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Front Cover: Red-throated Pipit, Fair Isle, Shetland, October 2014. © Steve Arlow 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.

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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 15 branches around the country and a growing membership of over 3,000. 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.

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Scottish Birds 36:2 (2016)

98 President's Foreword I. Thomson

PAPERS

- Scottish Birds Records Committee report on rare birds in Scotland, 2014 R.Y. McGowan
 & C.J. McInerny on behalf of the Scottish Birds Records Committee
- 121 The role of predation in the decline in the breeding success of Scottish Crested Tits in a coastal pine plantation W.G. Taylor, B. Etheridge & R.W. Summers
- 135 Colonisation by woodland birds at Carrifran Wildwood: the story so far C.J. Savory

OBITUARY

150 Henry Robb (1933–2016)

ARTICLES, NEWS & VIEWS

- 152 Scottish Birdwatchers' Conference, Peebles, 19 March 2016
- 160 NEWS AND NOTICES
- Pioneer air reconnaissance of Scottish seabirds: to Rockall and back with the RAF in 1941–47
 P. Holt
- 168 Breeding Woodcock G.F. Appleton
- 171 BOOK REVIEWS
- 173 OBSERVATORIES' ROUNDUP
- 176 Daffy Duck Blackdog's orange-billed scoter N. Littlewood
- 178 Rufous Turtle Dove, Scalloway, Shetland, November–December 2015 J. Watt
- 183 Little Swift, Thorntonloch, 31 December 2015 the first record for Lothian W. Edmond & M. Gladstone
- Mourning Dove, Lerwick, December 2015–January 2016 the first record for Shetland
 A. Taylor

SIGHTINGS

188 Scottish Bird Sightings: 1 January to 31 March 2016 S.L. Rivers

PHOTOSPOT

BC Gyrfalcon S. Duffield

36:2 (2016) Scottish Birds | 97

President's Foreword



Plate 89. Ian Thomson, Rutland Bird Fair, August 2015. © Dave Allan

We regularly hear bad news stories about Scotland's birds. Whether it is the latest disastrous breeding season for seabirds in the Northern Isles, the poisoning of a Red Kite on a grouse moor or the continuing declines shown by farmland birds or waders - our birds clearly face significant challenges.

Of course, there are some who claim there are 'too many' of some species, and claim that they are having an adverse impact on their livelihoods, often with tenuous, anecdotal evidence that fails to stand up to rigorous scrutiny. In recent months, there has been a campaign to increase the control of Ravens, while calls to allow licensed killing of Buzzards are regularly repeated. Magpies continue to be vilified in some quarters, Cormorants and Goosanders in others. Even rare species such as Goshawks and Hen Harriers are not tolerated in some parts of our uplands.

As birders, we play a key role in providing the evidence base that can inform our policy makers to come to the right decisions for our wildlife. We

do fieldwork for atlases, wildfowl and wader counts and breeding bird surveys. We are a Birdtrack partner, with SOC members submitting tens of thousands of records every year. Some undertake licensed monitoring of birds of prey, while others publish important papers about the status of some of our birds in *Scottish Birds*. We document and monitor and publish bird reports.

While some of us (including me!) may lament a lack of time or money to race off to the Outer Hebrides to see a Black-billed Cuckoo, the future of our native breeding birds is considerably more important. At our annual conference last year, we heard about factors impacting some of our birds living in the uplands. This year, we consider Scotland's marine environment. I hope that you will be able to join us in Pitlochry in September.

When we're out and about in Scotland's countryside, we can't fail to notice how things have changed. Management of much of our countryside is not particularly friendly to wildlife, and over the last 20 years, Grey Partridges and Corn Buntings have become very hard to see over much of our country. A huge weight of scientific evidence shows that these declines have arisen as a result of changes in agricultural practice. Similarly, in the moors of eastern and southern Scotland, intensification of management for grouse has coincided with a near absence of successfully breeding birds of prey in many areas. Elsewhere, even what we have always considered as a common bird, the Herring Gull, is now a species of significant conservation concern.

We have just elected a new Scottish Government. It's up to us to make sure that addressing the challenges faced by our wildlife moves up their list of priorities.

Ian Thomson, SOC President

98 | Scottish Birds 36:2 (2016)



Plate 90. Serin, female, Aisgernis (Askernish), South Uist, Outer Hebrides, 10 April 2014. © Ian Thompson

Scottish Birds Records Committee report on rare birds in Scotland, 2014

R.Y. McGOWAN & C.J. McINERNY on behalf of the Scottish Birds Records Committee

This is the seventh annual report of the Scottish Birds Records Committee (SBRC), covering 2014. Previous reports have covered the periods 2005–08, 2009, 2010, 2011, 2012 and 2013 (ap Rheinallt *et al.* 2010a, 2010b, 2011, 2012, McGowan *et al.* 2013, 2014, McGowan *et McInerny* 2015).

Following declines in numbers of British records over the last ten years, four species returned to the British Birds Rarities Committee (BBRC) list from 1 January 2015 (Anon 2015). These are Aquatic Warbler Acrocephalus paludicola, Tawny Pipit Anthus campestris, Red-throated Pipit Anthus cervinus and Rustic Bunting Emberiza rustica, with only the latter two appearing in the current SBRC report. Aquatic Warbler was last recorded in Scotland in 2008, and Tawny Pipit last occurred in 2013. In contrast, due to increases in numbers of British records, BBRC no longer assesses Lesser Scaup Aythya affinis, Blyth's Reed Warbler Acrocephalus dumetorum, and Citrine Wagtail Motacilla citreola, and so these become SBRC species from 1 January 2015. Additionally, White-billed Diver Gavia adamsii remains on the SBRC list, but with local assessment in Shetland and the Outer Hebrides; and Olive-backed Pipit Anthus hodgsoni remains on the SBRC list, but with local assessment in Shetland, Fair Isle and Orkney. A summary of these changes is given in Appendix 2.

In 2014, the most striking occurrence was the autumn influx of Olive-backed Pipits. These arrived from 20 September, with the last present until 6 December; a total of 32 were involved, all on Shetland, Fair Isle and Orkney. This species was a rare vagrant to the UK, but has been seen increasingly in the past few years; hence it was assessed by BBRC, but has been considered by SBRC since 2013. Another notable sighting was of three adult White-winged Black Terns *Chlidonias leucopterus* in May in the Outer Hebrides, the first observation of multiple birds in Scotland. Also from

the Outer Hebrides in May and June was a male Short-toed Lark *Calandrella brachydactyla*, singing and displaying, apparently attempting to establish a territory. A Yellow-legged Gull *Larus michahellis* on Foula, Shetland in July that was subsequently found dead, had been ringed 14 years earlier as a chick in a breeding colony on Sardinia, Italy; this was the first ringing recovery of the species for Scotland. Two Serins *Serinus serinus* were recorded in the Outer Hebrides and on the Isle of May in April/May, the eighth and ninth Scottish records. Finally, only the second (and first live) observation of Cetti's Warbler *Cettia cettia* in Scotland was recorded on Barra (Outer Hebrides) in October.

Format of the report

The species accounts in the report follow a standard format, which is modelled on the annual BBRC reports published in *British Birds*. Nomenclature and taxonomic sequence follow the *Scottish List* (Forrester 2015).

On the header line, after the species or subspecies name, are three numbers:

- Total number of birds in Scotland to the end of 2004, based on Forrester *et al.* (2007), with adjustments in some cases, and also including records added in this report. In some cases, older records, 'At sea' records, or records pertaining to the breeding population are explicitly excluded from the totals, following the example of Forrester *et al.* (2007). In the case of Marsh Warbler *Acrocephalus palustris* and Ortolan Bunting *Emberiza hortulana*, numbers seen in the past were so great that totals have not been estimated.
- Total number of birds in Scotland during the period since 2004, but excluding the current year. Where appropriate, acceptances by BBRC and by local committees are included. Returning birds or repeat sightings of the same individual, insofar as these can be judged, are not counted.
- Total number in the current year (2014).

Immediately below the header line is a table of accepted Scottish records for 2014, with details. For those species assessed locally in the Northern Isles, full details of accepted Northern Isles records are not given. Instead, they are summarised as a separate table or in the text.

For all taxa, information is also provided about pre-2014 records that were not included in previous reports. These are presented in reverse chronological order. Records assessed by SBRC are listed in full, otherwise only summary information is provided.

It should be noted that records of individual birds reappearing at the same location in subsequent years can be accepted by local recorders without formal submission to SBRC; full details of these returning birds are nonetheless provided. Revised details are also provided for some pre-2013 records published previously.

For each record listed in full, the following information is provided. For additional details, see ap Rheinallt *et al.* (2010a).

- Year.
- Recording area (www.the-soc.org.uk/bird-recording/local-recorders-network).
- Location(s). In the case of some recording areas, individual islands or component administrative areas are also named.
- Number of birds if more than one, with age and/or sex if known.
- 'Returning' if applicable.
- Date(s). Note that the use of a date range does not necessarily imply that a bird was confirmed to be present throughout; in some cases it may have been observed only on the first and last dates given.
- 'Found dead' or 'died' if applicable.
- 'Trapped' if applicable.
- Existence of a photograph, if this formed part of the assessment process.

100 | Scottish Birds: 99–120 36:2 (2016)

- Names of observers, in alphabetical order. Every effort has been made to name only those people who played a part in finding and/or identifying the bird. However, if no submission was made by these observers, the submitter of the record is also credited. All other observers are covered by the use of 'et al.'.
- Details and location of specimen if preserved in a museum, with specimen number if available.
- Additional sightings of the same bird, or a cross-reference to additional sightings in a different recording area or year. Where a bird is said to be the same, this is usually a presumption based on the judgment of the observer, local recorder and/or others.

The table of records is followed by the main text of the species account. At the end of each account, a brief summary of global breeding and wintering distribution, with mention of relevant subspecies, is given in parentheses.

Species coverage

Species coverage is unchanged from the last report. Rare subspecies of several species on the SBRC list are still assessed by BBRC, the most important being Subalpine Warbler *Sylvia cantillans* and Arctic Redpoll *Carduelis hornemanni*. For these, the accounts in the SBRC report summarise accepted BBRC records in order to give as complete a picture as possible of the species' occurrence in Scotland.

A list of records assessed by SBRC and considered to be 'not proven' can be found in Appendix 1. Appendix 2 summarises the involvement of different committees in the assessment of the taxa on the SBRC list. Appendix 3 lists minor corrections to previous SBRC reports.

SBRC

SBRC was set up in 1984 as a subcommittee of the SOC Council. Its role is to assess records of species that are rare in Scotland but not rare enough in Britain to be assessed by BBRC. Current members are Mark Wilkinson (Chairman), John Bowler, John Nadin, David Parnaby, Dave Pullan, Martin Scott and John Sweeney, with Chris McInerny as non-voting Secretary and Bob McGowan as non-voting Museum Consultant. Dave Pullan replaced Hywel Maggs during the period when the records reported here were assessed.

The *Scottish List* subcommittee consists of David Clugston, Ron Forrester, Angus Hogg, Bob McGowan, Chris McInerny and Roger Riddington. For more information about SBRC, see ap Rheinallt *et al.* (2010a) and www.the-soc.org,uk/bird-recording/records-committee/.

Acknowledgements

First and foremost, we are grateful to all observers who submitted records of Scottish rarities during the period. Without their efforts, this report could not exist. We owe a particular debt of gratitude to those who gave permission for their excellent photographs to be reproduced here.

Next, we thank the following current and former recorders and report compilers for their assistance in compiling, checking and correcting records for this report: Paul Collin, Jon Cook, Martin Cook, Jim Dickson, Iain English, Rob Fray, Keith Gillon, Pete Gordon, Angus Hogg, Nick Littlewoood, Ray Murray, David Parnaby, Scott Paterson, Chris Pendlebury, Mike Pennington, Ian Ricketts, Malcolm Ware, Stephen Welch, Jim Williams, and Val Wilson. We are particularly grateful for the cooperation of the Northern Isles recorders in helping to compile summaries for species assessed locally within their areas. Janette Park at Stromness Museum kindly supplied specimen information.

Prof. J. Martin Collinson and Dr. A.G. Knox assisted with text on Subalpine Warbler. We appreciate Keith Naylor's scrutiny of past SBRC reports and thank him for his continuing valuable contribution. We thank Ian Andrews for making available the database of records of scarce and rare species used during the preparation of Forrester *et al.* (2007), and for producing the graph in this report.

Systematic list of accepted records

Egyptian Goose Alopochen aegyptiaca 0: 9: 2

Table 1. Accepted records of Egyptian Goose in Scotland, 2014, with an additional record, 2013.

2014: Isle of May 7 February, photo *SB* 34: 176 (D. Bell, D. Pickett et al.).

Upper Forth Blair Drummond, adult, 12-17 May, photo (M. Albert, C. Pendlebury et al.).

2013: Lothian Abbeymill, adult, 24-28 February, photo (S. Welch et al.).

Egyptian Goose was added to Category C of the Scottish List in 2010 (ap Rheinallt et al. 2012). This species appears to be a rare, but near annual visitor, with observations throughout the country.

All three records reported here were the first for their respective recording areas.

(Breeds throughout Africa south of 20°N latitude, extending farther north into southern Egypt, the only part of its natural range to fall within the Western Palearctic. Substantial naturalised populations are concentrated in England, the Netherlands and Denmark, with smaller numbers breeding in Belgium, France and Germany.)

White-billed Diver Gavia adamsii

197: 214: 33

102

Table 2. Accepted records of White-billed Diver in Scotland, 2014.

2014: Argyll Machrihanish Seabird Observatory, Kintyre, adult summer, 17 May, photo (S. Holloway, E. Maguire).

Fife Fife Ness, adult, 13 October, photo (B. Farguharson).

Moray & Nairn Burghead, 2–6 April (R. Proctor). Moray & Nairn Portknockie, three, adults, 3 May, photo (L. Simpson et al.).

Moray & Nairn Cullen, adult, 4-7 May (M.J.H. Cook).

North-east Scotland Rosehearty, 30 January to 1 February, photo (W.T.S. Miles et al.).

North-east Scotland Portsoy, up to ten, 26 March to 6 April, photo (H. Maggs, W.T.S. Miles

North-east Scotland Peterhead, adult, 22 May (M. Innes).

Orkney St. Margaret's Hope, South Ronaldsay, adult (returning), 11 January to 6 May (B. Hamill, P. Higson, T. Wootton).

Orkney Scapa Flow, Mainland, three, 17

February, photo (S. Pinder et al.).

Outer Hebrides Ceann an t'Siumpain (Tiumpan Head), Lewis, 7 February (A. McNab, J.S. Nadin). Outer Hebrides Sgiogarstaigh, Nis (Skigersta, Ness), Lewis, four, 31 March to 20 April (B.A.E.

Outer Hebrides Ceann an t'Siumpain (Tiumpan Head), Lewis, 7 April, photo (J.S. Nadin, K.D. Shaw).

Outer Hebrides Rubh an-t Seana Bhalla, Eirisgeigh (Eriskay), second-calendar-year, 21 April (M.J. Ainscough et al.).

Shetland Kirkabister, Mainland, adult (returning),

5 January (M. Heubeck). Shetland Snarravoe, Bluemull Sound, Unst, adult, 7–12 February, photo (C.C. Rodger).

Shetland off Belmont, Bluemull Sound, Unst, adult (returning), 10 February to 7 March (B.H. Thomason).

Shetland Sound Gruney, Bluemull Sound, Fetlar, adult (returning), 10-17 February (B.H. Thomason).

Shetland Kirkabister, Mainland, immature, 18 April (R.M. Mellor).

Shetland Bluemull Sound, Fetlar, adult, 10 May (J. & T. Thomason et al.).

Shetland Ham Voe, Foula, adult, 13 May, photo (D. & G. Atherton).

Shetland Brough, Fetlar, adult (returning), 16 October to 2015 (W.C. Aspin).

Shetland Kirkabister, Mainland, adult (returning), 10 November to 2015 (P.V. Harvey).



