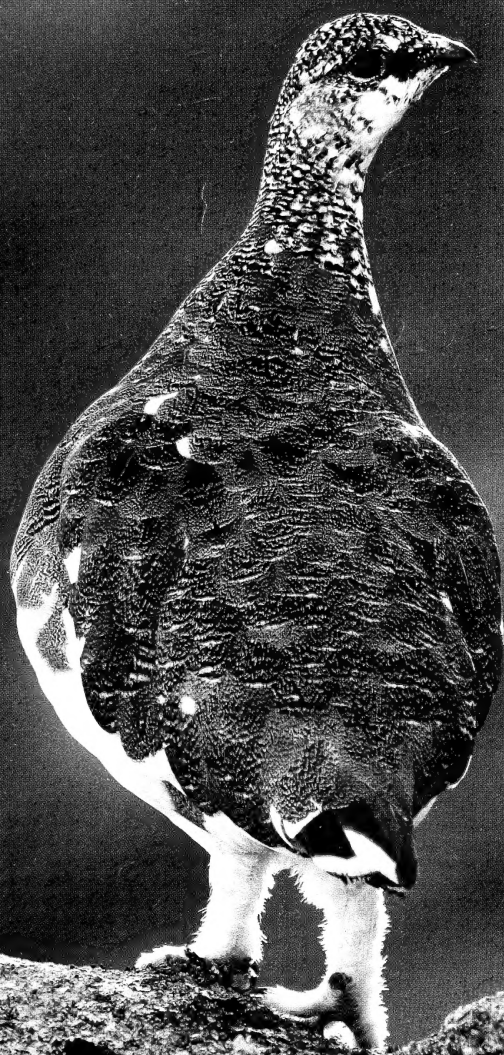


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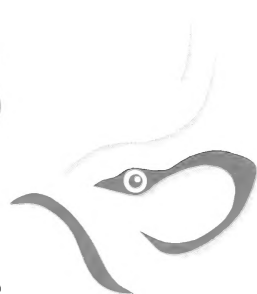
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Scottish Birds is the quarterly journal for SOC members, and is published in March, June, September and December annually.

Containing original papers relating to ornithology in Scotland, topical articles, bird observations, reports of rare and scarce bird sightings, alongside branch and Club-related news, our members tell us that *Scottish Birds* is one of the key benefits of belonging to the SOC. Its different sections have been developed to meet the wide needs of the birdwatching community, and the publication is renowned for its first-class photography.

An archive of the journal is available on the SOC website, where links can be found to other Club publications, including the *Scottish Raptor Monitoring Scheme Report* and the *Scottish Bird Report* online.

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On the one hand, a birdwatching club; Established in 1936, the Scottish Ornithologists' Club (SOC) is Scotland's bird club with 14 branches around the country and a growing membership of over 2,700. Through a programme of talks, outings, conferences and other events, it brings together like-minded individuals with a passion for birds, nature and conservation.

On the other, a network of volunteers across Scotland, gathering vital, impartial information about our wild birds; The data we collect is made available to conservationists, planners and developers, and is used by organisations such as the RSPB, as one of the first points of reference in informed conservation planning.

Club Headquarters can be found at Waterston House, Aberlady, overlooking the scenic local nature reserve. Housed within, is the George Waterston Library, the largest ornithological library in Scotland, and the Donald Watson Gallery - one of the jewels in the Waterston House crown, exhibiting wildlife art all year-round.

Join us...

As well as receiving *Scottish Birds* every quarter, SOC members have access to a programme of talks and outings across Scotland and affiliation to a local branch of the Club. New members will receive a welcome pack on joining, plus a thank you gift if paying their subscription by direct debit.

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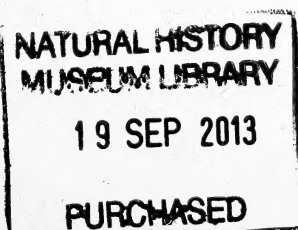
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President's Foreword

It is late July and I am overlooking the Forth Road Bridge watching the Swifts feeding. The mist is coming and going and the Swifts are changing their feeding height accordingly. Strange to think they will soon be gone; it seems like only yesterday that they arrived.



Plate 174. Ken Shaw (right) and Chris McInerny, Spain, February 2013. © Chris McInerny

It has generally been a hot, late spring and summer, which will be good news for at least some of our breeding birds. My work continues on Lewis where there are plenty of Merlins and more White-tailed Eagles than I expected. A feature of the last two weeks there has been the number of Basking Sharks that can be viewed from the shore. The Ullapool to Stornoway crossing can be good too, with over a hundred Storm Petrels and over a thousand Manx Shearwaters in late July.

This is my last foreword as President. It has been an interesting two years. The job is probably bigger than I expected and I am very grateful to all those who helped me; all the staff, Council and particularly Treasurer, Secretary and Vice-president - these are vital roles within the Club. Chris McInerny, my Vice-president has covered a lot of ground and I am sure he will make a fine President. The Club is in a good position; we have very good staff and a huge number of extraordinarily talented and experienced volunteers. I repeat what I said in the December 2012 issue - myself and SOC Council would like to acknowledge and thank the families who have already left legacies to the Club. Their kindness, thoughtfulness and generosity will ensure the future of the SOC for years to come.

I am looking forward to the annual conference in Troon, but such is the way of things that we are already working on the 2014 conference. We would like to thank all those regular conference-goers who helped us on this one by responding to the survey seeking feedback on location, price, format and speakers etc. It is quite tough to get the balance right on the annual conference, but input from the membership does help.

I have just finished writing the foreword for the *Birds of Clackmannanshire* and I mentioned that the delivery of projects like this is often down to a few individuals. Their contribution to Scottish ornithology does not go unnoticed.

July has seen the arrival of some very rare birds in Scotland. I smiled to myself when I heard that Margaret Cowie and Tim Marshall were the finders of the Rock Thrush in Aberdeenshire. They are real patch workers and really deserve such an exotic visitor.

The cloud is lifting and the Swifts are feeding higher. As I said, they will soon be gone, but the airspace above the Forth will not lose its interest. The Little brothers - Hound Point regulars - have already spotted a Pomarine Skua this month and hopefully this will be the forerunner of many. There is no better sight than a group of ten or 12 adult Poms moving up the Forth.

I am on my way now, as I have a SOC management meeting at the Hawes Inn just along from the bridge. I will take my binoculars and might spot a Roseate Tern or a Mediterranean Gull on the way. Management meetings are pretty informal - I might even have a glass of red!

Whatever you are doing, have a great autumn and my sincere thanks for supporting the Club.
Ken Shaw, President



Plate 175. Dotterel on Beinn a' Bhùird, Cairngorms, July 2012. © T. Bradfer-Lawrence

Counts of Dotterel and Ptarmigan on the Beinn a' Bhùird plateau, Cairngorms between 2003 and 2012

T. Bradfer-Lawrence & S. Rao

Annual counts of Dotterel and Ptarmigan have been conducted on the Beinn a' Bhùird plateau every July since 2003. Monitoring takes in the whole of the plateau above 1000 m in altitude, much of which lies within the Mar Lodge Estate. Populations of both species have fluctuated over the decade, without any clear trend. Comparison with count data from 1988 to 1999 suggests that Dotterel numbers on Beinn a' Bhùird have remained relatively stable over the 25-year period. Dotterel brood size averaged 1.3 chicks per cock, whilst Ptarmigan brood size has remained steady at 4.3 chicks per hen. Despite the shared environment, within-year chick numbers for each species appear to be unrelated to one another. Dissimilar ecological requirements imply that Dotterel and Ptarmigan may react differently to changes in climate.

Introduction

Situated in the southern Cairngorms, Mar Lodge Estate covers over 29,000 ha and is owned by the National Trust for Scotland (NTS). There are a wide range of habitats on the estate from Caledonian pinewoods in the glens to summit heaths on the high mountain tops. Large areas of Mar Lodge Estate are designated for conservation, including a portion which lies within the Cairngorms Special Protection Area (SPA). The montane habitat provides an important breeding ground for some of Scotland's most iconic birds, including Dotterel *Charadrius morinellus*, one of the notified species of the SPA, and Ptarmigan *Lagopus mutus* (Plates 175 & 177).

There have been three national surveys for Dotterel: in 1987–88 (Galbraith *et al.* 1993), 1999 (Whitfield 2002) and most recently in 2011, the results of which at the time of writing have yet to be published. The population was estimated at 840 breeding males in the 1987–88 survey, but this had fallen to 630 breeding males in 1999. Smaller-scale monitoring between the two national surveys highlights considerable fluctuations in the number of breeding males between years (Whitfield 2002), so the difference in numbers between 1987–88 and 1999 may not reflect a sustained trend.

Breeding attempts by Dotterel in Britain are now largely restricted to Scotland, probably due to habitat changes resulting from intensifying land management and atmospheric nitrogen deposition south of the Highlands (Strowger 1998, van der Wal *et al.* 2003). Both of the published national surveys highlight the importance of the East Highlands for Dotterel, which support over 50% of the breeding British Dotterel population. The Cairngorms is the most important breeding area for this species in Britain, and the area covered by the SPA supports approximately 28% (240 pairs) of the British breeding population of Dotterel in 2001 (JNCC 2001). Declines between 1988 and 1999 were greatest in North-west Scotland, whilst the Eastern Highlands population maintained its level. Whitfield (2002) suggests that this may represent a retreat by the Dotterel population to the core areas of the most suitable breeding habitat. Their limited distribution in Scotland reduces the species' resilience in the face of environmental change and has led to Dotterel being Amber-listed (Eaton *et al.* 2009).

British Ptarmigan populations are restricted to the uplands of Scotland (Stillman & Brown 1998). Ptarmigan populations can show strong fluctuations over the course of a decade (Watson *et al.* 1998). Musgrove *et al.* (2013) estimate that there are between 2,000 and 15,000 breeding pairs in Scotland. Given Ptarmigan population dynamics the figure is likely to vary widely between years. To date, there has been no national survey for Ptarmigan, however the species is considered to be secure and continues to be Green-listed (Eaton *et al.* 2009, Birdlife International 2013).

Dotterel and Ptarmigan are at the fringe of their ranges in the uplands of Scotland. Predicted changes in climate are likely to precipitate shifts in the distributions of these species; indeed this has already begun in boreal Europe (Virkkala *et al.* 2008, Virkkala & Rajasärkkä 2011). Thus regular monitoring is necessary to understand changes in the density and distribution of species such as Dotterel and Ptarmigan in Scotland. Monitoring not only helps to inform the management of Mar Lodge Estate, but assists with elucidating the impacts of climate change.



Plate 176. Beinn a' Bhùird, Cairngorms, viewed from the south, September 2008. © S. Rao

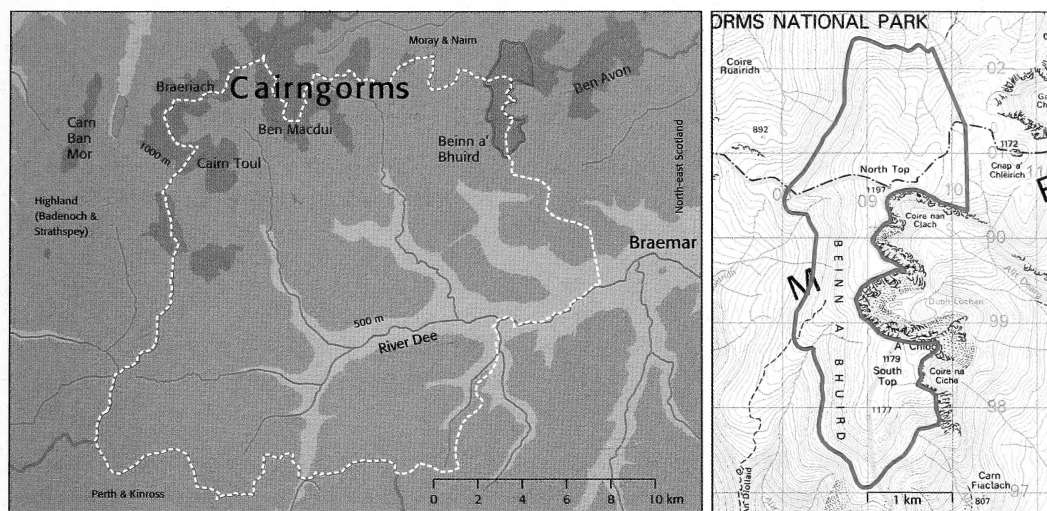


Figure 1 (a). Map of the region showing the area of the survey (red), the boundary of Mar Lodge Estate (dashed) and some notable mountains. (b) The summit plateau of Beinn a' Bhuid with the area surveyed for birds indicated by the red line. (O.S. map Crown Copyright, NTS licence 100023880).

Study area and methods

Beinn a' Bhuid is a large mountain at the head of Glen Quoich in the south-eastern Cairngorms (Plate 176). The mountain has two summits: North Top (1197 m) and South Top (1177 m). These are 3.5 km apart, separated by a broad ridge that is 1120 m at the lowest point. There are fairly gentle slopes on the north, west and south faces of the mountain leading up to the summit plateau. The vegetation of these lower slopes is dominated by Heather *Calluna vulgaris*. The eastern edge of the plateau is defined by spectacular, 150 m-high rocky cliffs, which form three corries with a series of small lochans below.

The summit plateau of Beinn a' Bhuid is characterised by short vegetation, with patches of bare gravel and scattered small rocks. The vegetation is that of a typical summit heath, where the most common plants are Stiff Sedge *Carex bigelowii*, Three-leaved Rush *Juncus trifidus*, Mat Grass *Nardus stricta* and Woolly Moss *Racomitrium lanuginosum*. These plants are the dominant components of the vegetation communities found here (SNH 1997, National Vegetation Classification communities U9 *Juncus trifidus*-*Racomitrium lanuginosum*, with some snow-bed communities U7 *Nardus stricta*-*Carex bigelowii* and U8 *Carex bigelowii*-*Polytrichum alpinum*, Rodwell 1992). At the southern end of the mountain the terrain becomes rockier, with a jumbled boulder field and very little vegetation.

Surveys for Dotterel and Ptarmigan have been conducted annually on the plateau of Beinn a' Bhuid since 2003. The counts take in all of the ground on Beinn a' Bhuid above 1000 m, a total area of 587 ha (Figure 2). Whilst both Dotterel and Ptarmigan will breed in suitable habitat below this altitude (Galbraith *et al.* 1993a, Strowger 1998), the area selected represents that which it is feasible to cover in a single day at this remote site with the number of surveyors available. Although some birds may well be breeding lower down the slopes of the mountain, in the interests of maintaining consistency between years, surveys have concentrated on the most suitable nesting habitat.

The methodology used follows that described in Whitfield (2002), with a single count undertaken each year during the first two weeks of July. Whilst this methodology was developed primarily to monitor Dotterel, we considered it appropriate for recording Ptarmigan as well. The systematic coverage of the ground is as rigorous as the transect walk methods used for surveying Ptarmigan

in other studies (Watson 1965, Watson *et al.* 1998). July is the time when both species are most visible, as they are reluctant to flee when caring for their young chicks (Holt *et al.* 2002a). Therefore adult birds tend to remain within a small area and it is possible to ensure no double-counting occurs. Thus, the birds recorded represent the minimum number present that year.

The number of surveyors varies between years, but there are usually between six and ten people available to undertake the survey. The team of surveyors walks in an evenly spaced line at a steady pace across the survey area. Starting from the footpath, the survey team walks clockwise around the area with surveyors aiming to walk within 100 m of every point in the area. Surveyors stop every 50–100 m to scan the ground both ahead and behind with binoculars, counting each group of birds seen, assigning status as adult or chick and identifying gender. Counts were only conducted when the weather was fine, to both ensure accuracy, and allow surveyors to maintain visual contact and keep the survey line. Unfortunately, no count was conducted in 2007 due to a combination of poor weather and other work commitments.

Only adults with unfledged chicks are deemed to be confirmed breeders. Flocks are disregarded from the following analysis. Whilst this may discount early breeding events where the juveniles have already fledged, this methodology ensures that the survey avoids over-estimating the number of breeding birds. In line with previous studies breeding attempts for Dotterel are calculated per male, whilst those for Ptarmigan are calculated per female (Galbraith *et al.* 1993a, Cotter 1999). As a polyandrous species, male Dotterel provide almost all the parental care; the female plays little part in breeding after egg-laying has finished (Holt *et al.* 2002b). Whitfield (2002) asserts that any single male Dotterel seen before the fledging period are likely to be breeding or to have recently failed, and so are classified as probable breeders. Therefore single male Dotterel without accompanying chicks are included in the graphs. There is no published information regarding the relationship between single female Ptarmigan and breeding attempts, and so analysis is restricted to instances of confirmed breeding when chicks were observed. Pearson's correlation coefficients were calculated for each species to investigate temporal trends between years for breeding success.

Calculation of mean brood size was restricted to instances of confirmed breeding where the numbers of chicks were counted. Brood size was calculated by dividing the total number of chicks counted that year by the number of adults seen with accompanying young, thus discounting single adult birds, probable breeding pairs, or flocks which included fledged juveniles. Pearson's correlation coefficients were again calculated for each species to investigate temporal trends between years for brood size.

Access to data from Whitfield (2002) allowed comparison between the Dotterel numbers from 2003 to 2012 with counts from earlier surveys undertaken on Beinn a' Bhùird between 1988 and 1999, giving an indication of population changes over a longer period. Based on calibration exercises, Whitfield (2002) suggests that during a single site visit surveyors will only detect 42% of the total Dotterel breeding attempts in any one year. This is due to the long breeding season and high failure rate of Dotterel (Kålås & Byrkjedal 1984). In order to compensate for the low detection rate, Whitfield (2002) applied a correction factor of 2.38 to the Dotterel counts undertaken between 1988 and 1999. This same correction factor was applied to the data collected between 2003 and 2012. The earlier surveys reported in Whitfield (2002) encompassed 10.05 km² of Beinn a' Bhùird, 42% more than the 5.87 km² covered during this study. Therefore, both datasets were normalised to give the numbers of breeding male Dotterel per km² and allow direct comparison.

The numbers of Dotterel and Ptarmigan chicks were compared within years, in order to investigate any correlation between the breeding success of the two species. Pearson's correlation coefficient was calculated to investigate the strength of any relationship.

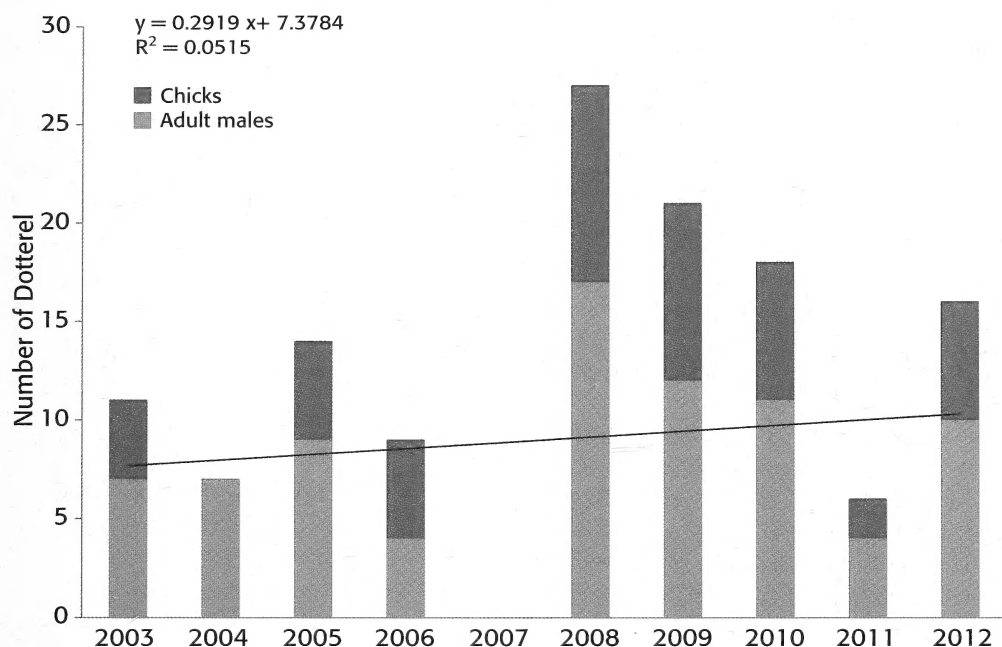


Figure 2. Counts of adult male and young Dotterel on the Beinn a' Bhùird plateau, 2003–12. No count was undertaken in 2007. The number of Dotterel breeding attempts has fluctuated between 2003 and 2012, but without any trend as demonstrated by the very low r^2 value of 0.09.

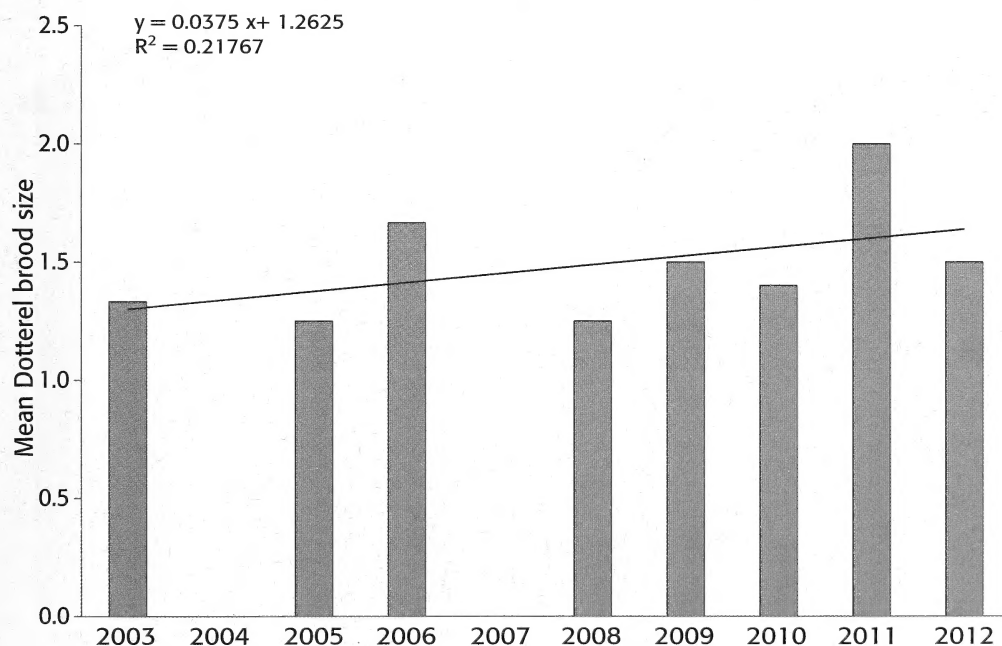


Figure 3. Mean Dotterel brood size on the Beinn a' Bhùird plateau, 2003–12. No count was undertaken in 2007. There were no chicks seen in 2004. Mean brood size remained fairly consistent between 2003 and 2012, at 1.3 chicks per cock. The r^2 value is low, suggesting that there is no clear trend.

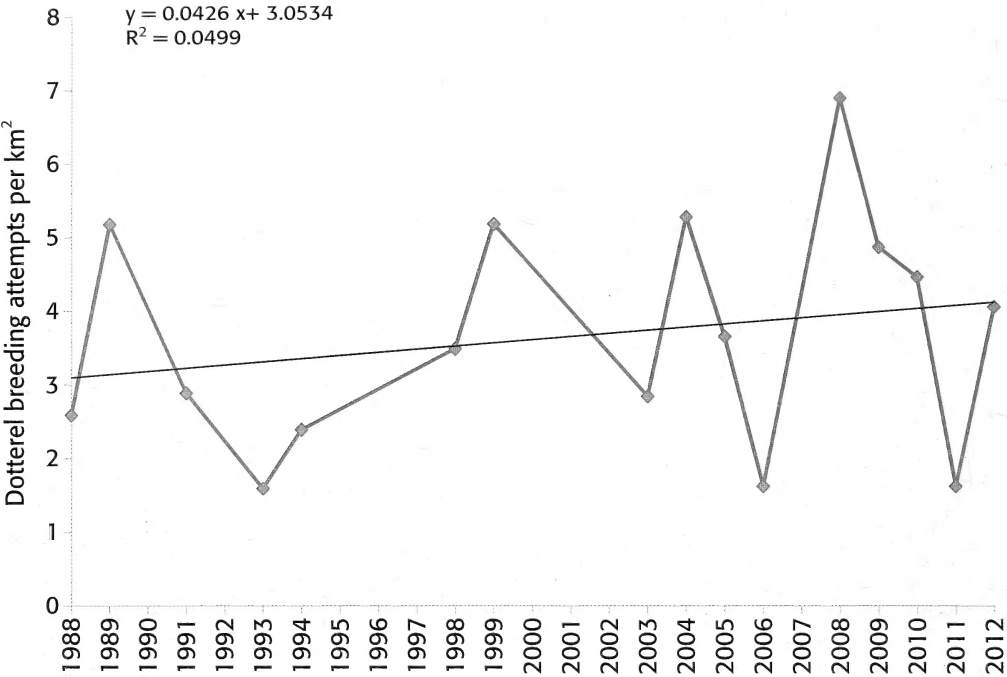


Figure 4. Estimated number of Dotterel breeding attempts per km² on the Beinn a' Bhùird plateau, 1988–2012. Data for 1988–99 from Whitfield (2002).

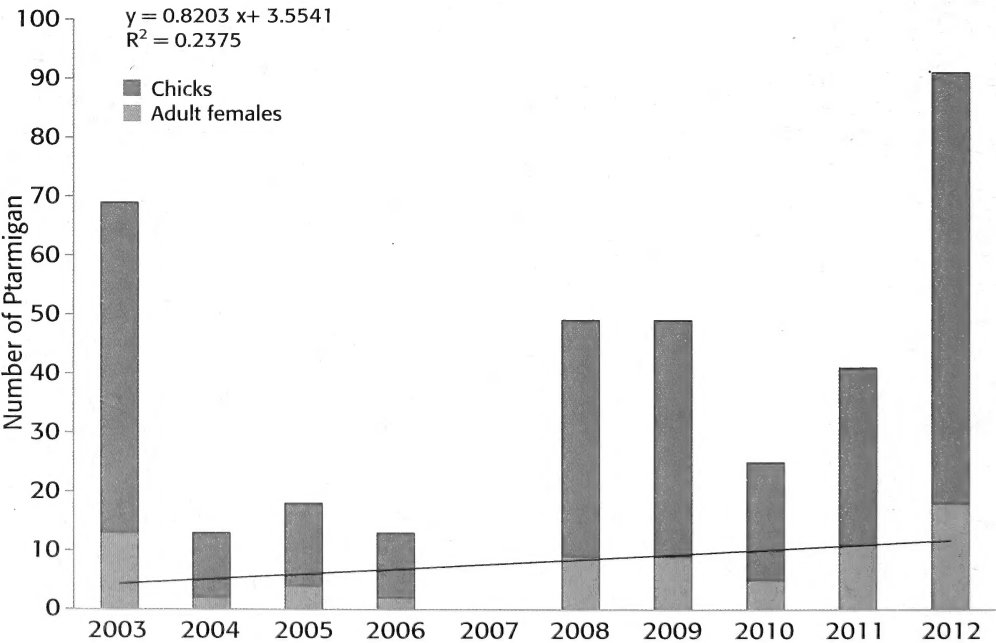


Figure 5. Numbers of adult female and young Ptarmigan on the Beinn a' Bhùird plateau, 2003–12. No count was undertaken in 2007. Ptarmigan numbers also fluctuated quite widely between 2003 and 2012, with the low r^2 value suggesting there is no trend in the number of breeding attempts.

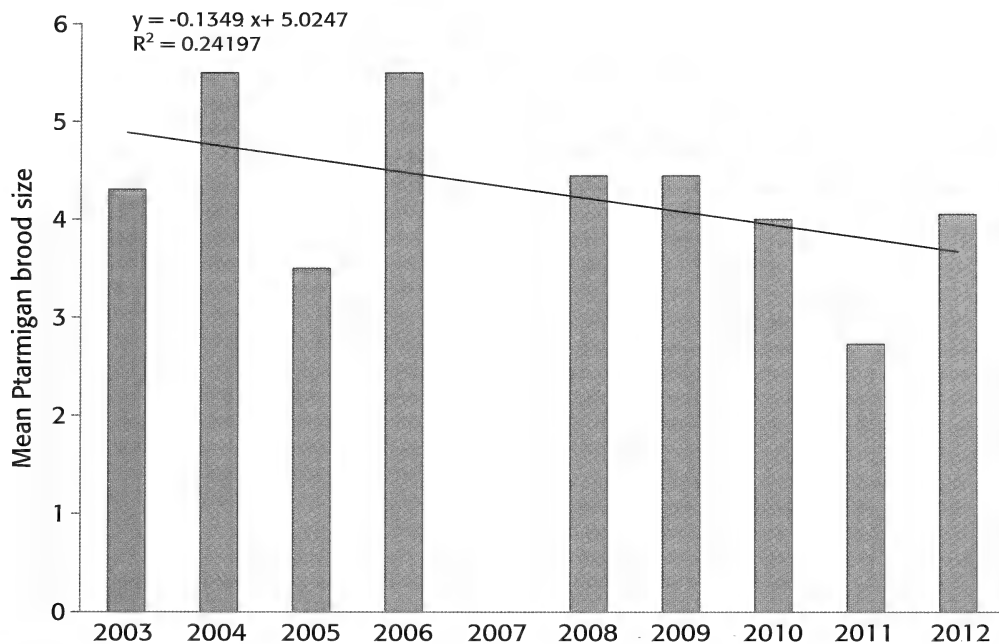


Figure 6. Mean Ptarmigan brood size on the Beinn a' Bhùird plateau, 2003–12. No count was undertaken in 2007. Ptarmigan brood size has remained fairly steady at a mean of 4.3 chicks per hen between 2003 and 2012. There may have been a decline, but the low r^2 value suggests that any trend is very small.

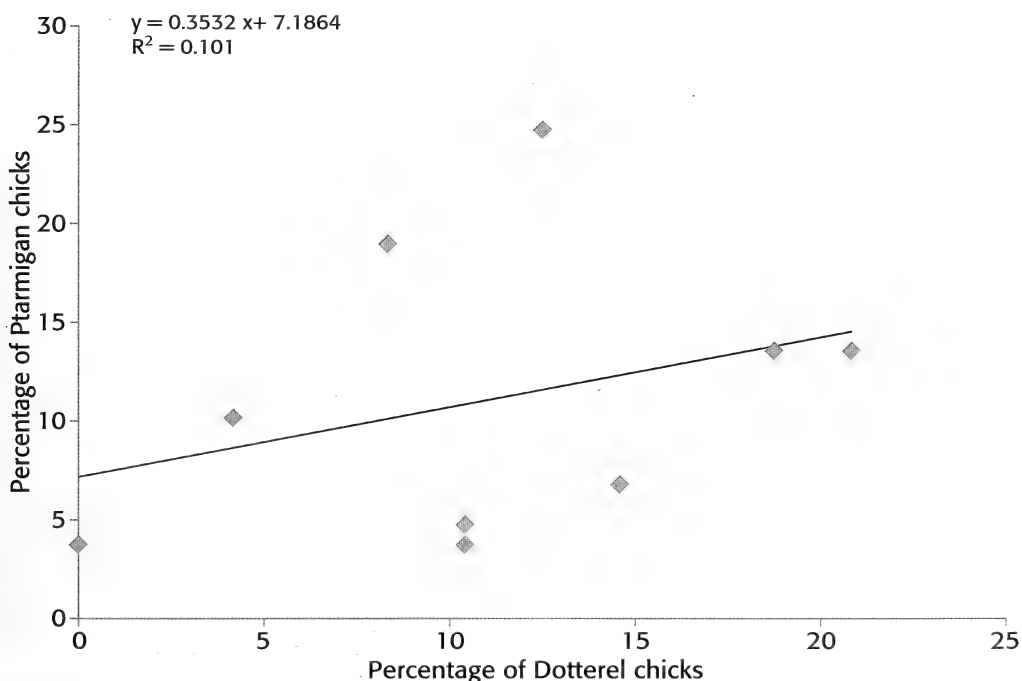


Figure 7. Comparison of Dotterel and Ptarmigan chicks counted each year. The numbers of Dotterel and Ptarmigan chicks show little relationship within years. A year of good breeding success for one species does not necessarily mean high productivity for the other and Pearson's correlation coefficient gave an r^2 value of only 0.10.



Plate 177. Ptarmigan on Beinn a' Bhùird, Cairngorms, July 2012. © T. Bradfer-Lawrence

Results

The numbers of breeding male Dotterel counted between 2003 and 2012 are shown in Figure 2. This includes probable as well as confirmed breeders. Figure 3 shows the mean brood size for Dotterel, limited to confirmed breeders where the number of chicks could be counted. Both of these figures use uncorrected numbers of birds and show actual counts. Figure 4 shows a comparison of the data from 2003 to 2012 with earlier data from Whitfield (2002) collected between 1988 and 1999. The figures have been corrected using the calibration factor supplied in Whitfield (2002), and both datasets modified to show breeding attempts per km².

There appears to have been a slight increase in the number of Dotterel breeding attempts between 1988 and 2012. However, the r^2 value is small and there is considerable fluctuation between years. The number of Ptarmigan breeding attempts recorded between 2003 and 2012 is shown in Figure 5. Figure 6 shows the mean brood size for Ptarmigan. Data for both graphs is limited to confirmed breeders where the number of chicks was counted.

A comparison of the numbers of Dotterel and Ptarmigan chicks counted per year as a percentage of the total number of chicks for each species recorded between 2003 and 2012 is shown in Figure 7.

Discussion

Numbers of both Dotterel and Ptarmigan have fluctuated between 2003 and 2012. The low r^2 values demonstrate that there are no clear trends between years in the numbers of breeding attempts for either species. This is likely to be due in part to the relatively limited time-scale of this study. Where data exists for Dotterel populations at single sites, it shows that numbers tend to vary considerably between years (Whitfield 2002). Ptarmigan populations are known to exhibit cyclic fluctuations over periods of at least ten years (Watson *et al.* 1998).

