty year voyage of discovery and intrigue. The bird was hunting continuously over a moorland/grassland mixture and past experience told me even though I had never watched a Short-eared Owl before that this bird had a nest. I spent the following weekend trying to locate this nest with no success, it would be another full year before I found my first Short-eared Owl's nest.

Over the next few years I found it hard to locate one or two nests a year, limited time and lack of knowledge being the main factors. Realisation set in, Short-eared Owl nests could be difficult to find! I trawled through numerous bird books looking for helpful hints but still struggled. As time passed I was slowly learning some of their habits. All those frustrating hours spent trying to find nests had



been incredibly well spent. I watched courtship, territorial disputes, fights with other raptors and more recently nest selecting. My knowledge was growing, and watching these behaviours and what to look for was now proving beneficial to my fascination with finding their nests. I had to think outside the box! Nests were not always hidden in deep rank heather as some books stated, I have found nests in long grasses, short grasses, long heather, short heather and burnt heather. And occasionally barely hidden at all. Only this year we were nearly fooled. A male had cached 5 voles around an, as yet unknown, nest. Strangely 3 had been put behind a boulder that was clearly visible in the surrounding short grass. Knowing birds did not hide food in the same spots, it was still a surprise to find a nest with 7 large young. When sitting tight, the female looked like part of the boulder!!



Short-eared Owl chick, Perthshire (Keith Brockie)

In 1999, and four years after finding my first nest, a chance meeting with a bird ringer catapulted me to the next step. "Why don't you train to become a ringer and ring all the young in the nests that you find" he suggested. So, I trained to become a ringer thanks to the skill and patience of numerous members of the Tay Ringing Group. Then in 2002 I headed off up the glens to ring my first Short-eared Owl.

The next five years I divided my time between Short-eared Owls and Hawfinches at Scone Palace. The owls were becoming hard to locate. With only one pair of eyes owls they were

difficult to follow. Short-eared Owls are far harder than any other raptor to study. Why? Because they use technology from the future! They have "cloaking devices" you know, like the Klingons in Star Trek, one minute slowly flying along and the next just vanishing, only to "de cloak" three to four hundred metres away. Amazing! This habit really tested my commitment, travelling so many miles only to lose sight of so many birds.

In 2008 my friend Colin Shand, who had been helping with the local Tawny Owl box scheme, began coming up to the glens to watch Short-eared Owl s with me. It only took a few visits for Colin to get the bug and what a difference this made - now there were two pairs of eyes! For the past eight years we have spent an enormous amount of time watching Short-eared Owl's during the breeding season. We have witnessed some new behaviours which increased our nest finding greatly. Very subtle habits the tiny quiver which the male does while flying over the nest which is so slight you wonder if it actually happened, but it did and the nest will be directly below (in my opinion) the female must look up to see this. Not all males do this quiver but they all fly over the incubating female. It took us many hours to figure out that the birds that did not do the quiver will pass regularly over the nest. When returning empty handed from a hunting trip or a territorial patrol, the males have two or three look-out posts where they settle, if you plot all his arrivals and departures there will be a spot where several lines cross and that is where the nest is. New habits are always exciting to watch. This year I watched some new behaviour, I have no idea what it means yet but hey that's the fun part. I have spent years learning these and other habits and I still felt we were only scratching the surface, so much more could be done.

As often happens, the next step was decided over a few beers. While chatting to John Calladine we agreed we should radio track the birds. John had been working on Short-eared Owls in other parts of Scotland and was as frustrated as me at our lack knowledge about them. We had radio tracked



Hawfinches a few years back, so this seemed a natural progression. Once funds had been raised, we managed to fit four tags on one male, two females and one juvenile.

We caught the birds in mist nets and one of the birds caught really made us think. We had put up the nets 200 metres away from the car, behind a grassy tree clad mound to try and disguise them as much as possible. After returning from a fruitless net check, a Short-eared Owl flew past John and I at great speed, turned behind the mound directly towards where the nets were and out of sight. We quickly returned to the nets and we could see the owl sitting on top of a small conifer staring at us and then the nets. The bird flew off, but as we approached the far end of the nets we discovered we had trapped a Short-eared Owl. But how had the other bird known there was a bird in the nets. I suspect they have calls beyond our own hearing range because John and I must have been closer to the nets than the incoming owl when possibly a call or calls were made by the trapped bird. The incoming bird had been picked up at least 200 metres away from the net and was already flying at speed. On a calm night in an extremely quiet glen, we had heard nothing. But we feel sure that the other owl may have heard some sort of distress call from the netted bird.

The owls were far more mobile than we realised, they shared territories, not only with other Short-eared Owls but with Long Eared Owls. And these territories were larger than first thought, birds hunting the high ground during the night that was not used during day light hours. Fascinating!

Modern technology had unlocked some of the Short-eared Owl secrets, especially their night time habits.

But what do Short-eared Owls do after the breeding season? Hopefully that will be revealed next year when John and I will be satellite tagging six Short-eared Owls (if we can catch them). Do males and females leave the breeding ground together? Do the young leave before the adults? Do males and females winter in the same area? Does the pair bond last for more than one breeding season? So many questions. If only a few are answered I will be delighted.