Plate 91. White-billed Diver, adult, Fife Ness, 13 October 2014. © Barry Farguharson

White-billed Diver is a scarce though regular visitor to Scotland, with up to about 30 being reported each year since around 2000. Most occur in Shetland, Orkney, the Outer Hebrides, Highland, Moray & Nairn and North-east Scotland, with some preferred localities being used in spring as stop-overs between wintering and summering areas. In Shetland and Orkney, a small number of wintering individuals return to the same sites in successive years, and summering birds have become almost annual. There may be some overlap among these records given the birds' mobility.

This was a typical year for this species with 33 apparently new birds and a number of returning individuals. Almost all were seen at traditional sites in spring and winter, but with extralimital records from Argyll and Fife. The Fife Ness observation was unusual not only being in autumn, but also because it was identified retrospectively from photographs taken as it flew past during a sea watch.

(Breeds in parts of Arctic Russia, Alaska and Arctic Canada; winters on the Pacific coasts of Russia and Canada, and along the Atlantic coast of Norway.)

Cory's Shearwater Calonectris borealis c. 228: 25: 3

Table 3. Accepted records of Cory's Shearwater in Scotland, 2014.

2014: Highland Brora, Sutherland, 28 August (D. MacAskill).

Moray & Nairn Lossiemouth, 29 July (R. Proctor). Moray & Nairn Lossiemouth, 14 August (R. Proctor).

Cory's Shearwater is a rare visitor to Scottish waters, recorded near-annually, with most seen off North Ronaldsay and the Outer Hebrides. Although a marked increase in sightings from the mid-1990s to the mid-2000s occurred (ap Rheinallt *et al.* 2010a), numbers since have decreased, with about two or less seen annually.

Considering this species' rarity in North Sea waters, the two records from Lossiemouth may refer to the same individual lingering off Moray & Nairn.

(Breeds on the Azores, Canary Islands and other nearby Atlantic islands, with the closely related Scopoli's Shearwater *C. diomedea* breeding in the Mediterranean. Both species occur in North Atlantic waters in autumn and are on the *British List*, but most are assumed to be Cory's, with Scopoli's not yet recorded in Scottish waters.)

Great Shearwater *Puffinus gravis* c. 522 (1950–2004): 9,219: 2 (excluding 'at sea' records)

Table 4. Accepted records of Great Shearwater in Scotland, 2014.

2014: Orkney Dennis Head, North Ronaldsay, 21 August (N. & P.J. Donnelly).
Orkney Dennis Head, North Ronaldsay, 22
September (M. Warren).

Great Shearwater was rarely observed in Scotland until the large number of sightings during 2005–07. Since then, however, no more than six have been recorded in any one year, if 'at sea' records are discounted. This underlines the exceptional nature of the influxes witnessed during that period.

This species is almost entirely a late summer and autumn visitor, with most sightings from the Outer Hebrides and North Ronaldsay, Orkney. The two 2014 records fit this geographical pattern, and typically for North Ronaldsay, involved birds flying west past Dennis Head at the north end of the island. These are thought to be birds returning to the North Atlantic that have previously entered the North Sea, likely after westerly storms.

(Breeds on South Atlantic islands and carries out a clockwise loop migration in the North Atlantic outside the breeding season. In the north-east Atlantic occurs most regularly off the west coast of Ireland in late summer and autumn.)



Plate 92. Night-heron, adult, Brake, Quendale, Mainland, Shetland, 18 April 2014. © Susan Boardman

Night-heron Nycticorax nycticorax

46: 10: 2

Table 5. Accepted records of Night-heron in Scotland, 2014.

2014: Shetland Brake, Quendale, Mainland, adult, 18 April, photo (S. Boardman, M. Robinson); same, Loch of Spiggie, Mainland, 20–30 April, photo SB 34: 283 (P.V. Harvey et al.).

Shetland Reawick, Mainland, 18–21 April, photo, found dead (D. & K. Anderson, J. Redpath et al.).

Night-heron is a less-than-annual visitor to Scotland, with a spring peak in observations. There is a wide geographical spread, but most are seen in the Northern Isles and the Outer Hebrides.

As no Night-herons were seen in Scotland in 2013, with the last in 2012, the arrival of two adults in Mainland Shetland on the same day is noteworthy. The Brake individual was first noticed perching on silage bales from the observers' kitchen window, subsequently moving to nearby Loch of Spiggie.

(Holarctic with four subspecies, nominate *nycticorax* breeding in mainland Europe and into Asia, and *hoactli* in North America. Populations move south in winter.)

Cattle Egret Bubulcus ibis

3: 7: 1

Table 6. Accepted record of Cattle Egret in Scotland, 2014.

2014: Orkney Noup Head, Westray, female, 15–16 October, found dead, specimen at Stromness Museum (accession number SM 2015.01), (D. & L.-M. Muir, M. Gray *et al.*).

Cattle Egret remains very rare in Scotland, with no obvious pattern or trend.

The Orkney bird, the first for the recording area, was found injured having apparently flown into a fence, and died the following day, despite veterinary attention.

(Occurs commonly in sub-tropical and temperate areas throughout the world, the European population being centred on the Mediterranean, extending north to central and western France, with increasing numbers of records farther north. Generally a short-distance migrant.)

Glossy Ibis Plegadis falcinellus

c. 65: 28: 5

Table 7. Accepted records of Glossy Ibis in Scotland, 2014.

2014: Argyll Kirkapol, Tiree, second-calendar-year, 13 January, photo (J. Bowler, J. Hunter, S. Kyle et al.); same, Scalasaig, Colonsay, 25 January to 5 February (J. Binnie, S. Weatherstone et al.). Lothian Ballencrieff, 16 January, photo (D. Robertson).

Orkney various locations, two from 2013, to 8 February (McGowan & McInerny 2015); one, same, Orkney North Ronaldsay, 13 February to 14 May, 18 May, 25 May, 5–12 June, photo (P. Donnelly, A. Tulloch, A Duncan *et al.*); same, Fair Isle Houll and other locations, 16 May, 26 May, photo *SB* 35: 62 (C. Hatsell, J. Hunt *et al.*); same, Shetland Hillwell, Virkie & Sumburgh, Mainland, 20–25 May, 28 May to 4 June (P.V. Harvey *et al.*):

Outer Hebrides various locations, from 2013 to 12 January (McGowan & McInerny 2015).

Perth & Kinross Loch Leven, Kinross, second-calendar-year, 6 March to 23 August, photo (C. Nisbet *et al.*).

Shetland Haroldswick, Unst, adult, 6–9 January, 12 January, photo (M.G. Pennington *et al.*); same, Littleness, Loch of Spiggie, Mainland, 10–11 January, photo (G.R. Ball *et al.*).

Upper Forth Cambus, immature, 2–11 June, photo (G. Garner *et al.*).

2013: Argyll Scalasaig, Colonsay, 27 December into **2014** (H. Smith, S. Weatherstone).

Glossy Ibis is a rare, though increasingly frequent, visitor to Scotland. In the early 20th century a few flocks were observed, including a group of 19–20 in Orkney in September 1907, but the species subsequently became much rarer (Forrester *et al.* 2007). In the early 21st century larger numbers and flocks were seen again in the UK. This change coincided with significant numbers being observed in Scotland, with groups in Orkney and the Outer Hebrides.

The five new birds observed in 2014, though not as many as seen as in 2013, was still a high annual total.

One individual was observed on multiple occasions as it wandered between Shetland, North Ronaldsay (Orkney) and Fair Isle, from January to June. Another was located in Argyll, moving between Colonsay and Tiree; this bird was first found in December 2013.

The Lothian and Upper Forth records were the second for the recording areas.

(Nominate *falcinellus* breeds from Spain and France, through the Balkans to central Asia, in sub-Saharan Africa, the Indian subcontinent, south-east Asia, the east coast of the USA and the Caribbean. Most European birds migrate to Africa with others short distance migrants or resident. Another subspecies in the Far East and Australia).

Black Kite Milvus migrans

19: 20: 4

Table 8. Accepted records of Black Kite in Scotland, 2014.

2014: Argyll Kilmichael Glen, Lochgilphead, 3 May, photo (J. Platt *et al.*).

Highland Inverpolly, Ross & Cromarty, 19 April, photo (S. Edwards *et al.*).

Orkney Boardhouse Loch, Birsay, Mainland, 22–23 April, photo (J. Branscombe, J. & F. Manson, K. Norbury *et al.*).

Shetland Seli Voe, Mainland, 13 June (D. Jackson).

Black Kite is a very rare visitor to Scotland from continental Europe. Most individuals have been seen in spring, from April to June, with just a few sightings later in the season. There have also been instances of summering, and a single case of hybridisation with Red Kite *Milvus milvus* (ap Rheinallt *et al.* 2010a).

The four in 2014 equalled the annual mean for the last five-year period; in the five years prior to that, a total of only four individuals occurred.

(Nominate *migrans* breeds throughout most of Europe except the far north; winters in sub-Saharan Africa. Other subspecies elsewhere in the Old World.)

Stone-curlew Burhinus oedicnemus

29: 3: 1

Table 9. Accepted record of Stone-curlew in Scotland, 2014.

2014: Outer Hebrides Loch Stiapabhat (Loch Stiapavat), Lewis, 18 May, photo (B.A.E Marr *et al.*).

Stone-curlew is a very rare visitor to Scotland; there were just 32 accepted records to the end of 2013 with half of these in the Northern Isles, and the remainder scattered across the country, though mostly along the east coast. There is a peak in occurrence in late May and early June.

The 2014 record was the first for the Outer Hebrides. At one stage during its brief stay it was chased by, and flew with, Herring Gulls *Larus argentatus*, making an unusual sight.



Plate 93. Stone-curlew, Loch Stiapabhat (Loch Stiapavat), Lewis, Outer Hebrides, 18 May 2014. © *John Burgis*



Plate 94. Stone-curlew with Herring Gull, Loch Stiapabhat (Loch Stiapavat), Lewis, Outer Hebrides, 18 May 2014. © *Tony Marr*

(Nominate *oedicnemus* breeds in open habitats in southern Europe east to the Caucasus, extending as far north as England and Poland; migrates south to winter in Spain and North Africa. Five other subspecies.)

Kentish Plover *Charadrius alexandrinus* 15: 3: 1

Table 10. Accepted record of Kentish Plover in Scotland, 2014.

2014: Highland Dunvegan, Skye, Skye & Lochalsh, adult male, 23 May, photo (R.L. McMillan).



Plate 95. Kentish Plover, adult male, Dunvegan, Skye, Skye & Lochalsh, 23 May 2014. © Bob McMillan

Kentish Plover is a very rare migrant to Scotland. Almost all records have been in spring from the east coast of the mainland on sandy beaches or estuaries, with just one winter record.

The 2014 record was the first for Skye, and the second for both Highland and the west coast of Scotland. The last on the west coast was one that wintered on South Uist (Outer Hebrides) in 2007/08 (ap Rheinallt *et al.* 2010a). The Skye sighting was only the second in Scotland since 2008.

(A cosmopolitan species with several subspecies, including nominate *alexandrinus*, which breeds patchily in Europe, North Africa and Asia. European birds are migratory and normally spend the winter in sub-Saharan Africa.)

White-rumped Sandpiper *Calidris fuscicollis* 69: 72: 4

Table 11. Accepted records of White-rumped Sandpiper in Scotland, 2014.

2014: Argyll Gott Bay, Tiree, adult, 31 August to 1 September, photo (K. Gillon *et al.*).

Outer Hebrides Baile Gharbhaidh (Balgarva), South Uist, juvenile, 5–18 October, photo (J.B. Kemp, A. Stevenson).

Outer Hebrides Coig Peighinnean, Nis (Fivepenny, Ness), Lewis, juvenile, 27 October, photo (B.A.E Marr *et al.*).

Shetland Virkie, Mainland, adult, 29–30 July, photo (R. Riddington *et al.*).



Plate 96. White-rumped Sandpiper, adult, Virkie, Mainland, Shetland, 29–30 July 2014. Note the few winter scapular feathers on this bird, indicating that it is just starting to moult into winter plumage © *Roger Riddington*

106 | Scottish Birds: 99–120 36:2 (2016)

White-rumped Sandpiper is a scarce, but annual, visitor to Scotland from North America, with most observations in autumn on the Outer Hebrides.

(Breeds in North America at high latitudes, migrating to winter in Brazil, Argentina and Chile.)

Yellow-legged Gull *Larus michahellis* 12: 13: 5

Table 12. Accepted records of Yellow-legged Gull in Scotland, 2014.

2014: Argyll Drumlemble, Kintyre, adult, 21–22 February, photo (J.M. Dickson, E.J. Maguire et al.). Dumfries & Galloway Stanhope, adult, 28–29 July, photo (B.D. Henderson). Dumfries & Galloway Stranraer, adult, 27–30

December, photo (B.D. Henderson). **Outer Hebrides** 97 km north-west of St Kilda, adult, 4 April, photo (N.T. Keogh *et al.*).

Shetland Foula, adult, 6–7 July, found dead, ringed (IAB C81819) as a pullus/chick 5 May 2000 at Stagno di Mistras, Cabras, Oristano, Sardinia, Italy (D. & G. Atherton).

Yellow-legged Gull is very rare in Scotland, though found at scattered locations throughout the country, usually in groups of other large white-headed gulls, often Lesser Black-backed Gulls *Larus fuscus graellsii*. Birds, predominately



Plate 98. Yellow-legged Gull, adult, Foula, Shetland, 6–7 July 2014. The ring on this bird indicates that it was marked as a pullus/chick on 5 May 2000 at Stagno di Mistras, Cabras, Oristano. Sardinia. © Geoff Atherton



Plate 97. Yellow-legged Gull, adult, 97 km north-west of St Kilda, Outer Hebrides, 4 April 2014. © Niall Keogh

adults, have been found at all times of the year, sometimes remaining for extended periods, with a number of individuals returning to the same locations in consecutive years. Thus it is possible that the two 2014 Dumfries & Galloway records refer to the same, returning individual.

The ringing recovery on Foula, was the first such record for Scotland. It is perplexing why an adult 14-year-old bird should wander to the North Atlantic so far from its Mediterranean home.

(Nominate *michahellis* breeds mainly from south-west Europe east to the Black Sea, with immatures dispersing widely in winter as far north as Britain and the Baltic; *atlantis* breeds on the Azores, Madeira and Canaries, wandering south to north-west Africa.)

Caspian Gull Larus cachinnans

Noble-Nesbitt et al.).

0:5:2

Table 13. Accepted records of Caspian Gull in Scotland, 2014.

2014: Lothian Belhaven Bay, adult, 15 November, photo (C.N. Davison, K. Gillon).
Angus & Dundee Montrose Basin, second-calendar-year, 19 October, photo (H. Bell, R.

Caspian Gull is extremely rare in Scotland, observed on just five occasions up to the end of 2013. All occurrences were in late autumn or winter.

It is now known that a regular movement of this species takes place each year through England, mainly in the east and south. Generally, immatures are involved, in late summer and autumn. It remains rare elsewhere in the UK. However, under-recording of this difficult-to-identify species is also likely.

The Montrose record was the first for the recording area. The Lothian bird was the fourth found at Belhaven Bay/Dunbar. Considering the rarity of this species in Scotland it is possible that some of the Lothian records refer to the same returning individual.

(Breeds at inland lakes in eastern Europe and the Middle East, wintering mostly in the eastern Mediterranean, but with smaller numbers reaching western maritime Europe.)

White-winged Black Tern Chlidonias leucopterus

59: 13: 4

Table 14. Accepted records of White-winged Black Tern in Scotland, 2014.

2014: Orkney Loch of Matpow, Stronsay, adult, 26 May, photo (N. & A. Wildsmith et al.).
Outer Hebrides Loch nam Feitham, Baile Raghaill (Balranald), North Uist, adults, two, 20 May, three, 21–24 May, photo (C. Holter et al.).

White-winged Black Tern is a rare visitor to Scotland, mostly observed along the east side of the country between late spring and late autumn.