There are no clear trends between years for the brood sizes of either species. The analysis is restricted to confirmed breeding individuals and hence represents the minimum number of breeding attempts in any one year. The actual number of breeding birds is likely to be much higher, given low rates of detection and clutch losses prior to the monitoring in July. However, assuming that the birds that are detected are a representative sample of the breeding population, then the brood sizes reported here should be typical of the whole site.

A study in Norway reported that Dotterel usually lay clutches of three eggs, however predation rates are high (Kålås & Byrkjedal 1984). Watson & Rae (1987) report a mean of only 0.51 chicks per adult for a range of Scottish sites between 1970 and 1985. However this figure was per adult seen, including those without young, so it is not comparable with this data. Strowger's (1998) study of Dotterel in northern England report a similar clutch size to Kålås & Byrkjedal (1984), but a hatching rate of only 1.45 chicks and a fledging rate of 1.07 chicks per brood. This tallies with the counts provided here, where there was a mean of 1.3 chicks per breeding male. More regular counts on Beinn a' Bhùird within years would be necessary to gain full nest histories and allow a proper comparison between the brood size given here and other reported rates.

Ptarmigan lay much larger clutches than Dotterel, usually of between five and eight eggs (BTO 2013). The mean brood size reported here of 4.3 hatched chicks per hen is within the range provided by other published studies. Cotter's (1999) study of Ptarmigan populations in the Canadian Arctic provides a mean of 6.9 chicks fledged per successfully breeding female, whilst Wilson & Martin (2010) report a mean of only 3.2 hatched chicks per hen in western Canada. The variation in chick survival is probably due to a range of site-specific factors, including level of predation and spring weather conditions.

Before the NTS began annual monitoring, Beinn a' Bhùird was surveyed intermittently for Dotterel between 1988 and 1999. Using the data from these earlier counts allows construction of a longer time series and it is clear that the Dotterel population has continued to oscillate on Beinn a' Bhùird, with between 1.5 and 7 Dotterel breeding attempts per km² between 1988 and 2012. There does appear to be a slight upward trend in the numbers of breeding males, but the annual counts since 2003 show greater variation. There is the possibility that by restricting the post-2003 monitoring to the summit heath above 1,000 m, it may focus on the best quality habitat and inflate the estimate of breeding attempts. Alternatively, given the low r^2 value and the degree of fluctuation, the changes may not represent a genuine trend.

Whilst the factors underlying these population fluctuations have yet to be elucidated in the same way as Ptarmigan (Watson *et al.* 1998), merely documenting the extent of the variation is important. Given the fluctuations in the data presented here, the apparent fall in breeding Dotterel population between the first two national surveys may simply represent stochastic variation. This reflects the inherent problems associated with trying to draw population trends from irregular and intermittent monitoring.

The data from Beinn a' Bhùird are of limited applicability to informing wider regional patterns as Dotterel exhibit low site fidelity between years. A low count on one hill is not necessarily indicative of a widespread decline; the Dotterel may have simply shifted to a different breeding ground. The graphs in Figure 5 of Whitfield (2002) demonstrate the high levels of variability, even between geographically proximate sites. However, comparing the trends reported here with data collected at other sites can complement the national picture provided by the wider-scale but less frequent monitoring. Whitfield (2002) was able to strengthen the comparison of the national surveys by analysing data from matched sites, demonstrating a similar pattern to the national trend with lower Dotterel numbers in 1999. The forthcoming results from the 2011 national survey will help to place the data presented here in context.

There are limitations to the dataset, particularly regarding the issue of detecting these species. Despite the rigorous approach to the counts it is probable that birds were missed during the monitoring. Although the correction factor supplied in Whitfield (2002) can be applied to the Dotterel data to give a population estimate, comparing the breeding success of the two species is difficult as this aspect of surveying Ptarmigan has yet to be studied with the same level of detail; there is no indication of the level of detectability of this well camouflaged species.

There appears to have been no common underlying pattern of Dotterel and Ptarmigan chick numbers between 2003 and 2012. The variability may have arisen from differences in detectability of the two species, but if this were the case then any disparity ought to be consistent between years. Previous evidence suggests that there is a weather-driven synchrony between Ptarmigan and Red Grouse *Lagopus lagopus* although they breed in different habitats (Watson *et al.* 2000). Despite differences in the ecology of Ptarmigan and Dotterel these two species might be expected to show a similar pattern because of their shared environment.

Whilst there are numerous factors that will impact on bird breeding success apart from the weather, Virkkala & Rajasärkkä (2011) have demonstrated that many species in Northern Europe are sensitive to changes in climate. Weather might impact on Dotterel and Ptarmigan breeding success in a variety of ways. For example a dry spring can result in low numbers of invertebrates, depleting the essential food supply of the young Dotterel chicks during their first few weeks (Galbraith *et al.* 1993b, Pearce-Higgins 2010). However, chicks of both Dotterel and Ptarmigan are also particularly susceptible to wet weather when newly hatched, and a single bad storm can threaten an entire year's brood. Unfortunately there is inadequate weather data available for Beinn a' Bhùird that might be used to evaluate the effect of climate on these montane birds. There are likely to be very localised weather patterns restricted to the mountain, which lowers the validity of utilising weather data collected in different areas of the Cairngorms.

A much wider analysis of climate patterns would be necessary to shed some light on the underlying factors determining breeding success for Dotterel and Ptarmigan in Scotland. There is currently insufficient evidence to conclude which aspects might be important; wet spring, dry summer, minimum temperatures, or some combination of these or other aspects. Furthermore, there may be a lag between weather conditions and changes in bird populations that complicates any analysis (Watson *et al.* 1998, 2000). Despite the shared environment, Dotterel and Ptarmigan display different levels of breeding success within years. This emphasises that reactions to climate change are unlikely to be linear, and that different species may well respond in different ways.

Regular monitoring is necessary to track population trends and inform the construction of national patterns, particularly in the face of a rapidly changing climate. This monitoring has provided a snapshot of the populations and breeding success of Dotterel and Ptarmigan on a mountain in the Cairngorms between 2003 and 2012. The NTS intends to continue the annual bird count on Beinn a' Bhùird to gather further data in the years to come.

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Plate 178. Great Grey Shrike with headless Field Vole carcass prior to caching, Forest of Ae, Dumfries & Galloway, January 2012. © Brian D. Henderson

Foraging ecology and diet of a Great Grey Shrike within a winter home range in Dumfries and Galloway

B.D. Henderson

A study of a single Great Grey Shrike on a forest edge in Dumfriesshire from January to March 2012 showed a range size of just over 70 ha, within which there was a core area and five satellite areas. The preferred daytime habitat and perch type were areas of young coniferous restock (58.1%) with tall spruce boles (33.7%). Over 1,000 timed observations showed a mean/cumulative sit-and-wait time of over nine minutes. Diet composition was based on observed prey captures, cached prey, food remains and pellet analysis. Pellets predominantly contained Field Voles and beetles (18.4% and 40.1% by number, 85.1% and 7.5% by Index of Relative Importance). Small mammals were the most important components by biomass contributing 86.8% of the total. Seasonal changes in diet composition were discernible from February onwards. Feeding patterns and mode of transport following prey capture were consistent for each prey type. Multiple caching of prey items was rarely observed.

Introduction

Some individual Great Grey Shrikes *Lanius excubitor* hold winter home ranges and will often return to the same area over successive years. Occasionally such birds reach Dumfries and Galloway, where most Great Grey Shrikes are observed from afforested areas (Henderson 2012). Open ground with scattered perches is the preferred winter habitat with young conifer plantations and clear fell areas being particularly attractive. Its diet, chiefly invertebrates and small vertebrates, is relatively well studied, but mainly in continental Europe (see compilations in Cramp & Perrins 1993, Glutz Von Blotheim & Bauer 1993). An individual that held a winter home range for 80 days on the edge of the Forest of Ae in Dumfriesshire during 2012 provided an opportunity for quantitative field studies and comparison with other studies of this shrike in Europe and North America.

Methods

Field observations

Shrike activity was observed from a nearby road and where necessary from selected vantage points within the restock area i.e. firebreaks and forestry access roads. Total time spent in the study area was 308 hours between 7 January and 26 March 2012. Some surveying was deferred during periods of inclement weather that affected visibility. When the shrike was lost to view I looked for regurgitated pellets, butchering sites, cached prey and food remains. Details recorded included all known sit-and-wait durations, habitat type, perch type and height used for each sit-and-wait duration, all kills and hunting efforts including all apparent efforts to catch vertebrate prey. Cached prey, species type, height and fixation method, feeding bouts including mode of transport and butchering observations were also noted. Daily temperature and weather conditions were recorded and used to compare shrike behaviour and roaming distance with prevailing conditions. The winter range was measured by GPS mapping the outermost sit-and-wait perches.

Prey analysis

Prey remains found below perches were recorded and any pellets found were removed for analysis, air-dried for a minimum of two weeks, measured, digitally weighed (± 0.01 g) and individually bagged in Pro-loc resealable bags. All portions of invertebrates (heads/mandibles and exoskeleton fragments), bones, jaws/teeth and feathers of vertebrates were enumerated to the lowest possible taxon. The minimum numbers of recognizable individuals of each taxon in each pellet were tallied by counting head capsules, elytra and legs of insects, bones and culmens of birds, bones and mandibles (or maxillae) of mammals and bones and jaws of lizards.

Study area

The winter range of the shrike was on the north-western edge of the Forest of Ae. The study area (220–233 m a.s.l.) situated between the Capel Water and Threip Moor comprises mixed-aged forestry coupes of varying habitat types and areas. There were two coupes of conifer restock in the winter range, totalling 20.19 ha, both planted during 2008. There were 38.1 ha of clear fell and 2.62 ha of deciduous plantations.

Results

Foraging ecology

The total size of the winter range in 2012 was 70.90 ha. Movements within the winter home range showed a core area with five main hunting perches and five satellite areas (Figure 1).

Clear fell areas accounted for over half (53.74%) of the habitat type of the winter range. Mean satellite area size was 3.01 ha. The core and satellite areas accounted for 25.8% of the total winter home range size. The amount of time spent by the shrike in the core and satellite areas varied. The core area was visited daily. Satellite areas were visited periodically, with the shrike spending between two to six days in each satellite area before moving. Observations showed daytime foraging habitat preference to be areas of young coniferous restock (58.15%). Areas of clear fell were little visited by the shrike after 15 February; four visits totalling one hour and 11 minutes were observed with only a single two-minute visit during March.

One thousand one hundred and seven sit-and-wait timed observations, totaling 170 hours and 26 minutes, were recorded. Cumulative sit-and-wait time was 9 minutes and 14 seconds ($\pm 08:36$). Mean sit-and-wait time in the core area was 10 minutes 46 seconds (± 10.56) minutes/seconds (range 1–94 minutes). A correlation was found between long sit-and-wait periods with habitat and perch type. All sit-and-wait periods exceeding 35 minutes were recorded during the late afternoon atop of one of the five tall spruce boles in the restock area. As soon as the shrike vacated the perches it headed straight for a roost refuge, usually just before the onset of evening twilight. Perches used for sit-and-wait durations were highly variable in respect to type, height and number of times used. Up to 33 different perches were used daily, mean was 16 (± 7.0) range 5–33. Mean minimum daily distance covered was 3.167 (± 1.99) km (range was 0.72–9.105 km).

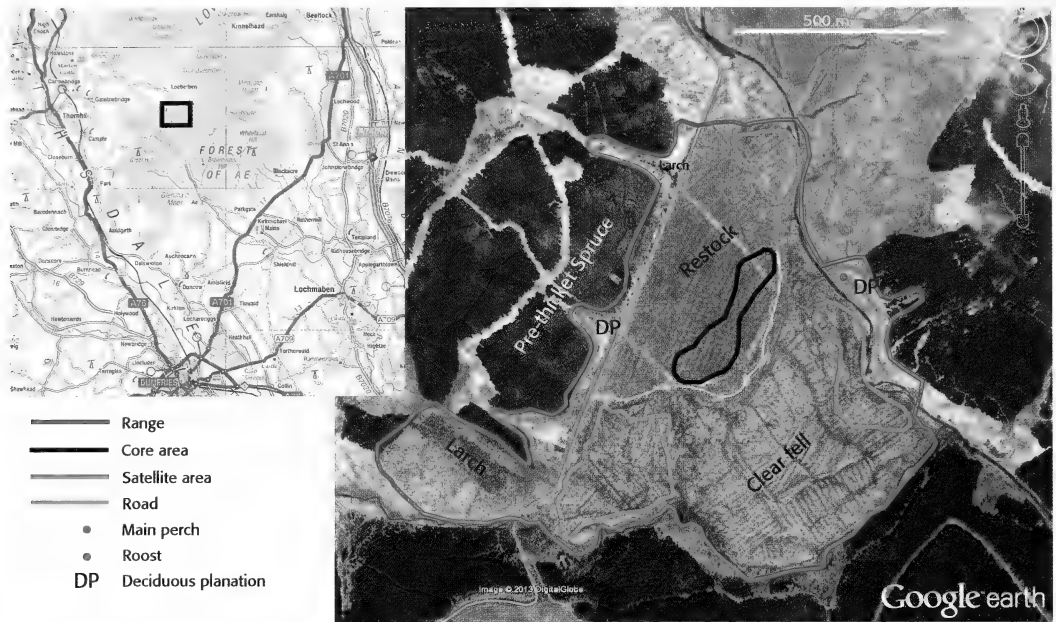


Figure 1. Aerial map showing core and satellite areas used by the Great Grey Shrike within the winter home range, Forest of Ae, Dumfries & Galloway, 7 January to 26 March 2012. Contains Ordnance Survey data © Crown Copyright and database right 2013.

Diet composition

Seventy-eight prey captures were observed during the study period. Insects, chiefly beetles, *Coleoptera* spp. and bees *Apidae* spp. accounted for 56.4% of all observed prey captures. Field Vole *Microtus agrestis* and other rodents followed with 25.6%. Common Lizard *Zootoca vivapara* accounted for 14.1%.

Mammals were killed on the ground at the point of capture, by disarticulating the cervical vertebrae, the head usually being consumed *in situ*. Only two whole carcasses were observed being taken back to hunting perches and the shrike was clearly seen to struggle transporting them. The headless carcass was transported, in the beak, to a high hunting perch, after fixation, a proportion of the anterior end was immediately eaten. The stomach, intestines and entrails were removed and discarded. The remaining posterior end of the carcass was taken, in the beak, to a nearby caching point. Return visits to caches were rarely noted, but usually occurred within an hour or so of the carcass being initially cached. Insects were eaten whole at the point of capture on the ground or, in the case of large Carabid beetles, taken to a hunting perch to be consumed. Elytra and other body parts of large beetles were removed and discarded prior to the edible parts being consumed. Bees were pursued in flight, often over some distance. Once caught the shrike flew to a nearby perch to consume the prey. Birds were attacked by surprise from the tall spruce boles. Birds were taken in the beak to either a hunting perch or a butchering stump after death. The carcass was impaled or wedged; the head decapitated and consumed immediately. Some plucking of tail, wing and breast feathers took place before the rest of the carcass was eaten. No bird carcasses were cached for return visits. Common Lizards were dispatched by repeated strikes to the nape that left noticeable lacerations. A small proportion was found barely alive with a mass of coagulated blood visible at the puncture point. Transportation of prey items, via beak then transfers to legs, accounted for 1.3%, the majority, 98.7%, were transported via the beak only. All avian, reptilian and 94.7% of mammalian prey were transported in the beak. Sixty-four percent of prey was transported via a two-step process (long distance) with one-step (uninterrupted distance) processes accounting for 36%.

Cached prey items were either impaled (61.3%) or wedged (38.7%). Caches were placed at a mean height of 1.94 (± 1.11) m (range 0.85–4.5+ m). The majority (45.2%) was located between 1–1.5 m above ground. All wedged prey items were positioned between root forks on uprooted stumps. Areas of restock contained 76.7% of all cached prey. The remainder was located in deciduous plantations (16.6%) or in areas of clear fell (6.7%). Mean fixation height of cached Field Voles was 2.01 (± 1.07) m (range 0.85–4.5+ m) with 100% of the carcasses being incomplete. All Common Lizards were impaled between the forelimbs and throat with 63.6% having no tails. Coal Tit, *Periparus ater*, and Wren, *Troglodytes troglodytes*, were the only small passerines species found cached. Most caches were 'scattered' caches and contained single prey items (96.8%). Multiple caching of prey items was rarely observed with Common Lizards being the only prey species found in multiple caches (up to three individuals) and entirely on thorns. No impaled or wedged invertebrate prey items were found. No unnatural substrate type i.e. barbed wire, was used. Several cached prey items (6.6% of total cached prey), entirely Field Vole, the ones that were most visible i.e. above 4 m on isolated dead trees, were kleptoparasitised by Kestrels *Falco tinnunculus*.

Two hundred and six pellets were collected. Some pellets contained whole tails of Common Lizard or Field Vole. Freshly regurgitated pellets were darker than those that had lain. Larger pellets contained more fur and heavier pellets more bone. An increase in length, matrix and fragility was evident from March: many having considerably more noticeable numbers of beetle elytra and other insect body parts visible externally i.e. wings of *Apidae* spp. Some plant remains were present in 26 (12.6%) of the pellets found. Twelve pellets contained small pieces of grit.



Plate 179. Great Grey Shrike pellets collected February 2012, Forest of Ae, Dumfries & Galloway. © Brian D. Henderson

All prey specimens from pellets were counted, if possible, according to the presence of quantitative body parts such as skulls, beaks, jaws and mandibles. Most mammalian jawbones were intact enabling positive identification to be made. Detailed examination of the pellets showed the prey remains, especially the crania, to be fragmentary and the skeletal material incomplete. Partial consumption of prey items, especially that of mammalian prey, is supported by 100% of all cached mammalian carcasses found in this study being headless, and the higher proportion of skulls than pelvises or thighbones found in the pellets. Eighty-five percent of all pellets contained skeletal remains of small mammals. Field Vole remains were found in 65.5% of all pellets. Results showed that the shrike rarely ate all of its mammalian prey and that the head and anterior part of the body were preferred (Figure 2).

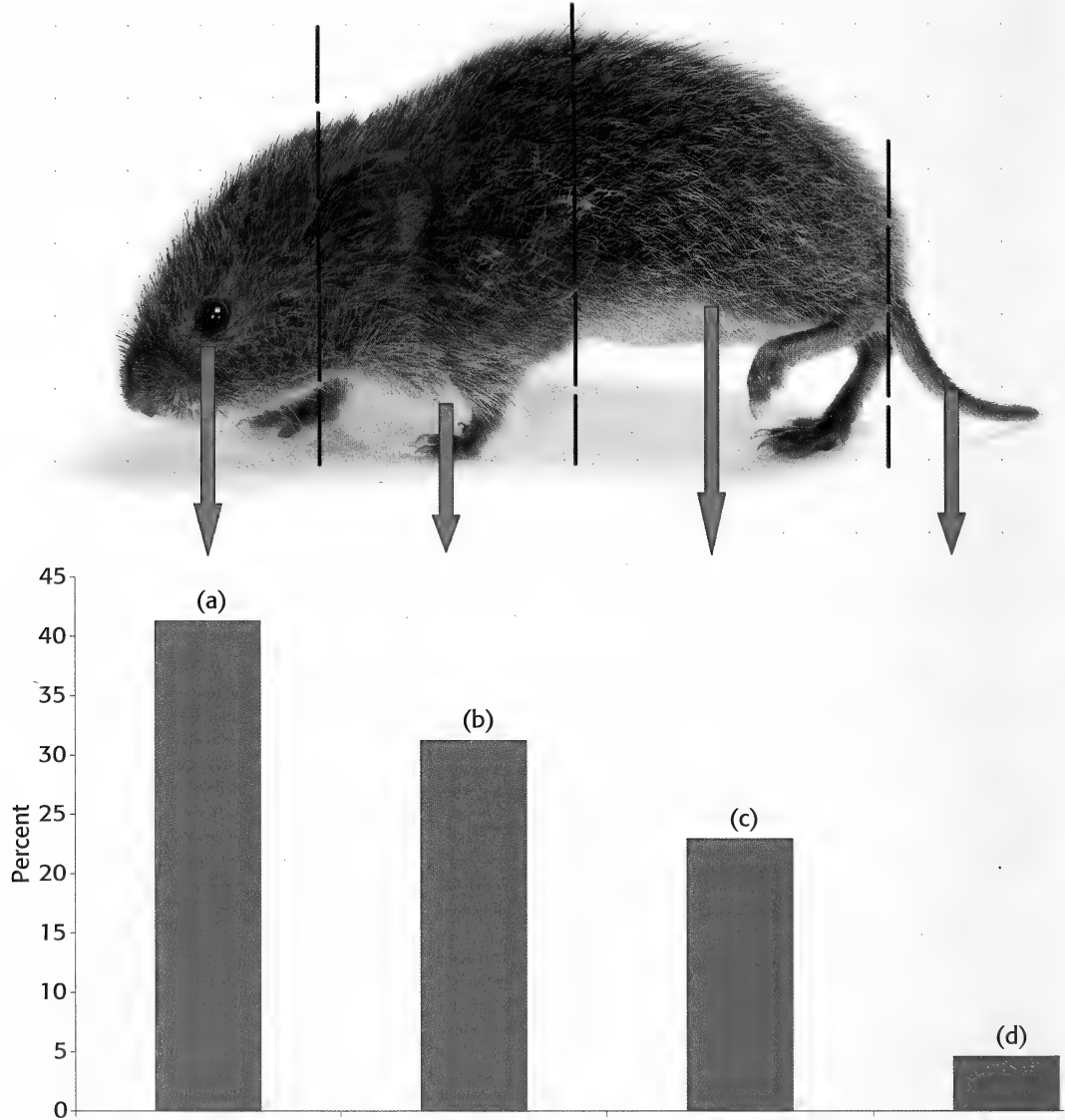


Figure 2. Proportion of different skeletal remains of small mammals found in pellets; **(a)** skull, **(b)** anterior part of body, **(c)** posterior part of body and **(d)** tail, based on 175 pellets of Great Grey Shrike, Forest of Ae, Dumfries & Galloway, 7 January–26 March 2012. © Image courtesy of Warren Photographic Ltd.

The average time from observed pellet regurgitation to subsequent kill was 4 minutes 17 seconds ($\pm 03:50$) minutes/seconds (range 00:51–11:25 minutes/seconds). No pellets were observed being regurgitated in the morning.

From pellet analysis, a total of 377 prey items belonging to 34 taxa (Table 1) were identified. For each taxon, calculations were made of the percent frequency of occurrence (percent of pellets containing said taxon) (F), percent of the total number of prey items (N) and percent of total biomass (B). Mass estimates for each taxon for the study area were obtained from live weights of specimens collected on-site and from personal records (B. Henderson, unpublished data). The Index of Relative Importance (IRI) for each taxon was calculated by following Day & Byrd (1989); $IRI = F (N + B)$.

Table 1. Prey items by frequency of pellets (occurrence), number, biomass and Index of Relative Importance (IRI) of Great Grey Shrike, Forest of Ae, Dumfries & Galloway, 7 January to 26 March 2012 ($n = 206$ pellets).

Taxon	Occurrence		Number		Biomass		IRI	
	<i>n</i>	%	<i>n</i>	%	<i>g</i>	%	Total	%
Birds								
Bullfinch <i>Pyrrhula pyrrhula</i>	1	0.25	1	0.27	21	0.77	0.26	0.01
Coal Tit <i>Periparus ater</i>	3	0.76	3	0.80	27	0.99	1.36	0.04
Robin <i>Erithacus rubecula</i>	1	0.25	1	0.27	18	0.66	0.24	0.01
Goldcrest <i>Regulus regulus</i>	2	0.51	2	0.53	12	0.44	0.49	0.01
Lesser Redpoll <i>Carduelis cabaret</i>	1	0.25	1	0.27	11	0.40	0.17	< 0.01
Siskin <i>Carduelis spinus</i>	1	0.25	1	0.27	15	0.55	0.21	0.01
Twite <i>Carduelis flavirostris</i>	1	0.25	1	0.27	16	0.59	0.22	0.01
Wren <i>Troglodytes troglodytes</i>	2	0.51	2	0.53	20	0.73	0.64	0.02
Unid. <i>Passeriformes</i>	6	1.53	4	1.06	50	1.83	4.42	0.12
Birds subtotal	18	4.58	16	4.24	169	6.19	7.74	0.22
Mammals								
Bank Vole <i>Myodes glareolus</i>	4	1.02	2	0.53	36	1.32	1.88	0.05
Common Shrew <i>Sorex araneus</i>	2	0.51	2	0.53	18	0.66	0.61	0.02
Field Vole <i>Microtus agrestis</i>	135	34.35	68	18.04	1904	69.75	3015.5	85.10
Wood Mouse								
<i>Apodemus sylvaticus</i>	2	0.51	2	0.53	43	1.58	1.07	0.03
Unidentified <i>Microtus</i> sp.	15	3.82	6	1.59	168	6.15	29.56	0.83
Unidentified rodent	17	4.33	8	2.12	200	7.33	40.87	1.15
Mammals subtotal	175	44.53	88	23.34	2369	86.78	3089.5	87.19
Reptiles								
Common Lizard								
<i>Zootoca vivipara</i>	24	6.11	23	6.10	138	5.06	68.13	1.92
Reptiles subtotal	24	6.11	23	6.10	138	5.06	68.13	1.92
Insects								
<i>Abax parallelepipedus</i>	2	0.51	2	0.53	0.14	0.01	0.27	0.01
<i>Apidae</i> spp.	21	5.34	32	8.49	13.44	0.49	47.99	1.35
<i>Carabidae</i> spp.	13	3.31	15	3.98	3.75	0.14	13.62	0.38
<i>Coleoptera</i> spp.	42	10.69	68	18.04	13.6	0.50	198.09	5.59
Common Earwig <i>Forficula auricularia</i>	9	2.29	16	4.24	0.96	0.04	9.80	0.28
Devil's Coach Horse Beetle <i>Staphylinus olens</i>	16	4.07	24	6.37	3.84	0.14	26.49	0.75
Dor Beetle <i>Geotrupes stercorarius</i>	7	1.78	7	1.86	2.8	0.10	0.49	0.10
<i>Lepidoptera</i> spp.	14	3.56	27	7.16	8.64	0.32	26.64	0.75
Pine Weevil <i>Hylobius abietis</i>	15	3.82	21	5.57	1.68	0.06	21.50	0.61
<i>Pterostichus niger</i>	3	0.76	3	0.80	0.21	0.01	0.61	0.02
<i>Scarabaeidae</i> spp.	3	0.76	3	0.80	0.75	0.03	0.63	0.02
<i>Silpha atrata</i>	1	0.25	1	0.27	0.07	< 0.01	0.07	< 0.01
<i>Silphidae</i> sp.	2	0.51	2	0.53	0.16	0.01	0.27	0.01
<i>Staphylinidae</i> spp.	4	1.02	4	1.06	0.64	0.02	1.10	0.03
Violet Ground Beetle <i>Carabus violaceus</i>	1	0.25	1	0.27	0.25	0.01	0.07	< 0.01
Western Honey Bee <i>Apis mellifera</i>	2	0.51	2	0.53	0.18	0.01	0.27	0.01
White-tailed Bumble Bee <i>Bombus locorum</i>	1	0.25	2	0.53	0.84	0.03	0.14	< 0.01
Unidentified insects	20	5.09	20	5.31	2.0	0.07	7.37	0.77
Insects subtotal	176	44.78	250	66.31	53.81	1.97	378.15	10.67
Plant remains*	26		133					
TOTAL			377		2729.8		3543.6	

*Numbers of plant remains are not included in totals.

Insects were the most numerous prey items and found in 103 (50%) of the pellets dissected. One hundred and seventy-five pellets contained portions of small mammals, which made up the bulk of the diet measured by both biomass and IRI (86.78% and 87.19%, respectively). Field Vole accounted for 77.3% of all mammals taken by the shrike. Small birds and Common Lizards were less significant vertebrate contributors to the shrike's diet by biomass (6.19% and 5.06%, respectively) and less so still by both percentage of total number of prey items (4.24% and 6.10%, respectively). Beetles were

by far the most preyed-upon insects accounting for 60.4% taken. Even though insect prey items were very small (weighing less than one gram), collectively, they had a high IRI value owing to the large number taken and were second only to small mammals in order of relative importance.

Seasonal changes to the pattern of observed prey captures were evident; the shrike took more insects and Common Lizards towards the end of its stay (Figure 3).

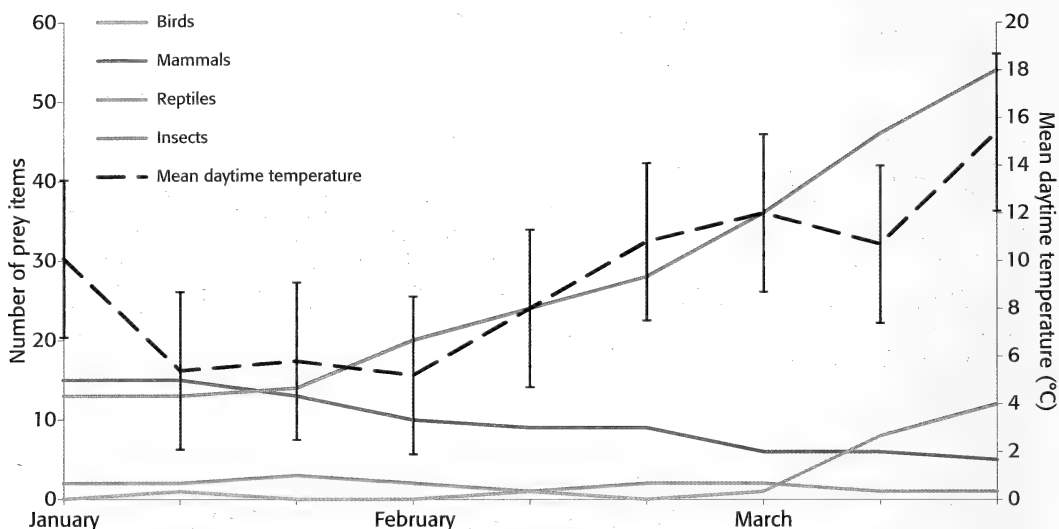


Figure 3. Seasonal composition of the number of prey items by taxa Class consumed by the Great Grey Shrike in relation to duration of stay, Forest of Ae, Dumfries & Galloway, 7 January to 26 March 2012.

Discussion

Few studies have been undertaken on the diet and ecology of wintering Great Grey Shrikes in Scotland (Hewson 1970, Halliday 1970, Love *et al.* 1971, Tulloch 1970, Watson 1962). Results of subsidiary fieldwork conducted separately by M. Marquiss and A. Village during the mid- to late 1970s in different areas of Dumfries & Galloway were included in a paper by Henderson (2012).

On 12 April 2010, a Great Grey Shrike was observed nearby (pers. obs., Irving 2011). During 2011, a Great Grey Shrike was recorded within the present study area in March (pers. obs.) and nearby in March and April (pers. obs., Irving 2012). The Great Grey Shrike observed during the study may have been a 'returning individual'. Radtke (1956) found that some Great Grey Shrikes had an adherence to specific winter quarters. The study area may be 'optimal shrike habitat'. There were/are several mixed-aged coupes with large areas of young coniferous restock and clear fell together with many perches for hunting. These were purposefully left during felling to provide perches for hunting raptors in order to reduce vole damage to young trees.

Great Grey Shrikes exhibit strong territoriality, and hold exclusive winter ranges of varying sizes (Lefranc & Norfolk 1997). Range sizes wax and wane in varying dimensions according to food supply (Gorbon 2000). The present study range size is intermediate between smaller British and central European territories (Robson 1954, Blume 1957, Mester 1965, Hewson 1970, Schön 1994, Nikolov *et al.* 2004) compared to the larger ones in Northern Europe and North America (Olsson 1984b, Atkinson 1993, Karlsson 2001). It is not unusual for large winter ranges to be divided into smaller hunting and feeding sites. In such hunting areas, the presence of trees/bushes of 3–8 m in height is very important (Schön 1995). Gorbon (2000) found that winter ranges of 69–82 ha

were divided into 4–6 small hunting and feeding sites. During the present study, the shrike regularly utilized six different smaller areas. Times spent by the shrike in these areas, which comprised 25.8% of total range size, amounted to 50.5% of daytime activity during the shrikes' 80-day stay. Atkinson (1993) found that over one half of the activity of each shrike was confined to core areas that made up 23.1% of the overall mean range size.

Wind speed had a strong influence on the selection of habitat. Strong winds forced the shrike to hunt in more sheltered habitats i.e. low-lying clear fell areas, rather than on the more exposed areas of restock. The shrike avoided the clear fell areas after 15 February, probably as the remaining stumps that had been extensively used by the shrike for hunting, were cut down. During the last days of its stay (22–26 March, inclusive) the shrike exclusively used the core area and the larger of two deciduous plantations.

Great Grey Shrikes are almost exclusively 'sit-and-wait' predators (Lefranc & Worfolk 1997). Favoured perch type and heights found during the study were dead spruce boles (standing stems) between 9.1–15.8 m. These were found in the central range and constituted 35.4% of total sit-and-wait times. Deciduous trees were used more than expected (10.6%), considering the much greater abundance of conifers available. Uprooted Sitka Spruce stumps were the most common type used for butchering posts (82.5%) but their use as hunting perches was much less frequent (5.7%). A mere 4.6% of all recorded sit-and-wait times were of a minute or less. Periods over 10 minutes accounted for 33.9% with periods over 30 minutes accounting for 3%. The cumulative sit-and-wait time found in this study was similar to the eight minutes and 36 seconds that Olsson (1984c) found during studies in Sweden (range was six minutes 24 seconds to 11 minutes 54 seconds).