Until then, **I would ask everyone to look closely at the legs of any Short-eared Owl they see.** For the last two breeding seasons Colin and I have been colour ringing nestlings. So do not look at that cute owl face on that post, look at its legs and keep looking! A Hawfinch I ringed at Scone Palace was photographed in February this year. The colour rings it was wearing proved it had been ringed seven years, 363 days earlier. OK, so I had to get that in but it proves the colour rings worth.

Colin and I regularly take children out when ringing owlets and the smiles captured by the camera and the subsequent photographs says it all. They can ask the most interesting of questions and I have to admit that I do not always know the answers! Children are so keen to know everything and pass it on to others. My friend's daughter told her teacher she had been to an owl's nest on the ground which had chicks. Her teacher told her it could not have been an owl's nest because owl's nest in holes in trees. "No Fiona told her teacher, Short-eared Owls nest in the heather out in the countryside". Could Fiona be a future owl watcher? Who knows, but hopefully some of the children will have a wee spark ignited which might inspire a lifelong interest in birding, wildlife and nature.

I cannot finish without thanking the many other people who have assisted over the years. It's not easy sitting in the same spot (on many occasions watching nothing) for hours on end. It takes patience and discipline to stay focussed and that is not easy. I had a huge amount of help from a local raptor worker who shall remain nameless who spent hours of their free time in a neighbouring glen watching for Short-eared Owls. I would call them periodically for an update. Occasionally the owl report would be fantastic on other occasions I would be told "no owls but I am enjoying



watching a Kite nest building in the wood over the road or "just watching Buzzard robbing a Kestrel of its food". Next year Claire, do not take your eye off the ball....oops.

Neil Morrison (Tayside Raptor Study Group)

Data Sharing

Work is underway to agree a way by which more SRMS data can be made more readily available to SRMS partners to support the work they do on raptors. Please do take a look at the Raptor Conservation page on the SRMS website - <http://raptormonitoring.org/raptor-conservation> - to see how, with your permission, your data could be used to by partners to help benefit raptor conservation. More information on this work will follow in the next issue.

SNHs Scientific Advisory Committee (SAC) report on sustainable moorland management

SNH will shortly publish the scientific review of moorland management. This has wide-ranging implications for maintaining high standards of management.

Des Thompson (SNH)

Update on Hen Harrier Conservation Framework

The updated framework has been refereed and is being prepared for publication. Some of the modelling is contributing to field method planning for the national survey next year.

Des Thompson (SNH)

Update from the Raptors & Forestry Group

Work is being developed on guidance on forest and woodland management to benefit raptors, especially Golden Eagles and Hen Harriers. RSPB, FCS, SNH and Haworth Conservation are working on this, and have produced several reports: [http://www.forestry.gov.uk/pdf/fcpn103.pdf/\\$file/fcpn103.pdf](http://www.forestry.gov.uk/pdf/fcpn103.pdf/$file/fcpn103.pdf), http://www.snh.org.uk/pdfs/publications/commissioned_reports/summary/CR533summary.pdf, http://www.snh.org.uk/pdfs/publications/commissioned_reports/summary/848summary.pdf. The work is being coordinated by Stephen Austin (Stephen.Austin@snh.gov.uk).

Des Thompson (SNH)

'Year of Fieldwork'

The *Year of Fieldwork*, launched in September at the Field Studies Council Millport Centre, is an important opportunity to promote fieldwork done by volunteers. Details here: <http://www.field-studies-council.org/outdoorclassroom/yearoffieldwork.aspx>.

Des Thompson (SNH)



Getting more people involved in monitoring raptors

The SRMG have recently agreed outline plans for a new survey to get more people involved in monitoring raptors. We are hoping this new survey will complement the existing monitoring that is already being undertaken by existing SRMS contributors but also help us generate additional information, particularly for some of the more widespread species which are currently less well monitored. This proposal will be taken to the second SRMS Training Working Group meeting later this month for feedback and refinement, ahead of piloting next year. We should be able to bring you more details of what this survey is likely to look like in the next issue. If you might be interested in helping to trial the new project, please let me know.

Update on Convention on Migratory Species Raptors MoU

Work is progressing to develop priority species and sites for action to conserve raptors across Africa and Eurasia. Des Thompson chairs the Technical Advisory Group (TAG), and presented a formal report on progress to the Meeting of Signatories in Trondheim in early October (<http://www.iisd.ca/cms/2nd-meeting-signatories-raptors-mou/>). The TAG continues with its work.

Des Thompson (SNH)

The future of the SRMS

The current funding of the SRMS runs until the end of March 2016. It is planned that the SRMS will continue and it is planned to have a funding package agreed for the next 3 years before March 2016. This will involve discussions during the autumn with the SRMG partners to work out future plans and costings. This will include assessing progress made during the current funding period and what still needs to be done; what are the core activities that need to continue; and what are the new things we want to do to build on the existing Scheme. This will have to be done against the background of continued reductions in public sector funding.

As a major project for SNH it will require a new business case being submitted to the Scottish Government. Unlike the last time we do now have a template so it should be easier to do this time round. A business case involves various forms of financial assessment including costing various options and assessing them on things like value for money; business/reputational risks; deliverability against the aims and objectives of the project; overall costs etc. The aim would be to try and get Scottish Government endorsement by January 2016, so that we can have a final decision before the start of the next financial year to minimise any risk of disruption to the Scheme or (hopefully not) have time to make adjustments should we not receive the level of funding we bid for.

If you do have any specific on how you think things have gone over the last two years then please share these with the SRMG via Amy.



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