The Outer Hebrides record was the first multiple sighting in Scotland. Two birds were present initially on 20 May, joined by a third on 21–24 May. To see three such beautiful birds in full summer plumage together must have been a memorable sight.

(Breeds on marshy lakes in central and Eastern Palearctic areas, migrating south to winter in Australasia, the Indian subcontinent and Africa.)

Alpine Swift Apus melba

34: 5: 2

Table 15. Accepted records of Alpine Swift in Scotland, 2014.

2014: Orkney Birsay, Mainland, 26–29 May, photo (G. Cannon *et al.*).

Shetland Hermaness, Unst, 24 May (G. Bathe *et al.*).

Alpine Swift is a very rare visitor to Scotland, seen usually between mid-April and late July. Spring occurrences probably involve overshoots from breeding grounds on the European continent, while those in summer relate to wandering non-breeders. There are very few autumn records.

108 | Scottish Birds: 99–120 36:2 (2016)

Considering how the rare this species is in Scotland (the last was in 2012), it is possible that the two 2014 records refer to the same individual; the close but non-overlapping dates are consistent with this suggestion.

(Nominate *alba* breeds in north Africa and southern Europe from Iberia to the Middle East, moving to southern Africa in winter. Other subspecies in the Indian subcontinent and Africa.)

Red-footed Falcon *Falco vespertinus* 83: 14: 1

Table 16. Accepted record of Red-footed Falcon in Scotland, 2014.

2014: Orkney Harray & Wyre, Mainland, male, second-calendar-year, 22–25 July, photo (A. & L. Forsyth *et al.*).

Red-footed Falcon is a rare late spring migrant to Scotland, with most sightings coming from Shetland, Orkney and North-east Scotland. Although not quite annual, since the late 1960s there has been at least one sighting every other year, with the exception of two three-year periods, in 1986–88 and 2011–13, during which no birds were seen.

(Breeds from Hungary and the Czech Republic east to China, wintering in southern Africa.)



Plate 99. Short-toed Lark, singing male, Tobha Mòr (Howmore), South Uist, Outer Hebrides, 20 May to 10 June 2014. © *John Kemp*

Woodchat Shrike Lanius senator

86: 16: 1

Table 17. Accepted record of Woodchat Shrike in Scotland, 2014.

2014: Orkney Palace, Birsay, Mainland, female, 12 June, photo (D. Annible, S. Marwick); same, Stromness, Mainland, 13–24 June, photo (T. Wooton *et al.*).

Woodchat Shrike is a rare, almost annual, passage migrant to Scotland, with most in the Northern Isles. Adults and sub-adults are seen in spring as overshoots from their European continental breeding areas, along with dispersing juveniles recorded in autumn.

(Nominate *senator* breeds from north-west Africa, Iberia, France and Belgium south to Turkey; *badius* on Mediterranean islands; and *niloticus* from Turkey to Iran. Winters in sub-Saharan Africa.)

Short-toed Lark Calandrella brachydactyla 286: 62: 19

Table 18. Accepted record of Short-toed Lark in Scotland, 2014. Northern Isles records are summarised separately in Table 19.

2014: Outer Hebrides Tobha Mòr (Howmore), South Uist, male, singing, 20 May to 10 June, photo (P. & P. Johnston, J. Kemp, I. Thompson *et al.*).



Plate 100. Short-toed Lark, singing male, Tobha Mòr (Howmore), South Uist, Outer Hebrides, 20 May to 10 June 2014. This is possibly the first example of a bird holding territory in the UK. © *Ian Thompson*

Short-toed Lark is found annually in Scotland in very small numbers, mostly in spring and autumn, with the majority of observations in the Northern Isles, where records are assessed locally. It is very rare elsewhere, particularly on the mainland.

The 19 birds observed in 2014 was the highest Scottish annual total, exceeding 16 seen both in 1991 and 1999. Three individuals were noted on one day on Fair Isle, equalling the previous single day record for the island. The male on South Uist (Outer Hebrides) was present for 22 days during which time it held a territory, perhaps the first occurrence of this phenomenon in the UK.

Table 19. Accepted records of Short-toed Lark in the Northern Isles. 2014.

Number of b			irds Date range		
Spr. Aut.			Spr.	Aut.	
Fair Isle	4	3	27 Apr-30 May	30 Aug-24 Sep	
Orkney	1	3	5–6 May	16 Sep-11 Nov	
Shetland	2	5	10 May–8 Jun	18 Sep-15 Oct	

(Eight or nine subspecies. Breeds widely in dry, sandy areas from southern and eastern Europe to the Middle East and western China, with populations migrating to winter in India, the Middle East and Africa.)

Red-rumped Swallow *Cecropis daurica* 40: 37: 4

Table 20. Accepted records of Red-rumped Swallow in Scotland, 2014.

2014: Argyll Ceann a' Mhara, Tiree, 26 May (J. Bowler). Shetland Burrafirth, Unst, 18–19 May, photo (R.J. Brookes, J. & I. Flood, M.G. Pennington et al.). Shetland Hillwell, Mainland, 20–22 May, photo (R. Riddington et al.). Shetland Boddam, Mainland, 25 May (R.M. Mellor).

Red-rumped Swallow is observed in Scotland annually in small but increasing numbers from April through to November, mainly along the east coast and on islands. This recent increase is thought to reflect a northward expansion of the European continental breeding range. One individual of an eastern subspecies, either daurica or japonica, has been observed on

Orkney and then Skye (Highland) in June 2011 (McGowan *et al.* 2013).

The occurrence at Ceann a' Mhara, Tiree was the second for Argyll, following one on Mull in 2011. The three sightings on Shetland were typical, and this recording area now has 32.5% of the total Scottish records since 1950.

(Eleven or 12 subspecies. Breeds widely from southern and eastern Europe eastwards across the Palearctic region, and in sub-Saharan Africa. Northern populations are migratory, wintering in Africa and southern Asia. In recent years, its range has expanded into more northern and western areas.)

Cetti's Warbler Cettia cetti

1: 0: 1

Table 21. Accepted record of Cetti's Warbler in Scotland, 2014.

2014: Outer Hebrides Nasg, Barra, 12 October (C. Scott *et al.*) (Scott 2015).

Cetti's Warbler is an extremely rare vagrant to Scotland, with just one previous record. This was a freshly dead adult found at Leith, Edinburgh (Lothian) on 4 October 1993, that had been ringed in August the same year in northern France, near Calais (Forrester et al. 2007). Three other ringed birds have been recovered in the UK from the European continent and the Channel Islands, with this dispersal offered as an explanation for the colonisation of the UK by the species in the late 20th century. Thus the discovery of the 2014 bird in October on Barra (Outer Hebrides) is consistent with other extralimital observations (Scott 2015). However, the origin of this individual is unclear. It could be from either the European continent or from the English and Welsh population, which has expanded rapidly to reach 1,500-2,000 singing males/territories in recent years (Holling et al. 2015).

(Nominate *cetti* breeds in southern Britain, and eastwards from Morocco through to Bulgaria; mainly sedentary. *C. c. orientalis* in central and eastern Asia Minor and *C. c. albiventris* from Kazakhstan to western China.)

110 **Scottish Birds: 99–120** 36:2 (2016)

Greenish Warbler *Phylloscopus trochiloides* 157: 54: 11

Table 22. Accepted records of Greenish Warbler in Scotland, 2014. Northern Isles records are summarised separately in Table 23.

2014: Lothian Tyninghame, 7–22 June, male, singing, photo SB 34: 287 (C.N. Davison, K. Gillon et al.) (Davison & Gillon 2014).

Outer Hebrides Loch Aineort (Loch Eynort), South Uist, 7 June, male, singing (S.E. Duffield *et al.*).

Outer Hebrides Brèbhig (Brevig), Barra, 18 September (D. Douglas, I. Hartley, M. Lewis, A. Whewell).

Greenish Warbler is a rare but annual migrant to Scotland, increasingly regular over the past few decades. It is mostly seen in late August and early September, with more than 80% of sightings in the Northern Isles, where records are assessed locally.

The male at Tyninghame was only the second occurrence for Lothian; the first was at Barns Ness in August 1983. This individual, found in June, sang and held territory for 16 days (Davison & Gillon 2014). The birds on South Uist and Barra were the first summer and autumn records respectively for the Outer Hebrides. Of four birds present in Scotland during June, it is noteworthy that two were singing males.

Table 23. Accepted records of Greenish Warbler in the Northern Isles. 2014.

Nu	mbe	r of b	oirds Dat	Date range	
	Spr.	Aut.	Spr.	Aut.	
Fair Isle	1	1	6 Jun	6 Aug	
Orkney	-	-	-	-	
Shetland	1	5	31 May–4 Jun	7 Aug-28 Sep	

The dates reported for 2014 are typical of the consistently narrow spread of arrival dates in both spring and autumn.

(*P. t. viridanus* breeds from the Baltic east through Russia to the Yenisei and south to Afghanistan, and winters in the Indian subcontinent and south-east Asia. There are four records in England of Two-barred Greenish Warbler *P. t. plumbeitarsus* from eastern Siberia.)

Radde's Warbler *Phylloscopus schwarzi* 46: 18: 3

Table 24. Accepted records of Radde's Warbler in Scotland, 2014, with an additional record, 2010.

2014: North-east Scotland Troup Head, 8 October (A. Perkins).

Shetland Sumburgh Hotel, Mainland, 6 October, photo (R.C. Cookson *et al.*).

Shetland Mid Dale, Mainland, 8 October, photo (R.M Tallack *et al.*).

2010: Shetland Toab, Mainland, 14 October, photo (C. Fentiman, T. Wilson *et al.*).

Radde's Warbler is a rare late autumn visitor to Scotland, with the majority of occurrences in the Northern Isles, principally Shetland, and the remainder along the east coast.

Occurrences in 2014 came from typical areas and during the peak period; 42% of sightings have taken place in Shetland.

(Breeds from southern Siberia east to Sakhalin and North Korea; migrates to winter in southern China and south-east Asia.)



Plate 101. Radde's Warbler, Toab, Mainland, Shetland, 14 October 2010. © *Dave Hatton*

Subalpine Warbler *Sylvia cantillans* 193: 65: 14

Subalpine Warbler occurs annually in Scotland as a rare migrant, mainly in spring. The overwhelming majority are seen in the Northern Isles.

The British Ornithologists' Union Records (BOURC) recently adopted recommendations to recognise two species in the S. cantillans complex: Subalpine Warbler Sylvia cantillans (polytypic, with subspecies cantillans (breeding in Southern Italy and Sicily), albistriata (breeding in Turkey and South-east Europe), iberiae (Spain and France, into Northern Italy) and inornata (breeding North Africa)), and Moltoni's Subalpine Warbler S. subalpina (Sangster et al. 2015, BOU 2015). BOURC has accepted that records belonging to albistriata and either iberiae or have occurred in the UK: consequently albistriata and iberiae/inornata are on the British List. For the same reason, although S. c. albistriata and S. c. cantillans (s.l.) currently appear on the Scottish List, the latter should instead be *S. c. iberiae/inornata*.

Following BOU (2014) and Sangster *et al.* (2015) and the recognition of the newly named subspecies *iberiae*, the (Scottish) record which led to S. c. *cantillans* (s.l.) being admitted to the *British* and *Scottish Lists* is now regarded as 'race undetermined, almost certainly *iberiae*.' Thus the subspecies of Subalpine Warbler that occur on the *Scottish List* are:

- S. cantillans albistriata ('Eastern Subalpine Warbler')
- S. cantillans race undetermined, almost certainly iberiae ('Western Subalpine Warbler')

Apart from those identified as *albistriata*, the records below are at species level, rather than particular subspecies, while reviews continue. This ensures that the annual totals are maintained to date. Assignation to subspecies (where possible) will take place if/when other taxa are formally accepted by BOURC to the *British List*.

With no Scottish sightings outwith the Northern Isles in 2014, all claims were considered locally or reviewed by BBRC (Hudson *et al.* 2015).

Table 25. Accepted records of Subalpine Warbler in the Northern Isles, 2014, with additional records, 2013, 2012, 2011 and 2009 (per Hudson *et al.* 2015 and local committees).

2014: Fair Isle Observatory/South Feltsigeo, male, 25 April to 2 May, trapped (DNA), photo.

Fair Isle Burkle, male, 3–21 May, trapped, photo. Fair Isle Gully, first-summer male, 8 May, trapped (DNA), photo.

Fair Isle Schoolton, male, 13 June, photo.

Orkney Holland House, Papa Westray, adult female, 1 June.

Orkney Holland, North Ronaldsay, male, 17–18 June, trapped, photo.

Shetland Exnaboe, Mainland, first-summer male, 24–27 April, photo.

Shetland Out Skerries, first-summer male, 2 May, photo.

Shetland Haroldswick, Unst, male, 7 May, photo. Shetland Ham, Foula, female, 13 May, photo. Shetland Eshaness, Mainland, male, 25 May, photo.

Shetland Baltasound, Unst, male, 22–23 September, photo.

Shetland Baltasound, Unst, male, 22 September to 5 October, photo.

Shetland Hametoun, Foula, female, 13–15 October, photo.

2013: Fair Isle Gully, female, 25 May, trapped (DNA), photo, albistriata.
Shetland Yell, adult male, 24 September to 8 October, photo.

2012: Fair Isle south of island/Observatory, first-summer female, 26–27 May, trapped (DNA), photo, albistriata.
Shotland Whaleay first summer male, 21 May.

Shetland Whalsay, first-summer male, 21 May, photo.

2011: Fair Isle Schoolton, male, 6 June, photo.
2009: Shetland Scousburgh, Mainland, first-summer male, 19 May, photo.

There were 14 occurrences in 2014, all in the Northern Isles, and a further six birds from earlier years.

The 2005–13 total in the species' header has been increased accordingly. However, the separation of Moltoni's Subalpine Warbler means that the three Scottish records of that species (one in 1894, and two in 2009) are now removed from the totals for Subalpine Warbler. The first two totals are now 193 and 65.

(S. cantillans breeds from Iberia, north-west Africa, north-west Italy, south-east Europe to Turkey. Migrates to winter in the sub-Saharan Sahel.)

112 **Scottish Birds: 99–120** 36:2 (2016)

Melodious Warbler *Hippolais polyglotta* 53: 9: 3

Table 26. Accepted record of Melodious Warbler in Scotland, 2014.

2014: Argyll Scarinish, Tiree, first-winter, 18 September to 4 October, photo SB 34: 379 (W. Allan, J. Bowler, J.M. Dickson et al.). Shetland Out Skerries, first-winter, 6 October, photo (M.J. McKee, C. Turner). Outer Hebridges Ormacleit (Ormiclate), South

Uist, 23 August, photo (S. Beeby, S.E. Duffield, C. Saunders *et al.*).

Melodious Warbler is a very rare spring and autumn migrant to Scotland, recorded in most years but not all: for example, 2001, 2004, 2005 and 2009 were blank years. About three-quarters of occurrences have been in the Northern Isles, with almost identical totals for the three recording areas.

The three sightings for 2014 represent the highest annual total since 2003, when four were seen. The individual on Tiree was the second for Argyll. Most occurrences in Scotland are brief, but this bird lingered for 16 days. The individual on South Uist was the fifth for the Outer Hebrides, with previous records also on South Uist (three) and Barra (one).

(Breeds in north Africa, Iberia, France, Belgium, and south-west Germany to the north-west Balkans; migrates to winter in sub-Saharan West Africa.)

Marsh Warbler *Acrocephalus palustris* many: c. 284: 32

Table 27. Accepted records of Marsh Warbler in Scotland, 2014. Northern Isles records are summarised separately in Table 28.

2014: Argyll Mannal, Tiree, 28 May (J. Bowler et al.). Fife Fife Ness, male, singing, 29 May (D. Dickson et al.).

Marsh Warbler is a scarce annual migrant to Scotland with most occurrences involving singing males in late spring; very rarely, birds remain to breed. The Northern Isles account for the overwhelming majority of records, and these are assessed locally.