Plate 180. Common Lizard impaled by Great Grey Shrike on a windsnap branch immediately after having removed and consumed the tail, Forest of Ae, Dumfries & Galloway, March 2012. © Brian D. Henderson

Observed prey captures showed seasonal differences both in type and numbers of prey caught. Voles dominated prey species type taken during the early months of the study (January to early February), whereas Common Lizards and beetles dominated the latter part of the study (late February to March). These results are similar to other studies from temperate Europe (Mester 1965, Grönlund *et al.* 1970, Haensel & Heuer 1970, Straka 1991, Wagner 1994, Hromada & Krištín 1996). Common Lizards were rarely available during January and February due to weather. More successful prey captures were noted in areas of restock compared to areas of clear fell, especially areas of recent clear fell.

Perch distance to prey capture was highly variable; distances of 50–75 m were common, longest distance was c.275 m but such distances covered by shrikes are extremely rare. Olsson (1984c) observed shrikes spotting voles at distances of 250 and 260 m. Time spent on the ground with rodent prey (killing time) was minimal and brief, usually between 10–20 seconds, with longer periods up to 48 seconds. Olsson (1984c) stated that the killing of a Field Vole required about one minute. Post-killing feeding pattern was consistent with type of prey caught. Niethammer (1937) and Ivanchev (1998) found killing of prey by blows with beak, no mammalian prey were seen being dispatched in this manner in the study. Olsson (1986) also found that the Great Grey Shrike rarely ate all of the mammalian prey. Similar neck lacerations were found on cached lizards during 2011 (Henderson 2012). Pine Weevils, as dietary items of Great Grey Shrikes, appear undocumented in the literature, though reference is made to the family *Curculionidae* as dietary prey items in Swedish and Russian studies (Olsson 1986, Nechaev 1991).

The use of larders or caching of captured prey items are regularly used by Great Grey Shrikes. Caches are defined as 'concealed larders' or 'conspicuous larders' (Antazak *et al.* 2005). In this study, 3.2% of all captured prey items were cached in concealed larders. Most of the singleton caches in the study can be defined as 'conspicuous larders' as no attempt was made at concealment. No caches were found around the perimeter of the range during this study suggesting no need for territorial advertising. 'Cache scattering' by the shrike during the study was widely practiced, 96.8% were 'scattered caches'. The percentage of impaled prey items (61.3%) is higher than Olsson (1985) found in Sweden, where 54%, mainly invertebrates, were fixed in forks (wedged) instead of being impaled. Nikolov *et al.* (2004) found 91.3% of caches were on plants and that stored prey items were cached at 1.05 (± 0.29) m (range 0.57–1.9 m), of which 31.6% were beetle species (86% *Carabidae*). During this study, 100% of caches were on plants and the mean cached height was 54.1% higher.

Cached prey (impaled or wedged) was different from prey consumed. Bank Voles, Wood Mice, Common Shrew and insects were not cached, but occurred in the shrike's diet. The shrike seemed to avoid mice and this is consistent with previous studies that showed *Muridae* spp. to be a minor component in the diet (Haensel & Heuer 1970, Straka 1991, Wagner 1994). Analysis of Kestrel pellets collected from the study area showed that all contained remains of Wood Mice (B. Henderson, unpublished data). Common Lizards were more often cached than consumed, 61.5% had no tails or tail-tips. No tails of Common Lizards were seen being lost during capture. Antczak *et al.* (2005) found 45% of cached prey uneaten in winter, during this study the figure was 22%. Occasionally prey items, such as Common Lizards, were cached intact without any sign of them having been consumed. The relatively low numbers of food remains found during this study might be part explained by 'secondary predation' by nocturnal predators/scavengers, especially of remains found discarded on the ground.

Many studies have been carried out on the food of Great Grey Shrikes from precise pellet analysis, which, in this species, is considered a reliable qualitative and quantitative measure of small mammals eaten (Cade 1967, Olsson 1986, Hernández 1999). Detailed examination of the pellets showed the prey remains, especially the crania, to be fragmentary and the skeletal material incomplete. This suggested that only a portion of each prey item was being eaten, at least at any



Plate 181. Field Vole wedged by Great Grey Shrike between root forks of an uprooted spruce stump, Forest of Ae, Dumfries & Galloway, January 2012. © Brian D. Henderson

one time, or that many of the bones were being destroyed in the shrike's stomach as found by Glue (1968). The mean pellet dimensions and weights from this study were similar to those recorded in other parts of the Great Grey Shrike range (Hewson 1970, Huhtala 1977, Bocca 1999, Kynsh *et al.* 1991, Nikolov *et al.* 2004).

In this study, vertebrate prey items accounted for 33.7% of all prey items whilst invertebrates comprised 66.3%. Nikolov *et al.* (2004) found the ratio of vertebrates to invertebrates was 1:9 (by numbers). A comparison between studies in Northern and Central Europe revealed a higher vertebrate prey range in the north (Karlsson 2002). A study in North America (43°30'N) showed that vertebrates comprised 36.1% of the winter diet of this species (Atkinson & Cade 1993). Haensel & Heuer (1970, 1974), studying Great Grey Shrike pellets in north-eastern Germany, found few vertebrates (7.3%) in its food composition during winter.

In conclusion, range size was intermediate between that of the range sizes of northern and central European wintering populations. Invertebrates, mainly beetles, were numerically the most important prey item of the Great Grey Shrike during this study whilst Field Vole was the optimal prey to be handled and killed by the shrike. Predation success was higher on invertebrates than on vertebrates. Vertebrates other than Field Voles and Common Lizards consumed by the shrike acted as supplementary food, as their contribution to the diet composition was low. This study showed that, as with other studies in different parts of Europe and North America, Field Voles together with insects were the main dietary choices in a winter home range with a mild climate.

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Plate 182. Male Merlin at Ring Ouzel nest, Dumfriesshire, June 2007. © Edmund Fellowes

Ecological preferences of Speyside Merlins and relationship with Sparrowhawks

The late D.N. Weir

Nesting Merlins on Speyside in 1964–84 preferred woods to moors and the edge of native pine to other woods. Meadow Pipits formed 79% of prey and were 3.5 times commoner at semi-natural woods edge than on open moors. There were 35 Merlin territories in 890 km². Some were abandoned after afforestation and others probably were new. Ecological overlap was mainly with Sparrowhawks in moorland plantations, which took many pipits.

Introduction

Merlins *Falco columbarius* were studied incidentally during 1964–84 fieldwork in Badenoch & Strathspey District, Highland. Ecological preferences are given for part of Britain where semi-natural habitats were unusually extensive and varied and upland conifer forestry was widespread for 350 years. Comparisons are made with Sparrowhawks *Accipiter nisus*, which colonize afforested Merlin habitat. Numbers of both species fell and then rose during the study, with levels of pesticides (cf. Newton 1979).

Study area

The study area was the River Spey catchment upstream of the Rivers Nethy and Dulnain (Figure 1). It covered 890 km² from the lowest point at 200 m a.s.l. to 550 m, which was the upper limit for nesting Merlins and about the original treeline (Steven & Carlisle 1959). Woods in the north-east part included the largest Scottish group of native Scots Pine *Pinus sylvestris* and birch *Betula* spp. The south-west part lacked native pine, most birch woods were smaller and plantations more recent. There was continual woodland change; pines were felled and planted on Speyside on a larger scale and over a longer period than anywhere else in Britain (Calder & Gill 1988).

In 1984, about 60% of ground below 550 m was open moor or mountain. The rest was a mixture of farmland, plantations, semi-natural woods and open areas and human settlement and infrastructure. Native pine was about 5% and other woods, mainly plantations, about 22%.

Methods

Territories and occupation criteria here follow Newton *et al.* (1977, 1978). Inventories for Merlin and Sparrowhawk compiled in 1964 were added to by searches and reports from many residents and visitors. Over 95% of potential nesting habitat of both species was searched in at least four of the 21 years and most known territories were checked in 6–10 years. The emphasis was more on checking occupation than on finding nests.

Tree canopy cover at nests was determined after James & Shugart (1970). The extent of major habitats was measured in 3 x 3 km blocks centred on nesting territories, using 1:25,000 O.S. maps and knowledge of the area. Measurements of this, of nearest neighbour spacing, and elevation of territory centres, were mainly for territories where two or more nests or fledged broods were found.

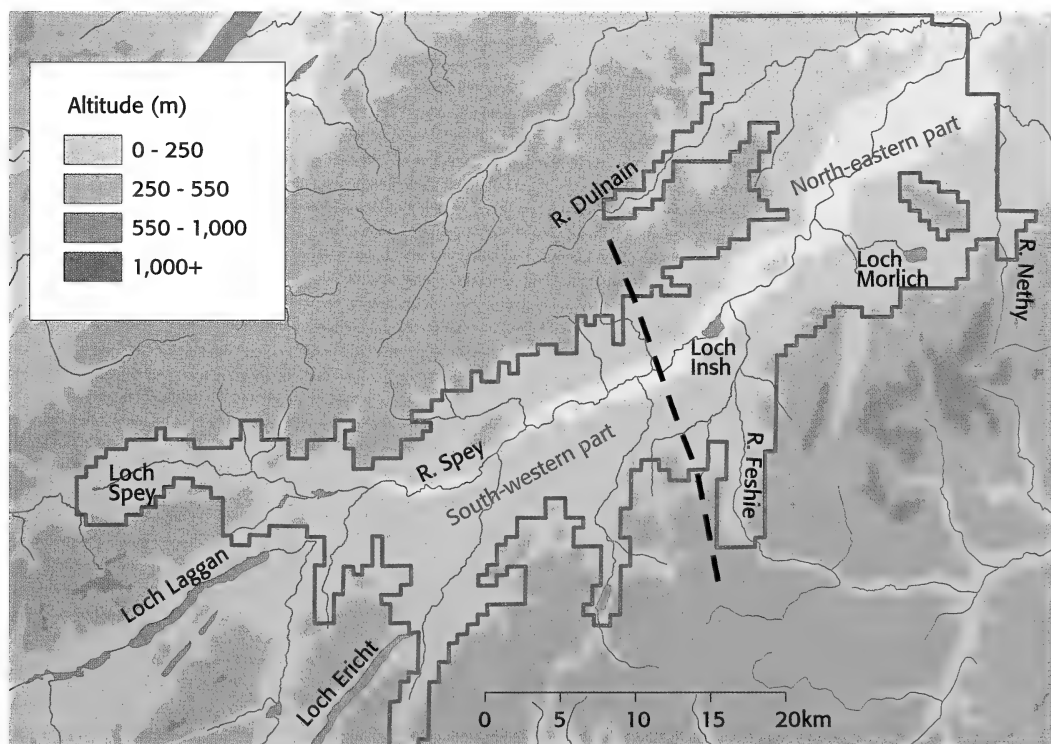


Figure 1. The 1964–84 Speyside Merlin study area of 890 km² bounded by the 550 m elevation limit of nesting and in the north-east by the Rivers Nethy and Dulnain. The Speyside Group of native pinewoods is in the north-east part of the area.

Prey at nest areas of both species was determined after Newton *et al.* (1984) and Newton & Marquiss (1984). When prey remains were collected at a Merlin nest, they also were, if possible, at the nearest Sparrowhawk nest. Potential moorland prey species were counted in 1981 along line transects, after Emlen (1971). Other workers counted forest birds in the study area (Newton & Moss 1977). Results of statistical tests are in Appendix A, indicated by superscript numbers in the text.

Results

Numbers of nesting territories

A total of 35 Merlin territories was known by 1984, of which 33 (94%) were occupied by at least one pair in 1964–84 and nests or newly fledged young were found in 29 (83%). All nests in a territory were within 0.8 km of a notional centre. On this basis, two pairs of territories overlapped, both of one pair were found occupied in the same year once and both of the other twice. Positions of some recent nests in 13 territories were within 200 m of nests 15–75 years earlier; these were all the territories where this could be examined. Only one previously unknown territory was found in the last four years of the study.

A total of 53 Sparrowhawk territories was known by 1984. Regular spacing applied to maps and analysis of the spacing sample (below) suggested that 85–90% of all were found. Numbers increased with afforestation by at least five (10%) during the study. Most territory positions changed with planting, growth and felling of even-aged conifers. This complicated the cumulative inventory, but regular spacing tended to maintain local densities. The most stable positions were in mixed-age native pine. Some nests during the study in two territories were within 200 m of the 1937–39 sites (late J. Duncan, pers. comm.).



Plate 183. Male Sparrowhawk at plucking post, Dumfriesshire, June 2012. © Edmund Fellowes

Territory occupation

Average occupation of 14 Merlin territories was 56% in 1964–68, but most of these were well known because they were often occupied. Incomplete checks of an increasing sample suggested fewest Merlins about 1974 and a marked increase from 1979. Twenty-two territories were occupied at least once in 1979–83; these held 12 pairs (54%) in 1984 and three pairs were found in the other 13 then, nine of which probably had been unoccupied for 7–25 years. These 15 pairs probably were about the 1984 total. One pair in 1984 very probably was in a new territory. One ‘abandoned’ territory was re-occupied, after 22 years, in 1986 (late Lt.-Col. J.P. Grant, pers. comm.).

Occupation of 14 Sparrowhawk territories averaged 75% in 1964–68 and fell to 47% in 1971–73. It was 75% for a different 11 in 1981–84.

Territory spacing and elevation

Nearest neighbour spacing of Merlin territory centres was about twice that of Sparrowhawks and far less regular (Figure 2). Sparrowhawk spacing in the area was already known to be regular (Newton *et al.* 1977). Interspecific spacing (not shown) was variable; the minimum was about 500 m, in three cases.

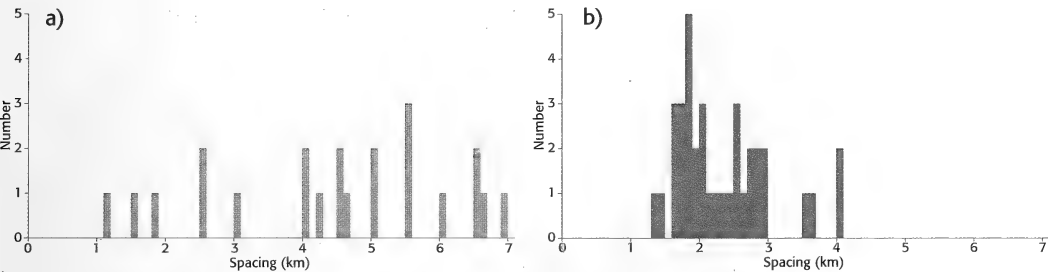


Figure 2. Nearest neighbour spacing of Speyside (a) Merlin and (b) Sparrowhawk territories, after Newton *et al.* (1978). Given for territories where two or more nests/broods were found in that and in the nearest neighbour. Four Sparrowhawk territories were at 1.9–2.2 times the modal 1.8 km; intervening territories may have been missed.

	Mean (km)	s.e.	n
Merlin, native and planted pine	3.78	0.58	10
Merlin, isolated woods and open moor	4.95	0.45	12
Merlin, all	4.42	0.38	22
Sparrowhawk, native pine	2.86	0.29	8
Sparrowhawk, moorland plantation	2.06	0.13	8
Sparrowhawk, all	2.29	0.12	36

The spread of elevation of territory centres was far wider for Merlin than for Sparrowhawk (Figure 3). Limited inter-specific overlap was further reduced by recent afforestation; the three Merlin territories below 300 m, and others below 400 m, were abandoned (below). Merlin territory distribution was skewed, with 20 (57%) at 350–430 m. Where topography was suitable, the economic limit of afforestation was 480–500 m (Towers & Thompson 1988).

In adjoining upland areas to the west and the north-east, most of 23 Merlin territories were at 200–500 m, with three at 500–600 m near unusual, base-rich mountain grassland. A very few Sparrowhawks in moorland plantations of these areas nested up to 400–450 m.

Dispersion and large congeners

No Merlins were found nesting within 1 km of Peregrines *F. peregrinus* and some in eight territories (23%) moved up to 1.5 km when Peregrines changed nest cliffs between years, or within

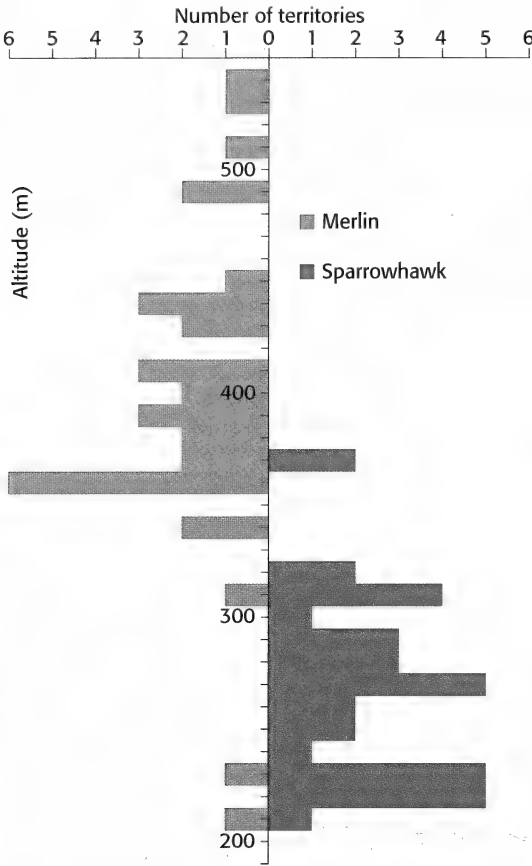


Figure 3. Elevation of Speyside Merlin and Sparrowhawk territory centres. Twelve centres for Merlin are estimated from limited data; 22 are from at least two nests in each. Five Sparrowhawk centres are omitted because forestry resulted in marked elevation change during the study. Average elevation was about 405 m for Merlin and about 280 m for Sparrowhawk.

forest (>60%) was not recorded. All ground nests were in Heather *Calluna vulgaris*, usually long and on north- or east-facing slopes; snow-lie made these the hardest to burn in spring. Long Heather was widespread in most woodland edge territories, where burning was risky.

Merlins in at least six woodland edge territories used both tree and ground sites, the latter sometimes when tree nests were available. This was noted in one of these territories in the 1930s too (late D. Nethersole-Thompson, pers. comm.). All the birch woods used were over-grazed, senescent and shrinking. Useable old crow nests tended to be scarce in birch wood because gamekeepers readily found and destroyed them.

Sparrowhawk nesting habitat and sites are shown (Table 2). They used larger, denser and younger plantations than Merlins did and site canopy cover was closed forest or open forest (25–60% cover). Woods in which both species nested were almost wholly at native pine-moor edge.

Surrounding habitat

Extents of main habitats in 3 x 3 km blocks surrounding territories broadly represent hunting

years when their eggs were taken. This accounted for some large Merlin territories. There were many cliffs, but Merlins nested on them in only three territories (9%). These were not Peregrine nest cliffs, but a Peregrine killed a juvenile Merlin at one (J. Christie, pers. comm.). Merlins in three cases did not move when pairs of Goshawks *A. gentilis* were within 0.7–1.5 km.

The very few pairs of Goshawks may have reduced occupation of the nearest Sparrowhawk territories; a Goshawk killed a hen Sparrowhawk nesting nearby. Peregrines did not seem to affect Sparrowhawk dispersion.

Nesting habitat and sites

Merlins significantly preferred woodland edge to moors, and native pine over other woods^{1,2} (Table 1). Other woods were used only in the south-west, where there was no native pine. They were old Scots Pine plantations or birchwoods with no continuous stand of trees more than 100 m wide. There was no native pinewood in the adjoining upland areas; 18 of 23 territories (78%) were in open moor, significantly more than 11 of 35 (31%) in the study area³, if the adjoining areas sample was representative.

Tree nests of Merlins were all in old Carrion/Hooded Crow *Corvus corone/cornix* nests, in Scots Pine or Birch, 3–15 m above ground. Canopy cover within 10 m was most often woodland (10–25% cover), and closed

Table 1. Types of nesting habitats and nest sites in Speyside Merlin territories, in 1964–84. One to five nests were found or reported in each of 25 territories. If there was more than type of site in a territory, each was given equal weight.

Habitat type	Number of territories	Nest site type, number of territories			
		Tree	Ground	Cliff	Unknown
Open moor	11	-	5.5	0.5	5
Birch-moor edge	5	3.5	1	0.5	0
Native pine-moor edge	9	4	4	1	0
Plantation-moor edge	8	4	1	-	3
Native pine-valley floor	2	-	-	-	2
Total	35	11.5	11.5	2	10

Table 2. Types of nesting habitats and nest sites in Speyside Sparrowhawk territories, in 1964–84. Two or more nests were found in each of 41 territories. If there was more than one type of site in a territory, each was given equal weight.

Habitat type	Number of territories	Nest site type, number of territories					
		Scots Pine	spruces	Lodgepole	larches	birches	Other
Birchwood-moor edge	2	0	0	0	0	2	0
Native pine-moor edge	8	7.5	0.5	0	0	0	0
Plantation-moor edge	13	7	3	1	1	0	1
Plantation-farm edge	12	10.5	1.5	0	0	0	0
Native pine-farm edge	5	3	1.5	0	0.5	0	0
Mixed wood-farm edge	1	0	0	0	0	0	1
Total	41	28	6.5	1	1.5	2	2

Other: one fir, one Alder.

habitat and are summarized (Table 3). Some Merlin territories of three types were abandoned, but none of two others were. This was significantly related to extents of moorland and of young plantations in the 9 km² surroundings^{4,5}. Abandonment and afforestation were clearly related in these cases. Not enough was known about three other abandoned territories to examine them in this way. There was significantly more moorland in the surroundings of Merlin than of Sparrowhawk territories at native pine-moor edge⁶. This did not apply between territories of both at plantation-moor edge.

Prey taken and available

Merlins mainly ate Meadow Pipits *Anthus pratensis* (Table 4). They were 62% of prey by estimated weight. Only four other birds each were 3% by number, estimated weight, or both. Woodland/edge birds formed 6% of prey by number; Merlins took them significantly more often in spring than later⁷.

Merlins in native pinewood took significantly more Chaffinches *Fringilla coelebs* than others did⁸. About 95% of birds taken weighed 5–40 g and 1% were more than 120 g. Nestlings and juveniles were not recorded as prey in May, but together formed 35% in June and 60% in July–August.

Sparrowhawks mainly took a wide range of woodland/edge birds (Table 5). Chaffinch, pipits, thrushes and Robin *Erithacus rubecula* were most important by number, and Woodpigeon *Columba palumbus*, Chaffinch, thrushes and pipits by estimated weight; much pigeon biomass probably was wasted (cf. Newton & Marquiss 1984). Plantation-moor Sparrowhawks took significantly more open country passerines than others did⁹. About 70% of birds taken weighed 5–40 g and 10% more than 120 g. Nestlings and juveniles together formed 11% of prey in May, 54% in June and 57% in July–August. These relatively small prey samples for both raptors probably were reliable; composition and seasonal change were like those in much larger samples elsewhere in upland Britain (cf. Newton & Marquiss 1982, Newton *et al.* 1984).

The commonest birds in study area woods were Chaffinch, Coal Tit *Parus ater*, Goldcrest *Regulus regulus*, Willow Warbler *Phylloscopus trochilus*, and Wren *Troglodytes troglodytes* (Newton & Moss 1977). Woodpigeon, Chaffinch and thrushes were most important by biomass. Density was lowest in plantations, higher in native pine and highest in birch. Merlins mainly took the commonest woodland bird. Sparrowhawks took birds more than about 15 g roughly in proportion to their biomass; four of the five commonest birds were less than 15 g and together formed only 7% of prey.

Transect counts of birds in 1984 were along 49 km x 100 m of open moor and in six small woods there, representing edge (Table 6). Most were within 3 km of Merlins and Sparrowhawks. The main species was the Meadow Pipit; numbers/10 ha were 5.4 on moors, compared with 19 at woodland edge. Merlins selected open country passerines, but not individual species^{10,11}.

Table 3. Approximate 1984 extents of main habitats in 3 x 3 km blocks centred on Speyside Merlin and Sparrowhawk territories. The Merlin sample is 25 territories where nests were found, plus two abandoned valley floor territories. The Sparrowhawk sample is 37 where nests were found and where position changes due to forestry least altered the proportions of different habitats in the surroundings. Three Merlin samples show total numbers minus territories abandoned.

	Territory types (and sample)	Average extent of main habitats, as percent of total area			
		Moor, mountain	All native woods	Plantations	Farmland, wetland
Merlin					
Open moor	(6)	90	5	<5	<5
Birch-moor edge	(5)	90	<5	<5	<5
Native pine-moor edge	(9-1)	70	25	5	<5
Plantation-moor edge	(5-2)	55	10	30	5
Native pine-valley floor	(2-2)	30	30	30	10
Sparrowhawk					
Birch-moor edge	(2)	30	15	10	45
Plantation- edge moor	(11)	65	10	10	10
Native pine-moor edge	(7)	45	25	20	5
Plantation-farm edge	(12)	20	20	30	30
Native pine-farm edge	(5)	20	40	20	20

Table 4. Prey found at nest areas, in late March to early August, in 14 Speyside Merlin territories, 1964-84.

Prey species ca. 1% or more of identified birds	Number of items (and percent)			14 total
	Five open moor territories	Five birch-moor or plantation-moor	Four native pine-moor	
Red Grouse (nestling)	1	1	6 (3)	8 (1)
Dunlin (adult)	1	2	2	5 (1)
Skylark (adult, juvenile, nestling)	3 (2)	14 (5)	5 (3)	22 (3)
Wheatear (adult, juvenile, nestling)	10 (5)	20 (7)	13 (7)	43 (6)
Meadow Pipit* (adult, juvenile, nestling)	157 (84)	228 (78)	145 (78)	530 (79)
Pied Wagtail (adult, juvenile)	3 (2)	6 (2)	0	9 (1)
Chaffinch (adult, juvenile)	8 (4)	3 (1)	9 (5)	20 (3)
Unidentified small birds	7	3	3	13
Voles and Pygmy Shrew	1	4	1	6
Total invertebrates	195	301	191	687

Other birds taken: Oystercatcher (nestling), Golder Plover (adult, nestling), Snipe (adult, juvenile), Common Sandpiper, Swallow, Sand Martin, Wren, Coal Tit (juvenile), Mistle Thrush, Fieldfare, Ring Ouzel (juvenile), Whinchat, Bluethroat, Willow Warbler, Tree Pipit (juvenile), Starling (juvenile), Twite, Siskin (adult, juvenile), Bullfinch and Reed Bunting. Moths, beetles and dragonflies were commonly taken in late summer, but rarely brought to nest areas. * 102 of 103 pipits identified were Meadow Pipits

Table 5. Prey found at nest areas, in late March to early August, in 27 Speyside Sparrowhawk territories, 1964–84.

Prey species c. 1% or more of identified items (passerines were mainly of all three age classes)	Number of items (and percent)				27 total
	Eight plantation-moor territories	Six native pine-moor	Five native pine-farm	Eight plantation -farm	
Woodcock (adult, juvenile, nestling)	2 (1)	1 (1)	2 (1)	2 (1)	7 (1)
Woodpigeon (adult, juvenile, nestling)	4 (2)	2 (2)	5 (4)	6 (3)	17 (3)
Skylark	10 (4)	0	1 (1)	3 (2)	14 (2)
Great Tit	11 (4)	3 (2)	7 (5)	5 (3)	26 (4)
Blue Tit	6 (2)	0	2 (1)	2 (1)	10 (1)
Coal Tit	8 (3)	3 (1)	1 (1)	3 (2)	15 (2)
Wren	1	4 (3)	3 (2)	3 (2)	11 (2)
Mistle Thrush	10 (4)	0	4 (3)	7 (4)	21 (3)
Song Thrush	15 (5)	8 (7)	11 (8)	18 (10)	50 (7)
Blackbird	8 (3)	1	11 (8)	6 (3)	26 (4)
Wheatear	5 (2)	2 (2)	3 (2)	3 (2)	13 (2)
Redstart	0	7 (6)	4 (3)	1	12 (2)
Robin	23 (9)	6 (5)	5 (4)	10 (5)	44 (6)
Willow Warbler	3 (1)	3 (2)	5 (4)	2 (1)	13 (2)
pipits*	54 (21)	16 (13)	10 (7)	19 (10)	99 (14)
Pied Wagtail	4 (2)	0	3 (2)	1	8 (1)
Starling	5 (2)	1 (1)	4 (3)	4 (2)	14 (2)
Siskin	6 (2)	5 (4)	3 (2)	6 (3)	20 (3)
Bullfinch	2 (1)	2 (2)	3 (2)	4 (2)	11 (2)
Chaffinch	40 (16)	42 (35)	36 (26)	55 (28)	171 (24)
Unidentified small birds	26	7	18	20	71
Voles	2	0	0	6	8
Rabbit (juvenile)	3	1	0	2	6
Total vertebrates	283	129	158	215	786

Other birds taken: Teal, chicken nestling, Red Grouse (adult, nestling), Capercaillie (nestling), Oystercatcher (nestling), Lapwing (adult, juvenile, nestling), Greenshank, Redshank, Snipe, Common Sandpiper, Black-headed Gull, Common Gull, racing pigeon, Great Spotted Woodpecker, Cuckoo, Swift, Swallow, House Martin, Sand Martin, Jackdaw, Crested Tit, Treecreeper, Dipper, Redwing, Ring Ouzel, Whinchat, Sedge Warbler, Goldcrest, Spotted Flycatcher, Dunnock, Grey Wagtail, Waxwing, Greenfinch, Redpoll, Scottish Crossbill, and one House Sparrow

* species of only 20 pipits was recorded. Five (25%) were Tree Pipits, specifically recorded because they were unusual prey. The real proportion of Meadow Pipits probably was very high.

Table 6. Single line-transect counts of adult birds along 49 km x 100 m (4.9 km²) of Speyside moorland, and in six small moorland woods, May–June 1984. Moorland densities are adjusted for species differences in detectability (Emlen 1971). Woodland densities are unadjusted, but omit post-breeding flocks of Scottish Crossbills, the most abundant bird. The method should give 30–60% of Meadow Pipits and approximate woodland bird totals (Ralph & Scott 1981). Birds are classed as open country (oc) or woodland/edge (we).

Category	Species in moorland										
	Meadow	Willow	Wheatear	Chaffinch			Other		Non-		Total
	Pipit	Warbler		Skylark		Whinchat	passerine		passerine		
	oc	we	oc	oc	we	we	oc	we	oc	we	
All birds counted	267	33	23	14	9	7	12	8	34	5	
Adjusted birds/10 ha (and percent)	5.4 (68)	1.6 (20)	0.3 (4)	0.1 (1)	0.1 (1)	0.1 (1)	0.1 (1)	0.1 (1)	0.2 (3)	trace (0)	8.0 (100)
Category	Woodland type and extent										
	Mature planted pine 2 ha	Mature native pine 2,3 ha	Birch/mature planted pine 10 ha	Mature birch 10 ha	Tall shrub willow 0.5 ha	Total/ overall 27.5 ha					
Woodland-edge birds/10 ha	40	64	22	13	60	28					
Meadow Pipit/10 ha	20	8	22	15	160	19					
Other open country birds/10 ha	0	4	2	0	0	2					
All birds/10 ha	60	76	46	28	220	49					



Plate 184. Male Merlin with Meadow Pipit prey, Dumfriesshire, July 2006. © Edmund Fellowes

Discussion

Merlins tend to nest on moors in Britain, but at forest edge elsewhere (Bibby & Nattrass 1986). The present study shows that, where it is available, semi-natural upland wood edge is just as strongly preferred in Britain; the upper limit of even moorland nests on Speyside was about the original tree line.

Tree nests were more successful than ground nests in Northumbria, due to less predation, but were not more successful in Wales (Newton *et al.* 1986, Bibby 1986). Tree nests were not clearly preferred at Speyside woodland edge, but prey was commonest there. Merlins in an Alaskan area nested on the ground, almost all at the upper edge of Paper Birch *B. papyrifera* woods (Petersen *et al.* 1990). These provided no tree sites and relatively little prey, but were only on lower, south-facing slopes. Merlins there were at the warmest forest edge. The probable advantages of woodland edge nesting thus vary between regions and need not include tree nests.

There was concern that many British Merlin territories were abandoned after afforestation (Bibby & Nattrass 1986). This needs to be qualified as the age structure of older planted forest becomes diverse with time, and some Merlins return (for sources, see Acknowledgments). On Speyside, major felling of pines began about 1630, and planting about 1760, and the scale is not widely appreciated; Seafeld Estates planted more of the Spey catchment in half of the 19th century than the Forestry Commission did in two-thirds of the 20th (Calder & Gill 1988). The distinction between 'native pine' and many older plantations became largely a convenient shorthand for degree of structural diversity (cf. Steven & Carlisle 1959, Calder & Gill 1988). The woodland edge which Merlins preferred was largely a product of 350 years of upland conifer forestry.

The Sparrowhawks which colonized new plantations took most pipits; those at the older native pine-moor edge took few. However, afforested Merlin territories were abandoned before the trees were large enough for Sparrowhawks to nest there (DNW, unpublished). Thus there was competition, but it was not shown to affect numbers of Merlins.

Numbers of Peregrines evidently affected those of Merlins in Northumbria and Wales, but not on Speyside (cf. Bibby 1986, Newton *et al.* 1986). The decline and recovery of the Peregrine was relatively slight on Speyside (Ratcliffe 1980). Merlins may have been restricted on Speyside too, but less obviously, because less variably, than in the other two areas.

The inventory of Merlin territories was cumulative, but some probably were wholly abandoned and others probably were new; uncertainty was due to marked population change during the study. How many of 35 territories were suitable in a given year thus was unknown; occupation by 15 pairs in 1984 was between 43% of 35 and 60% of 25. Methods for the latter rate were the same as for 46% nationally in 1983–84 (Bibby & Nattrass 1986). The more rigorous rate for nests/territory in the declining Northumbrian population during 1974–83 was 26% (Newton *et al.* 1986). Occupation on Speyside in 1984 was relatively high, and probably still was increasing.

Occupation was restricted even in an Alaskan mining area where Merlin spacing was five times closer than on adjacent wilderness rivers (Weir 1988, Petersen *et al.* 1990). Of all nine territories in four years, 55% were occupied by pairs with large young. The rate for pairs in spring probably was about 75%; four territories were occupied irregularly, one only twice in 10 years. These rates may be high for Merlins anywhere.

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Appendix A

Results of statistical tests, with numbers as superscript in the text. All χ^2 tests of difference from expectation are with Yates' correction for continuity.

1. Number of Merlin territories in woods and on moors vs. total areas of woods and moors, $\chi^2 = 18.54$, $P < 0.001$.
2. Number of Merlin territories in native pine and in all other woods vs. areas of both sets of woods, $\chi^2 = 6.88$, $P < 0.01$.
3. Number of Merlin territories in woods and on moors, study area vs. two adjoining areas combined, $\chi^2 = 10.38$, $P < 0.01$.
- 4,5. Area of moor in surrounding 9 km² for types of Merlin territory in which some were abandoned vs. area for types in which none were abandoned, $\chi^2 = 8.08$, $P < 0.01$. Area of plantations in surroundings in the same way, $\chi^2 = 17.58$, $P < 0.001$.
6. Area of moor in surrounding 9 km² for Merlin territories at native pine-moor edge vs. area for Sparrowhawk territories there, $\chi^2 = 6.20$, $P < 0.02$.
7. Number of woodland/edge birds in Merlin prey before laying (March–12 May) vs. numbers in three subsequent periods (13–31 May, June, July August), $\chi^2 = 31.95$, $p < 0.001$.
8. Number of Chaffinches in Merlin prey, native pine territories vs. all others, $\chi^2 = 4.56$, $P < 0.05$.
9. Number of five commonest open country passerines in prey of plantation-moor Sparrowhawks vs. all other Sparrowhawks, $\chi^2 = 6.74$, $P < 0.02$.
10. Number of open country passerines and non-passerines in moorland bird counts vs. number of each group in Merlin prey, $\chi^2 = 15.67$, $P < 0.001$.
11. Abundance ranking of open country passerine species in original data for Table 6 vs. ranking in Merlin prey, $R_8 = 0.719$, $P < 0.05$, one tailed test.

The late Hon. D.N. Weir (1935–2000; see obituary published in *Scottish Birds* 21: 121–123). This paper, in its present form, was forward to the editors by D.J. Bates who accessed Doug Weir's papers held at the National Museums Scotland, Edinburgh. An earlier draft had been submitted to *Scottish Birds* some years ago and revised by the author before his death. This version has also been peer reviewed.

Sex determination of Brünnich's Guillemots from Scotland

R.Y. McGowan, Z. Floody & J.M. Collinson

Introduction

Brünnich's Guillemot *Uria lomvia* has a circumpolar distribution and breeds in both the high and low (sub) Arctic, from north-east Canada, south to the Gulf of St Lawrence, east through Greenland and Iceland, north Norway, to Franz Josef Land, Novaya Zemlya and Severnaya Zemlya (Nettleship & Evans 1985). Birds from colonies in Canada and Greenland winter in the north-west Atlantic, later joined by large numbers from Iceland, Svalbard, Norway and Russia. Geographic variation is largely clinal and four subspecies are currently recognised, with nominate *lomvia* considered (though not formally determined) as the taxon that occurs as a rare vagrant in Britain (Cramp 1985, Parkin & Knox 2010).

Recently a comprehensive review of all European records (to August 2006) was carried out, covering 109 sight records and museum specimens; of these, 37 were from Scotland, including two 'at sea' sightings (Van Bemmelen & Wielstra 2008). That study examined spatial and seasonal distribution by age and sex, potential origins and trends. For the total sample, however, very few data existed for sex. Male and female Brünnich's Guillemots have similar plumages and an almost complete overlap in biometrics. Furthermore, corpses have tended to be emaciated, slightly decayed, or scavenged, thus making inspection of gonads very difficult or impossible for the vast majority of specimens. From the entire European sample, sex was only recorded for a total of seven males and six females from at least 52 corpses (Van Bemmelen & Wielstra 2008).

The first record for Brünnich's Guillemot in Scotland was a female found dead at Craigielaw Point, Lothian in December 1908 and the most recent accepted record was one at Scousburgh, Mainland, Shetland in March 2007, making a total of 38 (Forrester *et al.* 2007, Hudson *et al.* 2008). Excluding the two 'at sea' records, 26 of the remaining 36 birds were corpses and 18 of these are held as skins, part specimens, or mounts in Scottish museums or in private collections. Such was the generally poor condition of the corpses, only six had been sexed by inspection of gonads.

Modern genetic techniques can be used for the determination of sex of preserved bird specimens by analysing tiny tissue samples, and this procedure may be used to help fill data gaps in museum series (Bantock *et al.* 2008, Frahnert *in press*). The technique has recently been used to determine or confirm the sex of two historical bird specimens in National Museums Scotland (NMS) (McGowan 2011, Collinson & McGowan 2012). In this short paper, we report the use of this technique on Brünnich's Guillemot specimens from Scotland. The aim was to determine the sex of all available specimens, and to publicise the relative ease of the procedure for unsexed voucher specimens, i.e. specimens that serve as a basis of study and are retained for reference in a publicly accessible scientific collection.

Methods

A database was compiled of all 18 Scottish specimens held in museums and private collections (Table 1). A small tissue sample was obtained from the toes of 14 skins and from a wing and a head of two incomplete specimens. Due to the inaccessibility of toes on the two mounted specimens, and to maintain their aesthetic appearance, tissue sampling was from a tarsus of one, and a few plucked breast feathers from the other. The wing length (maximum flattened

chord) of each specimen was also noted (albeit by different recorders). Although six birds had been sexed at the dates of preparation, these individuals were also sampled to verify that the sex assigned at dissection corresponded with the sex diagnosed by molecular techniques. DNA was isolated from tissue samples using the QIAamp DNA Micro Kit (Qiagen), with elution in 80 µl of buffer. Male and female birds are genetically distinguishable: unlike mammals where males are heterogametic (XY sex chromosomes) and females are homogametic (XX), in birds the males are homogametic (ZZ) and the females heterogametic (ZW). Although the Z and W chromosomes contain many of the same genes, they may be of different size. This can be diagnosed when the genes are isolated by polymerase chain reaction (PCR) techniques using the CHD1M5/P8 primers described by Bantock *et al.* (2008). Molecular sexing was therefore performed using these primers for 40 cycles of PCR to amplify fragments of the *CHD1* gene on the Z and W chromosomes, with annealing temperature 54°C, using Bio-X-Act Short thermostable polymerase (Bioline). For non-passerines, this is expected in most cases to produce one PCR product from male birds and two from females. These can be visualised as bands on a 4% agarose gel which separates DNA fragments by size. The sizes of the bands however vary between species.

Results and discussion

It was found that using the CHD1M5/P8 primers, male Brünnich's Guillemots yielded a single band at approximately 240 bp and females yielded two bands at 240 bp and approximately 265 bp. Genetic sexing was successful at the first attempt for 15 birds. Second attempts using repeat samples for three birds were successful for two; the single nil result was possibly due to degraded DNA. Results are shown in Table 1. The six control specimens were confirmed as having been correctly sexed at preparation.

Of the sexed birds, 13 were female, and four were male. This bias towards females was not statistically significant (chi-square test with Yates' correction $\chi^2 = 3.76$, $P > 0.05$). If the undetermined bird was actually a female, the bias would have some slight significance ($\chi^2 = 4.5$, $P < 0.05$). This skewed ratio contrasts with the six females and seven males from the overall European sample. Although the authors were personally unable to measure and age all specimens, eight were assessed as adult on a combination of plumage characters and culmen dimensions; these were three males, four females and one undetermined (Table 1). All five birds found between March and July were adults, as were one in October and two in December. By recording area, four were in Shetland, one in Orkney, one in Highland (Caithness), one in North-east Scotland and one in Argyll.

With such a small sample, detailed comment on the results is largely speculative. One might hypothesise, for example, that females are more numerous locally around Scotland and/or that they suffer disproportionate mortality. In most bird species, females are more dispersive, and departure from natal areas and dispersal through unfamiliar territory exposes them to greater risk (Donald 2007). From the analysis of European vagrancy records, Van Bemmelen & Wielstra (2008) speculated that these Brünnich's Guillemots were strays from normal wintering grounds and migration routes south of Iceland at approximately the latitude of the Faeroes and along the Norwegian coast. The extreme limit is around the coastline of continental Europe and only two records from England were reported in the European review (in Merseyside, 1960, and in Northumberland, 1977).

Comparative data from casualties from oil-spill incidents in the North Sea and Irish Sea indicate a male biased sex-ratio for two species of auk. Following the *Tricolor* spill in 2003, samples of Common Guillemot *Uria aalge* were 65% male and Razorbills *Alca torda* were 62% male (Camphuysen & Leopold 2004). After the *Sea Empress* spill in 1996, samples of Common Guillemot were 68.9% male and Razorbills 69% male (Weir *et al.* 1997). The male bias in these samples possibly reflects the fact that the birds were within their normal ranges.

Conclusion

Tissue samples from 18 Brünnich's Guillemots collected in Scotland were analysed and 17 were genetically sexed. Four (23.5%) were male and 13 (76.5%) female. As data on sex of many vagrants tend to be lacking, it is important that corpses of rare birds are salvaged and deposited in museums with permanent collections. Recent DNA analyses have confirmed the sex of an historically significant specimen of White-billed Diver *Gavia adamsii* (120 years old) and determined the sex of recently acquired fresh specimens of first-winter Siberian Blue Robin *Larvivora cyane* and Rufous-tailed Robin *Larvivora sibilans* (McGowan 2011, 2012). DNA investigation has also confirmed the subspecific identity of Britain's first Siberian Stonechat *Saxicola maurus* (collected by Baxter and Rintoul in 1913) and also that of Britain's first Eastern Yellow Wagtail *Motacilla flava plexa/tschutschensis* (collected by William Eagle Clarke in 1909) (Collinson & McGowan 2012, Collinson *et al.* 2013). For species such as Brünnich's Guillemot, even a preserved head will allow determination of age (from bill dimensions) and sex. Genetic sexing is a fairly straightforward technique to determine the sex of bird specimens. JMC is willing to sex important voucher corpses or museum specimens of birds by tissue sampling, whatever the county of origin.

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Table 1. Specimens of Brünnich's Guillemot from Scotland, with collection data, age and sex. (NMS = National Museums Scotland; MNH = Montrose Museum; ABDUZ = University of Aberdeen Museum of Zoology; GLAMG = Glasgow Museums; DUNMG = Dundee Art Galleries & Museums).

Accession number	Date	Locality	Age	Sex (gonads)	Sex (DNA)
NMS.Z 1909.134	10 Dec 1908	Lothian: Craigielaw Point		F	F
NMS.Z 1968.23	20 Mar 1968	Shetland: Unst, Norwick	ad	F	F
NMS.Z 1976.67.2	11 Oct 1969	Argyll: Loch Caolisport	ad		F
NMS.Z 1983.30.1	31 Jan 1976	Caithness: Thurso, Reay			F
NMS.Z 2013.19	18 Dec 1977	Shetland: Sumburgh, Scord	ad	M	M
MNH 1979.799	14 Jul 1978	North-east Scotland: St Cyrus	ad	M	M
ABDUZ: 23884	25 Feb 1979	North-east Scotland: Rattray Head			F
GLAMGZ.1980.68	9 Feb 1980	Lothian: Kilspindie			F
Private collection	9 Feb 1980	Lothian; Ferny Ness			F
DUNMG.1981.26.1	25 Jan 1981	North-east Scotland; Johnshaven			F
NMS.Z 1997.81.1	24 Dec 1982	Highland; Golspie			F
NMS.Z 1984.39	30 Oct 1983	Shetland; Mainland, Bannaminn		F	F
Private collection	7 Feb 1987	Shetland; Mainland, Hamnavoe			M
NMS.Z 1988.27.3	9 Mar 1988	Caithness; Dunnet Bay	ad	M	M
NMS.Z 1999.63	12 Feb 1994	Shetland; Wadbister Voe			F
NMS.Z 2002.134.3	21 Dec 2000	Orkney; Scapa Flow	ad		F
NMS.Z 2006.107.2	4 May 2006	Shetland; Yell, Southladie Voe	ad		not determined
NMS.Z 2012.79	25 Mar 2007	Shetland; Scousburgh	ad		F

Great Tit tugging at human hair

Around 10 am on 7 May 2013, I was sitting very still in my Edinburgh garden enjoying the sunshine, when a pair of Great Tits *Parus major* landed on the fence. One of them flew onto my knee, hopped onto my leg and then arm before alighting on my head. It spent around 30 seconds tugging at my hair, but did not manage to pull any out - my hair is quite fine and it may have had difficulty getting hold of it. Both birds then flew away. Food and water are provided for birds, although I had never seen the Great Tits in the garden before that day. A few days later I found a single Great Tit sitting on my dining room table, having flown in through the back door! There was no way of telling whether it was one of the original pair. Presumably, the bird that landed on my hair was looking for nesting material.

Alison Graham, Edinburgh.

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Great Tits are one of many species of bird that use hair - usually from animals - when nest building. However, we are not aware of any records of a tit trying to take hair from a person in the British literature. The Tufted Titmouse *Parus bicolor* has been recorded on several occasions landing on people to pull out hair in North America (e.g. Bent 1947). *Eds*

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The Black Wheatear's temporary appearance on the *Scottish List*

For over 80 years, Black Wheatear *Oenanthe leucura* had a place on the *Scottish List*, but it was removed in 1993 along with all the previously accepted British sightings (BOU 1993). This note summarises what is known of these two records of 'black wheatears' and the background to their reassessment.

1912 Fair Isle, male, 28-30 September (W.E. Clarke)

Only limited information is available on this bird. It was "several times distinctly seen" by William Eagle Clarke during its three-day stay, but it was "extremely wary" and "always kept just beyond gun-range" (Bedford & Clarke 1913). The Duchess of Bedford was also on Fair Isle at that time, but her diaries make it clear she failed to see it (Bedford 1938 *contra* Baxter & Rintoul 1953). Its exact location is not published, although "it frequented ground where cover was entirely absent" (Bedford & Clarke 1913). It can be assumed to have been away from the crofts, as the Duchess looked for it on a Sunday, when her birding was confined to the non-crofting areas. It was described as an

"adult male", but there are no descriptive notes to explain why. In spite of the adage that "what's hit's history, what's missed's mystery", this sight record was listed in BOU (1915) as a second record for Britain. Eagle Clarke was on the committee that produced this list. It is unusual that this occurrence was never written up as a short note, as were most other Scottish 'firsts'. The record was accepted by Rintoul & Baxter (1913) as a 'first for Scotland' (without further detail) and included in Witherby *et al.* (1940), but it was downgraded to a 'probable' in BOU (1952), only to be reinstated in BOU (1970).

1953 Fair Isle, probable female, 19 October (J.A. Stout, G. Stout)

The following extract from Williamson (1954) provides all the information available on this bird: "October 19th [1953]. James Stout of Midway and George Stout of Field both saw and reported independently to me a bird which can only have been a Black Wheatear *Oenanthe leucura*, probably a female. George told me about it when I met him on my early trapping round; James saw it when returning from an

abortive Woodcock hunt on the hill, and he 'phoned north about it when he reached the Post Office. When I met him later at Vaadal he told me the bird's general colouration was a dark earth-brown (pointing to an exposed peat-bank), except that the belly and flanks appeared quite black. The white tail and its coverts were very striking in contrast. He left his gun by the road-side and went to Setter croft to borrow their telescope, but unfortunately the bird disappeared across Field on his return.

"George saw only the upper side of the bird as it flitted along the lee of the Setter dyke; he also spoke of the marked contrast between the white tail and sooty back and wings. I looked all over place for the bird in the late morning and afternoon and was left with the impression (not for the first time!) that this is a very big island! Everyone knew about the wheatear by mid-morning and it was the day's topic of conversation. But nobody saw it again."

This bird occurred prior to the publication of Baxter & Rintoul (1953) and as a second record (rather than a first) for Fair Isle, didn't deserve an entry in Baxter (1955). It was first officially accepted by BOU (1970).

Discussion

Dymond (1991) was amongst the first to openly cast doubt on the records, noting that "the views obtained and details noted on the [1953] individual do not preclude the possibility of it being a White-crowned Black Wheatear".

After a review by BOURC in the early 1990s, none of the four then-accepted British records (including the two Scottish ones) was found to be sufficiently well documented, partly due to potential confusion with White-crowned Black Wheatear *O. leucopyga*, and the species was deleted from Category B of the *British List* (BOU 1993).

There can be little doubt that these birds were distinctive and given the undoubted observational skills of those who saw them, presumably lacked white crowns. It must also be safe to say that they were 'black wheatears' rather than melanistic Wheatears *O. oenanthe*. In which case, Black Wheatear and (black-

crowned) White-crowned Black Wheatear must be the most likely candidates. 'Basalt Wheatear' *O. lugens warriar* and 'Black-bellied Wheatear' *O. (picata) opistholeuca* (sensu OSME 2009) have the same basic plumage pattern, but are considered less likely to occur. The only accepted UK record of a relevant species is a White-crowned Black Wheatear in Suffolk in June 1982 (Brown 1986), which had a single white feather on its forehead.

The admittance of any 'black wheatear' onto the Scottish List - a repeat sighting must be on the cards - will rely on modern knowledge of wheatear variation and its careful documentation. Lansdown (1997) provides a useful summary of the key identification features.

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Letter: rare grebes and water quality

Sir, In his foreword to an issue of *Scottish Birds* (32: 194) the President remarks on the decline of the Black-necked and Slavonian Grebes. While we used to have nice, easily-accessible little colonies of each of them in North-east Scotland, both have now gone, and I remember no comment on a possible reason. While Ian Francis and Martin Cook say in *The Breeding Birds of North-east Scotland* that they like eutrophic waters, it seems possible that they have now had too much of this good thing. Their pools used to have nice, clear water, but it is now dirty with much algae (said elsewhere to be toxic, as at the Loch of Skene, where there has also been a decline of Tufted Ducks). They both lie in agricultural land, and it seems possible that agricultural chemicals and effluents have made them too eutrophic by half. It is difficult to see how we can deal with this, which is not mentioned among the problems for farmland birds discussed by Perkins, Maggs & Wilson later in the same issue (32: 236–244), but it seems possible eutrophication of local waters should be included.

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Stuart Benn comments: "There are certainly some instances where we believe that eutrophication has led to the abandonment of Slavonian Grebe sites, but we are only talking about a couple. Some of the sites currently being used look pretty eutrophic to me. Eutrophication may have a role to play, but we don't currently believe that to be major and there is no evidence that it is the cause of the widespread decline in breeding numbers/sites of Slavonian Grebes in Scotland."

Ian Francis comments. "I think the two species are rather different and can't be accounted for in the same way. Black-necked Grebes appear to be a species at the northern edge of their range, taking advantage of temporarily suitable habitats then moving on after a few years at most sites. They never had a small colony in North-east Scotland. At Loch of Kinnordy, Angus & Dundee, abandonment was probably forced by excessive vegetation colonisation and predation. The quote about Slavonian Grebe habitat in North-east Scotland is slightly out of context. In Francis & Cook (2011) the Slavonian Grebe account by Charlie Gervaise and Stuart Benn says they breed "on small, shallow waters ranging from eutrophic pools and gravel pits ... to more nutrient poor upland lochans". It is not said that "they like eutrophic waters". They do, however, use them - perhaps sub-optimally? With Black-necked Grebes, we say they breed on shallow eutrophic lochs. With this species, there is more of a preference for richer waters so this species does use 'eutrophic' water. However, there is a range of states of eutrophication, from mildly (almost mesotrophic) to almost hypertrophic. No doubt there is a point on the scale of continuing eutrophication that lies beyond the preference of either species, as waters become turbid and food declines or becomes harder to find. It may be that continued landscape-scale eutrophication of surface waters has influenced these two birds, but it is likely only to be one possible factor, and I would say less so for Slavonian Grebes, based on sites in northern Scotland."

Ron Summers comments: "A study of loch selection by breeding Slavonian Grebes (Summers *et al.* 2011) was carried out in Highland Scotland, including aspects of water

quality. Numerous elements, compounds (nitrates, sulphates and phosphates) and pH were measured but there was no difference in chemistry between lochs used and not used by grebes. However, lochs that were used tended to have better clearer water, probably because it is easier to hunt Sticklebacks (their main prey) in clear water. Turbidity was partly due to the organic content in suspension. Therefore, one can imagine that factors that lead to poor water clarity would be detrimental to Slavonian Grebes. For example, excessive input of nutrients (particularly phosphates) can lead to blooms of microscopic

algae, thereby reducing water clarity. In addition, decomposition of dead algae reduces the oxygen content of water and can cause death of fish. These processes would make lochs unsuitable for grebes."

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Obituaries

Andrew Shepherd (1931–2013)



Plate 185. Andrew Shepherd, Lunan Bay, Angus & Dundee, 2002. © Bob McCurley

Andrew passed away peacefully at home on 3 June 2013 after a long illness, which he fought gallantly for the past few years. He will be greatly missed by all who knew him. I personally have great memories of him on

various club outings, in particular visits abroad to Denver Colorado, and Lesbos, to name but two. He was a regular attendee at both indoor and outdoor meetings of the Angus and Dundee Bird Club (ADBC) and the SOC Tayside branch. Andrew served as ABDC Treasurer for years, doing such a good job he was made a Life Member. For 64 years he was a member of the Arbroath Racing Pigeon Society. His greatest achievement was in 1964 when his Red Pied pigeon 'Gay Paree' won a much coveted Osman Memorial Trophy for a race from Paris. He will be much missed as will his contribution to the smooth running of the clubs he supported so well. On behalf of the SOC and Angus and Dundee Bird Club, Brian Brocklehurst and I attended his funeral service at Parkgrove, Friockheim. We have sent our deepest condolences to Val and family on behalf of both clubs. Rest peacefully Andrew.

Bob McCurley

Brian Turner (1920–2013)



Plate 186. *Brian Turner with Red Squirrel, Penpoint, Dumfries, January 2006.* © Edmund Fellowes

Brian was born in Quetta, now in Pakistan, where his father was an engineer with the post and telegraph system. Following an earthquake which destroyed their home, they moved when Brian was about 15 years old to Nainital. There, he met his future wife's family who were friends of the Corbett family, including Jim Corbett after whom the Indian national park is named. All were interested in nature and photography, and Brian was full of stories of youthful trips to the nearby jungle where he watched the birds and even met the occasional Leopard.

He served in Iraq throughout the Second World War, and, after demobilisation in the UK, came to Scotland where he read Chemical Engineering at Glasgow and achieved a first class degree. During this time he had married Pat and their son Ian was born. He worked for ICI, first at Ardeer, and then from 1962 in Dumfries where he bought a semidetached house. By chance, on the other side of the party wall lived Harry Russell and his family. Harry was to become the first Chairman of the Dumfries SOC branch when it was established in 1964. Brian was involved from the start of the branch, and meeting up with Bobby Smith

and Jim Young formed a distinguished trio of bird photographers. One of their exploits was to build, with the help of professional riggers, a hide at a heronry in tall Scots Pines near Mabie Forest, not far from Dumfries, and there were other treetop adventures with Rooks, Long-eared Owls and Sparrowhawks.

Brian retired from ICI in 1974, and he and Pat moved to Shinnel Mill near Penpoint in Nithsdale. There they had a few acres bordered by the Shinnel Water, and which he turned into a naturalist's paradise. He had many nest boxes and there was a long-running nest record and ringing project for the Pied Flycatchers. Many of the birds became hand tame, but as the Sparrowhawk population built up this tameness was lost. He also loved the Red Squirrels which came to his feeders, and which varied greatly in personality.

He continued to photograph birds and travelled widely with his cameras, leading several trips to Zimbabwe where his brother had settled. Many SOC members travelled with him on what seem to have been extremely jolly jaunts. Meanwhile he attended every SOC conference

where he led the projection team in the era of 35mm slides. When the digital photographic revolution occurred, Brian was at the forefront of technology. He sometimes said that he would have preferred to have met up with Photoshop at 18, rather than at 81.

As he became less mobile, he embraced the internet with enthusiasm. Meanwhile, he encouraged the wildlife to come to him and his kitchen window sill displayed a smorgasbord of nuts, fruits and live food. Apart from the usual suspects, he had at different times, Jays and a Mistle Thrush visiting the window sill. A few metres away, the extensive feeders attracted up to 60 Coal Tits at one time as well as Siskins, Goldfinches and Redpolls. Nuthatches became regular as they occupied Dumfriesshire, and there were always scores of common birds to be seen. Brian had a love/hate relationship with the Sparrowhawks and erected wire netting barriers to make life difficult for them.

The squirrels were his particular joy and many of them would come to take nuts from his hand. They were individuals, some tame and some not, and some extremely fussy. A particular favourite would only take Italian organic hazelnuts from Tesco.

Brian continued to attend Dumfries branch meetings and his mind remained as sharp as ever. In late autumn of 2012 he developed a terminal disease and traced its progress as the engineer that he was. He died at home cared for by Ian and Diana, Pat having died two years before him. We extend our sympathies to them, and remember Brian as an ever lively and entertaining SOC friend.

Edmund Fellowes

Dr John Alan Gibson (1926–2013)

After a long illness, "Jack" Gibson died on 8 June 2013 in his 87th year. A family doctor in Kilbarchan, Renfrewshire, his main interest outwith his medical career was natural history, particularly ornithology. In this field, he was best known for publishing numerous check-lists and atlases concerning biological recording of vertebrates in the Clyde faunal area. He never really was a field observer, except during his early years, but he built up a small network of correspondents, who provided him with many unpublished records. He was also a keen collector of Scottish natural history journals and with these two sources he was able to compile his published papers. For ornithology these included *Clyde Birds* (1960 & 1981), *Birds of Arran* (1955), *Bute* (1980), *Cumbræ* (1957) and his beloved *Ailsa Craig* (1951). Jack was editor of *The Glasgow & West of Scotland Bird Bulletin* (1952–59), very similar in format to the earlier *Edinburgh Bird Bulletin* (1950–58) published by the SOC Edinburgh branch.

During the late 1970s, he founded The Scottish Natural History Library, a registered Scottish charity, in a large, elaborate annex to his home in Kilbarchan. Here he assembled an impressive collection of primarily Scottish books, natural history journals and archive material. However, gaining physical access for research purposes was virtually impossible, for reasons best known to himself. To counter this shortcoming, he responded in a helpful and fulsome way by letter to all written enquiries. About the same time he launched another journal *The Western Naturalist*, later subsumed into the resurrected *The Scottish Naturalist* as a means of publishing his own papers and those of invited authors.

At one time Jack owned eight Great Auk eggs and several stuffed specimens, which were once the property of millionaire collector Vivian Hewitt of Anglesey; their current whereabouts is uncertain.

David Clugston



Plate 187. Visitors at the Scottish Birdfair, Hopetoun House, May 2013. © Stuart L. Rivers

On Saturday 11 May, one year older and a little bit rustier, the 'Golden Chariot' returned to Hopetoun House, West Lothian for the second annual Scottish Birdfair.

Demonstrating an increase on last year's figures, more than 5,000 nature lovers and bird enthusiasts attended over the course of the event, which is quickly becoming regarded as one of the highlights of the Scottish birdwatching calendar.

Over the weekend, attendees were able to take their pick from a first-class line-up of walks, talks, demonstrations and workshops and were given the opportunity to peruse the very latest in birding technology, clothing, holidays, optics, art work and literature from over 100 exhibitors.

As one of the major supporters of the Birdfair and being the largest external event the SOC will attend this year, we were delighted to be able to contribute a packed programme of activities to the weekend events programme and take advantage of this unrivalled opportunity to showcase our Club, staff, volunteers and monitoring role to this captive audience of bird and wildlife enthusiasts.

Novice birdwatchers were introduced to Hopetoun's birdlife and the SOC's local branch network, via three 'birdwatching for beginners' walks, ably led by Stan da Prato and David Atkins (SOC Lothian branch). We were also delighted to assist our colleagues at BTO Scotland in

leading several 'get involved in bird recording' walks which provided visitors, with a fun introduction to the recording their bird sightings via the online recording tool, BirdTrack (of which SOC is a partner).

For the young ornithologist, an owl pellet dissection workshop took place each day, which proved great fun for the children, parents and organisers (Dave Allan and James & Doreen Main from SOC Lothian branch) alike, and for which we were inundated for both sessions!

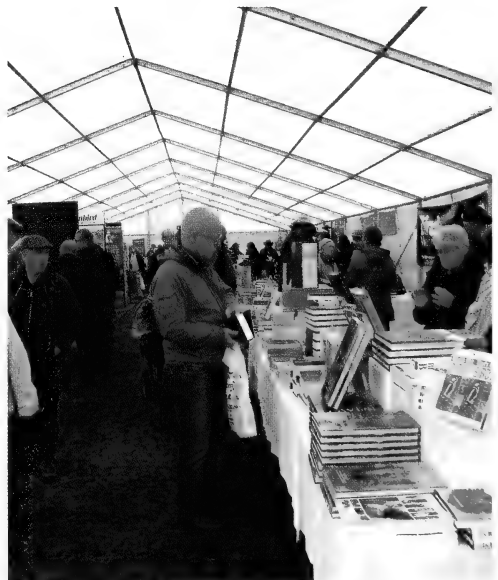


Plate 188. Inside one of the marquees, Scottish Birdfair, Hopetoun House, May 2013. © Stuart L. Rivers

The Club was allocated two prime-time talk slots over the weekend: on Saturday, Eric Meek (SOC Orkney branch) took to the stage and delighted his audience with an introduction to the magical island of Fair Isle. On Sunday, Professor Peter Slater provided a highly entertaining and informative overview of why birds risk singing in a world full of predators.

Our two workshop slots were similarly chosen to have broad appeal and tackle some common identification queries. Stan da Prato delivered a very popular session on 'songbirds and their song' on Saturday, filled with helpful hints and tips for identifying and distinguishing bird song in the field. After the success and popularity of last year's raptor identification workshop, a similar session was offered by Ian Thomson (SOC Council member and RSPB Scotland's Head of Investigations) again this year, given this group's appeal, and equally the shared difficulties in identifying them!

Based on feedback from last year's Birdfair, a digiscoping demonstration was given by Ray Murray (Borders Local Recorder and SOC Council member), offering help and advice to enable attendees to make the most out of whatever particular digiscoping system they owned.



Plate 190. The popular bird ringing area, Scottish Birdfair, Hopetoun House, May 2013. © Stuart L. Rivers

Along similar lines, multi-award winning wildlife photographer Laurie Campbell led a booked-out nature photography walk around Hopetoun's woodlands, much to the delight of those who managed to get a space on the event!

Keen to establish closer links with Scottish universities, the Club was thrilled to have Aberdeen University PhD student Jenny Sturgeon accompany us on the stand on Sunday. Jenny warmly engaged with the public to raise awareness of her study of a population of colour-ringed Shags on the east coast of the UK and to encourage members of the public to report their re-sightings.



Plate 189. Releasing a Great Tit, Scottish Birdfair, Hopetoun House, May 2013. © RSPB



Plate 191. The SOC tent, Scottish Birdfair, Hopetoun House, May 2013. © Stuart L. Rivers

Whilst working to grow our membership base at the Birdfair, we were equally mindful of the continued and unwavering support of many of our existing members and volunteers who'd be visiting the event that weekend. As such on Saturday, in conjunction with BTO, we hosted a joint 'member and volunteer thank you' reception celebrating our supporters, both long-standing and new. Obviously this required more cupcakes, which were kindly provided by Cuckoo's Bakery in Edinburgh, at a deliciously discounted rate!

Being from Scotland, of course we have to make mention of the weather that weekend, which was particularly hellish (and typically Scottish!) on Saturday. It was all hands on deck between the intermittent squalls to repair the stand, tie down the banners and replenish the supplies of leaflets which had become airborne and were now making their way around the site! Our forward facing stand location, thought to be integral to the Club's success last year, was a source of regret this year as visitors took shelter from the wind in the enclosed neighbouring marquees. Such is the gamble and thankfully the wind died down on Sunday!

Special thanks go to all the staff and volunteers who helped on the SOC stand and second-hand book stall over the course of the weekend and assisted in the preparation for the event including Waterston House staff and volunteers Vicki and Campbell McLellan, Keith Macgregor, Catherine Cant, Chris McInerny and Doreen and James Main. Yet again, SOC Council was humbled by the dedication and generosity of the volunteers who lent their time to the Club over the Birdfair weekend, whether leading an activity, or providing cover (or damage repair!) on the stand. Thank you very much once again for your support and enthusiasm - it wouldn't have been possible without you! At close on Sunday, in spite of the challenging conditions, we'd welcomed 15 new members to the Club, caught up with many more existing supporters we hadn't seen in a while and engaged with potentially hundreds of future members! Around £100 was made from the sale of second-hand books, which has since been ploughed back into the Club to continue our work advancing our knowledge of Scotland's birds. We hope you'll join us again next year at the 2014 Scottish Birdfair on 10 & 11 May!