Plate 102. Melodious Warbler, first-winter, Out Skerries, Shetland, 6 October 2014. © *Michael McKee*

The sighting in Argyll was the third for the area, with both earlier occurrences also on Tiree, in 2007 and 2012. The Fife Ness bird was the first for Fife.

Table 28. Accepted records of Marsh Warbler in the Northern Isles, 2014.

Nι	ımbe	r of bi	rds Date	range
	Spr.	Aut.	Spr.	Aut.
Fair Isle	10	1	5–25 Jun	15 Aug
Orkney	3	-	25 May-18 Jun	-
Shetland	12	4	21 May-14 Jun	7 Jul–2 Oct

The number of Marsh Warblers recorded in Scotland in 2013 (32) was very close to the annual mean recorded between 2005 and 2013 (31.5). The fluctuating annual abundance of this species is related, for spring birds at least, to variation in the prevalence of easterly winds in late May and early June, which are presumed to cause them to overshoot their breeding grounds in Fennoscandia (Forrester *et al.* 2007). Typically, most birds in 2014 only stayed for a few days, although a pair bred at Norwick, Unst, Shetland, raising at least one juvenile. Breeding was also recorded at this locality in 2005 and 2008 (ap Rheinallt *et al.* 2010). This breeding pair has been omitted from Table 28.

(Breeds in Britain, France, Denmark and Fennoscandia east through Europe to Russia; winters in sub-Equatorial Africa.)

Nightingale *Luscinia megarhynchos* 139: 13: 4

Nightingale is a very rare, but almost annual, passage migrant to Scotland; spring records predominate. In the Northern Isles, claims are assessed locally, and Fair Isle and Shetland account for the vast majority of sightings.

In 2014, all four occurrences were in Shetland. On 24 April, one was at Sumburgh Hotel, Mainland, with others at Toab, Mainland (22 May), South Ness, Foula (24 May) and Sumburgh Hotel (30 May). This was the highest annual total in Scotland for a decade, following seven in 2004.

(Nominate *megarhynchos* breeds from Morocco and western Europe through North Africa and southern and central Europe to the Ukraine and Turkey; *L. m. africana* from the Caucasus area and eastern Turkey to Iran; *L. m. golzii* from the Aral Sea to Mongolia. Winters in sub-Saharan Africa.)

Olive-backed Pipit Anthus hodgsoni

151: 115: 33

Table 29. Accepted records of Olive-backed Pipit in Scotland, 2014, with an additional record, 2013.

2014: Fair Isle Quoy, 21–22 September, found dead, photo *SB* 35: 65 (D. Liley *et al.*).

Fair Isle Hjukni/Pund, 7–13 October, photo (C. Holt *et al.*).

Fair Isle Gully/Ditfield, 8–18 October, photo (D. Parnaby *et al.*).

Fair Isle Kenaby, 13 October, photo (S. Colenutt). Fair Isle Hill Dyke/Pund, 18—25 October, photo (C. Hatsell, W.T.S. Miles *et al.*).

Fair Isle Quoy, 19 November to 6 December, photo (D.N. Shaw *et al.*).

Orkney Lurand & Observatory, North Ronaldsay, 18–20 September, photo (A. Duncan *et al.*).

Orkney East Denwick Plantation, Deerness, Mainland, 1 October, photo (G. Seth, P.A. Stronach).

Orkney Gretchen, North Ronaldsay, 6–8 October, photo (S.M. Rodriguez *et al.*).

Orkney Tor Ness, North Ronaldsay, 6–8 October, photo (M. Warren *et al.*).

Orkney Nether Linnay, North Ronaldsay, 6–8 October, photo (M. Warren *et al.*).

Orkney Westness, North Ronaldsay, 8 October (P. Donnelly).

Orkney Quoyolie, Papa Westray, 8–14 October,

photo (S. Davies et al.).

Orkney Greenwall, North Ronaldsay, 10 October, photo (M. Warren).

Shetland Hermaness, Unst, 2 May, photo (B.H. Thomason *et al.*).

Shetland Sullom, Mainland, 3–4 October, photo (M.S. Chapman *et al.*).

Shetland Loch of Hillwell, Mainland, 7 October (C.C. Thomas).

Shetland Vidlin, Mainland, one, 7 October, two, 8 October, photo (M.S. Chapman, J. & M. Willmott *et al.*).

Shetland Asta Golf Course, Mainland, 8 October (J.D. Okill).

Shetland Otterswick, Yell, 8 October, photo (D. Preston).

Shetland Baltasound, Unst, 8–9 October, photo (B.H. Thomason *et al.*).

Shetland Houbie, Fetlar, 8–10 October, photo (C.C. Roger *et al.*).

Shetland Lower Voe, Mainland, 10 October, photo (G. Kinnard *et al.*).

Shetland Exnaboe, Mainland, 11 October, photo (R.M. Fray).

Shetland Uyeasound, Unst, 11 October, photo (B. Armitt *et al.*).

Shetland Eastshore, Virkie, Mainland, 11 October (R.M. Fray, M.N. Reeder *et al.*).

Shetland Haggersta, Whiteness, Mainland, 11–12 October, photo (G.C. Taylor, G. Thomas *et al.*).

Shetland Helendale, Lerwick, Mainland, two, 13 October (G.R. Ball, H.J. Fern, P.A. Harris).

Shetland Burn of Swinister, Mainland, 18–26 October (J.G. Brown, P.V. Harvey *et al.*).

Shetland Mid Yell, Yell, 26 October, photo (C. Inkster).

Shetland Toab, Mainland, 17 November, photo (R.M. Fray).

2013: Shetland Collafirth, Mainland, 23 September, photo (M.S. Chapman, R.W. Tait *et al.*).

Olive-backed Pipit is a rare but regular autumn migrant in Scotland. There was a marked increase in occurrences in Britain and Europe in the 1980s and the species was dropped from BBRC review in 2013. The vast majority of sightings in Scotland are in the Northern Isles, with only 13 elsewhere; the most recent was one on Barra, Outer Hebrides in October 2012. There have been only seven mainland records, the last mist-netted at Blackdog, North-east Scotland in October 2006.

The 33 occurrences in 2014 equalled the highest previous annual total in 2012 (Figure 1). The bird at Hermaness, Unst, Shetland in May was only the sixth in spring. As peak arrival occurs in October, the observation on Fair Isle on 19

114 | Scottish Birds: 99–120 36:2 (2016)



Plate 103. Olive-backed Pipit, Quoyolie, Papa Westray, Orkney, 8–14 October 2014. © Sean Davies

November was unusual. There have only been two later arrival dates: 24 November 1974 on Fair Isle and 20 November 1984 on Shetland.

A late acceptance by BBRC was one at Àird Mhidhinis (Ardveenish), Barra, Outer Hebrides on 16 October 2012 (Hudson *et al.* 2015); thus the total for that year is now 33.

One record inadvertently omitted from last year's 2013 report has been added to the 2005–13 total in the species' header.

(A. h. yunnanensis breeds from Urals east to Kamchatka, Manchuria and Japan; one other subspecies. Winters in south-east Asia.)

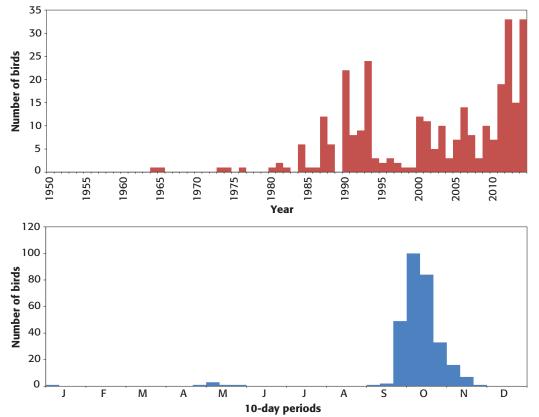


Figure 1. Annual and seasonal occurrence of Olive-backed Pipit in Scotland by 10-day periods, 1950–2014.

Red-throated Pipit *Anthus cervinus* 135: 14: 4

Red-throated Pipit is a rare spring and autumn migrant to Scotland, found almost exclusively on islands, with the majority of birds appearing in the Northern Isles where claims were assessed locally. Numbers have declined in recent years, and so since 1 January 2015 this species is considered by BBRC (see Appendix 2).

In 2014, there were four occurrences. On Fair Isle, adults were seen at Setter (20–24 September) and Hill Dyke & Buness (13–20 October), whilst sightings on Shetland were at Hermaness, Unst (1 June), and Norby, Mainland (16 October).

(Breeds widely in northern boreal Palearctic regions, migrating to winter in Africa and south-east Asia.)

Serin Serinus serinus

7: 0: 2

Table 30. Accepted records of Serin in Scotland, 2014.

2014: Isle of May female, 4 May (C. McGuigan et al.).

Outer Hebrides Aisgernis (Askernish) &
Gleann Dail bho Dheas (South Glendale),
South Uist, female, 10–23 April (C. Batty, Y.
Benting, J.P. Siddle, I. Thompson et al.).

Serin is an extremely rare vagrant to Scotland, with just seven previous records: three on Fair Isle, two on Shetland (Unst and Fetlar), and one each in Lothian (Edinburgh) and Borders (St Abbs) (Forrester *et al.* 2007). Five were males and two females, with birds being found in April (1), May (5), August (1) and November (1); the last was in 2004.

Thus the discovery of two in 2014 was exceptional. Both were females, and were the first records for the Isle of May and the Outer Hebrides. The South Uist bird was noticed in the observers' garden at Aisgernis (Askernish), where it was photographed and its identify confirmed when photos were shown on the internet. Though it disappeared, it was relocated 11 km to the south at Gleann Dail bho Dheas (South Glendale) on 12 April, where it remained until 23 April, allowing many to enjoy its stay.

The Isle of May bird was found by the same observer who discovered the St Abbs' Serin in 1998, a remarkable example of luck and skill.

(Breeds from the Canary Islands, North Africa and the Iberian Peninsula to Germany, Denmark and the Middle East. Northern populations migrate south, remaining within the breeding range.)



Plate 104. Serin, female, Aisgernis (Askernish), South Uist, Outer Hebrides, 10 April 2014. © Ian Thompson

116 | Scottish Birds: 99–120 36:2 (2016)

Arctic Redpoll *Carduelis hornemanni* 366: 109: 1

Arctic Redpoll is a scarce though annual visitor to Scotland. Most sightings since 2005 have involved the race *C. h. hornemanni* (Hornemann's Redpoll), claims of which are assessed by BBRC, while many earlier occurrences referred to *C. h. exilipes* (Coues's Redpoll). All but nine of the 109 birds during 2005–13 were in the Northern Isles, with the majority occurring in autumn. Claims of Coues's Redpoll in the Northern Isles are assessed locally.

In 2014, the sole observation of Hornemann's Redpoll was a bird at Veensgarth, Mainland, Shetland from 26 September to 6 October (Hudson *et al.* 2015). In addition, BBRC also published a late acceptance of three Hornemann's Redpolls seen at Sullom Plantation, Mainland, Shetland on 27 September 2013. The 2005–13 total in the species' header has been adjusted accordingly.

(Breeds on the Arctic tundra, with a circumpolar range divided between two subspecies: *C. h. hornemanni* on Ellesmere and Baffin Island (Canada) and in Greenland, and *C. h. exilipes* elsewhere. Winters to the south of the breeding range.)

Ortolan Bunting *Emberiza hortulana* many: 41: 1

Ortolan Bunting is a rare and declining, but still annual, passage migrant to Scotland. In recent years the Northern Isles, where records are assessed locally, have accounted for more than 90% of occurrences.

There was only one Scottish record in 2014. A female was present on Out Skerries, Shetland on 30–31 May. Records in Scotland have not reached double figures since 18 were seen in 1999. The recent general trend of declining numbers appears to be continuing.

(Breeds patchily from Algeria and Iberia north to Norway and east through Europe to Asia; winters in sub-Saharan Africa.)

Rustic Bunting Emberiza rustica

276: 46: 11

Table 31. Accepted records of Rustic Bunting in Scotland, 2014, with an additional record, 2013. Northern Isles records are summarised separately in Table 32.

2014: Argyll Balephuill, Tiree, immature, 21 May (J. Bowler).

Argyll Íona, Mull, first-summer, 27 May, photo (G. Pain).

Àrgyll Balephuill, Tiree, adult male, 2–3 June, photo (J. Bowler *et al.*).

2013: North-east Scotland Cove, 1–3 November, photo (J.F. Cooper *et al.*).

Rustic Bunting is a scarce, annual vagrant in Scotland with the majority appearing in the Northern Isles where claims were assessed locally. Numbers have declined in recent years, and so since 1 January 2015 this species is considered by BBRC (see Appendix 2).

The three sightings in Argyll in 2014 brought the total for the recording area to five. The two previous records were also from islands: Islay (May 1980) and Tiree (June 1987).

Table 32. Accepted records of Rustic Bunting in the Northern Isles, 2014.

Nu	mbe	r of birds	Date range			
	Spr.	Aut.	Spr.	Aut.		
Fair Isle	-	-	-	-		
Orkney	1	-	3 May	-		
Shetland	5	2	9–30 May	5 Jul-9 Oct		

The 11 observations in 2014 constitute the first double-figure annual total for Rustic Bunting since 1998, when 29 birds were seen.

Since 2006, only six sightings from a total of 48 in Scotland have been made outwith the Northern Isles.

(Breeds from Fennoscandia to Siberia; winters mainly in Japan, Korea and China.)

Little Bunting Emberiza pusilla

593: 174: 66

Table 33. Accepted record of Little Bunting in Scotland, 2014. Northern Isles records are summarised separately in Table 34.

2014: Outer Hebrides Àird Mhòr (Ardmhor) plantation, Barra, 22 October (B.A. Taylor *et al.*).

Little Bunting is a scarce though increasingly regular passage migrant to Scotland, mostly in the Northern Isles, where records are assessed locally. The great majority occur in autumn, but there have also been a few winter and spring records.

In 2014, there was a record number of occurrences in Scotland, with a total of 66

birds seen. This exceeds the previous highest count of 50 in 2000. The bird at Aird Mhòr (Ardmhor), Barra was at the same site and date as one in 2013; it was the tenth for the Outer Hebrides, and the fourth since 2001.

Table 34. Accepted records of Little Bunting in the Northern Isles, 2014.

Nu	mbe	r of b	oirds Dat	e range
Spr. Aut.		Spr.	Aut.	
Fair Isle	2	13	29 Apr-9 May	16 Sep-4 Nov
Orkney	1	5	3 May	17 Sep-10 Oct
Shetland	3	41	8–16 May	11 Sep-14 Nov

(Breeds from northern Fennoscandia to eastern Siberia; winters from north-east India and Nepal to south-east Asia.)

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118 | Scottish Birds: 99–120 36:2 (2016)

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Appendix 1.

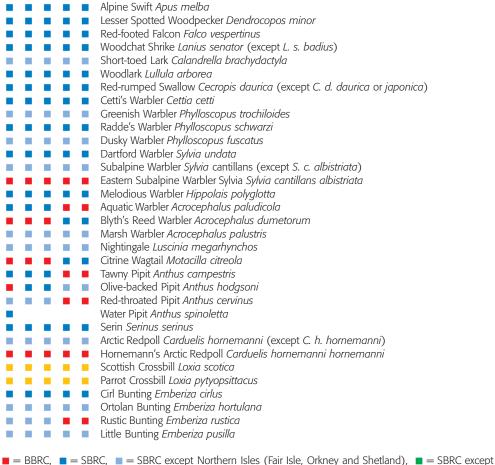
List of records regarded as not proven by SBRC.

2014: White-billed Diver Portknockie, Moray & Nairn, 4 February; Lossiemouth, Moray & Nairn, 25 May. Cory's Shearwater Rubha Reidh, Gairloch, Lochaber, Highland, 28 August; Barns Ness, Lothian, 14 September. Great Shearwater Barns Ness, Lothian, 21 September. Purple Heron Three Lochs, Dumfries & Galloway, 27 June. Black Kite Voe, Mainland, Shetland, 11 June. Yellow-legged Gull Ardfern, Argyll, 2 March; Talisker, Skye, Skye and Lochalsh, Highland, 15 May. Red-footed Falcon second-calendar-year, Tankerness, Mainland, Orkney, 27 July. Short-toed Lark Oronsay, Argyll, 23 October. Marsh Warbler Uig, Skye, Skye and Lochalsh, Highland, 25–26 June. Olive-backed Pipit Lower Voe, Mainland, Shetland, 10 October; Fair Isle, 18 October; Papa Westray, Orkney, 27 October.