Jane Cleaver

NEWS AND NOTICES

New SOC members

Ayrshire: Mrs E.M. Brown, **Borders:** Mr & Mrs D. Janes, Mr J. Osborne, **Caithness:** Ms L. Oliphant, Ms L. Rollings, **Central Scotland:** Mr D. Davis, Mr P. Lord, Mr J. Robertson, Mr W.A. Thomson, **Clyde:** Mr G. Brady, Mr D. Crossan, Ms J. Gowans, Mr R. Greer, Ms J. Lang, Ms J. Livingstone, Mr R. Logan & Ms C. Buglass, Mr D. McLennan, Mr W. Mitchell, Mr S. Mitchell, Mr G. Palmer, Mr M. Smith, Mr E. Stevenson, Ms S. Wells, **England, Wales & NI:** Mr G. Gordon, Mr O. Yasseen, **Fife:** Mr C. Andrews, Mr I. Gourlay, Ms L. Kirk, Ms L. MacLean, Mr R. Saltmarsh, Ms K. Williams, **Highland:** Mr J. Buttress, Mr & Mrs B. Johnson, Mr A.B. Loveland & Ms J. Main, Mr & Mrs D. McCormick, Ms R. Moore, Mr & Mrs M. Smith, Mr D. Spencer, **Lothian:** Mr I. Brebner, Miss U.C. Croll, Mr & Mrs W.E. Dickinson, E. Drake, Ms E. Elliot-McColl, Mr E.J. Ellis & Ms P.A. Alderson, Mr B. Garlick, Mr C. Garner, Mr N. Harvey, Ms L. Hepburn, Dr J. Herring, Ms C. Jardine, Cllr C. John, Mr A. Keith, Mr & Mrs J. Kerr, Mr & Mrs R.G. Kinghorn, Mr F.G. Kinghorn, Ms H. McKellar, Ms B. McKerrow, Mrs J. McNally, A.W. Milan, Mr & Mrs A.E. Miller, Miss A. Neilson-Dow, Mr M. Nolan, Ms J. Noltingk, Mr D. Temperley, Mr & Mrs R. Thomson, Mr & Mrs R. Thomson, Mr & Mrs R. Thomson, Mr D. Watson, Mrs M. Wright, **North-east Scotland:** Mr P. Baxter, Mr J. Fallgren & Ms Y. Backstrom, Mr G. Green, Mr I. Halliday, Mr I. Hastie, Mr F. Pain, Mr L. Simpson, Ms A. Sturgeon, Ms J. Sturgeon, **Overseas:** F. Martini & D. Bonantini, **Scotland - no branch:** Mr A. Dalton, Mr A. Prasad, F. Sandison, Mr G. Uney, **Tayside:** Mr & Mrs D. Bailey, **West Galloway:** Mrs S. Ramsay.

200 Club

The latest prizewinners are: **May:** 1st £30 Dr I.R. Poxton, 2nd £20 Mrs K. Millar, 3rd £10 Dr W. Morrison. **June:** 1st £30 David Parkinson, 2nd £20 Donald Wiggins, 3rd £10 Jimmy Maxwell. **July:** 1st £30 Mr & Mrs Hogg, 2nd £20 Mrs Wheelans, 3rd £10 J.S. Cross.

Scottish Birdwatchers' Conference

Saturday 22 March 2014, Aberdeen University Zoology Dept, Aberdeen. Programme and booking information will be circulated with the December issue of Scottish Birds

SOC Annual Conference - 'Birds & Politics'

25–27 October 2013, The Marine Hotel, Troon. For more information and to book online, visit www.the-soc.org.uk/whats-on/annual-conference

Optics Demo

Sunday 13 October, 10 am–4 pm, Waterston House. A chance to check out a wide selection of binoculars and telescopes or get some free, expert advice. We welcome requests for particular models to be available to try. Contact Dave Allan on 01875 871330 or dave.allan@the-soc.org.uk

Art Exhibitions, Waterston House

Keith Brockie, 21 September–13 November
Darren Woodhead, 16 November–15 January 2014

Aberlady Goose Watch

Tuesday 1 October and Monday 7 October 2013, 6 p.m., Waterston House. £4 (SOC members & children) / £6 (non-members). Refreshments served from 5.30 pm. An illustrated talk by Aberlady Local Nature Reserve warden, John Harrison (East Lothian Council) followed by the chance to witness the spectacle of thousands of Pink-footed Geese coming in to roost on the reserve. Places limited. Advance booking essential. Call 01875 871330.

Car sticker

The SOC's new car window sticker is now available to purchase for £1 (plus 50p p&p charge, if required) from Waterston House. Visit, or contact us today to get yours.



Request for information

Sightings of colour-ring Shags

In order to conserve our seabird populations we need to know where juveniles and adults go at different times of year. The biggest gap in our knowledge is the winter when birds are often far out at sea and very difficult to study. However, perhaps surprisingly, we still know very little about

species such as Shags that are potentially easier to keep track of because they stay closer to the coast.

As part of a major collaborative project between the Centre for Ecology & Hydrology, the University of Aberdeen and the SOC we are using resightings of field-readable colour-rings to locate Shags in winter and understand why they go where they do.

Since 2009, Shags at multiple colonies along the east coast of Britain have been ringed with a coloured plastic ring engraved with three letters, allowing individuals to be identified in the field using binoculars, a telescope or camera zoom. Colour-ringed Shags of all ages can be seen throughout the year, including in winter, when they use coastal roost sites. Colour-ringed Shags have been seen wintering as far north as Yell, Shetland, and as far south as Brighton.

This summer, Shags have been ringed at a record number of colonies and despite last winter's wreck (when over 500 dead Shags were found) many colonies have had moderate breeding productivity. Thanks to the amazing

efforts of ringers, at least 1,362 Shags have been colour-ringed across 10 colonies in Scotland: 550 on the Isle of May, 441 on the Forth Islands (Craigleith, Fidra, Inchkeith and Inchmickery), 136 at Bullers of Buchan in Aberdeenshire, 100 at Badbea in Caithness, 96 at North Sutor in Highland, 32 on Stroma and seven on Fair Isle. The total may creep nearer to 1,400 if some late broods are ringed!

Our next task is to resight as many of these individuals as possible during the autumn and winter. We go out as often as we can but covering all the coast, especially when days are short and the weather often bad, is a huge challenge. Thus help with resighting is hugely useful. Particular areas where we would greatly appreciate more coverage include Lothian, Fife and the Highlands and Islands.

We are always grateful to hear of resightings of colour-ringed Shags. Please email Jenny at Shags@ceh.ac.uk with resightings (including date seen, location, three-letter code and ring colour) and get in touch if you are interested in getting more involved!



Plate 192. Colour-ringed Shag (red EEU), Craigleith, Firth of Forth, July 2013. © Ian Poxton

Alexander Wilson Bicentenary Celebrations

The March issue of *Scottish Birds* (33: 54–56) gave advance notice of all the events planned to celebrate this important anniversary.

A splendid exhibition at Paisley Museum curated by Lorna Stark was formally opened during the evening of 13 June. Zoology Professor Jed Burt of Ohio University, who has recently published a new book about Wilson, gave an account of his life both in Paisley and North America and this was followed by a short appraisal by local councillor Jim Harte. Amongst the cabinet displays in the exhibition are several original letters, one written from Paisley's tollbooth, original drawings of American birds for his seminal book on *American Ornithology* alongside several original volumes, his bird-hunting musket and two fine portrait paintings of the man himself. Illustrated interpretive display boards provided much information concerning this unsung Paisley-born hero.



Plate 194. Paul Walton (centre) with Jed Burt and Pat Monaghan. © Jimmy Maxwell

The following evening, a more academic series of talks was hosted at Glasgow University. This was chaired by Professor Pat Monaghan, who again introduced Professor Jed Burt, who gave an informative lecture on Wilson's life and his importance as the very first scientific writer of American Ornithology. This was followed by Dr Erma Hermens who concentrated on the early

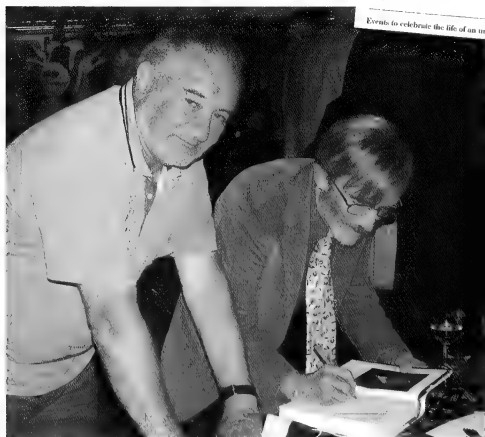
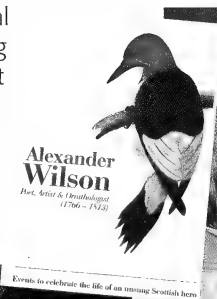


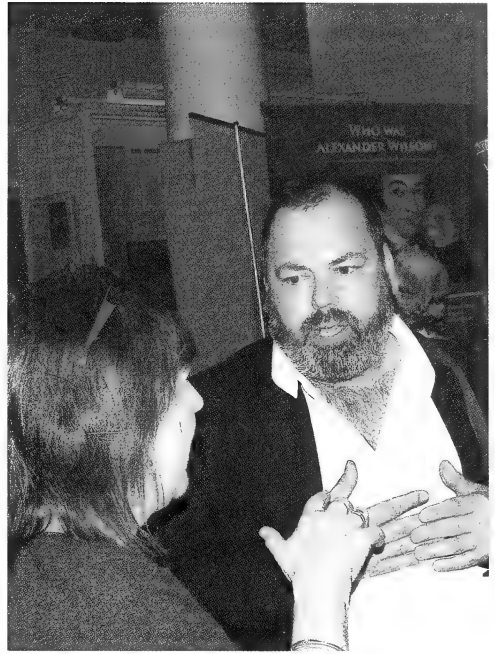
Plate 193. Bernie Zonfrillo has his copy signed by Jed Burt. © Jimmy Maxwell



Plate 195. Dr Hermens (right) in conversation. © Jimmy Maxwell

history of bird art prior to Wilson. Dr Gerry Carruthers then gave a detailed insight into his poetry as compared to the admittedly more accomplished Robert Burns. To round off this part of the evening, Paul Walton (RSPB) entertained us with several readings from Wilson's writings.

Guests then adjourned to the Hunterian Zoology Museum where an exhibition had been assembled by Maggie Reilly and her team. This included cabinet displays of some of his published books, specimen examples of birds which he had discovered or had named after him and many display posters. The opportunity to buy signed copies of Jed Burt's book and an attractive set of postcards depicting some of Wilson's bird art, and not forgetting a glass of wine and strawberry tart, rounded off a most enjoyable evening. Thanks to Jane Cleaver for her valued support in promoting these events on behalf of the SOC.



David Clugston

Plate 196. Dr Carruthers (right) chats with audience members. © Jimmy Maxwell

How can I help...?

Save Scottish Seas

Plans for a network of Marine Protected Areas do not go far enough!

The SOC is part of a joint campaign to make sure they connect, protect and recover our seas...

Visit www.the-soc.org.uk/our-views or www.savescottishseas.org to find out more about the proposals and where you can attend regional consultation events or contribute your views online.

Impressions from 80 years watching birds

W.A.J. CUNNINGHAM

I cannot put a date on the beginning of my interest in birds. The acquisition of my grandfather's wartime binoculars when he died in 1929, when I was 11 years of age, may have nudged me in that direction. What is certain is that they were nearly the end of my birdwatching. With them, I, as a schoolboy, was observing a Treecreeper on a tree in the woods adjacent to my school in Jordanhill, when I realised to my horror that one of the school prefects was kissing a girl behind that very tree. If he had noticed me first, I might have been persuaded that watching birds was too dangerous a pastime.

I was alone in knowing no-one with a kindred interest and only a little book called *The Observer's Book of Birds* as my guide, but I must have persevered for one of my earliest memories is of a flock of Long-tailed Tits in trees by Loch Ard in the Trossachs. My father had bought a car about 1930, which extended my sphere of observations greatly. I recall also a flock of Goldfinches perched on a fence in Crow Road between Jordanhill and Anniesland, which engendered a letter published in *The Glasgow Herald*.

With two or three pals I began to build model aeroplanes of balsa and oiled silk, powered by elastic bands. The words 'camber' and 'dihedral' entered our vocabularies and the mystery of flight regarded as solved. The constraints imposed upon species of birds by the shape of their wings were explained and come back to me now when, confined to my car, I enjoy, for example, the way of our Fulmars in the air as they float past me on the upward currents along the cliff top. I am reminded of the post-war voyages I made in container ships from Tilbury to Cape Town, when in my favourite seat right up in the bows, sheltered by the flare from the strong wind, albatrosses, Black-browed, Yellow-nosed etc., soared past me across the bow almost within touching distance!

While still at school, I took up - for no apparent reason - a keen, extramural interest in Gaeldom and the Outer Hebrides. In May 1937, I was lucky to be chosen for a weekend cruise to St Kilda in the Anchor Liner *Tuscania*, chartered by the Glasgow City Council to take selected pupils from Glasgow schools to commemorate the coronation of King George VI. Then, in the spring of 1939, I joined the old *SS Hebrides* for one of her 12-day voyages through the Western Isles with cargo, as far as Tarbert, Harris. On both voyages, I enriched my knowledge of sea birds and passerine species.

On 12 December 1939, I was 'called up' into the Royal Navy and spent the next six years at sea, mostly as the Navigating Officer of Flower Class Corvettes. I had already become proficient in messing about in boats and sailing 12-ft dinghies on Bardowie Loch in company with Dabchicks and Great Crested Grebes, and had joined the junior section of the Clyde Cruising Club, enabling me to crew at weekends on such beautiful yachts as Sam Strang's green, nine-metre *Torridon*.

I am deeply sorry that the stress of convoy work amid the storms of the North Atlantic and Barents Sea and the serious efforts by the enemy to sink us and our charges, overcame my pre-war



Plate 197. The Flower Class Corvette *HMS Dianella* on which I served. © Peter Cunningham

proclivities. Nevertheless, I remember my first Iceland Gull in the Denmark Straits in 1941, a Great Kiskadee in Port of Spain, Trinidad, a Nightjar in the Mediterranean and a pair of Grey-headed Kingfishers on our mooring wires in Lagos, Nigeria. Various nondescript species of warblers sought refuge on board (there was no bird book available) and the mind boggles at the innumerable sea bird species that I must have seen wherever we went.



Plate 198. Ivory Gull on the wall in Stornoway Harbour, January 2000. © Peter Cunningham

I should like to digress for a moment to recall the thrill of looking down from the wing of the bridge on to the broad, spotted back of a Whale Shark, the biggest fish in the sea, as we slowly overtook it. Or the fright the look-out and I got when two phosphorescent tracks were seen to be racing towards the ship one dark night in the South Atlantic. Torpedoes, we both thought, until they turned into our bow wave and revealed themselves as dolphins having fun. And when on Morning Watch, at 06:00 on beautiful tropical days, I used to love paddling in bare feet on the upper deck while the Duty Watch washed it down with sea water after I had picked up enough stranded flying fish for breakfast.

On passage from Lagos to Cape Town, escorting an injured C Class cruiser, so many of the crew and I fell ill with fever that we had to return to Lagos and the Scottish Hospital there. During recuperation, I woke up in my ward in the forest one morning to see green lizards running up and down my walls. I thought delirium had returned, but they were real!

I was demobbed in May 1946 and rejoined the Customs and Excise Department of the Civil

Service. On 4 May 1949, I stepped ashore from the *RMS Loch Seaforth* on to Lewis to realise the hebridean ambition of my youth. By 1954 I was married to a sweet, winsome Lewis lass (another ambition fulfilled?) and had found a niche as bird correspondent for the Outer Hebrides. George Waterston, who became a great friend, had invited me to join the RSPB and SOC, enabling me to meet and regard as friends many prominent professional ornithologists, who deigned to listen to an amateur. I was also privileged to meet James Fisher and Roger Peterson on their visits to Lewis as George was in the habit of asking me to conduct parties of ornithologists round the island. Roger Peterson was kind enough to sign my copy of his Field Guide.

James Fisher arrived in May 1968 on a Meteor cruise and during a discussion on local birds said he had heard a Goldfinch calling in the Stornoway Woods. Now, I knew that this species had never been recorded in the Outer Hebrides and had the temerity to doubt him. Goldfinches eventually colonised Lewis about ten years later. In *The Sunday Times* of 21 January 1962, James Fisher began an essay on "The Great Coloniser" dealing with the spread of Collared Doves, with the words "On 2 June 1960, an experienced bird-watcher, Mr W.A.J. Cunningham, saw a strange bird in Stornoway, Isle of Lewis. It was the most north-westerly collared dove that anyone had seen anywhere." Incidentally, Maury Meiklejohn visited me after my report and spotted one near Stornoway, but typically admitted that mine was farther north-west than his!



Plate 199. A Wryneck, very lucky to be brought home by a domestic cat, unharmed, August 1992. © Peter Cunningham

Thanks, perhaps, to my *Nature Notes* in the weekly *Stornoway Gazette*, I was becoming known in the Outer Hebrides as one who, if he didn't know the answer to a bird query, quickly found it.

I had a phone call one morning from the police to say that a fierce, big, black bird had landed on Bayhead, a busy thoroughfare, and was holding up the traffic. Could I do something about it? I took gloves and a sack and went down to see what I could do. It was, as I suspected, a young Gannet or Guga in its juvenile plumage of jet black feathers spangled with silver darts. It had been blown inland in the night and, being a Gannet, was unable to take off from a flat surface in the absence of wind. I bundled it into the sack and took it to the harbour. Standing on the pier I threw it up into the air and off it went to join its peers in the South Atlantic for a year or two. A man standing nearby expostulated at my action, saying that he, being a Nessman, could have eaten it.

In order to raise funds for the local unit of the Sea Cadet Corps with the 65-ft MFV we used for sea-training I ran, I landed, and disembarked a fortnight later, a team of 12 Nessmen on the barren rock of Sula Sgeir 40 miles north of the Butt of Lewis, to cull about 2,000 young Gannets for food as had been done for countless generations. The mess left by 2,000 oily Guga carcasses in the hold put a stop to it after a couple of years. A less unpleasant job was carrying some shepherds from Swainbost to the neighbouring, fertile island of North Rona, with their dogs and rams, where they grazed a large flock of more or less wild sheep. It was a wonderful experience to sit on deck at night with countless Storm and Leach's Petrels passing overhead to their nests ashore, while Grey Seals around the vessel discussed what we were doing in their patch. On one trip, I allowed a passenger to take the wheel only to find that he had been sick into the leather, velvet-lined case, which had held my grandfather's binoculars. It was never the same again.

There have been many changes during my time in Lewis. I still shudder when I pass an islet on a fresh-water loch near Stornoway

because, about 60 years ago at this time, it would have been white with nesting Common Terns. When Nigel Buxton, the local NCC Officer, and I visited it one day, we found it a hideous shambles of broken eggs, dead chicks



Plate 200. White-tailed Eagle, near Stornoway (named in Rum, Gregor), November 1982. © Peter Cunningham



Plate 201. New Gannet colony on the Flannan Isles - found in 1969. © Peter Cunningham

and adult terns. That was our first sight of what a mink or two could do in a night to a colony of ground-nesting birds. It was to be repeated ad nauseam for a long time. Mink may not be wholly to blame for the damage done to our ground-nesting birds; introduced hedgehogs must bear much responsibility together with feral cats and mechanised agriculture. Less corn is planted than heretofore and hay stacks have been replaced by silage. Fewer sheep graze the common land and moors, so less carrion. New species of birds of prey have

colonised Lewis; White-tailed Eagles, Sparrowhawks and Kestrels now breed there, having found presumably niches to suit them, but the status of Hen Harriers is uncertain although seen more often than of yore. Last April I traversed a quiet, single track road across Lewis and did not see a single bird. Fifty years ago at the same time of year I should have seen ten or more species.

My work took me to every township and occupied island in the Outer Hebrides where my spare time was devoted to the natural history at all times of the year. I was therefore very well placed to act as bird reporter for the nascent annual Scottish Bird Report.

As already mentioned, in 1954 I took over the Stornoway Sea Cadet unit and persuaded the Admiralty to provide us with a 65ft "self-drive" MFV for sea training. We were able thus to visit nearly all the off-lying islands, including North Rona, Sula Sgeir and the Shiantis and record their birds. Our annual summer cruises included Northern Ireland and Brittany.

I paid two more visits to St Kilda. In the course of a Royal Naval Reserve training cruise round the Western Isles we were entertained by the Army unit and I was taken up Conachair in a jeep. On a later, private visit I stayed in the factor's house with the RSPB Warden, who showed me my first Laughing Gull, which was surviving on Army sausages.

I spent many enjoyable English springs with hospitable cousins in Sussex. They generously enabled me to watch Choughs in Pembrokeshire, Hawaiian Geese in Slimbridge, nothing unusual

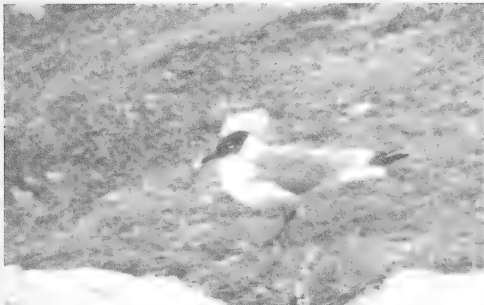


Plate 202. Laughing Gull, St Kilda, June 1980 - survived on Army sausages! © Peter Cunningham

on any of the Scillies, Hobbies at Pulborough, Lesser Spotted Woodpeckers at Rackham, Nightingales at Selbourne and Stone-curlews in Norfolk plus innumerable unfamiliar species.

Much to my surprise I was given the Scottish RSPB President's Award in 2007, a handsome model of an Avocet. Its value was enhanced for me when I discovered that it had been made of African wood in Knysna, one of my favourite places in the Cape.

After retirement my wife and I took advantage of modern facilities for air travel to visit friends in Australia and New Zealand and observe their bird life. Of all the wonders I came across a few stand out: a Pacific Golden Plover, which fed beside us in Kapiolani Park, Hawaii; a very rare Black Stilt on the opposite bank of a stream in New Zealand, where I was fishing for rainbow trout, and the colonies of Royal Albatrosses and Yellow-eyed Penguins near Dunedin.



Plate 203. Hoopoe, angry at being nearly run down by my car in Lewis, May 1994. © Peter Cunningham

As a lonely widower, I sought birds in British Columbia and South Africa, where I couldn't record new species quickly enough. My final adventure had a double purpose, to revisit the waters I ploughed during the battle for Norway in 1940 and those with convoys to and from Russia in 1943 and to look for Arctic species I had seen only as vagrant individuals. I was rewarded, during the Hurtigen Cruise in the Lofoten with flocks of King and Steller's Eiders and the sound and sight of a pair of White-tailed Eagles mating.

Having spent so much time afloat in the Mediterranean, I was keen to see more of Gibraltar, so I flew out one April. Gibraltar is

really a wonderful place for a bird-watcher. Everybody speaks English and uses our money; a great variety of birds are easily accessible and although I had passed between the Pillars of Hercules many times, I was enchanted to sit on Europa Point and look across to Africa with migration in full swing overhead.

I joined an SOC Group on another occasion to visit Majorca. It was entertaining, instructive and the company, on the whole, convivial. I lost my notes and photos on the way home, but I think we went to all the right places and saw all the right birds, including vultures and Eleonora's Falcon.

In conclusion, let me mention briefly some landmarks in this story; With Stewart Angus, NCC Officer in Stornoway, I founded the Outer Hebrides Natural History Society. It is still active under a less prolix name.

A selection of my *Nature Notes* in the *Stornoway Gazette* was published locally by Acair Limited in 1979, illustrated by Andrew Millar Mundy.

The Royal Society of Edinburgh and the Nature Conservancy Council convened a symposium in 1979 on the Outer Hebrides, at which I was invited by Dr J. Morton Boyd to read a paper on its terrestrial birds and birds of prey.

Professor Wynne-Edwards of Aberdeen University kindly introduced my *Birds of the Outer Hebrides* in 1983 with drawings by Roger Lee. When Prince Charles and Princess Diana visited the Outer Hebrides in 1985, I, as Deputy Lord Lieutenant, was given the task of looking after them while on the island of Scalpay. I took the opportunity of handing a copy of my book personally to HRH, knowing his affection for our islands. *Birdwatching in the Outer Hebrides* was commissioned by Saker Press in 1995 from Tim Dix and myself, and illustrated by Philip Snow.

Once upon a time when birdwatching was an enjoyable and innocent pastime and I found an unusual bird, it was more than a week before it became public knowledge, thanks to my weekly *Nature Notes* in the *Gazette*. Nowadays, the feet of a rarity scarcely touch the ground before it is reported world-wide and its identity argued by experts in DNA.

Peter Cunningham

We would like to wish Peter many more years to enjoy wildlife on the islands. Eds.



Plate 204. The royal couple and myself on Scalpay in 1985. © William Lucas



Plate 205. Cluster all caught - six of six, Windlaw Marsh, Glasgow, November 2011. © Adam Cross

2012 – an exceptional autumn for Jack Snipe in the Clyde area

I. LIVINGSTONE

As part of our long-term studies into bird migration through the Clyde recording area, members of The Clyde Ringing Group have been catching and ringing Jack Snipe for many years. The current project has been running since 1994, has involved many different sites, but more recently has concentrated on two, highlighting the national importance of the Clyde area for wintering and migrating Jack Snipe. The counts made in the autumn of 2012 have been the highest since those of 2007.

Background

Due to their habit of sitting tight, Jack Snipe are able to be caught by placing a net over them during the day, the birds then being flushed up as the net is checked and removed by the ringers. Not knowing where the birds are when you arrive is always the tricky bit, but once you know the site, things get a bit easier. In theory, it sounds simple, but in practice while successful most of the time, it is hard work and can be very frustrating as you often just miss

birds. The process however can be really good fun and produces good quality data rarely available anywhere else in the country. Originally, we used a standard 9x3 m mist net, but over time and with experience we have progressed to using larger ones and currently use a 20x20 m net kindly supplied by Glasgow City Council. In the early years, we typically caught 6–10 birds a year, but as we have improved our technique and located better sites, we regularly catch this number in a day!

This is very much a winter activity, and unlike most other forms of ringing, which is very weather dependent, catching Jack Snipe can be undertaken in all but extreme weather conditions. This helps to keep us busy over the winter, but can mean we frequently find ourselves wet, cold or both. Falling through the ice over ditches or pools into freezing water is the norm and occasionally having to swim or be pulled out by giggling colleagues, after you have handed them the Jack, is all part of the enjoyment.

Results

These have shown that autumn migration begins in late September with very early birds, but the main passage starts in early October peaking mid-month and lasting well into November in most years. Small numbers of birds stay to winter, but there are always new birds coming through even in the middle of winter. The spring return is not as obvious, but mid to late February produces the highest spring counts, last records being typically in early April. Between October 1994 and the end of 2012, we have caught and ringed 434 different birds, including one Dutch-ringed bird. There have been no recoveries reported back to us from BTO, but we have re-trapped several birds returning in later winters (5%) and interestingly have only ever re-captured two birds moving between local sites (2 km).

The highest count we have ever recorded was at a site near Kilmacolm, when on 11 November 2007 we flushed 34 birds, catching 22 of them. Most of our time has been spent in Windlaw

Marsh, Glasgow, where from February 2003 we have concentrated our effort, visiting the site most weeks from October to April. Typical counts in the autumn period are 10–18 in October and November with about five birds overwintering, then peak spring counts of 6–12 in February. In the spring of 2007, some management work, which helped improve the site for other species, damaged the core area for the Jack Snipe and the raised water levels pushed birds out early in the autumn. However, with some restorative work on the water level management, the site has improved dramatically for Jack Snipe. The autumn of 2012 produced very large numbers of the species both here and at another site near Motherwell, North Lanarkshire. Counts at Windlaw Marsh peaked at 21 on 23 October, but continued high until mid-November when 20 were flushed on 13th. Similarly, the Motherwell site had a peak count of 29 on 21 October, but fewer after that until, during a period of hard frost on 2 December, it held a minimum of 15 individuals - our highest ever mid-winter count anywhere.



Plate 206. John McKellar and Gillian Dinsmore extracting a Jack Snipe from under the net, Windlaw Marsh, Glasgow, February 2012. © Iain Livingstone



Plate 207. Ten of 15 Jack Snipe caught over several drags of the net, Cathkin Marsh SWT reserve Glasgow, November 2010. © Kim McEwen

Conclusions

So why was this autumn so good and why are these sites so good? The first part is fairly straightforward to answer, because we were catching the birds. Once in the hand, it is possible to age most of the birds accurately using plumage characteristics, which can tell us the age ratios between adult and first-winter birds. In the autumn of 2012, only 36% of the birds were adults - the average is 38%, but we have recorded up to 42% in some years where we have large enough samples. This would suggest that Jack Snipe had a better than average breeding season in Northern Europe that year, producing proportionately more young to migrate here.

The second part is a bit harder, but can be explained when we look at some site selection within the Clyde recording area. Prior to starting this project, I thought of the Jack Snipe as a special bird requiring specialised habitats, perhaps managed to suit them, but this is not the case. Jacks seem happy to use a wide range of general habitats, at least to the human eye, but within these sites they clearly have very specific requirements and typically concentrate on certain small areas of high quality. The site at Windlaw is a well-established marsh, typically containing patches of dense rush, with open areas of sedge and drainage ditches. You would perhaps expect

to find Jack Snipe widespread here, but they are very much limited to small parts of the site.

The other area near Motherwell is a 'brown-field' site, a moonscape of crushed concrete blocks in rough ground, which at a glance would not be worthy of a second look, but a tiny stream 30 cm wide wanders through it producing high quality marsh and sedge beds in places, which the Jacks have managed to find while passing through the Clyde area.

What made this autumn particularly good for us was that for once we had a bit of extra luck and on a number of occasions we managed to place the net down over clusters of Jacks, which resulted in a single catch of six birds being successfully held (Plate 205). We had other occasions where we had up to 14 birds under the net, but inevitably some got out, as we had too few ringers and helpers to prevent this. Overall in 2012, we ringed 58 Jack Snipe out of a Scottish total of 67 - a significant contribution. So, if you are at a loose end next winter, would like to see this stunning little bird up close and don't mind getting cold and wet, please get in touch, you would be very welcome!

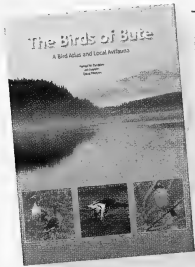
Iain Livingstone

Email: iainlivcrg@googlemail.com

BOOK REVIEWS

The book reviews published in *Scottish Birds* reflect the views of the named reviewers and not those of the SOC.

The Birds of Bute: A Bird Atlas and Local Avifauna. Ronald W. Forrester, Ian Hopkins & Doug Menzies, 2012. Buteshire Natural History Society and The Scottish Ornithologists' Club, ISBN 978-0-905812-23-6, hardback, 360 pages, £12.00.



The Island of Bute is often overlooked as a birdwatching destination. Perhaps its location in the Firth of Clyde is too accessible compared to other Scottish islands, and in many minds remoteness equates to better birding prospects. But thanks to this superb new avifauna we now know that Bute should be regarded as an ornithological treasure house. It may not host the spectacular seabird colonies found elsewhere in Scotland but there is a rich and diverse species list reflecting the wide range of habitats contained in what is a relatively small island.

Nothing illustrates this better than the roll call of breeding species, which includes Red-throated Diver, Shelduck, Shoveler, Water Rail, Black Grouse, Hen Harrier, Osprey, Peregrine, Black Guillemot, Long-eared Owl, Short-eared Owl, Nightjar, Grasshopper Warbler, Wood Warbler, Spotted Flycatcher, Twite, Lesser Redpoll and Crossbill. The list of non-breeding and occasional species is also impressive, ranging from Whooper Swan, Brent Goose, Long-tailed Duck, Great Northern Diver and Manx Shearwater to Grey Plover, Purple Sandpiper, Black-tailed Godwit, Greenshank, Jack Snipe,

Whimbrel, Sandwich Tern, White-tailed Eagle, Golden Eagle, Marsh Harrier, Merlin, Dipper and Chough, while the records of vagrants prove that almost anything can turn up. All this on an island roughly 24 km long with an average breadth of 6 km.

The book is largely the product of Bute Bird Group's participation in the national Bird Atlas 2007–11, and could not be more exhaustive thanks to the analytical and organisational skills of Ron Forrester, a lead editor of that milestone of Scottish ornithology *The Birds of Scotland* (2007). Ron's energy and depth of experience have produced for his adopted home island what must surely be the yardstick by which all future local avifaunas are measured. In this task he has been aided by two fine local ornithologists, Ian Hopkins and Doug Menzies. Ian is well-known in Scottish bird circles for his wildfowl counts and raptor group activities, and his personal bird records going back over 40 years make *The Birds of Bute* all the more comprehensive.

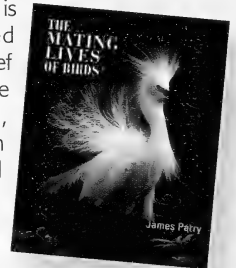
Until now resident and visiting birdwatchers were served by *The Birds of the Island of Bute* (1927) by John Morell McWilliam, first Honorary President of the SOC. McWilliam's book (recently republished in eBook form) was typical of the period, with a conversational writing style and few illustrations, but this new volume is very different. As a state-of-the-art avifauna it has species maps, tabulated population lists, and numerous colour photographs. The depth of detail given for each species makes it a delight from start to finish.

Roger Ratcliffe

The Mating Lives of Birds. James Parry, 2012. New Holland, London, ISBN 978-1-84773-937-7, hardback, 160 pages, £19.99.

This beautifully illustrated book covers the reproductive habits of birds from the initial establishment of territory and search for a mate to the departure of the young from the nest. Discussion of the roles of song, plumage and courtship practices leads on to analysis of the nature of pair relationships. There are accounts of the various different types of nests and the variety of eggs and the procedures of incubation, hatching and feeding.

Each topic is introduced in a brief headline paragraph, and then developed in more detail, with discussion

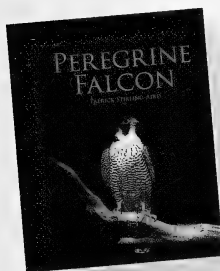


of the variety of practice between different species. The text provides a thorough treatment of the different topics and is comprehensively illustrated with photographs of the highest quality. It is clearly written and intelligible to the general reader and the more technical terms are explained in a useful glossary.

Informative and attractive, James Parry's book is a valuable account of this important subject.

Ian Ebbage

Peregrine Falcon. Patrick Stirling-Aird, 2012. New Holland, London, ISBN 978-1-84773-769-4, hardback, 128 pages, £14.99.

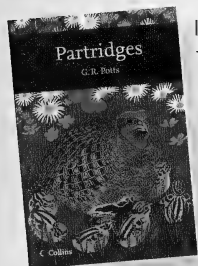


Reaching speeds in excess of 200 miles per hour, the Peregrine Falcon is famous as the world's fastest bird.

However, its penchant for choosing inaccessible places to breed, feed and roost mean that few people are well acquainted with its habits and behaviour. This book offers a window into that rarely seen world, thanks to a combination of high quality images and beautifully written text, with chapters on subjects such as hunting, raising young and how populations around the world have rallied against the threat of extinction and are now prospering once again. The birds are further brought to life through a series of personal anecdotes from the author and photographers, which are woven into the text. If you wish a concise summary of the biology and ecology of this charismatic bird of prey, which is not too scientific, I would very much recommend this book.

Mike Thornton

Partridges. G.R. Potts, 2012. Collins, London, ISBN 978-0-00-741871-8, 464 pages, hardback £50, paperback £30.



I was introduced to the *New Naturalist* series of books back in 2007. I had read some of them at university, but had no

idea how ground-breaking the series was and this new addition is no exception. Here, partridges get a tome all to themselves and the knowledge of expert Dick Potts shines through, whilst still making it an easy read. All aspects of partridge life are covered and the information clearly shows how much of a barometer for biodiversity the species is in our countryside. I found in particular the chapters on parasites and predators interesting and intriguing. It's not all doom and gloom, however, as the chapter on the Norfolk Estate case study shows. Overall, it shows just how much affect we as a species have on the environment around us and this is a book that will keep you thinking even when you have finished.

Hayley Anne Douglas

Owls. Marianne Taylor, 2012. Bloomsbury, London, ISBN 978-1-4081-5553-0, hardback, 224 pages, £25.00.

Owls evoke a peculiar mystery and attraction for us. Their hold on our imagination ranges from their prominence in early mythologies to the role of Hedwig in *Harry Potter*. This book falls into two parts. The first part is a natural history of owls dealing with their classification, anatomy, behaviour, life cycle and status in the modern world. In the second part, there are species accounts of the forty-one owls of the northern hemisphere. Each is copiously illustrated and includes a description, and covers their range and habitat, and breeding and behavioural specialisms.

The style of writing, the explanations of technical terms and the inclusion of a glossary make the text accessible to the non-specialist reader, but the level of detail will engage the more experienced and knowledgeable

bird-watcher. The book has a comprehensive index which gives easy access to topics of interest.

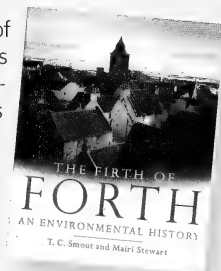
The page of references directs the reader to more specialised articles, books and web-sites for further study.

The photographs, all in colour, by four leading wildlife photographers, are of outstanding quality and illustrate not just the distinctive visual characteristics of each species, but also aspects of behaviour and anatomy. They make this a most attractive book as well as a highly informative one that can be very strongly recommended.

Ian Ebbage

The Firth of Forth: an environmental history. T.C. Smout & M. Stewart, 2012. Birlinn, Edinburgh, ISBN 978-1-78027-064-7, softback, 306 pages, £14.99.

The theme of this book is the interrelationships between people and biodiversity through time. The co-authors, Chris Smout and Mairi Stewart, take the reader through a fascinating history of the area through the eyes of an environmentalist. There are chapters on inshore fishing, oysters, herring, line fishing and traps/nets, and then pollution and land reclamation. The book concludes with chapters on Bass Rock, the Isle of May and seals.



Although not concentrating on birds, there are some intriguing insights. What were the gull populations like in the 1930s? Photographs show fish laid out for sale in full view of any Herring Gulls there may have been; so, it is argued, there were presumably very few. Also, the extent to which the Firth was polluted is an eye-opener. The description of the 'irrigation meadows' at Craigentinny conjures up an image of an amazing bird habitat in the mid-1800s, but there was nobody to record what was there. I should add that this habitat was formed by irrigating the coastal dunes with raw sewage! And a rare flash-back reminds me that Dr William Evans described Yellow Wagtails still nesting in this area in 1888–96 (J. Kirke Nash, 1935. *The Birds of Midlothian*).

If I were to say anything negative, it would be to wish there were more illustrations and maps. What photographs there are, do so much to bring the history to life.

A recommended read, whether by a local seeking to learn more of the area, or someone wanting a case history of the misuse of the local wildlife through boom and over-exploitation.

Ian Andrews

Troubled Waters: trailing the albatross, an artist's journey. Bruce Pearson, 2012. Langford Press, Peterborough, ISBN 978-1-904078-48-7, hardback, 136 pages, £38.00.

Another superb addition to the Langford Press Wildlife Art Series, this is artist naturalist Bruce Pearson's haunting and personal account of the

impact commercial fisheries have had on seabird populations (particularly albatrosses) in the remote Southern Ocean over the past 30 years. They were thought to be unthreatened and stable when he worked from 1976 to 1978 as part of a British Antarctic Survey group studying feeding ecology of breeding Grey-headed, Black-browed and Wandering albatrosses on Bird Island off South Georgia. By the early 1990s, however, it was estimated that longline fisheries for tuna off South Africa and South America were causing the deaths of up to 300,000 seabirds (about a third albatrosses) each year, due to accidental hooking and drowning. High mortality was also caused by pelagic trawling where large numbers of seabirds following boats discharging offal are vulnerable to collisions with cables and trawl nets.

The situation has improved somewhat as a result of conservation measures initiated in 1997, 2000 and 2005. But unregulated "pirate vessels" are still operating beyond reach of international treaties and boundaries, and 19 out of 21 species of albatross are still considered threatened. So Bruce was given the opportunity to return to South Georgia and later work on fishing vessels off South Africa, annually from 2007 to 2011, thus to realise his vision of combining art and conservation with the aim of enthusing new audiences in support of albatross conservation.

Bruce's lovely watercolours and pencil drawings which richly illustrate this book were all done outside, often in extreme weather conditions. They capture the rugged scenery, the "jizz" of the birds and the action around the fishing vessels perfectly. This is an important and unique record of an ongoing conservation crisis and I highly recommend it.

John Savory

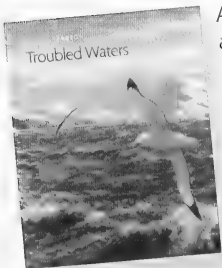
The Mandarin Duck. Christopher Lever, 2013. T. & A.D. Poyser, London, ISBN 978-1-4081-4963-8, hardback, 192 pages, £50.00.

Don't be too quick to dismiss this invasive species as beneath your dignity to give serious attention to reading about. Apart from anything else it could have a serious claim to being regarded as re-introduced, as sharing a zoogeographic Pleistocene record in Europe with another Far Eastern species, the Azure-winged Magpie.

A quarter of the pages on this essentially naturally occurring Japanese, Chinese and Russian species are devoted to considering its presence in the UK; covering introduction, spread, distribution and status. A little disappointingly, relatively little space is given to life cycle and biology. I admit though that I turned immediately to the section covering the bird in Scotland, thinking back to those heady days in the early 1980s and placement of my numerous nest-boxes on the Tay at Springland (only to have Stock Dove and Grey Squirrel take up occupancy) when the Mandarin population near Perth may have reached 30 pairs. The history and recent status of the species in Scotland has been thoroughly reviewed. Christopher Lever is to be congratulated on the care he has taken to research not only written sources, but to have assiduously pursued contact with a very comprehensive range of local contacts, as evidenced by the unusually large number of 'pers. comm.' references.

Coming from the Poyser stable, there is a pleasing familiarity with the look and feel of this volume, though at £50 for 192 pages perhaps most would be readers might look to borrow from our Waterston House Library, rather than purchase. After I have finished reading and returned it, that is!

Mike Martin



RINGERS' ROUNDUP

If you have any interesting ringing recoveries, articles, project updates or requests for information which you would like to be included in the next issue, please email to Raymond Duncan at Raymond@waxwing.fsnet.co.uk. Thank you very much to the British Trust for Ornithology (BTO) and the many ringers, ringing groups and birders who provided the information for this latest round up. Thanks also to the many bird watchers who take the time and trouble to read rings in the field or find dead ringed birds and report them.

Puffin wreck, age and origins of birds involved

The last issue of *Scottish Birds* (33: 157–159) featured an article about last winter's major Puffin wreck along the east coast of Scotland and northern England. Mike Harris has very kindly provided a summary of the ringed birds recovered during the wreck.

A total of 50 dead ringed Puffins were reported. Of the 35 ringed in south-east Scotland (mainly Isle of May with a few from Craigleith and Inchkeith) 25 came from between Fraserburgh and the English border with the rest from north-east England. The youngest birds were aged three years (one bird) and four years (two), but most had been ringed as full-grown adults (6/8), so we can be fairly confident that most will have been of breeding age when they died. The oldest were two birds that had been breeding when ringed in 1982, so would likely have been in their late thirties (given that most Puffins do not breed until 6–7 years old). The other 15 were ringed on the Farnes and Coquet, six were recovered in south-east Scotland and nine others recovered in north-east England. So, all the evidence is that this was a very local wreck involving the local population.

Mike Harris

Slamannan Taiga Bean Geese tracked to their breeding grounds

The previously unknown breeding grounds of Scotland's only Taiga Bean Goose flock have recently been revealed through GPS tracking. In a joint venture with SNH (Scottish Natural Heritage) and WWT (Wildfowl & Wetlands Trust), six geese were caught and ringed by Carl Mitchell and colleagues in October 2012 at their wintering site on the Slamannan plateau near Falkirk. Subsequent tracking of the birds followed them

across the North Sea to a staging site in Denmark, before they headed north up through Scandinavia to their breeding grounds in the Dalarna region of western Sweden. Further information and a map can be found at the following link wbms-ea.k-hosting.co.uk/carl/b3an.htm.

Such a discovery is not only very exciting, but is of course also extremely valuable for the future conservation of this declining species. This and future information on staging areas and migration routes can hopefully be used to mitigate potential threats such as proposed wind turbine developments. Interestingly (as Alan Knox pointed out) three of the birds appeared to pass through the proposed wind farm off Aberdeen!

Record Black-tailed Godwit influx on Tiree in April 2013

The Inner Hebridean island of Tiree is an important staging post for many birds migrating to and from their breeding grounds in Iceland and Greenland. Each April, the island sees an influx of northward-bound Black-tailed Godwits to the wet grasslands around its lochs, although the numbers observed fluctuate considerably from year to year depending on weather conditions. This year, the first three Black-tailed Godwits arrived a little later than normal on 4 April and numbers remained low in the prevailing cool conditions until 22–24 April, when some 150 birds were present, increasing to 250 birds on 27 April. This is a typical spring peak number for Tiree, but strong persistent NW winds held birds back on the island and numbers continued to increase with flocks of 530 birds at Loch an Eilein and 130 birds at Loch a' Phuill recorded the following day. On 29 April, there were flocks of godwits scattered all around west Tiree and a concerted count by myself and Graham Todd found a minimum total of 1,520

birds at seven sites, by far the highest count ever recorded in Argyll and smashing the previous record high count on Tiree of 550 birds on 25 April 2007. Coincidentally, the same count also found a record Argyll total of 11,320 Golden Plovers around west Tiree, presumably also being held back by the same weather conditions. The influx on Tiree was not an isolated event, as there was also a record day-count of 891 Black-tailed Godwits at Loch Gruinart on Islay on the same day (James How pers. comm.) and there were also large numbers recorded in the Outer Hebrides at the same time. Numbers rapidly declined at the end of April although there was a further arrival of at least 300 birds in the first week of May.

The large flocks on Tiree allowed a good sample of colour-ringed and leg-flagged birds to be identified. A total of 30 individually colour-ringed birds was recorded on Tiree during the late April/early May influx and thanks to the ringers concerned we have a detailed picture of their ringing and wintering sites. These involved eight birds ringed on the breeding grounds in Iceland and 22 birds ringed elsewhere in the wintering range. The birds came from a diverse spread of wintering locations including two from Portugal, nine from France, one from Belgium, one from the Netherlands, one from Ireland, two from Northern Ireland and 12 from wintering sites in England, including the Dee



Plate 208. Colour-ringed Black-tailed Godwits, Tiree, April 2013. © John Bowler



Plate 209. Colour-ringed Black-tailed Godwits, Tiree, April 2013. © Christian Verstraete

Estuary, Hampshire, Sussex, Kent, Essex, Suffolk, Norfolk and the Humber Estuary. The latter bird was ringed at the Montrose Basin in September 2007 and although it winters on the Humber, it has also been recorded at Dundalk in County Louth, Eire in March 2008 and at Ardnave Loch on Islay in April 2010; both records hinting at its spring migratory route to Iceland.

It seems the Tiree influx involved birds from all over NW Europe, which had congregated on this small Hebridean Island as a result of the unusual spring weather, whilst they waited for better migratory conditions to head on up to Iceland. By all accounts, the weather was even worse in Iceland this spring with very cold temperatures and late snow cover, so only time will tell how well the godwits breeding season went this year. Sightings of these colour-ringed Black-tailed Godwits are really valuable for the long-term studies of this population - please report all sightings to Dr Jennifer Gill at; j.gill@uea.ac.uk

John Bowler

SOC Research Grants

Generous grants can be acquired annually from the SOC Endowment Fund to help support a wide variety of Scottish ornithological amateur research projects. Applications have to be in by the end of January each year for consideration. Lots of ringing projects have been supported in previous years, so why don't you apply to if you think your project merits some financial support from the SOC. Go to the following link for further details: www.the-soc.org.uk/get-involved/research-grants.

Sightings of colour-ringed Curlews wanted

During the summer of 2013 Grampian and Orkney Ringing Groups between them have individually colour-ringed 95 Curlew chicks in Orkney and Aberdeenshire. This is the start of a longer term project to look at chick survival, dispersal and site fidelity to build up a locally marked population around key breeding areas of this declining species. Any sightings of these birds please send to alan.leitch@rspb.org.uk.

Alan Leitch



Plate 210. Colour-ringed Curlew chick, Orkney, June 2013. © *Alan Leitch*

Colour-ringed Coot in Fife

Well done to Keith Avery for spotting only the second colour-ringed Coot to be seen in Scotland out of around 1,700 colour marked in north-west England since 2009 in a project coordinated by Kane Brides. Keith photographed it on 10 March 2013 in Beveridge Park, Kirkcaldy. It was ringed at Southport Marine Lake in Lancashire during the very cold snap of December 2010, but hasn't been resighted since. It may have still been on passage to elsewhere as Keith commented that it was continually being chased out of the water by the resident Coots and spent much of its time resting on the footpath during its two-day visit. Any sightings of colour-ringed Coots, please send to kanebrides@googlemail.com

Waxwings

Amidst the doom and gloom of last winter's rotten weather and seabird wrecks it shouldn't be forgotten that we had yet another large invasion of Waxwings into the country to brighten up our cities and gardens. What made it extra special this time was the large amount of birds which remained with us throughout the entire winter, in contrast to the last large invasion in 2010 when cold, snowy weather and subsequent berry depletion in late November/early December saw most of the birds head further south into England. This time round the rowan berry crop lasted long enough to sustain a lot of the birds until they could move onto the very abundant but later ripening tree cotoneaster. Once this happens there's every chance they will move onto apples provided in gardens as winter progresses and natural berry supplies decline. Many people enjoyed this pleasure last winter, none more so than Wendy Anderson in Culloden and her novel and richt braw Scottish presentation of apples to her Viking invaders (Plate 212). Most of the flock was whoosh netted next day by Hugh Insley and colleagues.

As usual though many of the early birds continued south fairly rapidly. One ringed bird from Orkney and an unprecedented four from Grampian ended up in Ireland whilst other Grampian ringed birds were in Wales, southern England, the Netherlands and Germany before Christmas. A bird ringed on Fair Isle on 4 November 2012 was retrapped in Aberdeen 11



Plate 211. Colour-ringed Coot, Kirkcaldy, Fife, March 2013. © *Keith Avery*



Plate 212. Waxwing antler, Culloden, Highland, March 2013. © Wendy Anderson



Plates 213–4. Waxwing (Green, Green, Yellow) in Aboyne, NE Scotland, November 2012. © Harry Scott. Then in Co. Antrim, Ireland a month later. © Cameron Moore

days later, then in mid-Wales on 9 December, just over three weeks later. With invasions more frequent and larger nowadays it's good to see our southern neighbours also enjoying and making the most of this spectacle. Tony Cross and colleagues colour-ringed 100 birds in mid-Wales in November/December with subsequent movements in all directions, but pride of place goes to a resighting in Geneva, Switzerland (a first BTO record) on 9 March 2013. Peter Alker in Wigan risked divorce and bankruptcy to sustain a flock of up to 250+ Waxwings on apples in his garden from January to May, but was well rewarded with a bird ringed in Estonia on 17 October 2012 turning up (another BTO first) as well as a couple from Aberdeen and several from neighbouring areas. Although some birds remained into May, return passage or birds crossing back over the North Sea begins a lot earlier. One bird ringed in Aberdeen hit a window in Denmark on 23 February 2013, while another ringed on 27 March and last seen 6 April was retrapped in Barstadvik, SW Norway just over two weeks later. A bird ringed in Wigan on 30 March 2013 was retrapped in Pandrup in northern Denmark on 24 April.

I believe 1991 was the last time we saw significant back-to-back invasions, but you never know.

The White-billed Diver off North-east Scotland, heralding a new breeding spectacle

P.A.A. BAGLEY, C. GIBBINS AND H. MAGGS

Plate 215. White-billed Diver, Portsoy, North-east Scotland, April 2013. © Chris Gibbins

It was Peter Osborn who started this exciting chain of events. Prior to his discovery of a White-billed Diver off Portsoy in April 2011, the species was classed as a vagrant to the region. It had occurred only on 20 or so previous occasions, and with the majority being birds recorded passing at sea it was a difficult species for local observers to catch up with. Peter Osborn contacted Hywel Maggs, who was at the time county recorder, to say that he had seen what he thought could have been a White-billed Diver off the harbour mouth at Portsoy, off the north coast of Aberdeenshire. The sighting was certainly well worth checking out. After work on 25 April, HM, along with CG, drove up to Portsoy to follow up this report. They arrived to find a flat-calm sea and perfect viewing conditions. Much to their amazement, they counted five White-billed Divers in the bay, mostly in or approaching summer plumage. Wow! They were all rather distant, but unmistakable with their ivory 'tusks' gleaming in the early evening sunshine. The distance involved meant that photographs were impossible, so field notes and sketches were taken (Figure 1) and local birders alerted to the incredible news of the spectacle unfolding on their doorstep.

PAAB went up at the weekend, just four days later, but no birds were present. So, what was going on? Were the five birds just a freak one-off event, or were White-billed Divers present off

Portsoy each spring, perhaps in a rather narrow window? Or perhaps they were present all winter? The spring passage of White-billed Divers on the Outer Hebrides is of course rather well known (Scott & Shaw 2008) - could we be seeing a similar pattern off the north coast of Aberdeenshire. To build further on this, the three of us agreed to start going up to Portsoy regularly to try to establish what the true situation was.

For the remainder of spring 2011 and over the following two winters we made regular trips to Portsoy and the immediate area. However, we



Plate 216. White-billed Diver, Portsoy, North-east Scotland, April 2013. © Tim Marshall

only had a single bird in the winter of 2011/12 (from 17 March until 17 April, a bird in active wing moult) and there was certainly no clear evidence of a spring peak. In the 2012/13 winter the first bird was not seen until 18 March, when three winter-plumaged individuals were present - incredibly, we had discovered the species in three consecutive spring periods and it seemed that the species status was about to change, literally overnight. Could White-billed Diver really become a scarce, but regular spring visitor?

From the time of the first sightings in 2011, we had discussed the possibility of chartering a boat, so after the three birds in March 2013, PAAB made contact with Gemini Marine Charters at Buckie (a harbour just west of Portsoy) and made plans for some offshore

forays. Two trips were arranged on the *MV Gemini Explorer* initially (one on 14 April and another on 21 April), with a different group of a dozen birders on each one. All available places were taken on each trip, and each had an entirely different group of birders. The three of us were scheduled to be on the first trip, but unfortunately this was cancelled due to bad weather. The second trip (i.e. on 21st) therefore became the first, but as it was already full there was no room for us! There was nothing we could do but reschedule our trip and wait to see what the others saw on 21st. It is probably safe to say that what they encountered exceeded even the most optimistic of expectations, with between seven and 10 birds seen in the bay just off Portsoy harbour. It was gripping stuff - up to 10 White-billed Divers in one spot in North-

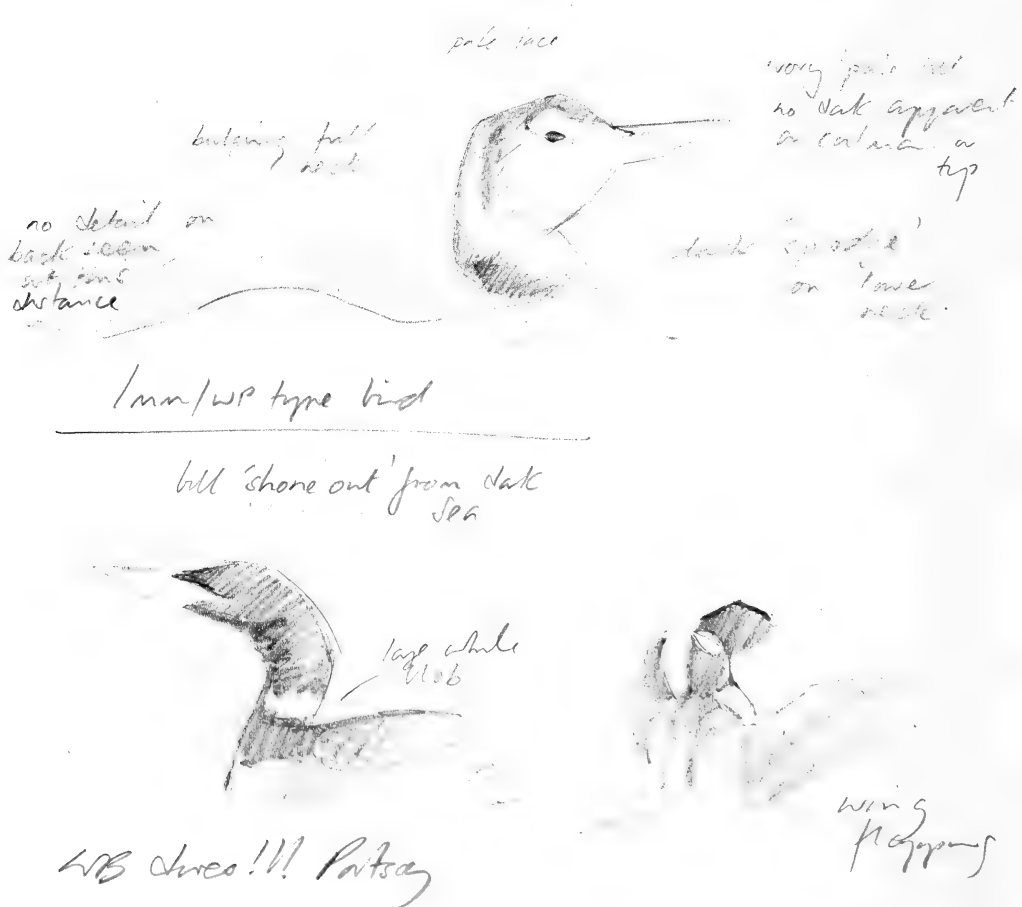


Figure 1. White-billed Diver, Portsoy, North-east Scotland, April 2013. © Chris Gibbins

east Scotland! To add even more excitement to the events, Hugh Addlesee, who had been on that boat trip, had a double figure count when returning to the area and viewing from land, immediately following the boat trip. His count of 12+ birds was thought to contain different individuals to those seen from the boat...

Our trip was rescheduled to 28th so we waited nervously for news of the weather. The weather for 28th was not looking good so the trip was changed, on the advice of the skipper, to a narrow window in the early afternoon of 27th. As it turned out, this window could not have been better - we had 13 birds over the course of the 3½ hour trip. The majority were close to full summer plumage so it was a spectacular day, although the rolling sea made viewing and photography a challenge. The photos were little better than record shots, but we managed to complete a looped survey route and secure GPS co-ordinates for the birds. A third trip visit was undertaken on 12 May, and was attended by 15 local birders. As we had thought would happen, only four White-billed Divers could be found (three in almost full summer plumage and a single fully winter-plumaged bird) and it looked like the majority of birds had moved on following acquisition of breeding plumage. It was valuable information however, and added further to the knowledge of the species in the region.

On all boat trips the birds were concentrated into a remarkably small area; all 13 on the trip of 27th were in the area between Logie Head (just east of Cullen) and Portsoy. We have checked the coastline a few miles either side of Portsoy on several occasions and not seen any birds, so it does seem that all the action is concentrated around Portsoy. The relatively small number of birds seen on our mid-winter visits suggests that it is primarily a spring passage phenomenon, but for the moment we do not know what is so attractive about Portsoy Bay to these birds, nor how long into the Spring and early Summer they remain. A record of a single bird just west of Portsoy by Dave Pullan in June does perhaps hint at the possibility that birds linger for longer than expected, or even possibly summer? Whether this is a new phenomenon or whether birds have been overlooked in the past also



Plate 217. White-billed Diver from the *MV Gemini Explorer*, Portsoy, North-east Scotland, April 2013. © Paul Baxter

remains unclear. Prior to our regular visits to look for divers the area of coast around Portsoy was very underwatched, at least relative to the areas further west (towards Spey Bay) and east (around Banff and Fraserburgh) so divers may always have been there in spring. Alternatively, their presence may be a recent phenomenon caused by changing environmental conditions elsewhere. We simply don't know. However, what we know for sure is that 'discovering' that White-billed Divers occur in such numbers off our coastline has been a great experience, and thanks to the boat trips, has been shared by many members of the local birding community.

Acknowledgements

We would like to thank Davey and Iris of Gemini Charters for being such understanding and flexible hosts and for contributing to the magical experience that all the participants experienced. Davey's knowledge of the area was instrumental to the success of these trips.

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- Scott, M.S. & Shaw, K.D. 2008.** The status of White-billed Diver in northwest Scotland. *British Birds* 24: 241–248.

*Paul Baxter, Chris Gibbins and
Hywel Maggs, Aberdeenshire.*



Plate 220. Pacific Diver, Grutness, Shetland, May 2013. © Roger Riddington. Here the bird is almost rolling, confirming that the anterior thigh is indeed dark.

would be along soon. I phoned Gary Bell too. He had just got my text and was heading south from Lerwick - Black-throated Diver was a patch tick for him. I suggested he might want to move a bit faster as it could be significantly more interesting than a Black-throat!

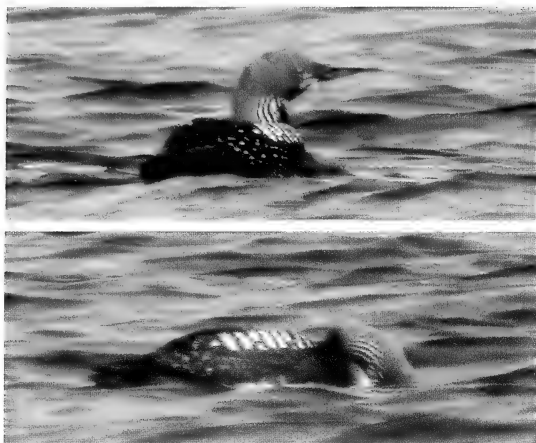
The bird was now 200–300 m away on the far side of the voe and despite my best efforts there was no flank patch to be seen and the nape continued to flash pale but that was all I could do with it in the absence of a scope. After what seemed like an age, RR arrived and we had a quick look through his scope. Initially, he was a little underwhelmed, but we decided that we needed two scopes to try and sort it out, and he drove me to my car. Reunited with my car and scope I decided to watch from the south side of the voe while RR headed around to the north side, where the light was better for photography. Once I got my scope on the diver, just before 20:00 hrs, I was gobsmacked at just how small, weak and slim the bill appeared - and how rounded the head was - showing a steep forehead but then neatly rounded, with at times a rather full-looking nape. It preened, flapped its wings and generally

're-organised itself' but never showed a thigh patch. This lack of thigh patch seemed genuine as the bird always sat high in the water and at times a small pale area could just be seen above the water in the mid-flank area. Surely, if this area appeared pale then any pale thigh patch, if present, would have been clearly evident? I couldn't really assess the relative widths of the black and white neck bars and spent most of my time concentrating on the thigh area and the head shape. At one point when it was preening I thought it was going to expose its vent; it didn't quite do that, although it *did* show a marked area of dark encompassing the hip joint/femur on either side, these extending well down towards the vent. At one point, the bird took off and circled the bay before returning and in flight it showed a neat dark border along the flanks, dropping slightly at the rear to encompass the 'hips' but again I couldn't establish the precise vent pattern. What was evident, however, was that it did not show any indent up towards the rump, where a pale thigh patch should have been. Unfortunately, at 20:12 hrs the bird flew off strongly south, just a few minutes before Gary Bell arrived.

At this point RR drove back to join me and we discussed the bird. He too had been struck by the bird's structure and its lack of thigh patch. Amazingly, he had managed to secure some images with his scope set at x60 and his camera zoomed to maximum. We hastily replayed them on the back of his camera and they seemed to confirm everything I had noted. We were,

Plate 221. Even though this Black-throated Diver is sitting relatively low in the water, the white thigh patch is still evident. © Laurie Campbell





Plates 222–223 (above). Pacific Diver, Grutness, Shetland, May 2013. © Roger Riddington. Despite sitting high enough in the water to show some white in the mid-flank area, there is not even a hint of any white in the anterior thigh area. The dark anterior thigh would seem to be the single diagnostic feature. The relative widths of the white and black neck-stripes have been mooted as a useful feature with Pacific showing narrower white stripes. The width of the black does at least seem to match that of the white in the Grutness bird.

however, acutely aware that this would represent the first summer-plumaged individual seen in Britain and that identification in this plumage was tougher than at other times of the year. Our emotions were a curious mixture of panic, elation, frustration and no small concern that it had departed before we had got anyone else there. The inevitable soul-searching as to whether we should have put some sort of half-baked news out more quickly mingled with the general feeling of what should we do next.

We decided to head back to RR's place where we downloaded the pictures and pulled out all the reference material we could lay our hands on. Some of the published photos looked a dead-ringer for the Grutness bird. We texted the bird out as showing features of Pacific Diver, cobbled together a couple of e-mails and released five of the better pictures to the world on Martin Garner's *Birding Frontiers* blog (birdingfrontiers.com) with an invitation for comments. Since then, the response has been overwhelmingly positive and it looks as if RR's grainy digiscoped images might be enough for acceptance of Scotland's first Pacific Diver and the first British record in this plumage. The key clinching feature would appear to be the dark anterior thigh.



Plate 224. Pacific Diver, Grutness, Shetland, May 2013. © Roger Riddington. Showing the dark anterior thigh. The pale nape is also apparent in this picture, although the photograph doesn't quite capture the very pale ash-grey that it initially appeared under field conditions.

Pacific Diver was first recorded in Britain in 2007, when a remarkable three birds turned up: a juvenile in Yorkshire in January, another juvenile in Pembrokeshire in February and an adult in Cornwall, also in February. There have been just two accepted new arrivals since then - both in 2009, an adult in Cornwall and another adult in Avon, both in November - although three of these five have reappeared in at least one subsequent winter (the Pembrokeshire one and both birds from Cornwall). The Shetland bird, if accepted, would be the first for Britain in breeding plumage, as well as the first for Scotland.

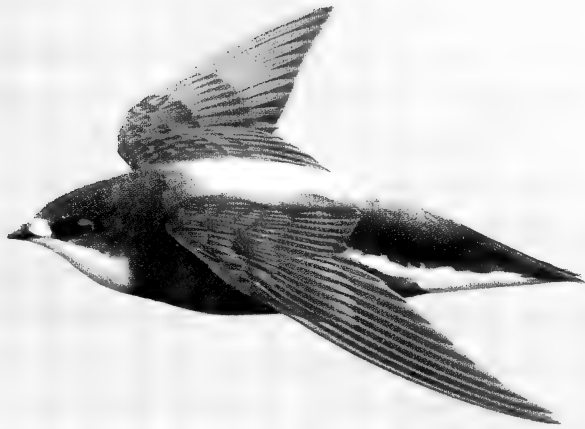
Acknowledgments

We are particularly grateful to Martin Garner for commenting on the bird on the first evening, and for releasing the photos that evening on the *Birding Frontiers* site; and to Killian Mullaney for his detailed comments and analysis of the photographs. We should also like to thank all those observers who responded to our request from comments on the *Birding Frontiers* website, and in addition we thank James McCallum and Martin Scott for their helpful comments on the bird.

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Paul Harvey & Roger Riddington, Shetland



Mark Cocker and I had arrived in the Outer Hebrides on 19 June, and slowly worked our way up through Barra and the Uists. We had seen no particularly unexpected birds, but met Brian Rabbitts on 24th to pass on records of possible interest, such as nesting Swallow and Sand Martin on South Uist. Little did we know that all this was set to change the following day.

Some 15 minutes before the Berneray ferry arrived in Leverburgh (Harris), I was scanning a group of Arctic Terns and did a double-take when I came across a fine adult White-winged Black Tern with them, which Mark and another fellow birder, Norman Thompson, quickly got on to. On Harris, the weather was now taking a turn for the worse, with pretty continuous rain for the next three hours or so. We drove up via the west side of the island, with one or two bird stops, but as the rain got heavier we took refuge in an art gallery and two Harris tweed shops, eventually arriving in Tarbert at about 15:15.

We were walking down by the ferry terminal just after 15:45 when Mark suddenly grabbed my arm and said "What was that?" as a large swift disappeared behind a roof top. A moment later we got a second split-second glimpse of the bird going away, before it again was lost behind a building. All I saw was a virtually black rear view (it appeared too dark for Alpine Swift, even from a glimpse), but I could not yet be sure of the size. Mark was pretty sure it was a large swift, and briefly mentioned the possibility of Alpine Swift, or (in some disbelief) White-throated Needletail¹. Having made the classic mistake of leaving our binoculars in the car (whoops!), I ran back to get them.