Appendix 2.

Summary of assessment of records by the Scottish Birds Records Committee (SBRC) and other committees, 2012–16. All species and subspecies assessed by SBRC are included, with two exceptions. First, any species or subspecies not on the *Scottish List* is automatically assessed by SBRC if it is not assessed by the British Birds Rarities Committee (BBRC). Second, some species assessed by SBRC have additional rare subspecies assessed by BBRC but not shown here.

12	13	14	15	16	
					Egyptian Goose Alopochen aegyptiacus
					Black Brant Branta bernicla nigricans
					Ferruginous Duck Aythya nyroca
					Lesser Scaup Aythya affinis
					White-billed Diver Gavia adamsii
					Cory's Shearwater Calonectris diomedea
					Great Shearwater <i>Puffinus gravis</i>
					Wilson's Petrel Oceanites oceanicus
					Continental Cormorant Phalacrocorax carbo sinensis
					Night-heron Nycticorax nycticorax
					Cattle Egret Bubulcus ibis
					Great White Egret Ardea alba
					Purple Heron Ardea purpurea
					Glossy Ibis <i>Plegadis falcinellus</i>
					Black Kite <i>Milvus migrans</i>
					Montagu's Harrier Circus pygargus
					Rough-legged Buzzard <i>Buteo lagopus</i>
					Stone-curlew Burhinus oedicnemus
					Kentish Plover Charadrius alexandrines
					White-rumped Sandpiper Calidris fuscicollis
					Continental Black-tailed Godwit Limosa limosa limosa
					Yellow-legged Gull Larus michahellis
					Caspian Gull <i>Larus cachinnans</i>
					White-winged Black Tern <i>Chlidonias leucopterus</i>
					Franz Josef Land Little Auk Alle alle polaris



Outer Hebrides, = SBRC except Northern Isles (Fair Isle, Orkney and Shetland) and Outer Hebrides, = SBRC outside core range (see www.the-soc.org.uk/identification-of-scottish-and-parrot-crossbills)

Appendix 3.

Corrections to previous SBRC reports:

Report year 2013:

Marsh Warbler, first sentence after Table 25, '(43)' to read '(42)'. The total (42) at species' header is correct

Little Bunting, Table 31, date range for Orkney autumn records is 19 October to 8 November.

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Revised ms accepted April 2016

120 **Scottish Birds: 99–120** 36:2 (2016)



Plate 105. The habitat of Crested Tits in Culbin Forest, Moray & Nairn, 19 April 2014. © Ron Summers

The role of predation in the decline in the breeding success of Scottish Crested Tits in a coastal pine plantation

W.G. TAYLOR, B. ETHERIDGE & R.W. SUMMERS

The breeding biology of Crested Tits was studied from 1978 to 2000 in nest-boxes deployed in a pine plantation (Culbin Forest) on the Moray coast, north-east Scotland. The mean and median dates of the laying of the first eggs varied significantly among years, ranging from 14 April to 7 May for the means (mean of means = 25 April), and from 11 April to 2 May for the medians (mean of medians = 22 April), but there was no trend in laying dates. There was a significant relationship between the median laying date and an index of spring temperatures; laying was earlier in years when it was warmer, and later when cooler. The mean clutch size was 5.7 eggs and showed no significant annual variation or trend. The mean brood size at ringing (at round 7-14 days old) was 5.0 and there was no significant annual variation or trend. Brood size at fledging was 1.35% less than at ringing for successful broods. Clutch losses increased through the 1990s. Brood losses did not show a significant trend but, when combined with clutch losses, overall breeding success declined, coincident with increased predation. The condition of nests, chicks and adults at nests which had been predated plus images from camera-traps deployed during 2013 and 2014 showed that Pine Martens were predators of incubating adults and chicks and were probably the main cause in the decline in breeding success. It is unlikely that the productivity from nest-boxes in the late 1990s was sufficient to maintain the nest-box population.

36:2 (2016) Scottish Birds: 121–134 | 121

Introduction

The Crested Tit *Lophophanes cristatus* has a widespread distribution in Europe, occurring in conifer and mixed conifer and broadleaf woodland from Spain in the south to Fennoscandia and Russia in the north (Cramp & Perrins 1993, Maícas & Haeger 2004). By contrast, the subspecies that occurs in Scotland (*L. c. scotica*) is largely restricted to Scots Pine *Pinus sylvestris* woods (Summers *et al.* 1999), and particularly the native pinewoods, as defined by Steven & Carlisle (1959).

The main studies of the breeding biology of Crested Tits in Scotland have been in Strathspey by Nethersole-Thompson & Watson (1974), and particularly in Abernethy Forest by Baker (1991) and Denny & Summers (1996). These studies have described breeding habitat use, nest sites (usually in standing dead Scots Pines), clutch and brood sizes, breeding success and foraging behaviour.

Interest in tits in the coastal Culbin Forest started with Myles Crooke (1965) who studied tit predation on the Pine Looper (Bordered White) Bupalus piniaria from 1961. This work was to be continued by Andrew Deadman (AD) but, on finding low densities of moth caterpillars, the study switched to aspects of the breeding behaviour of Coal Tits Periparus ater and Crested Tits (Plate 105). After AD had completed his Ph.D. study (Deadman 1973), about 300 nest-boxes were available for further use (Plate 106). BE deployed these in groups of four at gravel-road intersections in winters 1976/77 and 1977/78 in the eastern part of Culbin Forest, and carried out nest-box checks until 1981, after which WGT ran the project until 2000. The boxes were attached to the trunks of pines, 1–1.2 m from the ground. The tits preferred to nest in boxes where the trees were thin (13.7 cm diameter at breast height), and growing at a high density (1,900 trees per hectare; Summers et al. 1993). In 1991, an additional 32 boxes were deployed that replicated some of the characteristics of natural nest sites (Denny & Summers 1996). The boxes were deeper (19 cm from the base to entrance) compared to 9 cm for those used by AD. In addition, a mixture of saw-dust and wood-shaving was placed in some boxes, thereby enabling the tits to 'excavate' the boxes. Deep boxes filled with shavings were preferred (Summers & Taylor 1996). At the end of each breeding season, most boxes were cleaned out to reduce the flea burden (Plate 107).





Plates 106–107 (left). One of the Andrew Deadman nest-boxes. Culbin Forest, 19 April 2014. © Ron Summers. (right) A nest-box with fleas waiting around the nest entrance for returning birds in spring. The old nest had not been removed at this box. Culbin Forest, 19 April 2014. © Ron Summers

122 **Scottish Birds: 121–134** 36:2 (2016)

In 2000, the nest-box study stopped. However, unanswered question remained. In particular, the cause of nest losses was unknown. In 2012, RWS and Pam Moncur re-started the study by replacing many of the old boxes which were in disrepair. The main aim of this later study was to account for nest losses. This paper is a review of the earlier data to examine possible long-term changes and to account for any changes.

Methods

Study Area

The study was carried out in the eastern half of Culbin Forest (57°40'N, 3°40'W; 2,845 ha) on the coast of the Moray Firth in northeast Scotland. This area was once one of the largest sand dune systems in Britain but was planted mainly with a mixture of Scots Pine, Corsican Pine *Pinus nigra* and Lodgepole Pine *Pinus contorta* largely by the Forestry Commission between 1923 and 1955, though some planting pre-dated the purchases by the Forestry Commission (Webster *et al.* 1968, A. Young pers. comm.). As a result, many of the stands were of similar age for a long period before clear-felling and restocking started in the mid-1970s.

Field work

Nest-box checks were carried out at approximately weekly intervals during the breeding season to record the number of eggs and chicks. The date of the first egg was determined if a nest visit occurred during egg-laying, in which case the number of eggs minus one was subtracted from the date of visit. Otherwise, date determined first-egg was observations of hatching eggs or ageing the chicks from their state of growth, and subtracting the chick age plus incubation and laying periods minus one from the date the nest had chicks (Table 1, Plate 108). To describe the growth of chicks, mass and the length of the second primary (counting from the outer part of the wing) was measured for two broods whose date of hatching was known. Mass was recorded on an electronic balance to the nearest 0.1 g, and the second primary measured with dial callipers to 0.1 mm. Initially, the primary consisted only of a feather in pin, but when the feather started to emerge, the length of this was also measured (Figure 1). To identify individual chicks, they were marked with ink







Plate 108 Crested Tit chicks at 2, 8, 11 and 14-days old, respectively. Culbin Forest, May 2012. © Ron Summers

36:2 (2016) Scottish Birds: 121–134 | 123

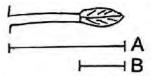


Figure 1. The lengths measured of the second (large outer) primary of Crested Tit chicks. A - total length of feather sheath and vane. B - length of the extending vane.

Table 1. Criteria used to age Crested Tit chicks.

Age (days)	Criteria
1-2	Tiny, naked and blind
3-4	Large naked and blind
7–8	Feathers just emerging
10-12	Feathers a quarter grown
12-14	Feathers half grown
15-17	Feathers three quarters grown

from a felt-tip pen on different toes, and then ringed with numbered BTO rings when large enough. Eggs were laid at daily intervals and the incubation period was 15 days (this study). The different methods used to estimate timing of breeding varied in their accuracy, with timing based on observations at laying the most accurate, followed by observations at hatching, and those based on estimates of chick age the least accurate.

Attempts to rear a second brood after the fledging of a first brood appear to be rare for Crested Tits (Perrins 1979, Baker 1991), but there was circumstantial evidence of this in the early years of the study (Etheridge & Banks 1981). Further circumstantial records were obtained in later years (see Results). However, some pairs will attempt to breed again if the first fails (Nethersole–Thompson & Watson 1974, Baker 1991). Second attempts at nesting will influence the mean date of laying of first clutches. Therefore, the data from assumed second nests were removed from the data set prior to calculation of mean first dates. We also calculated median first-egg dates because medians are not as sensitive as means to out-lying data.

Clutch size (a complete egg-set) referred to the number of eggs observed after the laying period, or when the number was the same on two visits. The incubation period was taken as the period from the last-laid egg (based on observations during the laying period) and the date when hatching was observed (when both eggs and newly-hatched chicks were present).

Brood size was measured mainly when the chicks were ringed at around 7–10 days old (two thirds of broods) or 11–14 days (one third of broods). Most nests were re-visited when the chicks were well-feathered but counts of the chicks were not routinely made in case it led to chicks leaving the nest prematurely. The fledgling period was 20 days (this study). A nest was deemed to have been successful if the chicks appeared to be fully grown and capable of leaving the nest if disturbed or if the nest-box was empty and nest was trampled flat and contained droppings and feather scales. Un-hatched eggs and dead chicks were noted.

A clutch was deemed to have been deserted if the clutch was cold over two visits, and there was no sign of disturbance to the nest. However, if the nest structure had been disturbed and the eggs or chicks gone, we assumed the clutch or brood had been predated. Additional signs of predation included dismembered remains of chicks and/or adults.

Two camera-traps were deployed at nests in 2013 and 2014 to photograph predation events. The cameras were tied to trees at approximately two metres from the nest-boxes.

Statistical analysis

Nest success was determined by the Mayfield method (Mayfield 1975) and standard errors were calculated using Johnson's (1979) equation. The number of lost clutches was divided by the combined number of days of observation for clutches to give the daily rate of loss during the laying plus incubation periods. A similar procedure was used for broods. Subtraction from one gave the daily survival rate. To measure the likelihood of a clutch surviving the laying plus

124 | Scottish Birds: 121–134 36:2 (2016)

incubation periods, the daily survival rate was raised to the power of 21 (15+6, the incubation period plus laying period for six eggs, which was the commonest clutch size). For broods, the daily survival rate for broods was raised to the power of 20 (the fledgling period). If a clutch or brood was lost between nest visits, the day of loss was taken as mid-way between the two visits. If a nest was not re-visited after ringing the chicks, the number of nest days was counted from the hatch date to the date of ringing.

The number of chicks fledged per pair was calculated by multiplying the Mayfield estimate for the proportion of nests that successfully hatched chicks by the proportion that fledged chicks to obtain the proportion of successful nests. This was then multiplied by the brood size at 7–14 days old and a factor for loss after final recording of brood size (see Results) to account for brood loss prior to fledging.

Analysis of variance was used to examine variation in mean first-egg dates of presumed first clutches, and mean clutch and brood sizes amongst years. A Kruskal-Wallis test was used to examine variation in the median first-egg dates. Trends in time of nesting, clutch and brood size, clutch and brood survival and daily nest predation rate were examined using Spearman rank correlation.

Variation among years in the percentage of successful clutches and successful broods was examined in Chi-squared tests. However, some lumping of years was necessary because the sample sizes were low, so we could test only groups of years.

The relationship between time of nesting (laying of the first egg for first clutches) and an index of spring temperatures was examined using a correlation analysis. The daily average of maximum and minimum air temperatures was obtained from Kinloss, 5 km east of Culbin Forest, and added together for all dates in March plus April to obtain the index of spring temperatures for each year. Perrins (1965) used this index to examine the effect of weather on the laying dates of Great Tits *Parus major*.

Results

At the start of the study, the number of boxes available to nesting tits was approximately 300. However, over time, boxes were either stolen, fell apart, or were lost when a stand of trees containing a tree with a nest-box was felled. The number of boxes occupied each year varied from 5 to 22 (Table 2).

The growth of chicks was described for two broods (Figure 2). Mass increased from about 1 g at hatching to a peak of 11.9 g at approximately 12 days before declining a small amount prior to fledging at around day 20. The primaries emerged as pins at about day 6 and the primary feathers emerged from the pins at day 10.

On five occasions (two in 1982, two in 1995 and one in 1996), a clutch was laid in a nest-box after the fledging of a brood from the same box (once) or another (four times) within a group of four at a road intersection. Given the close proximity of these boxes (about 50 m apart) and longer distances between groups of four (over 100 m apart), it was assumed that the second clutch was an attempt to raise a second brood. There was also an instance when a colour-ringed bird failed during the incubation of its first clutch and re-laid in another box 360 m from the initial attempt.

The mean date for the first egg (excluding the above presumed second clutches) varied from 14 April to 7 May, and the median dates varied from 11 April to 2 May. There was a significant difference amongst years for the onset of breeding (Table 2). There was no significant relationship between mean first-egg dates and the index of spring temperatures (r = -0.34, P > 0.1). Median first-egg dates tended to be slightly earlier than the mean dates, suggesting that the means had been influenced by later dates, some of which may have been second clutches. In the case of

36:2 (2016) Scottish Birds: 121–134 | 125

Table 2. First-egg dates, clutch and brood size for Crested Tits nesting in Culbin Forest from 1978 to 2000. Brood size refers to number of young at ringing (at between 7 and 14 days old). Standard deviations are given in brackets. Analysis of variance examined variation among years (F values) whilst Spearman rank correlation coefficients (Fs) examined trends. Associated probability values (F) are shown in brackets. * Kruskal-Wallis test.

Year	No. of nests	Mean date of first egg	Median date of first egg	Mean clutch size	Mean brood size
1978	8	24 April (3)	23 April	5.6 (0.5)	5.3 (1.0)
1979	6	2 May (6)	2 May	5.8 (1.3)	4.6 (1.1)
1980	5	20 April (1)	20 April	5.8 (1.0)	5.4 (0.9)
1981	9	17 April (2)	17 April	5.7 (0.5)	5.3 (0.5)
1982	10	20 April (14)	14 April	6.1 (0.7)	5.1 (1.2)
1983	9	26 April (14)	22 April	5.7 (0.5)	4.9 (1.3)
1984	5	1 May (14)	26 April	5.4 (0.6)	4.3 (1.5)
1985	10	27 April (11)	20 April	5.4 (0.7)	4.9 (1.0)
1986	5	1 May (5)	1 May	6.0 (0.0)	5.4 (0.9)
1987	13	26 April (9)	23 April	5.9 (1.0)	5.5 (1.1)
1988	7	7 May (10)	1 May	5.4 (0.8)	4.5 (1.4)
1989	12	29 April (8)	27 April	5.3 (0.8)	4.6 (1.6)
1990	9	30 April (21)	27 April	5.8 (0.7)	4.7 (1.0)
1991	7	1 May (17)	24 April	5.4 (1.1)	5.4 (0.9)
1992	7	19 April (7)	17 April	5.9 (0.4)	5.6 (0.6)
1993	7	23 April (17)	17 April	6.0 (0.8)	5.3 (1.6)
1994	9	25 April (5)	26 April	6.0 (0.0)	5.6 (0.5)
1995	10	27 April (19)	19 April	5.8 (0.4)	5.0 (1.1)
1996	22	22 April (9)	20 April	5.6 (0.6)	5.0 (1.1)
1997	9	14 April (10)	11 April	5.7 (1.3)	4.8 (1.9)
1998	10	28 April (1)	28 April	5.4 (0.7)	4.3 (1.3)
1999	13	1 May (17)	28 April	5.5 (0.8)	4.3 (0.5)
2000	10	15 April (4)	13 April	5.6 (0.7)	4.7 (1.5)
Mean	ı	25 April	22 April	5.7	5.0
F(P)		1.8 (0.02)	54.2* (0.0002)	0.78 (0.75)	0.90 (0.60)
rs (P)		-0.12 (>0.5)	-0.14 (>0.5)	-0.14 (>0.5)	-0.20 (>0.2)

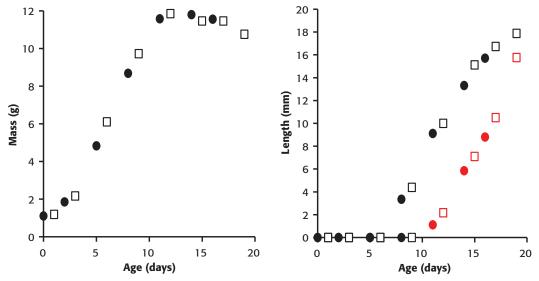


Figure 2. Mean values for mass and the length of the large outer primary for chicks in two Crested Tit broods (filled circles and open squares) in Culbin Forest. The red symbols refer to the feathered portion of the primary once it had emerged from the pin.

126 **Scottish Birds: 121–134** 36:2 (2016)

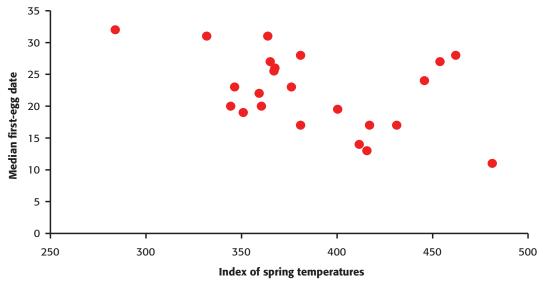


Figure 3. The relationship between the median dates for the laying of first eggs for presumed first clutches of Crested Tits in Culbin Forest and an index of spring temperatures, from 1978–2000. Day 1 = 1 April.

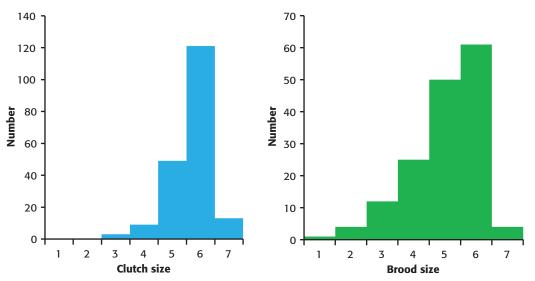


Figure 4. Frequency distributions for clutch (n = 195) and brood sizes at ringing (n = 157) for Crested Tits in Culbin Forest.

median first-egg dates, there was a weakly significant negative relationship with the index of spring temperatures (r = -0.45, P < 0.05); laying was earlier in warmer springs (Figure 3).

Clutch size varied from 3 to 7 eggs (Figure 4, Plate 109) and the annual mean varied from 5.3 to 6.1, but there was no significant difference among years and no significant trend with year (Table 2). The overall mean was 5.7.

36:2 (2016) Scottish Birds: 121–134 | 127



Plate 109. Clutch of five Crested Tit eggs, Culbin Forest, 9 May 2013. © Ron Summers

The incubation period was measured by chance on four occasions at 15, 15, 15 and 17 days. We used the median value of 15 days to calculate first-egg dates. Mean clutch survival varied from 11.2% to 100% among years. There were significant variations in the percentage of successful clutches amongst groups of four years (apart from the last group which had only three years; $X^2 = 52.1$, df = 5, P < 0.001), and there was a significant decline in clutch survival with time (Table 3, Figure 5). Lower clutch survival was particularly notable after 1996.

Brood size at 7–14 days old varied from 1 to 7 (Figure 4) and the annual mean varied from 4.3 to 5.6, but there was no significant difference among years, and no significant trend with year (Table 2). The overall mean was 5.0. For those broods where at least one chick survived and the number was noted at fledging, there was a 1.35% reduction (a mean of 5.18 to 5.11, n = 102). Mean brood survival varied from 60.5% to 100% amongst years, but there was no significant difference in the percentage of

Table 3. Mean values for clutch and brood survival and breeding success for Crested Tits nesting in Culbin Forest from 1978 to 2000. Standard errors are given in brackets. Spearman rank correlation coefficients (*r*s) examined trends, and associated probability values (*P*) are shown in brackets.

	Daily clutch				Percentage of	Daily l		Percentage of	Young
Year	surv		successful clutches	surv		successful broods	per pair		
1978	1.0000	(0.0)	100.0	1.0000	(0.0)	100.0	5.2		
1979	0.9857	(0.0142)	73.9	1.0000	(0.0)	100.0	3.4		
1980	0.9808	(0.0190)	66.5	1.0000	(0.0)	100.0	3.5		
1981	1.0000	(0.0)	100.0	1.0000	(0.0)	100.0	5.3		
1982	1.0000	(0.0)	100.0	0.9872	(0.0090)	77.3	3.9		
1983	1.0000	(0.0)	100.0	0.9868	(0.0093)	76.7	3.7		
1984	1.0000	(0.0)	100.0	0.9871	(0.0128)	77.1	3.2		
1985	0.9881	(0.0118)	77.8	0.9936	(0.0064)	87.9	3.3		
1986	1.0000	(0.0)	100.0	0.9890	(0.0109)	80.2	4.3		
1987	1.0000	(0.0)	100.0	1.0000	(0.0)	100.0	5.5		
1988	1.0000	(0.0)	100.0	0.9922	(0.0078)	85.5	3.8		
1989	0.9932	(0.0067)	86.7	0.9954	(0.0046)	91.2	3.5		
1990	0.9808	(0.0135)	66.5	0.9823	(0.0124)	70.0	2.1		
1991	0.9912	(0.0088)	83.0	0.9905	(0.0094)	82.7	3.7		
1992	0.9796	(0.0143)	64.9	1.0000	(0.0)	100.0	3.6		
1993	1.0000	(0.0)	100.0	1.0000	(0.0)	100.0	5.2		
1994	0.9917	(0.0083)	83.9	1.0000	(0.0)	100.0	4.7		
1995	0.9881	(0.0118)	77.8	0.9945	(0.0055)	89.5	3.4		
1996	0.9773	(0.0085)	61.7	0.9885	(0.0066)	79.3	2.4		
1997	0.9216	(0.0376)	18.0	0.9752	(0.0173)	60.5	0.5		
1998	0.9469	(0.0211)	31.8	0.9846	(0.0153)	73.3	1.0		
1999	0.9011	(0.0313)	11.2	1.0000	(0.0)	100.0	0.5		
2000	0.9597	(0.0177)	42.1	0.9847	(0.0152)	73.5	1.4		
Mean	0.9820	` '/	75.9	0.9927	` ,	87.2	3.4		
rs (P)	-0.64 (<0	0.002)		-0.31 (>0	0.1)		-0.54 (<0.01)		

128 **Scottish Birds: 121–134** 36:2 (2016)

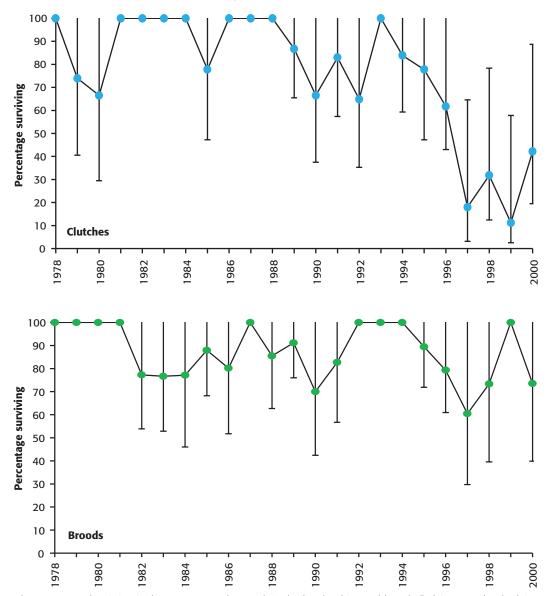


Figure 5. Annual variation in the percentage of Crested Tit clutches hatching and broods fledging once hatched, in Culbin Forest. The vertical lines show the 95% confidence limits.

successful brood among groups of years ($X^2 = 7.3$, df = 5, n.s.) and there was no significant trend in brood survival (Table 3, Figure 5).

The mean percentage of successful nests was 77.3% (range 46.5–100%) during 1978–1996, falling to 19.1% (range 10.9–31.0%) during 1997–2000. By combining clutch and brood survival with brood size at fledging (1–0.0135 x the brood size at ringing), the annual breeding success varied from 0.5 to 5.5 fledged chicks per pair (Table 3). This calculation ignores the unknown but presumed small percentage of pairs that had second breeding attempts. There was a long-term trend in breeding success, being poor after 1996 and a trend that was coincident with an increase in predation (Figure 6).

36:2 (2016) Scottish Birds: 121–134 | 129

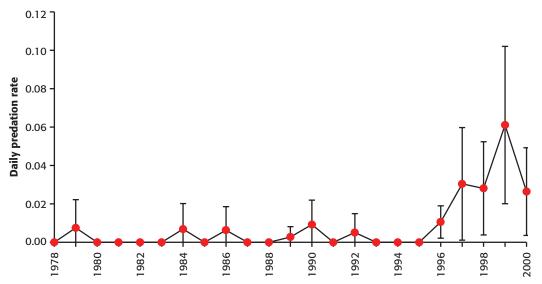


Figure 6. Annual variation in the daily rate of predation of clutches and broods of Crested Tits in Culbin Forest. The vertical lines show the 95% confidence limits. $r_s = 0.55$, P < 0.01.

When eggs were found cold or when chicks were dead in the nest (41.0% of nest failures), we cannot be sure of the cause of the breeding failure. The single failure because the nest-box fell off the tree reflects the great age and dilapidated state of some of the boxes. 57.4% of the failures were associated with damage to the nest, including some with remains of an adult in or outside the box. Nest damage included parts of the mossy base and lining of hair and feathers hanging out of the nest entrance. These were attributed to predation.

During 2012 to 2014, seven out of 13 breeding attempts failed due to predation. At two boxes where an adult was incubating, bits of an outer wing were found close to the nest-box, showing that the adults had been captured. At one box, five eggs were still in the box, and two lying outside, indicating that the incubating adult had been targeted. A fresh Pine Marten *Martes martes* scat was within 2 m of one box. Five broods were taken. In one case, the top of the nest-box containing chicks had been pulled off and bits of flesh were stuck to the nest-box, showing that the chicks had been eaten at the box. At another, bits of a wing lay outside the box.



Plate 110. A Pine Marten sniffs at the entrance of a nest-box. Culbin Forest, 02:10 hours, 14 June 2013. © *Ron Summers*

130



Plate 111. A Pine Marten starts to reach into a nest-box. Culbin Forest, 05:55 hours, 21 May 2014. © Ron Summers

Scottish Birds: 121–134 36:2 (2016)



Plate 112. A Pine Marten adopts unusual contortions in an attempt to reach chicks in the box. Note the adult Crested Tit on the dead branch above and to the right of Plate 113. Having pulled a chick from the nest-box, the the box, presumably giving alarm calls. Culbin Forest, 05:54 hours, 21 May 2014. © Ron Summers



Pine Marten takes it to the top of the box to consume it. Culbin Forest, 22:26 hours, 12 May 2014. © Ron Summers

Photographs of Pine Martens were obtained at two boxes. At one, a Pine Marten was photographed at 04:16 on 13 June reaching into the box through the nest entrance. The brood was estimated to have been 20 days old and may have already fledged because there was no evidence of chicks being taken, and the empty nest was intact when we visited on 16 June. The marten returned on the 14 June at 02:10 hours but only sniffed at the box entrance (Plate 110). At a second nest, the first visit by a marten was on 7 May when the chicks were seven days old, but the marten did not attempt to access the nest. The next visit was on 12 May and on this occasion the marten reached in through the nest entrance and managed to paw out nest material and at least two chicks, which were consumed at the nest entrance and on top of the nest-box respectively (Plates 111-113). Our visit on the 19 May revealed two live chicks still in the nest amongst disrupted nest material. The final visit by a marten was on 21 May (the remaining chicks would have been 21 days old, so may have fledged) and although the marten had its paw in the nest, there were no pictures of chicks being removed.

The nest entrance of many boxes was enlarged during the course of the study but we do not know if this was caused by a mammal (e.g. Red Squirrel Sciurus vulgaris) or bird (e.g. Great Spotted Woodpecker Dendrocopos major) (Plate 114). However, no losses of clutches or broods were associated with nest-hole enlargement.

Discussion

There was a weak negative relationship between the median date of laying and an index of spring temperatures; laying was earlier during warm springs and later when it was cooler. It is possible that the relationship was influenced by birds re-laying after the loss of the first clutch, or by birds having a second clutch after successfully rearing the first brood (Etheridge & Banks 1981). It is likely that variation in the timing of breeding of Crested Tits is related to the availability of food for the laying females in spring, and that this is determined by spring temperatures, as found for Great Tits (Perrins 1979). However, there was no trend in the timing of breeding as found for a number of birds in the UK, where there is a trend for earlier breeding that is associated with climate change (Crick et al. 1997, Pearce-Higgins & Green 2014). Changes in the timing of breeding are of concern because they may lead to a mis-match between the timing of breeding of tits and emergence of insect prey (Visser et al. 1998).

Scottish Birds: 121-134 | 131 36:2 (2016)

Table 4. Circumstances associated with nest losses during incubation and brood rearing. Percentages are in brackets.

	Number of occasions during incubation	Number of occasions during brood rearing	Total
Nest-box detached from tree	1 (2.4)	0 (0.0)	1 (1.6)
Eggs cold or chicks dead	17 (40.4)	8 (42.1)	25 (41.0)
Nest damaged - eggs or chicks removed	1 (2.4)	4 (21.0)	5 (8.2)
Nest damaged - eggs cold or chicks dead	13 (31.0)	6 (31.6)	19 (31.2)
Nest damaged - eggs cold or dead chicks plus remains of adu	ult 9 (21.4)	1 (5.3)	10 (16.4)
Eggs in box - remains of adult outside the nest-box	1 (2.4)	0 (0.0)	1 (1.6)
Total	42	19	61



Plate 114. A deep nest-box with an enlarged entrance hole. The hole was deemed to have been enlarged by a Red Squirrel (Perrins 1979). Culbin Forest, 19 April 2014. © Ron Summers

The mean clutch size of 5.7 for Crested Tits in Culbin Forest is slightly smaller than a sample from Strathspey (mean = 5.9, n = 151; Nethersole-Thompson & Watson 1974), but larger than studies in Abernethy Forest; 5.56 in 1987, 5.5 in 1988 (Baker 1991), and 5.5 in 1994 (Denny & Summers 1996).