Thankfully, the bird flew over our heads at 15:50 in good light, some 30–40 feet up. As soon as I got the bins on it I knew what it was and called "needletail", with Mark immediately concurring. Other than the bulk and power of the bird, the feature that stood out first was the white horseshoe under the tail, and we also noted the white throat. After a few pats on the back and

¹(also known as Needle-tailed Swift. *Ed.*)



Plates 226–227. White-throated Needletail, Harris, Outer Hebrides, June 2013. © Chris Batty

expletives had been exchanged (with Mark saying “You wanted a rarity, now that’s what I call a rarity”!) we immediately tried to relocate the bird, at first without success. We walked up the hill to get a better view over the town, and then agreed to split up but keep in mobile contact. Mark gained further height, climbing the hillside above Main Street, whilst I stayed on the higher road overlooking the town and the bay. I put the news out immediately and also left another voicemail message for Brian Rabbitts, beginning “You probably won’t believe this, but...”

With no further sign of the bird, I soon had calls from Birdguides and RBA, as well as Tim Cleeves, who was staying with Brian Rabbitts. Tim’s first words were “how jammy are you two?” and he immediately set about re-arranging his travel plans, as he had been due to leave the islands the following day. Eventually at 16:38 I relocated the bird over two white cottages and small plantation just south-east of Tarbert. For the rest of the afternoon the bird moved between that area (towards Loch Direcleit) and Tarbert, proving hard to keep in view for more than 1–2 minutes at a time. I noted five more sightings and at 18:28 it was back over the town. A few birders already on the islands arrived during this time. These included Dick Myatt and his wife, who had seen an unidentified large swift (clearly the same bird) the day before. They had reported the sighting

to BirdGuides, but the news was not put out, as it was thought inconclusive (we were totally unaware of this report prior to our sighting).

We returned to Tarbert the next morning (26th) soon after 09:30. A group of at least 15 worried-looking birders (including Tim) were along the road just south-east of the town - the bird had not yet been re-located. Mark and I decided to search from the top of the low hill between Tarbert and Loch Direcleit, giving good views in both directions. There was an agonising wait and anxiety levels were rising! With intense relief, I picked the bird up flying towards the loch at about 10:20. I phoned Tim, and within three minutes all the birders had raced up the road and were watching the Needletail performing well over Loch Direcleit. Mark captured the mood later in his *Guardian* ‘Country Diary’ on 8 July: “one friend (went) from gibbering anxiety to exultant delirium” in seconds. At one breathtaking point, the bird passed within 5–6 m of a few of us, prompting the comment that it felt a bit like being buzzed by a skua (such was the awesome power of the bird). In the afterglow of seeing one of his ‘most wanted’ Tim compared the bird to a small aerial Orca!

In contrast to its behaviour on the preceding day, the Needletail spent the next 50 minutes or more hawking over the loch (and sometimes going higher), not spending time back over the

town. By 11:15, there were some 25–30 birders getting excellent views (and shots) of the bird, and Mark and I decided we were not going to get better views than we had already had, and decided to leave for Stornoway and west Lewis, where we had arranged to stay with friends. In retrospect, perhaps we should have stayed longer, but neither of us really enjoy large crowds of birders, and weren't too sure how many folk would be en route.

I had a couple of appreciative texts from those who had seen the bird, with the last at 15:25, saying it had been 'relocated further south', having gone off the radar for a couple of hours. That was the last we heard as we were then out of mobile reception on the far west coast of Lewis until the morning of 28th. It was then that I picked up a text saying "Thanks for great bird - pity about ending." A phone call from my wife followed; she was on the London tube and had read about the sad end in the *Metro*. At first it was hard to take in the news (as for so many others also), but then we were left with a deep sense of sadness that this fabulous bird had flown so far, to end up in a million-to-one collision with the only wind turbine in that particular area.

The events after we left the bird have been widely described elsewhere (both in birding sources and in the popular press - including making the front page of the *Scottish Sun*), but Mark Golley has kindly allowed me to quote from his fine account for Rare Bird Alert:



Plate 228. White-throated Needletail, Harris, Outer Hebrides, June 2013. © James Hanlon



Plate 229. White-throated Needletail twitch, Harris, Outer Hebrides, June 2013. © James Hanlon

"After a couple of hours, until around 1230, the Needletail departed south and went missing for at least two hours... this in itself wasn't unusual for the species, certainly not in terms of previous island vagrants - the Shetland bird of 1984 and the Orkney bird of 1988 did exactly the same thing, lost for hours on end, increasing the heart rate and stress levels for anyone present. Just before 3 o'clock, the Harris 2013 bird was refound a little further to the south, over the moorland to the west of Loch Drinisadair, where it continued to perform through the afternoon. At around 5.20 pm, a pager message went out, mentioning the following: "W. Isles. White-throated Needletail still 4.30pm Harris c3mls SSE of Tarbert + north of Scadabagh over Loch Plocrapol near small wind turbine at end of "Golden Road". No one could have predicted that less than half an hour later, that "small wind turbine" would have such a significant impact (in every sense) on so many people. The White-throated Needletail had been involved in a deadly collision with the local community turbine and for all those present - or who had been there through the day - an epic day took a sour, and desperately sad, turn for something beyond the worst. Almost immediately (almost inevitably), with little by way of facts to hand, many people (who weren't on site) began to rail against wind farms and everything they stand for. There was also a remarkable,



Plate 230. White-throated Needletail composite, Harris, Outer Hebrides, June 2013. © Josh Jones

unparalleled outpouring of grief for the newly departed mega, the like of which has never, ever been seen before (not for a lost, vagrant wanderer of a bird at least). For those lucky enough to have connected with the Hebrides bird this week, it instantly became “the best bird ever”. That sentiment rings true for all those who twitched the Loch of Hillwell bird in 1984 and the Hoy bird in 1988. If you see one, it simply *will* become the best bird you’ll ever see on these shores. There is just nothing to compare with this awe-inspiring powerhouse flyer. ...the question now of course is “how long until the next one?”

Apart from great sadness at the bird’s tragic ending, I am left feeling very fortunate that we were simply in the right place at the right time, and to have been able to share the bird with those who were able to get there within 24 hours of our first report. Having been to south-west Siberia six times (at first searching in vain for nesting Slender-billed Curlew), and never seen a Needletail, it is astonishing to have connected with the species so

much closer to home. I am left wondering how many such birds may go unseen or unreported (particularly in the more remote parts of the UK with few birders). Following up unconfirmed and inconclusive reports (perhaps through local recorders and other contacts) could play an important part in some cases, though the fear of erroneously triggering a major twitch is clearly significant for the bird news services. If Mark and I hadn’t been held up that morning by bad weather and had just driven through Tarbert, would the bird have been picked up by others - and how long might it have already been on Harris for? Not long before the events described above, the Pacific Swift at Trimley, Suffolk on 15–16 June had caused a much larger ‘twitch’ - is it possible both birds might have arrived on the same weather system?

Adam Gretton

Email: Adam.Gretton@naturalengland.org.uk

This record is subject to acceptance by the British Birds Records Committee.

Plates 231–232 (opposite). White-throated Needletail, Harris, Outer Hebrides, June 2013. © James Hanlon





Plate 233. White-throated Needle-tail, Harris, Outer Hebrides, June 2013. © James Hanlon

The status of White-throated Needle-tail in Scotland

This Eastern Palearctic species has separate breeding populations in the Himalayas (which is resident) and from south-central Siberia and Mongolia east to Sakhalin and south to north-east China, Korea and northern Japan. The eastern population is migratory and mostly winters in Australia, with smaller numbers in New Zealand and New Guinea.

There have been seven accepted records in Britain to the end of 2012, with four of these in Scotland:

- 1983: Orkney - one South Ronaldsay, 11–12 June
- 1984: Shetland - one Quendale, 25 May–6 June
- 1988: Orkney - one Isle of Hoy, 28 May–8 June
- 1991: Shetland - one Isle of Noss, 11–14 June

The 1991 Shetland bird is now considered to be the same as one seen at Maidstone, Kent on 26 May, at Blithfield Reservoir, Staffordshire on 1 June and near Belper, Derbyshire on 3 June that year. It is also considered possible that the 1983, 1984 and 1985 sightings could refer to a returning individual (or two). The other British records are: one at Great Horkesley, Essex on 8 July 1846, one near Ringwood, Hampshire on 26 or 27 July 1879, and one at Fairburn Ings, Yorkshire on 27 May 1985. There has also been one in Ireland at Cape Clear Island, Co. Cork on 20 June 1964. All accepted records fall within a 63-day period in late spring to mid-summer, and the Harris bird occurred in the middle of this period.



Plate 234. The 2013 Harris White-throated Needle-tail skin at the National Museums Scotland, Edinburgh. The bird was confirmed as a male during preparation of the skin. © NMS/S.L. Rivers

Balearic Woodchat Shrike on Westray, Orkney, 26 May 2013 – the first Scottish record

R. R. WYNN



Plate 235. Balearic Woodchat Shrike, Westray, Orkney, May 2013. © Russell Wynn

Sunday 26 May 2013 was the last full day of my two-week birding expedition to Westray, Orkney. The day had started well, as at 07:00 hrs I had woken to the sound of a Common Rosefinch singing outside my room at the Pierowall Hotel. Although the bird had disappeared by the time I got dressed and dashed outside with binoculars, the encounter had a major influence on the rest of the day. After breakfast, I changed my carefully constructed plans of the previous night, and spent a while searching the gardens of Pierowall in case the rosefinch was still around. Although unsuccessful, the search took me over the nearby golf course where, at 11:00 hrs, a routine scan of the fence lines led to discovery of a stunning male Woodchat Shrike!

Woodchat Shrike was a UK 'self-found lifer' for me, so I had a brief period of celebration (fist pumps, quiet cheering) before settling down to get a series of record shots and field notes. The bird was initially quite distant, but closer views soon set off alarm bells in my head as the closed wing looked remarkably plain. At rest there was no sign of a white patch at the base of the primaries and in flight it only showed very restricted pale bases to P5–8 (just visible on photos). It soon became obvious that I was dealing with a Balearic Woodchat Shrike *Lanius senator badius*, some 2000 km north of its normal range!

The shrike was evidently settled, and spent most of its time feeding on bumblebees and other insects (it stored several of the bees on barbed wire larders). After watching and photographing the bird for an hour or so I quickly returned to the hotel to check the online literature and satisfy myself that the identification was correct. Photos confirmed the relatively chunky bill, narrow black forehead, and pale orange tone to the crown, three additional features supporting the identification as *badius*. There was a slight brownish cast to the primaries, possibly hinting at immaturity, but this was inconclusive. I subsequently put the news out, allowing a handful of Orkney islanders and visitors to connect with the bird.

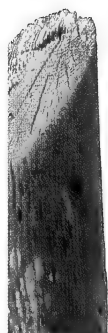


Plate 236. Balearic Woodchat Shrike, Westray, Orkney, May 2013. © Russell Wynn

In the afternoon I went on to find a smart Red-backed Shrike a few hundred metres away at Loch of Burness, making a nice shrike double. The Woodchat was still present when I returned to the site in the evening, but the south-east wind had increased and I wasn't expecting the bird to linger at such an exposed site overnight. Sure enough it was not present when I quickly searched the area early the next morning, and it was not seen on the island again.

This is the first Orkney and Scottish record of this distinctive subspecies, and was certainly not a bird I was expecting to encounter in the Northern Isles!

This record is subject to acceptance by the British Birds Records Committee.

Russell B. Wynn, Southampton

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What was almost certainly the same bird was seen on Foula, Shetland on 28 May by Donna and Geoff Atherton, Amanda Coia and Ken D. Shaw. It was first spotted by DA at 10:20 in the Ham Valley, while the observers were trying to relocate a Rustic Bunting. It was seen by all four observers for about 15 seconds before it flew off down the valley. Woodchat Shrikes have a reputation for disappearing on Foula, but there were two further brief sightings, the last being at the teacher's house in the early evening, when KDS got six rather poor images (Plate 237). This constitutes the first record of the subspecies for Shetland.



Plate 237. Balearic Woodchat Shrike, Foula, Shetland, May 2013. © Ken Shaw

The status of Balearic Woodchat Shrike in Britain

Balearic Woodchat Shrike *Lanius senator badius* is one of four races of Woodchat Shrike found in the Western Palearctic and breeds on the western Mediterranean islands of Ibiza, Formentera, Majorca, Minorca, Corsica and Sardinia. All forms are migratory, with *badius* mainly wintering in West Africa from Cote d'Ivoire east to western Nigeria and north to 10°N.

In adult plumage, badius differs most noticeably from other subspecies in having no (or very minute) white patch at the base of the primaries, a stronger-looking bill, narrower black band on the forehead, paler tone to the crown and nape, and less-evenly spaced primary tips in the folded wing (Small & Walbridge 2005).

There have been nine accepted records of Balearic Woodchat Shrike in Britain prior to the Westray bird:

- 1980: Suffolk** - male, Sizewell, 15–18 June
- 1986: Dorset** - adult male, Portland, 10 May
- 1995: Norfolk** - male, Great Cressingham, 2–6 July
- 1995: Kent** - adult female, Dungeness, 15–21 July
- 1999: Isles of Scilly** - one, St Agnes, 21–27 April
- 2005: Avon** - first-summer, Uphill, Weston-super-Mare, 11–13 June
- 2007: Cornwall** - first-summer male, Nanjizal, 5–10 May
- 2008: Somerset** - first-summer female, North Hill, Minehead, 29–30 June
- 2010: Cornwall** - first-summer male, Windmill Farm NR, 10–11 April

The find dates of the Westray/Foula bird fall well within the window of previous records which have all been between 10 April and 15 July.

Small, B.J. & Walbridge, G. 2005. From the Rarities Committee's files: a review of the identification of 'Balearic' Woodchat Shrike, and details of three British records. *British Birds* 98: 32–42.

The Long-tailed Skua passage in Scotland in spring 2013

B. RABBITS & S.L. RIVERS



Plate 238. Long-tailed Skuas, North Ronaldsay, Orkney, May 2013. © Simon Davies

In spring 2013, observers witnessed an exceptional passage of Long-tailed Skuas in Scotland between 4 May and 9 June, with an unprecedented total of birds seen across the country on 21–23 May. The majority of records came from the Outer Hebrides, but there were sightings at several locations which indicate that there was also a substantial NE movement of birds across mainland Scotland during the period. Many areas and/or sites noted record-breaking numbers of birds.

Spring migration of Long-tailed Skuas in Scotland

Long-tailed Skua breeds in the Western Palaearctic on tundra above the tree-line from southern Norway north-east through central Scandinavia to Arctic Siberia. These populations winter in the southern Atlantic off South America and South Africa, with migration typically occurring well offshore (Olsen & Larsson 1997).

The historic status of Long-tailed Skua in Scotland (and Britain) was that it was a rare/scarcely migrant, more regularly seen in autumn than spring. There were only six birds recorded in spring in Scotland between 1958 and 1967, with a further 21 from 1968 to 1975; all records were of single birds (Sharrock 1974, *Scottish Bird Reports* 1968–75). From 1976 this status changed considerably, with the discovery of a regular spring passage of birds off Aird an Runair/Balranald, North Uist on the west

coast of the Outer Hebrides (Davenport, 1979). Observations of this passage were initially confined to this site, but subsequently sites elsewhere on the Outer Hebrides and on the west mainland of Shetland, and more recently in North Ayrshire, have provided regular sightings in spring (Davenport 1991, Pennington *et al.* 2004, McManus 2007, Byars *et al.* 2009, Darlaston 2012). There are relatively few spring records from sites elsewhere in west Scotland and it is notably rare on the east coast at this season. It is now classed as an uncommon, but regular, passage migrant in Scotland, noted in variable numbers (Forrester *et al.* 2007).

Initial sightings in 2013

The first skua movements in Scotland in spring 2013 were noted off the Outer Hebrides from 16 April, when Aird an Runair, near Balranald, North Uist had 12 Pomarine Skuas, six Arctics and 63 Great Skuas when the wind veered from S to WSW F6–7.

The earliest report of Long-tailed Skuas was of eight off Balranald, North Uist (OH) on 4 May during a seawatch from 13:00 to 16:45 in SW F4–5 winds. Birds appeared following a period of cloud, some rain causing moderate visibility mixed with sunny intervals and slightly stronger F5–6 winds. Many of the subsequent sightings here and at other sites followed on from the passage of weather fronts creating local offshore squalls and strong NW, westerly or SW winds.

The initial sightings on 4 May came following a NNE moving weather system on 2–3 May. A 'High' (anticyclone) in the Atlantic off NW Spain stretching across to the North Sea on 2 May weakened and moved to the Bay of Biscay and SW England on 3rd promoting northward migration, while a 'Low' (cyclone) developed centred on the Irish Sea. By 4 May the High had reduced further and Lows had formed over S Norway and S Iceland which produced strong W winds over the north of Ireland and the Scottish west coast. By 5 May, the Icelandic Low had moved slightly NW and the wind speeds had reduced, and markedly so by 6 May.

The first wave

On 8 May, a Low started to develop off western Ireland, moving east on 9th to produce NNW winds west of Ireland, and these strengthened and backed west on 10th as Lows were in place over NW Scotland and in the northern part of the North Sea. By 12th the Low NW of Scotland had moved towards Iceland and westerly winds

occurred up the entire length of the British Isles, and on 13th a tight Low was NNW of Scotland level with Shetland producing WNW winds. This Low progressed towards Orkney and Shetland on 14th with a new one forming WNW of Ireland, and winds turned to N and ENE off the west coast and SE off Shetland.

There were no further sightings of Long-tailed Skuas on 5–9 May as the weather system south and west of the British Isles dissipated, but on 10 May conditions were again suitable to push birds close enough to the west coast for sightings to resume, and 20 Long-tailed Skuas were noted at Aird an Runair between 12:15 and 19:10 as initial SSE F2–4 winds veered round to WSW.

On 11th, sightings were more widespread, with one over Gruinart, Islay (Arg), at least 91 birds off Ardvule, South Uist (OH) from 06:30 to 14:00, 57 off Balranald between 07:00 and 14:00; a single adult was present for a while on the grassy area beside the lighthouse at Butt of Lewis, Lewis (OH); three were seen off the Isle of Skye (High) from the Lochmaddy (North Uist, OH) to Uig (Skye) ferry, and one in Orkney from the Kirkwall to Westray ferry.

On 12th, 265 were seen off Aird an Runair from 14:00–19:45, one flew over Aird Kenneth, South Uist, and 28 were noted on the Ayrshire coast. Larger numbers were observed on 13th, with totals of 21 at Saltcoats, 26 from Stevenston Point and a report of 17 at Ardrossan (all Ayr - some overlap of counts likely here); 30 flew north past Strathaird Point, Isle of Skye (High), and 415 past Aird an Runair.

Sightings fizzled out again on 14–19 May as weather conditions became less favourable, with the only sightings a flock of four flying north off Neist Point, Skye (High) on 14th, two seen heading inland at Ullinish, Skye on 17th, and three on Orkney, including two from North Ronaldsay on 18th. None were reported on 19 May, but weather conditions were changing.

Build up to the main movements

On 19 May, a Low had developed in the South-west Approaches of the English Channel and light NE winds over the west coast gave way to a

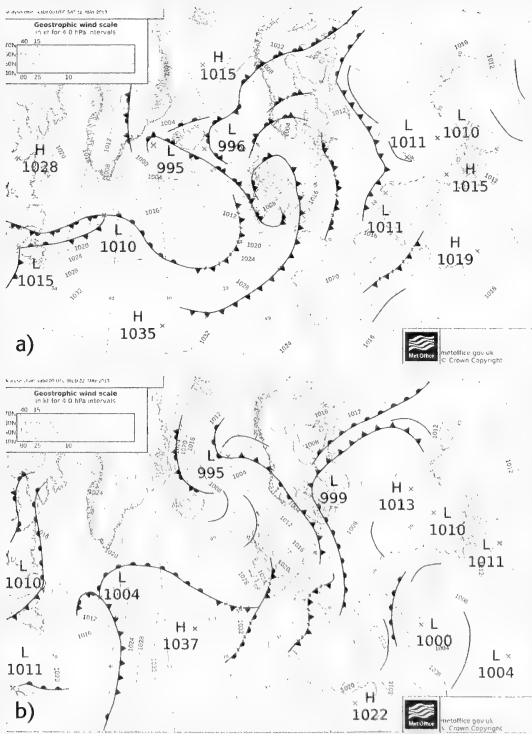


Figure 1. Weather systems in the North Atlantic as on (a) 11 May 2013 00hrs and (b) 22 May 2013 00hrs. The charts are derived from information supplied by the Met Office.

SW F2–3 breeze. By 20th, there was a High in the Atlantic promoting northward migration, and weak Lows had formed off SE Greenland and NW Iceland fostering westerly winds on the west coast, which veered NW, and became NNW by evening. On 21st, the Atlantic High was still SW of Ireland, a Low was sitting between Norway and Iceland, and WNW F2–3 winds were occurring on the west coast of the Outer Hebrides.

Conditions on 20 May brought 51 Long-tailed Skuas within sight at Ardvule, South Uist (OH) between 08:15 and 10:50 and 209 passed Aird an Runair, North Uist (OH) in a five hour watch later in the day. A total of 27 were logged at Saltcoats (Ayr) in the evening, a flock of 40 birds flew over Loch Assapol, Ross of Mull (Arg); one was seen in misty conditions flying west across The Ouse, Westray (Ork), and two were seen off Sumburgh, (Shet).

On 21st, a total of 40 birds were seen at Aird an Runair, with 102 logged at Aird Breanais, Lewis (OH), 147 at Mangersta, Lewis, and one at Smerdate, South Uist that evening. Elsewhere 14 birds flew over The Oa RSPB Reserve, Islay (Arg); there were 21 at Saltcoats; six flew north between Eigg and Rum seen from *MV Shearwater*; another two were east of Staffin Bay, Skye seen during a Hebridean Whale Cruise trip; 153 flew NE past Noup Head, Westray (Ork) in 7½ hours; four were off Scatness, South Mainland (Shet), 68 passed Wats Ness (Shet), and 35 flew over Belmont, Unst (Shet).

The big days - 22–24 May

On 22 May the Atlantic High was still SW of Ireland, and a well-developed Low was now in place NE of Iceland producing increasingly strong WNW winds from Iceland to Ireland reaching F5–6. On 23rd the High was still in place, and a strong NNW airflow was present over Scotland, though by 24th the High was dissipating and a Low was building west of Iceland with another forming over southern England and wind speeds in Scotland were variable and much reduced.

On 22 May, the Outer Hebrides had its largest totals of the year, with 105 logged at Rubha Ardvule, South Uist, an amazing 1,450 at Aird an Runair, North Uist, and c.350 at Mangersta, Lewis. At Aird an Runair the first large flocks were noted from 12:15 and the bulk of the movement from 14:00–18:30, with a single flock of 460 birds noted at 17:55. All three sites are on the west coast of the island chain, and birds seen at Aird an Runair would include most seen at Ardvule and Mangersta - it has the advantage of greatest projection into the Atlantic for detection of birds following the leading line of the coast. The lower numbers seen at Mangersta, which lies about 44 miles NNE of Runair, may be explained by birds taking a 'short-cut' north-east through the Sound of Harris into the Minch and hence to the waters north of mainland Scotland rather than continuing along the west coasts of Harris & Lewis before veering ENE towards Orkney and Shetland.



Plate 239. Long-tailed Skuas, North Ronaldsay, Orkney, May 2013. © Simon Davies

Sites elsewhere also recorded high counts on 22nd, with 61 at Saltcoats and at least 15 at other sites in Ayrshire; eight off Cairns of Coll, north-east of Coll (Arg); flocks of 16 and 19 headed north past Mallaig (High) into the Sound of Sleat in late afternoon; 33 flew N past Noup Head, Westray (Ork) in 6½ hours, and three were seen off North Ronaldsay (Ork).

On 23rd, winds were N F5–6 on the Outer Hebrides; such conditions are considered poor for watches off the Uists, and less effort was made. As a result just six were noted at Rubha Ardvule and 50 at Runair, however 242 were seen off Mangersta from 05:00–19:00, though only a few of these occurred before midday.

Elsewhere, there were signs that the stream of birds following the NE passage route had shifted somewhat to the east, with notable counts from sites on the west mainland, Argyll islands, Inner Hebrides and Orkney. There were 52 at Saltcoats; seven in the Sound of Gigha, Kintyre (Arg); 32 in the Sound of Jura, seen near Crinan (Arg); 25 seen from Colonsay (Arg); nine flew past West Hynish, Tiree (Arg), and at least 10 past Treshnish Point, Mull (Arg) - though many birds were distant here and up to 100 may have been involved; 67 were reported flying north between Rum and Eigg (High), and flocks of nine, 14 and c20 were noted from Mallaig during early and late watches. The most remarkable counts came from the Corran Narrows (High) where a total of 834 birds were noted heading north-east up Loch Linnhe during the afternoon, with a further 250 passing through in the evening. On Orkney, there were totals of 12 off Marwick, 46 nearby off Brough of Birsay, 45 at North Ronaldsay and a phenomenal total of 542 flew NE past Noup Head, Westray (Ork) in 7½ hours. Four flew north over Tingwall Airport, Central Mainland (Shet). There were also a series of east coast sightings on 23 May - dealt with separately below.

On 24 May, there were no counts from the main Outer Hebrides watch points, but a total of 44 birds were seen in Harris waters in the morning from the Tarbert, Harris to Uig, Skye ferry, and a further count of 44 was made from the Lochmaddy, North Uist to Uig ferry later in

the day. Elsewhere there were 24 at Saltcoats; 72 off Treshnish Point, Mull, and two at North Ronaldsay. In addition, several birds were noted on the east coast - see below.

East coast sightings

There was a narrow window of Long-tailed Skua sightings on the east coast on 23–24 May. On 23rd, c.25 flew over Loch of Skene (NES); one was off Portknockie (M&N); 29 at Inverness (High); counts of seven and 20 at Fort George (High); seven past Chanonry Point (High) and 14 nearby at Fortrose. On 24th, there was one off St Abbs (Bord); nine off Girdle Ness, one at Collieston, another nearby at Cotehill Loch (all NES); one off Lossiemouth (M&N) and two at Chanonry Point.

Last sightings

There was much less evidence of Long-tailed Skua movements after 24 May, and it appears that most birds must have passed through by then. A count of 66 birds was reported from Aird an Runair, North Uist on 25 May, with six there the next day.

One was noted off Seafield, near Annan (D&G), one off Baleshare, North Uist (OH) on 27 May, and one off Neist Point, Skye (High) on 31 May. In June, there were singles at Traigh Iar, near Balranald, North Uist on 2nd, and on South Uist on 7th and 9th. On the east coast, there were two at Collieston (NES) on 1 June, one off Slains Castle, Port Erroll (NES) on 6 June, and one at Peterhead (NES) on 9 June.

Record counts

The total of 1,450 Long-tailed Skuas seen at Aird an Runair, North Uist (OH) on 22 May constitutes the highest day count for Scotland. The previous highest day total was of 1,250 noted at Aird an Runair by David Davenport on 18 May 1993. Elsewhere on the Outer Hebrides new site count records were also established in 2013 for Rubha Ardvule, South Uist with 105 on 22 May, and at Mangersta, Lewis with c.350 seen also on 22 May.

In Argyll, the 72 birds seen from Treshnish Point, Mull on 24 May is a new record day count for the region, while the counts of 14 on Islay on 21st, eight off Coll on 22nd, 25 off Colonsay on



Plate 240. *Long-tailed Skua passage, Aird an Runair, North Uist, Outer Hebrides, May 2013. © Gavin Thomas*

23rd and nine off Tiree on 23 May were all record totals for the respective islands, and the 32 seen near Crinan on 23rd was the highest day total for a mainland site.

In Highland, the astonishing total of 1,084 birds witnessed at Corran Narrows/Loch Linnhe on 23 May is a new record day total for the region and mainland Scotland. The 30 birds seen off Strathaird Point, Isle of Skye on 13 May is a new record count for the island

On Orkney, the tremendous total of 542 birds seen from Noup Head, Westray on 23 May is a new record site/day count for the islands, and the 45 logged at North Ronaldsay on 23rd is a record count for that island. The previous best Orkney day total was of c.70 birds on 22 May 2006, and included the best site count of 40+ at Churchill Barrier No. 1.

Totals seen in other recording areas during the 2013 spring migration of Long-tailed Skuas did not exceed previous highest counts at this season.

Overland passage of birds

The distribution and number of Long-tailed Skuas noted in this and previous springs indicates that the great majority of birds pass to the west of the Outer Hebrides, with fewer passing on the east side and up through The Minch, and presumably fewer still occur along the west coast of the mainland and the closer offshore islands. Knowledge of relative numbers involved and the effect of different

weather conditions on routes followed is limited by a lack of information. This is to be expected given the relatively few observation points visited and the remote nature of much of this region and, of course, the corresponding lack of observer coverage across these areas.

A number of sightings in spring, and particularly in 2013, have highlighted the use, or potential use, of overland passage routes by Long-tailed Skuas in spring. Birds migrating in a generally NE direction and wishing to cross from the west to east sides of Scotland seem to have no aversion to travelling across land to reach the North Sea and subsequently progress to Scandinavia or further east. Three routes appear to be (most) used, presumably because they are orientated on a SW to NE axis and represent the shortest distances between west and east coasts. These are: the Inner Solway to Borders/ northern Northumberland, North Ayrshire (Saltcoats area) to the Firth of Forth (or Tay), and the Great Glen, with a funnel of entry to the latter in the south-west through the Firth of Lorn and Loch Linnhe and at the NE end at the Moray Firth.

The sightings of birds on the east coast of Scotland in 2013 could all relate to birds that had passed overland by one of these three routes. The birds seen at Inverness, Fort George and Chanonry Point certainly fit best with this notion. With the others it is possible that they may be birds that had travelled through the English Channel and up the North Sea into Scottish waters. However, the reported sightings in

England in 2013 included none from the south coast counties or East Anglia, and spring sightings in these areas have always been very rare (Brown & Grice 2005, county bird reports), and the possibility exists that birds reported from Spurn to Northumberland in 2013 (and previous years?) between 23 May and 7 June could themselves have made a similar land-crossing from waters off south-west England to the North Sea, possibly at altitudes beyond normal visibility.

Further considerations can be made for birds using Scottish overland routes. With the Solway route it seems more sensible that birds would have headed north up the Irish Sea rather than have deliberately travelled SE through the North Channel between south-west Scotland and north-east Ireland and then turning ENE, all adding extra distance to their journey. This may (partly) explain why numbers observed in the Solway are always fairly low. Birds seen at Saltcoats and/or Stevenston Point and Ardrossan in Ayrshire could also originate from the Irish Sea, but seem more likely to have been displaced by strong westerly winds from the seas north of Ireland. Certainly, straight westerly winds are the most productive local conditions for birds to arrive on the Ayrshire coast (Jason McManus pers. comm.).

The Great Glen route is a more obvious funnel for birds to move into, with the north-west coast of Islay and Jura acting as a lead line for migrating birds and the south-east side of Mull serving to further channel birds into the Firth of Lorn. Birds may only use this route in larger numbers following eastward displacement from prolonged periods of W to NW winds, but for birds moving north past the north-west corner of Ireland this appears to be the most straightforward overland route to take.

Future observations each spring at sites along the Firth of Lorn, Loch Linnhe, and at headlands on Skye such as Neist Point and Rubha Hunish, and on the north-west mainland of Scotland such as Rubha Reidh, Point of Stoer and Cape Wrath, should help to shed further light on routes taken during the spring passage of Long-tailed Skuas in Scotland.

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Scottish Bird Sightings

1 April to 30 June 2013

S.L. RIVERS

Records in Scottish Bird Sightings are published for interest only. All records are subject to acceptance by the relevant records committee.

The following abbreviations for recording areas are used: Angus & Dundee - A&D; Argyll - Arg; Ayrshire - Ayr; Borders - Bord; Caithness - Caith; Dumfries & Galloway D&G; Highland - High; Lothian - Loth; Moray & Nairn - M&N; North-East Scotland - NES; Outer Hebrides - OH; Perth & Kinross - P&K; Shetland - Shet; Upper Forth - UF.

The delayed arrival of many summer migrants was resolved in April once the grip of wintry weather gave way to more typical spring conditions. Late April and early May saw the discovery of unprecedented numbers of White-billed Divers off the Moray and north Aberdeenshire coast. Any disappointment created by the slow start to spring migration was more than compensated for by the wide range and exceptional numbers of migrants which occurred in May and June. Uncommon and rare waders were well represented, and there was a record-breaking passage of Long-tailed Skuas. Rare and scarce passerines could be found all the way up the east coast, but as usual the Northern Isles accounted for the vast majority of sightings.

Bewick's Swan: one was at Ruthwell on the Inner Solway (D&G) on 1 April. **Snow Goose:** a white-morph bird was at Hougharry, North Uist (OH) on 2–3 April; a white-morph bird was

near Glenbarr, Mull of Kintyre (Arg) on 3 April; a blue-morph bird was at Water of Ae, near Lochmaben (D&G) on 2–3 April; two blue-morph birds were at Balmedie (NES) on 8 April, with presumably the same two near Burghead (M&N) on 24–26 April. **Vagrant forms of Canada Goose:** Richardson's [*race hutchinsii*] - one was still in the Loch Gruinart area, Islay (Arg) to 26 April at least; one was still near Caerlaverock (D&G) on 29 April; one was at Balranald and then Solas, both North Uist (OH) up to 21 April at least, with two further birds near Loch Hosta, North Uist on 20 April, and one still on 24th; one was in the Balranald area on 16–26 May. Todd's [*race interior*] one remained at near Loaningfoot/Carlaverock (D&G) from March to 10 April; one was at Rhunahaoirne, Kintyre (Arg) on 2 April. **Red-breasted Goose:** an adult remained on Islay from March to 19 April; the adult was again near Loaningfoot (D&G) on 9–14 April.