The only long-term change at Culbin was a decline in clutch survival, which, when combined with brood survival, resulted in a decline in breeding success. Prior to 1997, the percentage of successful nests averaged 77.3%, falling to 19.1% after that. The high early values are similar to those in Abernethy Forest in 1987 (77% in 1987; Baker 1991) but higher than in a later year (50% in 1994; Denny & Summers 1996). The decline in Culbin Forest coincided with increased predation, whilst photographic evidence and damage to other predated nests showed that Pine Martens were the predators involved. Pine Martens have also been recorded

predating Crested Tit chicks at a natural site by breaking through the rotten wood of a standing dead pine to reach the nest (Denny & Summers 1996). Pine Martens were once persecuted by humans for their pelt and regarded as vermin by farmers and gamekeepers (Lovegrove 2007). However, they have recovered much of their former range in Scotland, following legal protection in 1988 and an increase in conifer plantations that provide safe denning sites (Birks 2002, Croose *et al.* 2013). The timing of the increased predation during the 1990s at Culbin parallels the arrival of Pine Martens at Abernethy Forest, where their predation on Capercaillie *Tetrao urogallus* nests has been studied (Summers *et al.* 2009).

Other potential predators at Culbin include the Great Spotted Woodpecker, Red Squirrel, Weasel *Mustela nivalis* and Stoat *Mustela erminea*. The Great Spotted Woodpecker and Red Squirrel have to break into the boxes to reach the nest, either by enlarging the nest entrance hole (squirrels) or making a hole in the box at the level of the nest (Great Spotted Woodpecker) (Perrins 1979). Although enlargement of nest entrances (Plate 114) was noted at Culbin, none were associated with predation events, so it is not known why this was carried out. Therefore, we don't consider the Great Spotted Woodpecker or Red Squirrel as major predators. However, both Weasel and perhaps Stoat could access tit nests without damaging the boxes. Clutch losses only became high and sustained after 1996, suggesting recent colonisation by a predator. This is more likely to be the Pine Marten

132 **Scottish Birds: 121–134** 36:2 (2016)

which has been extending its range in Scotland (Croose *et al.* 2013) rather than the Weasel and Stoat which are long-established resident species. The extensive disruption of the nest also suggested a less targeted attempt to catch the adults or chicks, a procedure that again suggests Pine Marten. Presumably, a Weasel or Stoat could attack the birds without disrupting the nest.

If the survival rate of adult Crested Tits is similar to that reported for Great Tits (Perrins 1979) then the breeding success of 0.5 to 1.4 fledged chicks per pair during the last four years of the study (Table 3) would be insufficient to maintain the population. The adult mortality for Great Tits is around 50% so that, from each breeding pair, at least one fledged chick needs to survive to the following breeding season to replace dying adults. First-year survival of Great Tits is around 22%, so that a productivity of 4.8 fledged chicks per pair is required to maintain the population size (Perrins 1979, page 221). However, the population dynamics of tits vary among species. For example, a notable feature of the population dynamics of Blue Tits *Cyanistes caeruleus* is that adult survival is higher in regions where clutch size is smaller (Perrins 1979, page 223, quoting Snow 1956), so lower productivity will be sufficient in regions with high adult survival. Nevertheless, in the absence of details about the survival rates of Crested Tits, we can only speculate on the productivity required to sustain the population.

It would appear that the current design of nest-boxes is putting Crested Tits and other birds (Blue Tits, Great Tits and Treecreepers *Certhia familiaris*) that use them in Culbin at risk from predation by Pine Martens. Deeper boxes would make it more difficult for martens to reach the chicks. Pine Martens have a forearm length of about 15 cm, so nests would have to be greater than 15 cm below the nest hole if chicks are to escape predation, assuming they remained still. However, an incubating adult is likely to flutter around within the box, so the depth of the box would be irrelevant. A better solution would be to place a metal grid set out from the nest hole that allows the tits to enter the box but prevents the martens from reaching in.

It is possible that nest-boxes are obvious sites for Pine Martens to investigate for a potential meal, and that the resulting high predation rate reduces breeding success to a level that is insufficient to balance adult mortality. Nevertheless, Crested Tits are still common in Culbin Forest, so it is possible that natural nests sites are less obvious to Pine Martens and that productivity from these sites is maintaining the Culbin population. The choice of a new site each year may prevent Pine Martens remembering sites.

The Forestry Commission have created high stumps at a density of two per hectare during thinning operations, which take place at 7–10 year intervals (A. Young pers. comm.). Many of the stumps are now sufficiently rotten for Crested Tits and some have been used by the tits to excavate nest sites. These will enhance the possibilities for Crested Tits to use "natural" sites rather than nest-boxes.

Acknowledgments

We thank the Forestry Commission for permission to visit Culbin Forest to carry out the study. The Forestry Commission and Highland Ringing Group made the boxes that were deployed in 2012 and 2013. Alastair Young provided information on Forestry Commission's management at Culbin Forest. The Meteorological Office provided temperature data for Kinloss. Pam Moncur, Bozena Kalejta-Summers and the late Janet Banks helped with field work. Jeremy Wilson commented on the draft.

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134 | Scottish Birds: 121–134 36:2 (2016)



Plate 115. Carrifran valley with adjacent Black Hope valley upper left and Polmoodie plantation lower right, Dumfries & Galloway, October 2015. © *P. and A. Macdonald/Aerographica*

Colonisation by woodland birds at Carrifran Wildwood: the story so far

C.J. SAVORY

From 1998 to 2015, bird populations were monitored in two adjacent valleys in the Moffat Hills that together had formed an almost treeless hill farm grazed by sheep. At one, the Borders Forest Trust's Carrifran Wildwood, sheep were removed and about 600,000 native broad-leaved trees and shrubs were planted since 2000. At the other, Black Hope, sheep continued to graze and there was no tree planting. Until 2008, tree growth on planted areas at Carrifran was limited, some areas were still unplanted, and only two woodland bird species, Willow Warbler and Chaffinch, were recorded in very low numbers (<5) in systematic annual May and June surveys there. From 2008 to 2015, after the most intensive planting was completed and tree and shrub cover became progressively denser, a further 12 woodland species were recorded. Sequentially, these were Blackcap and Lesser Redpoll, Dunnock, Garden Warbler and Siskin, Mistle Thrush, Tree Pipit and Great Tit, Robin, Blackbird, Woodcock and Song Thrush. The total number of all woodland birds recorded increased consistently from four individuals in 2007 to 262 in 2015. Over the same period the proportion of the most abundant (open country) bird there, Meadow Pipit, declined from 79% to 34% of the overall total. No such changes were observed in surveys at Black Hope, where Meadow Pipit and Wheatear remained the most abundant species. Predictions are made of what future changes in avifauna are likely at Carrifran. This study is the first to describe the sequence of colonisation by birds in newly planted broad-leaved woodland.

Introduction

An informal Wildwood Group was formed in 1995 with the aim of restoring native broad-leaved woodland to landscapes in southern Scotland denuded of trees by man's activities over millennia. It was the Group's aspiration to do something on a grand scale and in 1996 it became part of the newly established Borders Forest Trust (www.bordersforesttrust.org). After locating a suitable site, sealing a deal (in 1997), fund-raising and planning, an area of 660 ha in and around the Carrifran Valley in the Moffat Hills was purchased on 1 January 2000 and the first trees were planted there on that day. Thus was born the Carrifran Wildwood project (www.carrifran.org.uk), the history of which is described in detail in *The Carrifran Wildwood Story* (Ashmole & Ashmole 2009). It is a project highlighted as "inspirational" on the website of the recently formed Rewilding Britain charity (www.rewildingbritain.org.uk).

Carrifran (Plate 115) and the adjacent Black Hope (Plate 116) to the west and Grey Mare's Tail to the east are parallel, steep-sided, glaciated valleys in greywacke sedimentary rock in a spectacular part of the Southern Uplands (see OS Explorer Map 330, or Google Earth or Maps (latitude 55.40° N, longitude 3.33° W) for satellite imagery). Carrifran and Black Hope together comprised an almost treeless hill farm grazed by sheep and when Carrifran was purchased a condition of sale was that they could remain in part of the valley until the end of 2004. Temporary fencing was thus erected to keep those animals away from planted areas (where there were no sheep). A permanent boundary fence around Carrifran was also erected, high enough to exclude sheep and feral goats, which were removed from Carrifran and occur in small numbers on adjacent ground, but not Roe Deer *Capreolus capreolus* which encroach regularly and are controlled by shooting. There is a mature conifer plantation (Polmoodie) next to the south-east edge of Carrifran (Plate 115), from which deer and some birds originate.





Up to 2015, roughly 600,000 young trees and shrubs have been planted at Carrifran, about 80% by contractors paid by Forestry Commission (FC) grant money, and the rest by regular volunteers who are still planting where trees and shrubs are sparse. As well as having to comply with FC grant criteria for species composition and planting density (c.1,600 trees per ha), planning also involved consultation with Scottish Natural Heritage because of the Moffat Hills' designated status as a Site of Special Scientific Interest (now also a designated Special Area of Conservation). Most planting was in an area of about 350 ha between 150 m and 450 m altitude and the valley was divided into numbered compartments indicating the sequence of the grantfunded intensive planting programme completed in 2008 (Figure 1). The planned species mix in each compartment was based mainly on habitat and the British National Vegetation Classification system (Rodwell 1991). All the species planted were native and derived from seed collected as near as possible to Carrifran. Of the total planted, an estimated 56% were Downy Birch Betula pubescens, 14% were Sessile Oak Quercus petraea, 10% were Rowan Sorbus aucuparia, and the remaining 20% were a mix of Alder Alnus qlutinosa, Ash Fraxinus excelsior, Aspen Populus tremula, various Willows Salix spp., Wych Elm Ulmus glabra, Holly Ilex aquifolium, Bird Cherry Prunus padus, Hazel Corylus avellana and smaller woody shrubs. Some additional planting of montane scrub species (mainly Juniper Juniperus communis) was done higher up (>500 m) in compartments 5 and 6 (Figure 1). Monitoring of tree survival has shown that in most areas overall mortality was <10%.

The current state of ground vegetation at Carrifran is described in detail by Adair (2016). This is gradually changing due to the removal of sheep and where trees are growing. In the planted compartments there remain open areas, some around archaeological sites which have been left unplanted and some too wet or rocky for planting, where mosses, rushes, sedges, grasses, Bracken *Pteridium aquilinum*, Heather *Calluna vulgaris*, Bilberry *Vaccinium myrtillus* and Woodrush *Luzula sylvatica* are locally dominant. Unplanted upper areas are dominated mainly by grasses but there are extensive areas of Heather and peat deposits in places. A wide variety of flowering plants occur throughout the site.

As part of the Wildwood Group's preliminary development of a coherent monitoring plan for Carrifran, Peter Gordon, a member of the Group who was then RSPB Borders Conservation Officer, recognised the opportunity the project gave for studying colonisation by birds in a developing woodland. He also recognised the value of the topographically very similar Black Hope, with its continued use as sheepwalk and absence of planted trees, as a comparator for monitoring change at Carrifran, where sheep were removed and trees planted. In 1998 and 2000, therefore, he initiated systematic bird surveys at Carrifran and Black Hope respectively. These have been continued up to the present and data from them and also from collection of incidental bird records are presented here.

Many previous studies in Britain have investigated the diversity of bird populations in different types of woodland habitat, from open scrub to closed-canopy deciduous or coniferous forest (e.g. Lack & Lack 1951, Hope Jones 1972, Henty 1976, Moss 1978, Moss *et al.* 1979, Gillings *et al.* 1998, Gillings *et al.* 2000, Calladine *et al.* 2015). Our monitoring at Carrifran over an extended period of years, however, provides the first continuous record of colonisation in newly planted native broad-leaved woodland, with an appropriate unplanted comparator (Black Hope).

Methods

Woodland Development

To record annual development of the planted woodland at Carrifran a photograph of most of the valley was taken from a fixed point at its bottom end every summer from 2004 onwards.

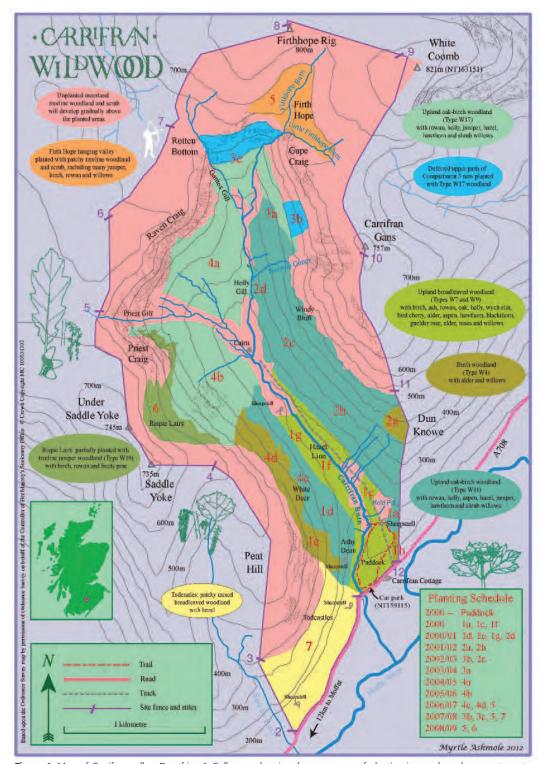
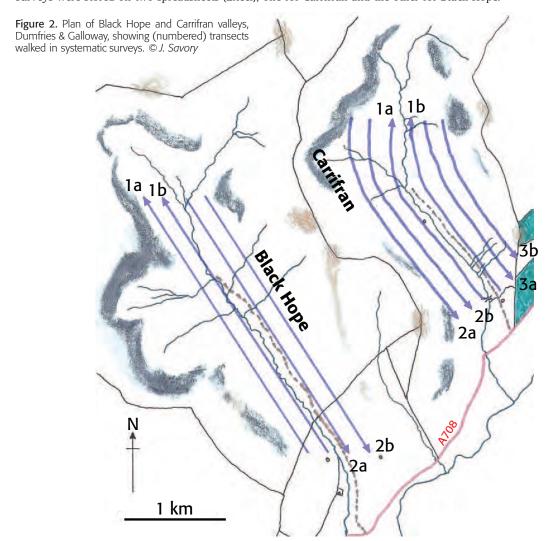


Figure 1. Map of Carrifran valley, Dumfries & Galloway, showing the sequence of planting in numbered compartments. © M. Ashmole

138 **Scottish Birds: 135–149** 36:2 (2016)

Systematic Surveys

Systematic bird surveys were conducted at Carrifran in 1998, 2000, 2002, 2004 and every year thereafter, and at Black Hope in 2000, 2007, 2009, 2011, 2013 and 2015. (The outbreak of foot-and-mouth disease in 2001 prevented surveys in that year). Each valley was surveyed on one day in May and one day in June (never both on the same day), using a method similar to the BTO's annual Breeding Bird Survey (www.bto.org/volunteer-surveys/bbs/taking-part/survey-methods). On each survey day, two observers (since 2004 CJS and one other) each walked either three (at Carrifran) or two (at Black Hope) widely spaced (c.200 m apart) parallel linear transects totalling 6 km, covering most of the valleys below 450 m (so most of the planted area at Carrifran), as chosen by Peter Gordon for his first surveys (Figure 2). For each valley, the total distance surveyed by both recorders on both days was thus 24 km. All birds seen or heard while walking these transects were recorded, and care was taken to try not to record the same bird more than once in each transect. Although the behaviour of many recorded birds indicated they were holding breeding territories, and some nests were found incidentally, no deliberate attempt was made to verify this. And no attempt was made to relate their presence to detailed description of habitat. The results of these surveys were stored on two spreadsheets (Excel), one for Carrifran and the other for Black Hope.