American Wigeon: drakes were at Udale Bay (High) to 3 April; on Loch of Stenness (Ork) on 19–21 April; at Twechar Marsh, Clyde from 21 April; at Loch Magillie, Stranraer (D&G) on 3 May; Bridgend Farm Pool, Kirkintilloch, Clyde on 5–11 May; at Loch of Hillwell (Shet) on 19–23 May. **Green-winged Teal:** single drakes were noted as follows: at Loch a' Phuill, Tiree (Arg) again on 7–20 April, with another at Loch an Eilein, Tiree on 9–15 April; at Noup, Westray (Ork) on 21 April; at Loch Stiapabhat, Lewis (OH) on 29 April; on Colonsay (Arg) on 4–6 May; at Daliburgh, South Uist (OH) on 15 May, with presumed same at Smerclate,

South Uist on 16–21 May; at Guardbridge, Fife on 16 May; at Loch of Kinnordy (A&D) on 19 May; at Loch of Hillwell (Shet) on 20–23 May; at Loch Paible, North Uist (OH) on 30 May; at Eela Water, Northmavine (Shet) on 9–13 June. **Black Duck:** a drake was at Hillwell (Shet) on 11 June and at Boddam (Shet) on 16–18 June. **Garganey:** good numbers reported from all parts of Scotland. On Shetland drakes were at Scatness on 5 May, Loch of Spiggie on 6–7th, a pair at Baltasound, Unst on 8–11th, three drakes at Boddam on 12 May with singles there on 14 May, at Scatness on 16th, and at Spiggie on 18 May. On Orkney a drake was at The Loons RSPB Reserve on 12–31 May, and a drake was on Egilsay on 31 May. On the Outer Hebrides a pair was at Fivepenny, then nearby at Loch Stiapabhat, Lewis (OH) on 8–11 May, with one still noted again 15th and 20th; a drake was at Loch Mor, Benbecula on 12th and 15–17 May; a drake was at Loch Sandary, North Uist on 19th and 26–28 May. A drake was at Loch of Strathbeg RSPB Reserve (NES) on 7 May, three drakes and a female on 15th, two there on 18th and one again on 27 May at least; a drake was at Logie Buchan (NES) on 17 May. Two pairs were present at Loch of Kinnordy RSPB Reserve (A&D) on 28 April. In Fife a drake flew west at Inverkeithing on 21 April, with one at Letham 21–28 April, and another on 8 May; a drake was near Rossie Bog on 30 April and 6th and 9 May; one was off Dalgety Bay on 2 May; a drake was on the Eden Estuary, Guardbridge on 21 May; a pair were in Inverkeithing Harbour on

26 May, and a pair were at Morton Lochs on 8 June. One was at Lake of Menteith (UF) on 29 May. In Argyll a drake was at Loch Gruinart, Islay on 12 May, one at Ruaig, Tiree on 13 May, and a pair at Loch a Phuill, Tiree on 4 June. In Ayrshire, a pair was at Tarryholme, Irvine on 7 May, and a drake near Kilmarnock on 24–25 May. A drake was at Wigtown (D&G) on 7 May and another at Caerlaverock WWT Reserve on 16 June. **Blue-winged Teal:** a drake was at Barry Buddon (A&D) on 17 May; a drake was seen at Bridgend Farm pool, Kirkintilloch, Clyde from 5–11 May and 1–5 June.

Ring-necked Duck: a female was on Lochs Grogarray/Scaraidh, North Uist (OH) throughout April; a drake was at Loch Kinardochy, near Tummel Bridge (P&K) on 16–17 April; a drake was at Meikle Loch (NES) on 27–28 April. A female was on Islay (Arg) on 1–2 May; a female on Forfar Loch (A&D) on

18–23 May; a drake was at Loch of Tingwall (Shet) from 3–24 June at least, with presumably this bird also on Loch of Clickimin, Lerwick on 17 June; a drake was at White Sands Quarry, Dunbar (Loth) from 22 June into July. **Lesser Scaup:** the drake remained at Auchendores/Leperstone Reservoirs, Clyde from March to mid-May; a drake was at Souleseat Loch (D&G) on 29 April, and a drake was at St John's Loch (Caith) from 10–27 May and 7–11 June at least. **Harlequin Duck:** the immature male was present off Traigh Iar, Balranald, North Uist (OH) from March to 25 April, then present again 24 May to 1 June. **King Eider:** a drake was off Symbister, Whalsay (Shet) from 8 April to 8 May; a drake frequented the Ythan Estuary (NES) from 24 April to 27 June at least, and was also seen about five miles to the south off Blackdog on 12 April and 4th & 18 May and 6–8 June; a first-summer male was at Tresta Voe (Shet) on 16 June. **Surf Scoter:** a

drake was at Seton Sands/Gosford Bay (Loth) from March to 9 April, with two present on 5–6th, and one again on 27 April; a drake was off Lerwick (Ork) on 13 April; a drake was off Musselburgh/Joppa (Loth) from 25 April to 23 May; a drake was off Embo Pier (High) on 8–9 May; two adult drakes, an immature male and a female were seen off Murcar/Blackdog (NES) during June, with probably one of these drakes off Girdle Ness, Aberdeen on 19 June; a male and female were in the Sound of Harris (OH) on 14 June, and a drake was off Rhunahaorine Point, Kintyre (Arg) on 26–27 June.

Pacific Diver: a breeding-plumaged bird was at Grutness (Shet) on 16 May - the first for Scotland once accepted (see pages 264–266). **White-billed Diver:** the now-expected passage of birds off NW Scotland and the Northern Isles included a long-staying adult off South Ronaldsay

Plate 241. King Eider, Ythan Estuary, North-east Scotland, May 2013. © Harry Scott



(Ork) from March to 12 May, one off Skigersta, Lewis (OH) on 1 April; two off Port Nis, Lewis on 1–2 April, with another there on 5th; one was off Tiumpán Head, Lewis on 8th; one at Gairloch (High) on 9–10th; two off Skigersta on 10th, another there on 11th, and seven between Port Nis and Skigersta on 12th; one was in Gruinard Bay (High) on 11th, with two there on 13th; one at Loch Ewe (High) on 15th; one was off Skigersta on 19–20 April; one off Mull (Arg) on 19–20th; one off Papa Westray (Ork) on 26th; an adult flew north past Aird an Runair, North Uist on 28 April. In May one was off Evie (Ork) on 9th; one flew north past Aird an Runair on 20th and one was seen off Butt of Lewis, Lewis on 29th. Somewhat less expected was a sequence of sightings in the Moray Firth (see pages 261–263): eight to 10 birds from a charter boat from Portsoy (NES) on 21 April and at least 13 on 27th, with a further seven noted from shore at Portsoy and four at Sandend (NES) also on 21st; at least five were off Portsoy 26 April to 4 May. In May up to 8 were seen from the coast between Portsoy and Buckie (M&N) up to 7th, with five still to 12th and one off Burghead (M&N) on 15 May; one was off Knock Head, just west of Banff (NES) on 14 June.

Cormorant: one of the Continental race *sinensis* was at Loch of Hillwell (Shet) on 8–19 May. **Bittern:** wintering birds included singles on the River South Esk on 1 April and Carnoustie (both A&D) on 5 April. **Little Egret:** sightings included five at Wigtown Bay (D&G) on 1 April; one at Creetown (D&G) on 1–7 April, with two there on 2 May; one at Ardbeg, Islay (Arg) on 19 April; one at Likisto, Harris (OH) on 24 April, with it or another at Bayhead, North Uist (OH) on 25 April, at Loch Aonghais, North Uist on 26th, at Howmore, South Uist (OH) on 1st and 5 May and then at Geocrab,

Harris on 7th and 18 May; one at Cruden Bay (NES) on 19 May, then on the Ythan Estuary or Loch of Strathbeg RSPB Reserve (NES) on 24–27 May at least; two at Portgordon (M&N) on 30 May; in Fife one was at Kilrenny Mill on 30 May, with it or another at Morton Lochs on 8 June, and at Guardbridge on 21–26 June; in Lothian one was seen regularly at Tynninghame throughout April and May to 12 June, one was at Aberlady on 15 April, with it or others at Seafeld Pond on 24 April, 4 May and 3 June and Barns Ness on 16 May. **Great White Egret:** one was at Loch of Strathbeg RSPB Reserve or nearby on the Ythan Estuary (NES) on 12–28 May. **Black Stork:** one was reported flying over Coullabus, Islay on 10 May; one was at seen at Gruinard Bay (High) on the afternoon of 26 May, and presumably the same bird flew over Fanmore and then Dervaig, both Mull (Arg) on that evening. **Glossy Ibis:** one was reported at Dervaig, Mull (Arg) on 26 May. **White Stork:** one flew west over Carsebreck (P&K) on 4 May. **Spoonbill:** one was at Irvine (Ayr) 30 May, and then nearby at Hunterston on 2–11 June; one was at Tugnet (M&N) on 18 June; one was at Loch of Strathbeg RSPB Reserve (NES) on 11–22 June; then possibly the same at Balmossie (A&D) on 23 June; and at Guardbridge, Fife on 24–26 June.

Honey-buzzard: one was seen on Fair Isle on 28 May. **Black Kite:** on Orkney one flew north over Dounby on 1 May, with presumed same over Kirkwall Airport on 9 May, at Quanterness (Ork) on 3 June, and over Stronsay on 4 June; one was seen at Bernisdale, Skye (High) on 21 June. **Pallid Harrier:** a male flew north over Forfar Loch (A&D) on 19 April; a ringtail was on Fair Isle on 3 June; a male was at Drimfern, near Inverary (Arg) on 4 June. **Rough-legged Buzzard:** one was still on Fetlar (Shet) from March to 3 April and again 13 April,

with presumed same at Snarravoe, Unst (Shet) on 9 April; one was a few miles east of Breascescleit, Lewis (OH) on 27 April. **Hobby:** one was at St Andrews, Fife on 23 April; singles were on the Isle of May on 10 May; on North Ronaldsay (Ork) on 13 May, with another there on 11 June; one was near Kirriemuir (A&D) on 25 May; one flew south over White Sands Quarry (Loth) on 28 May; on Fair Isle on 29 May; at Hope, South Ronaldsay (Ork) on 30 May; at Papdale Plantation, Kirkwall (Ork) on 2 June; one was just east of Crail, Fife on 7 June; one in Glen Lethnot (A&D) on 8th; one at Leuchars Airfield, Fife on 15th, and one was at Hillwell (Shet) on 12 June and nearby at Quendale on 15–16 June. **Gyrfalcon:** on mainland Orkney one was at Orphir Bay on 20 April, Birsay Moors on 25th and Marwick on 30 April.

Spotted Crane: one was heard at Loch of Strathbeg RSPB Reserve on 30 May; one on North Ronaldsay on 1–2 June at least; one was heard overnight on Tiree (Arg) on 17 June; one was at Loch of Kinnordy RSPB Reserve on 26–27 June. **Crane:** four flew over Inverness (High) on 2 April; one flew west at Aberlady Bay (Loth) on 12 April; one flew over Stirling (UF) on 13th; one was reported in Morayshire the same day; one was reported intermittently at Loch of Strathbeg RSPB Reserve (NES) from 5–22 April, with two there on 16–19th, three on 30 April and four on 2 May, and these flew south over Longforgan (P&K) on 6 May; a first-summer was on Unst (Shet) on 23–28 May and seen intermittently to 30 June; one was seen at Westerfolds (M&N) on 6 June; one was on Fair Isle on 6–9 June, and another on 18–19 June; one flew over Forres (M&N) on 11th; one was at Loch of Strathbeg RSPB Reserve on 15 June; six flew over the Sound of Raasay (High) on 16 June; one was near Kilmacolm, Clyde on 23–28 June.

Avocet: one was still at Skinflats (UF) on 1 April; one was at Loch of Strathbeg RSPB Reserve on 9 April; three were at Musselburgh Lagoons (Loth) on 17–18 April.

Stone-curlew: one was at Loch of Brough, Bressay (Shet) on 4 June with presumably the same bird then on Noss (Shet) on 19 June.

Little Ringed Plover: notable overshoots included one at Loch Gorm, Islay (Arg) on 1 May - the second record for the island, and one at Hillwell (Shet) on 27–29 May. **Dotterel:** away from breeding areas there was one on North Ronaldsay on 16 April, and eight there on 8 May. **American Golden Plover:** a breeding-plumaged adult was at Ardvule Point, South Uist (OH) on 12 June. **Temminck's Stint:** singles were present at Grutness (Shet) on 7 June; on Fair Isle on 7–8 June; at Meikle Loch (NES) on 15 June; at Letham Pools, Fife on 23–29 June. **White-rumped Sandpiper:** one was at Findhorn Bay (M&N) on 10–14 June, with two present on 11th.

Pectoral Sandpiper: three were at Loch of Strathbeg RSPB Reserve (NES) on 6–8 May; one on Fair Isle on 6 May; one at Eoligaray, Barra (OH) on 13 May; two on Foula (Shet) on 25–28 May; one at Hillwell (Shet) on 27 May; one on North Ronaldsay (Ork) on 27–31 May, with two there on 29th, one again on 4 June and a third individual on 22–24 June; one at Loch Sandary, North Uist (OH) on 2 June; one at Findhorn Bay (M&N) on 2 June; one at Logie Buchan (NES) on 4 June; one at Meikle Loch (NES) on 7–9 June; one at Loch Paible, North Uist (OH) on 11 June; one on North Ronaldsay on 20 June. **Buff-breasted Sandpiper:** three were at Loch of Strathbeg RSPB Reserve (NES) on 6–8 May; one on Fair Isle on 6 May; one at Eoligaray, Barra (OH) on 13 May; two on Foula (Shet) on 25–28 May; one at Hillwell (Shet) on 27 May; one on North Ronaldsay (Ork) on 27–31 May, with two there on 29th, one again on 4 June and a third individual on 22–24 June; one at Loch Sandary, North Uist (OH) on 2 June; one at Findhorn Bay (M&N) on 2 June; one at Logie Buchan (NES) on 4 June; one at Meikle Loch (NES) on 7–9 June; one at Loch Paible, North Uist (OH) on 11 June; one on North Ronaldsay on 20 June.

Long-billed Dowitcher: one was at Port Nis and then Loch Stiapavat, Lewis (OH) on 29 April; one was at

Ardnave, Islay (Arg) on 1 May. **Lesser Yellowlegs:** one was at The Loons RSPB Reserve, NW Mainland (Ork) on 29 June. **Red-necked Phalarope:** sightings away from breeding areas included two at Broadford Bay, Skye (High) on 23 May; one on Fair Isle on 23 May, and a male was on Tiree (Arg) on 28 June. **Grey Phalarope:** one flew past Saltcoats (Ayr) on 23 May.

Pomarine Skua: passage occurred from mid-April to the end of June, with the majority in mid- to late May. The earliest sightings were of 12 off Aird an Runair, North Uist on April 16, with 17 there on 23rd, 53 on 28th, and 34 on 29 April; singles were noted off Troon (Ayr) on 22 April and at Dunnet Bay (Ork) on 30 April. The peak count in the Solway was 100+ past Newbie, near Annan (D&G) on 10 May. Highest counts elsewhere were of 37 at Saltcoats (Ayr) on 14 May; 12 from Treshnish Point, Mull (Arg) on 24th; 13 were seen from Strathaird Point, near Glasnakille, Skye (High) on 13 May; at least five at Noup Head, Westray (Ork) on 21 May, with over 60 on Orkney during the month, and 13 were seen from Watsness, West Mainland (Shet) also on 21st. Highest totals came from the Outer Hebrides with 220 at Aird an Runair/Balranald, North Uist on 10 May, 685 there on 11th, 356 on 12th and 455 on 13th. The latest sightings were at Burrow Head (D&G) with one noted on 26 June and four on 29th.

Long-tailed Skua: passage occurred from early May to early June, with the majority in mid- to late May. The earliest sighting was one at Aird an Runair, North Uist (OH) on 4 May, followed by a gap to the next movement on 10–11 May. There was a further gap before the main pulse of birds in the west and north from 21–25 May. There was a narrow window of sightings on the east coast on 23–24 May and NE Scotland

provided the last sighting, with one off Peterhead on 9 June. Highest totals came from the Outer Hebrides including record day/site and flock size totals for Scotland, while many other parts of the country also posted new record totals. See article in this issue for full details (pages 275–280).

Bonaparte's Gull: the adult remained at Castletown/Thurso (Caith) from March to 6 April; a first-summer was at Traigh nan Gilean, Tiree (Arg) on 18 June.

Ring-billed Gull: a first-winter/summer was still in the Scalloway area (Shet) from March to 16 June, and a first-summer was regularly seen in the Quendale/Hillwell area from 12 April to 23 May; a second-summer was at Balephetrish Bay, Tiree (Arg) on 5–8 June; a first-summer was near Loch Sandary, North Uist (OH) on 22 June. **Yellow-legged Gull:** one was at Troon Harbour (Ayr) on 12 April, and a first-summer there on 1 May. **Iceland Gull:** Late-staying birds included one at Sumburgh (Shet) on 17 June; an immature on Fair Isle on 3–4 June; an immature on South Ronaldsay (Ork) on 1 June, and a second-summer bird at Toab (Ork) on 7 June; a first-year at Loch Stiapabhat, Lewis (OH) on 5 June.

Kumlien's Gull: a second calendar-year bird was around the Ardivachar area, South Uist (OH) from 13 April to 8 May at least.

Glaucous Gull: Late-staying birds included a first-summer on North Ronaldsay (Ork) on 21–23 May; a first-summer at Fivepenny, Lewis (OH) on 1 June; a first-summer at Holm (Ork) on 7 June; one at Eoropie, Lewis (OH) on 15 June, and one at Lerwick (Shet) on 19 June. **White-winged Black Tern:** an adult was seen in the Sound of Harris (OH) on 25 June.

Brünnich's Guillemot: one was seen off the north end of Iona (Arg) on 6 May. **Little Auk:** late birds included two in the Pentland

Firth (Ork) on 6 May; one flew past Watsness (Shet) on 22 May; one was off North Ronaldsay (Ork) on 23 May.

Turtle Dove: on Shetland singles were at Quendale on 7–8 May, 24–25th and 29 May, at Scatness on 9th, on Foula on 28 May, and one at Tingwall on 1 June; one was on North Ronaldsay (Ork) on 12–14 May, with another there on 16–21 May; one was at Finstown (Ork) on 15–19 May. One was at Bragar, Lewis on 8 May. One was at Balemartine, Tiree (Arg) on 13 May, with two at Crossapol on 12 June and one at Mannal (both Tiree) on 19 June, and one was at Rattray Head (NES) on 26 May. **Snowy Owl:** the male near Ben Macdui, Cairngorm (M&N) remained from March to 5 April; an often elusive male was seen on the machair near Solas, North Uist (OH) from 1–6 April, and between there and Grenitote from 13 May into June; it or another was on Hirta, St Kilda (OH) on 12th and 20 June. **Nightjar:** one was on the Isle of May on 15–16 May; one was on North Ronaldsay (Ork) on 14–19

June. **White-throated Needletail:** one was present at Tarbert, Harris (OH) on 24–26 June, moving a few miles south to Plocrapol on the latter afternoon where it met an untimely end through collision with a wind turbine. **Bee-eater:** one was on Stronsay (Ork) on 24–30 May. **Roller:** one was seen briefly on Fair Isle on 11 June. **Hoopoe:** one was at Doonfoot (Ayr) on 25 April; one was at Balranald, North Uist on 8 May, with it or another at Carloway, Lewis the next day (both OH); one was at Melvich (High) on 23–24 May. **Wryneck:** in May singles were on North Ronaldsay (Ork) on 9th and 15th; on Fair Isle on 11–18th with another on 19 May; one a mile east of Crail, Fife on 19–20th; at Sumburgh (Shet) on 20th, and on Foula (Shet) on 25–28 May. **Golden Oriole:** female-type individuals were at Kergord (Shet) on 2nd and 6 June, with a male there on 9 June; a female-type was on Fair Isle on 9 June; a female/immature was on North Ronaldsay (Ork) from 12 June, a second bird from 15th, two there on 20th and one still to 1 July, with three birds involved in the sightings.

Great Grey Shrike: one was near Tayport, Fife on 15 April. **Red-backed Shrike:** amazingly up to 130 birds were seen in Scotland during May. The first arrivals were singles at Sumburgh and Virkie (both Shet) on 9th, a female on Fair Isle on 9–13 May, and a male on North Ronaldsay (Ork) on 9–10th. There were around 40 on Shetland in May; 12 on Fair Isle, with seven there on 25th; at least 10 were on North Ronaldsay (Ork) in May, with up to 12 more elsewhere on Orkney. Elsewhere in May sightings included: a mass arrival in NE Scotland on 19th, with a female at Kineff, and males at Stonehaven, Balmeddie, and Forvie, with a male also at the latter site on 20th, and a further male nearby at Collieston on 28th, and a male at Girdleness, Aberdeen on 27 May; four were found in Angus on 20 May including two at Ethie Mains Farm; a male was at Balcomie, Fife Ness (Fife) and another nearby at Kilminning on 19 May, with another there on 20–21st, and a female on 24th; a female was at Barns Ness (Loth) on 18 May, with a male there on

Plate 242. Nightjar, Isle of May, May 2013. © Harry Scott





Plate 243. Icterine Warbler, Dinnet, North-east Scotland, June 2013. © Harry Scott

19th and a female on 27 May. In June, there were up to nine on Shetland between 1–25th; seven on Fair Isle during 2–25th; seven on North Ronaldsay between 1–22nd; one was at Hope, South Ronaldsay (Ork) on 13 June. **Woodchat Shrike:** one was at Balephuil, Tiree (Arg) on 19–21 May (first island record); one on Foula (Shet) on 28 May; a male on the Isle of May on 31 May to 1 June; one was at Baltasound, Unst (Shet) on 1 June; a male of the Balearic race *badius* was seen at Pierowall, Westray (Ork) on 26 May – the first record of this subspecies in Scotland, with presumably the same bird then present on Foula (Shet) on 28 May (see pages 273–274). **Magpie:** one at Gorn, Shapinsay on 19–20 April and then at Moaness and Quoyness, Hoy from 3–16 May at least was only the 15th record for Orkney and the first since 2003. **Short-toed Lark:** one was on Foula (Shet) on 16–18 May, and another there on 29 May; plus singles at Aird an Runair, North Uist (OH) on 19–20 May; Sumburgh Head

(Shet) on 25–29 May, and North Ronaldsay (Ork) on 26 May. **Shorelark:** three were near Killinallan, Islay (Arg) on 5 May. **Red-rumped Swallow:** one was at Hillswick (Shet) on 29 May; one was at Asta (Shet) on 13 June.

Greenish Warbler: one was at Quendale (Shet) on 1 June. **Arctic Warbler:** one was at Skaw, Whalsay (Shet) on 23 June. **Subalpine Warbler:** a first-summer male of the Western subspecies *cantillans* was at Cruden Bay (NES) on 14–16 May; a female on Fair Isle on 25 May was trapped & ringed and assigned to the Eastern subspecies *albirostrata*; one was at Scatness (Shet) on 28 May; a male Western was on Fair Isle on 3–14 June, another was present on 17–27th, with a female also noted on 25 June; one was on Foula (Shet) on 19 June. **Sardinian Warbler:** a male was at St Abbs (Bord) on 30 June. **River Warbler:** one was on Fair Isle on 5–6 June. **Icterine Warbler:** there were seven on Shetland between 15–29 May, with further birds at Wester Quarff

on 2 June and Funzie, Fetlar on 14 June; five occurred on Fair Isle between 8–29 May, with one there on 13–15 June and two present on 14 June; singles were on North Ronaldsay (Ork) on 15th and 19 May; at Cruden Bay (NES) on 19 May; at Melvaig (High) on 26 May; one on the Isle of May on 30 May to 1 June; one was at Dinnet (NES) on 1 June, and five on Shetland between 1–16 June. **Melodious Warbler:** one was on Fair Isle on 16 May. **Paddyfield Warbler:** one was on North Ronaldsay (Ork) on 20–24 May; one was on Fair Isle on 16 June. **Blyth's Reed Warbler:** singles were on Fair Isle from 27 May to 2 June, at Everland, Fetlar (Shet) on 29 May, and at Swinister Burn, Sandwick (Shet) on 30 May. **Marsh Warbler:** exceptional totals noted this spring – up to 16 were noted on the Northern Isles in May; elsewhere a singing male was at North Loch Eynort, South Uist (OH) on 24 May. In June there were up to 10 on Shetland between 1–21 May; there were 10 Marsh Warblers on Fair Isle, including a record day count of five present on 26th; one on North Ronaldsay (Ork) on 9th and 20th; one at Lochmaddy, North Uist (OH) on 16 June; a singing male was at Uig, Skye (High) on 16–26 June. **Great Reed Warbler:** one was on Out Skerries (Shet) on 31 May.

Nuthatch: one on a feeder in a garden on Kerrara (Arg) on 4 May was notably beyond the core breeding range. **Waxwing:** birds were still widespread in April and a few were still present in May, including five at Newton Stewart (D&G) on 6 May; singles at Askernish, South Uist on 7th, at North Loch Eynort, South Uist on 14th and Castlebay, Barra on 19th (all OH), one was on North Ronaldsay (Ork) on 9 May, one at Fea, Stenness (Ork) on 10th and singles at Kirkwall and The Loons RSPB Reserve (both Ork) on 12th; three were at Monifieth (A&D) on 10 May; one at Mossbank (Shet)

on 13–21 May, with one in Lerwick (Shet) on 15th; one on Fair Isle on 14–23 May; and two very late birds were in Edinburgh on 23 June. **Rose-coloured Starling:** an adult male was at Finstown (Ork) and then Harry from 19–22 June.

White's Thrush: one was belatedly reported at Glen Feshie (High) on 5 May, and follows on from remarkable news that emerged of one filmed by a remote camera set to record Wildcats at Ledmore & Migdale Woods Woodland Trust Reserve, near Bonar Bridge (High) on 31 January this year. **Thrush Nightingale:** one was on Fair Isle on 8–10 May, with two there on 29 May and one still on 30th; one was at Virkie (Shet) on 30 May. **Common Nightingale:** one was at Straiton Pond (Loth) on 17 May. **Bluethroat:** about 30 were seen in Scotland in May, including at least seven on Shetland including four on 10th; a singing male at Girdle Ness, Aberdeen (NES) on 10th; four on North Ronaldsay (Ork) between 11–29th; a female at Barns Ness (Loth) on 18–19 May; a male at Sand Loch, Forvie (NES) on 19th; a female on the

Isle of May on 29–30 May. In June a male was on North Ronaldsay on 11 June. **Red-breasted Flycatcher:** on Shetland a male was at Grutness on 8 May, then singles at Scatness on 28 May, at Lower Voe on 30th and one at Papil, Burra on 31 May; one on Fair Isle on 12–14 May and 18 May; a female/first-year at Rattray Head (NES) on 11 May; one St Fergus (NES) on 19 May and one on the Isle of May on 28 May. In June there were singles on Fair Isle on 2nd and on Foula (Shet) on 22nd. **Collared Flycatcher:** a male was at Skaw, Whalsay (Shet) on 10–16 May; a female was trapped and ringed on Fair Isle on 9 June; a male was at Stoer Lighthouse, near Lochinver (High) on 12 June.

Yellow Wagtail: birds of the Grey-headed race *thunbergi* included singles at Scatness, Grutness and Exnaboe (all Shet) on 10 May; NES and two were on North Ronaldsay (Ork) on 16–18 May; singles at Skaw, Unst on 17–18 May, Baltasound, Unst on 18th, and Haroldswick, Unst (all Shet) on 19 May; at Letham Pools, Fife on 24 June. Birds of the Blue-headed

race *flava* included two males at Seafeld Pond (Loth) during 21–29 April, and a female there on 4–5 May; two at White Sands Quarry (Loth) on 27 April, and a male at Barns Ness (Loth) on 30 April and 9 May, with two there on 18 May; one was at Craignure, Mull (Arg) on 24 April; one was at Meikle Loch (NES) on 2 May; one at Kinnordy (A&D) on 4 May; two were at Auchenharvie (Ayr) on 8 May, with one still there on 9th; one at Brow Marsh (Shet) on 19 May; a female on North Ronaldsay on 24 May to 5 June and a male there on 27 May to 5 June; one was at Tayinloan, Kintyre (Arg) on 5 June; one was at the Churchill Barriers (Ork) on 26 June. It is worth noting that several of the males seen/photographed in Lothian appeared to show some hybrid characters, although none were classic 'Channel Wagtails'. **Citrine Wagtail:** a female was at Balranald, North Uist (OH) on 22 May. **Tawny Pipit:** one was on North Ronaldsay (Ork) on 25 May. **Water Pipit:** one remained at Barns Ness (Loth) to 14 April.

Plate 244. Bluethroat, Girdle Ness, North-east Scotland, May 2013. © Ian Hastie





Plate 245. Hawfinch, Stonehaven, North-east Scotland, May 2013. © Ian Hastie

Hornemann's Arctic Redpoll: one was at Loch Gruinart RSPB Reserve, Islay (Arg) on 19 April; a singing male was on North Ronaldsay (Ork) on 4–7 May.

Two-barred Crossbill: a male was on Eday (Orkney) on 29–30 June.

Common Rosefinch: around 20 were seen in Scotland in May. On Shetland, a red male was on Papa Stour on 28 May, one at Exnaboe also on 28th; one on Foula on 29th; two were at Sumburgh on 29 May with one still on 30th; one at Baltasound, Unst on 29th, with it or another at Uyeasound, Unst on 30 May; one was on Out Skerries on 31 May. Elsewhere, a female/immature was at Kinloch, Rum (High) on 17 May; a red male on North Ronaldsay (Ork) on 18 May, with a brown individual there on 24th; one near Balcomie Farm, Fife Ness, Fife on 19th; singles on Burray (Ork) and at Auchmithie (A&D) the same day, a male near Loch Sween (Arg) on 28 May; one at Tullos Hill, Aberdeen on 28th; a male at Lochdon, Mull (Arg) on 29th, and a male at Lodge

Gardens, Isle of Eigg (High) on 30 May. In June one was at Carnoustie (A&D) on 5th; one at Virkie (Shet) on 8th; one at Loch Steiabbat, North Uist on 10th; one on North Ronaldsay on 13th, another there on 20th, with two on 21–23rd including a new bird on latter date, then one still to 27th; a singing first-summer male was at Crosshill (Ayr) on 11 June; one at Carinish, North Uist on 15 June; one at Baltasound, Unst (Shet) on 16–17th; one at Castlebay, Barra (OH) on 17th and one at Askernish, South Uist (OH) the same day; a red male was at Tressait, near Loch Tummel (P&K) from 12 June into July; a male was at Burravoe, Yell on 19th, and a first-summer male was on Fair Isle on 19–21 June. **Hawfinch:** away from breeding areas there were five on Shetland in April, up to nine in May and one at Scalloway on 6 June: there were singles on Fair Isle on 21 April, 10 May and 15 May; on Orkney there were singles at Deerness on 14 April, Stenaday on 21st and on North Ronaldsay on

21 April and 16 May; on Stronsay on 3 May, with two on Westray (Ork) on 11 May. On the Outer Hebrides, singles were noted at Gramsdale, Benbecula and at Snishival, South Uist on 31 May, and at Langass Lodge Hotel garden, North Uist on 2–11 June. One was at Whiting Bay, Arran (Ayr) on 28 May, and one at Stonehaven (NES) on 31 May.

Lapland Bunting: late birds included at least five at Westport Marsh, Kintyre (Arg) on 30 April to 1 May; nine on North Ronaldsay (Ork) on 30 April, with four there on 2–3 May, six on 4th and three still on 5 May; a female at Butt of Lewis, Lewis (OH) on 1 May, with two birds there on 10th; four at Rattray Head (NES) on 1 May; a female near Glen Brittle, Skye (High) on 16 May; one on Oronsay (Arg) on 16 May; 1+ female at Aird an Runair, North Uist (OH) on 20 May, with a male there on 26–27 May. **Ortolan Bunting:** one was on Fair Isle on 12–19 May, with another there on 10–14 June; one was on Foula (Shet) on 17 May. **Rustic Bunting:** one was on Fair Isle on 19 May, with another there on 3 June; a male was on Foula (Shet) on 28–29 May. **Little Bunting:** one was at Skaw, Unst (Shet) on 28 May. **Black-headed Bunting:** a male was at Mainsiddle (D&G) on 22 June, and then 20 miles further to the west at Gatehouse of Fleet (D&G) the next day.

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A black and white photograph of a tree trunk with a hole and a branch. The tree trunk is on the right side of the frame, showing rough bark and a circular hole. A branch extends from the left towards the center. The background is dark and out of focus.

PhotoSPOT

Plate 246. I am privileged to have 'cresties' visit my garden feeders most years, mainly in winter, but occasionally summer as well. Although my house borders pine/birch woodland, I had never located a nest site, so this year I constructed nest boxes specifically aimed at attracting Crested Tit. I hollowed out log sections and packed them with wood shavings. I then applied to SNH for the essential Schedule 1 license allowing me to legally monitor the nests and have a suitably licensed friend ring any chicks with my aim being to ensure breeding success and increase the occurrence of cresties within the Cairngorm National Park. Sadly, none of my boxes were occupied this year, but I was fortunate to locate a pair feeding young in what appeared to be a disused woodpecker nest, judging from the size of entrance. Due to this year's late breeding season, the nest was not approached, so I have no idea how many young were present. However, I was able to take a couple of record photos from at least 25 yards away while both parents continued to feed their young without disturbance. The welfare of the species must always come first, as expressed in the excellent guidance and advisory notes which are available on the SNH website.

Equipment used: Canon EOS 550D with 400mm f5.6 lens, ISO 400, shutter speed 1/200th, aperture f5.6.

Robert Greenwood

Featuring the best images posted on the SOC website each quarter, PhotoSPOT will present stunning portraits as well as record shots of something unique, accompanied by the story behind the photograph and the equipment used. Send in your photos now - it's open to all.