Incidental Records

I am the biological recorder on the Carrifran Wildwood Steering Group and since late 2003 have been visiting Carrifran in most weeks as a regular volunteer. I have recorded all bird species seen or heard on these visits on a spreadsheet, together with other observations provided by visiting ornithologists. These incidental records, which come from all parts of Carrifran at all times of year, are used here to supplement information from the systematic surveys.

Occasional sightings of birds flying overhead which were obviously not "using" Carrifran or Black Hope (geese, gulls, Osprey) are excluded from the data presented here. And because so many (88) bird species are referred to in this paper, their scientific names are all listed in an Appendix.

Table 1. Species recorded at Carrifran (those italicized not at Black Hope). Counts of birds by two recorders each walking transects totalling 6 km on two days in May and June.

	1998	2000	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Goosander	1														
Black Grouse	1		1			5		4	4	4	3	1	2		1
Buzzard		1	1	2	1		2	2	1		1	1	3	1	2
Oystercatcher						2									
Common Sand	piper											1			
Woodcock															1
Woodpigeon							1	2	6		4	3	4	1	
Cuckoo						1									1
Kestrel		1	1		1	1		5							1
Peregrine	3		1	3	2	2	2	2		1		2	3	1	3
Rook	1														
Carrion Crow	3	5	1	22	9	7	10	14	9	11	8	1	9	4	6
Raven	2	1	1	6	1	1	5	4	1	2	3	1	2	3	3
Great Tit											4	2			1
Skylark	6	1	2			1				1					
Swallow	6	1				1		1				1			
House Martin							1								
Willow Warbler	1					2	4	9	22	48	65	77	77	101	141
Blackcap	•					_	•	2	3	1	1	2	4	6	4
Garden Warble	r								2			1	1	4	1
Grasshopper W							1		_			2	1	•	1
Sedge Warbler							-					3			
Wren	19	17	10	20	19	27	18	40	22	1	5	14	5	23	46
Dipper	1				1		1	1	1	2		1	1		3
Ring Ouzel	5	3		1	•		•		•	_		•	·		Ü
Blackbird				•										3	2
Song Thrush														Ü	2
Mistle Thrush										1					_
Robin										•		5		10	22
Whinchat			4	11	11	13		14	7	9	6	13	3	11	13
Stonechat			i	8	9	22	21	15	11	1	O	9	5	3	7
Wheatear	31	28	9	13	23	21	8	8	11	10	11	9	9	4	7
Dunnock	51	20	9	15	23	۷1	U	O	2	10	" "	2	1	7	,
Grey Wagtail	2	4	5	4	2	3	3	8	8	2	4	_	1	1	
Pied Wagtail	3	1	5	1	_	J	J	U	U	_	7		'	'	
Tree Pipit	J	'		'							1			1	2
Meadow Pipit	278	267	371	282	251	214	282	368	331	242	255	272	254	195	182
Chaffinch	1	1	3/1 4	3	231	1	202	9	12	20	26	37	56	58	78
Lesser Redpoll	ı	ı	4	J		1		2	12	3	8	12	11	10	70 8
Siskin								_	1	J	7	IΖ	1	10	O
JIJKII I									ı		/		1		

Scottish Birds: 135–149 36:2 (2016)

Results

Woodland Development

In the sequence of photographs looking up Carrifran valley in Plate 117, established areas of planted trees only became really evident from 2006 onwards, and it is only from 2009, after the intensive planting programme was completed, that those areas started to look dense as the height of trees increased. Many in compartments planted before 2004 (about a third of the total planted area, Figure 1) were at least 3 m high by then and were twice that height with some canopy closure by 2015. Trees in distant parts of the valley, planted after 2004, cannot be distinguished in the photographs until late in the sequence, and much of that habitat is not yet at a stage that is suitable for woodland birds. Nowhere at Carrifran is there yet woodland that can be called mature.

Systematic surveys

A total of 44 species were recorded in the May and June bird surveys at Carrifran and Black Hope (Tables 1 and 2). Of these, 25 were at both valleys, 15 were at Carrifran only (hence probably responding to the sheep removal and changing habitat there) and four were at Black Hope only (but two of these, Mallard and Merlin, were seen at Carrifran at other times, Table 3). Some of the species recorded at both valleys showed marked changes over time. Thus, Woodpigeon was recorded only from 2007 onwards and more so at Carrifran. Skylark, Ring Ouzel and Pied Wagtail were present in 1998 and 2000, but after 2004 Skylark was largely absent (possibly due to an ongoing national decline, see www.bto.org/volunteer-surveys/bbs/latest-results/trend-graphs) and Ring Ouzel and Pied Wagtail were seen only at Black Hope.

Meadow Pipit was by far the most numerous species throughout the 15 years surveyed. Although there were slight downward trends in its numbers in both valleys, neither trend was statistically significant and nor was the difference in their slopes (all p>0.05 by regression). Nevertheless, the lowest numbers at Carrifran recorded in 2014 and 2015 (Table 1) could be the start of an inevitable decline as Meadow Pipit (open country) habitat is depleted by the developing woodland there. Wren numbers were variable in both valleys, and the lowest counts probably reflect high mortality in hard winters like 2009/10 and 2010/11. Although Wren occurs in a wide range of habitats, and there were high counts at the almost treeless Black Hope (Table 2, amongst rocks and cleughs), it is common in deciduous woodland. Its highest count at Carrifran in 2015 may thus reflect colonisation of new woodland habitat.

Whinchat and Stonechat, which occur in

Plate 117 (overleaf). Photographs of Carrifran valley, Dumfries & Galloway, from a fixed point every summer from 2004 to 2015. © *J. Savory*

Table 2. Species recorded at Black Hope (those italicized not at Carrifran). Counts of birds by two recorders each walking transects totalling 6 km on two days in May and June.

`			,	•		
	2000	2007	2009	2011	2013	2015
Mallard						2
Goosander		1		1		2
Black Grouse		1				
Buzzard		4	4	1	1	
Common Sandpi	iper 4	2				
Woodpigeon		1			3	
Merlin						1
Peregrine	2	3			1	
Rook	29	156	5		70	3
Carrion Crow	1	11	41	10	14	41
Raven	3	3		2	1	6
Great Tit			1	2		
Skylark	4					
Sand Martin				1		
Swallow	1	1	1	3		1
House Martin		2				
Willow Warbler			2	3	2	1
Whitethroat				1		
Wren	43	14	17	4	3	9
Dipper	5	1			1	1
Ring Ouzel	1			4	2	
Robin		3	1			
Whinchat				1	3	
Stonechat		4	2			
Wheatear	60	62	91	105	49	88
Grey Wagtail	5	4	1	4	1	5
Pied Wagtail	4	1	2	2	1	3
Meadow Pipit	409	294	444	286	200	315
Chaffinch	1	1	4	2	3	4





scrubland and heath, were more common at Carrifran from 2004 onwards. Neither species showed consistent change thereafter and both were occasionally scarce or absent, presumably reflecting mortality associated with their respective overwintering strategies (Whinchats migrate to Africa and most Stonechats remain in Britain). Wheatear was abundant in both valleys, particularly Black Hope where it remained the second most numerous species (apart from flocks of Rooks in 2007 and 2013). But at Carrifran it declined after 2006, probably because the growth of grass there following removal of sheep made its habitat less suitable.

Before any planted trees were established, the only woodland species recorded in the first surveys in 1998 and 2000, among sparse relict trees and shrubs, were one Willow Warbler and two Chaffinch at Carrifran (Table 1), and one Chaffinch at Black Hope (Table 2). After the first planted trees at Carrifran became established, Chaffinch was recorded from 2002 but Willow Warbler did not reappear until 2006. From 2008 onwards, numbers of both species there increased greatly, especially Willow Warbler which reached a total of 141 individuals (on two days in May and June) in 2015. Robin was recorded at Black Hope in 2007 and 2009 (in shrubs) but did not appear at Carrifran until 2012, and it also increased markedly there in 2014 and 2015.

From the surveys at Carrifran, changes over time in total numbers of birds of all species, Meadow Pipit and all woodland species are summarised in Figure 3. It can be seen that most of the year to year variation in total numbers of birds can be accounted for by corresponding variation in numbers of Meadow Pipit. However, the correlation between total numbers of all birds and of Meadow Pipit was statistically significant (p<0.05) only for the years up to 2013, and not for all years up to 2015. This was because numbers of all woodland birds equalled and then surpassed numbers of Meadow Pipit in 2014 and 2015 respectively. Most of the huge (66-fold) and linear (as confirmed statistically) increase in woodland birds between 2007 and 2015 (Figure 3) was due to increases in the two species which were already in the area in 1998, Willow Warbler and Chaffinch (Table 1).

Changes in proportions of Meadow Pipit and woodland birds (as percentages of total numbers of all birds) in the Carrifran surveys, and the sequence of woodland species' colonisation there, are summarised in Figure 4. This shows the proportion of woodland birds increased consistently from <2% before 2008 to nearly 50% in 2015. Conversely, the proportion of Meadow Pipit declined from >70% before 2010 to <50% after 2013. And having commenced with just Willow Warbler

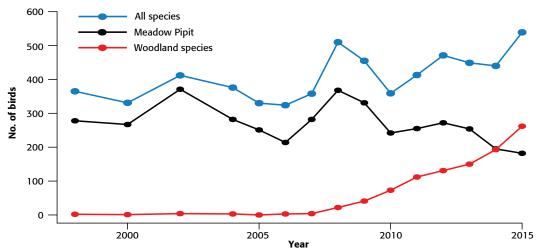


Figure 3. Total numbers of birds recorded in systematic surveys at Carrifran, of all species, Meadow Pipit and all woodland species.

144 **Scottish Birds: 135–149** 36:2 (2016)

and Chaffinch before the first trees were planted in 2000, it was not until 2008 that two more woodland species, Blackcap and Lesser Redpoll, appeared. These were soon followed by Garden Warbler, Dunnock and Siskin in 2009, Mistle Thrush in 2010, Great Tit and Tree Pipit in 2011, Robin in 2012, Blackbird in 2014, and Woodcock and Song Thrush in 2015. Hence, 14 species of woodland bird have so far been recorded in the surveys at Carrifran.

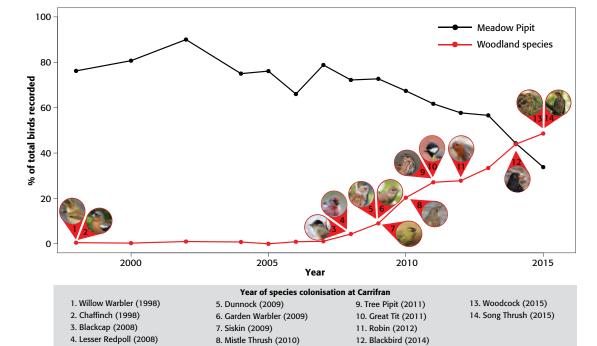


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Figure 4. Proportions of Meadow Pipit and all woodland birds (as percentages of total numbers of all birds in systematic surveys at Carrifran) and the years of first appearance of different woodland species.

Incidental Records

Of the 34 species that were recorded incidentally at Carrifran, anywhere and at any time, and which were not observed in the May and June surveys there, nine were from April to September only, six were from October to March only, and 19 were not restricted to any season (Table 3). These records show that other woodland birds, like Sparrowhawk, Long-eared Owl, Jay, Goldcrest, Blue Tit, Coal Tit, Long-tailed Tit, Chiffchaff, Bullfinch and Greenfinch, have also been using Carrifran (three of these from April to September only) but have not yet been recorded in May and June. The same is true of Goldfinch, which is more of a scrubland bird.

The following species that were recorded at Carrifran in the May and June surveys (Table 1) were also observed there in the period from October to March: Goosander, Black Grouse, Buzzard, Woodcock, Woodpigeon, Kestrel, Peregrine, Carrion Crow, Raven, Great Tit, Wren, Dipper, Blackbird, Song Thrush, Mistle Thrush, Robin, Stonechat, Dunnock, Pied Wagtail, Meadow Pipit, Chaffinch, Lesser Redpoll and Siskin.

As an index of changing avian biodiversity at Carrifran, it can be seen in both Tables 1 and 3 that total numbers of species recorded in each year increased after 2007 and were highest in 2015.

Table 3. Incidental records of other species anywhere at Carrifran outwith the systematic surveys.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Only from April to Sep	otember											
Hen Harrier							Х					
Dotterel												Х
Swift		Х		Х								
Merlin			X		Х		Х	Х	Х			
Coal Tit					Χ			Х				
Chiffchaff						.,						Х
Starling Greenfinch					V	Χ			V			
Crossbill					Х			Х	Х			
								^				
Only from October to	March											
Magpie Fieldfare		X	.,	.,	.,	X		.,		.,		.,
Redwing		Х	X X	X X	X	X		Х		X X	V	X X
Brambling	Х		Α	^	Х	Х				Α	Х	^
Twite	^	Х										
Snow Bunting		X						Х			Χ	
O		*						*				
Not restricted to any s Mallard	season					.,	.,	.,	.,		.,	.,
Red Grouse	Х			Х	V	X X	X X	X X	X X	Х	X X	X X
Grey Partridge	Α	Х	Х	Α	Х	Α	Α	Α	Χ.	Α	Α	^
Pheasant		X	^		Х	Х	Х	Х	Х	Χ	Χ	Х
Grey Heron		X	Χ	Х	X	X	X	X	^	X	X	^
Sparrowhawk		Α	X	Α	X	Α	Α	Α	Х	Α	X	Х
Golden Eagle	Х							Х	Х			
Golden Plover					Х	Х				Х	Х	
Snipe	Х	Х	Х		Х	Х	Х					Х
Barn Owl			Χ				Χ					Х
Long-eared Owl			Χ		Х		Х		Х			Х
Short-eared Owl	Х		Χ	Х							Χ	
Jay		Х		Х					Х			Х
Goldcrest	Х									Х	Х	Х
Blue Tit					Х	Х	Х	Х	Х	Х		Х
Long-tailed Tit					Х	Х	Х	Х	Х		Х	Χ
Bullfinch	X	.,	.,		X	Х	X	.,		.,	Х	X
Goldfinch	Х	X	X	.,	X	.,	X	X		X	.,	X
Reed Bunting		X	Х	Х	Х	X	Χ	X		Х	X	Х

Discussion

A grand total of 74 bird species have so far been recorded at Carrifran from 1998 to 2015 (Tables 1 and 3). Of these, 27 were also recorded at the comparator valley Black Hope (Table 2). Just two, Sand Martin and Whitethroat, were recorded at Black Hope only. And 34 species at Carrifran were recorded incidentally outwith the May and June surveys (Table 3), at all times of year and in every part of the site, including visits to high areas above 600 m. This is where species like Red Grouse, Golden Plover, Dotterel and Snipe were occasionally seen. The transects chosen by Peter Gordon for the surveys at Carrifran (Figure 2) did not include the Paddock (Figure 1) which became a good area for some woodland birds and where other species like Grasshopper Warbler, Sedge Warbler, Goldfinch and Reed Bunting were also seen/heard. It is worth noting there was no evidence of a sustained increase in the small local population of Black Grouse at Carrifran in response to the tree planting (Table 1), and attendance by cocks at a lek next to the boundary fence (Savory *et al.* 2007) has been similarly inconsistent. The Golden Eagle recorded in 2011 and 2012 is assumed to be a radio-tagged one called Roxy which is still ranging not far away (www.roydennis.org/category/golden-eagle/roxy/).

Scottish Birds: 135–149 36:2 (2016)

Avian biodiversity at Carrifran was greatest in spring and summer months, when the developing woodland was in leaf, and it increased from 2008 onwards as total numbers of woodland birds also increased (Tables 1 and 3, Figures 3 and 4). Before 2008, which is when the intensive planting programme was completed, there was very little suitable woodland for such birds to colonise (Plate 117). Thereafter, with continuing supplementary planting (including large numbers of shrubs), and as tree and shrub cover up to 6 m high became progressively denser and more extensive, the total number of woodland birds recorded in May and June increased (Figure 3). This presumably reflects coincidental increases in availability of both new food sources and new breeding habitat. No such bird colonisation occurred at Black Hope, with its continuing use as sheepwalk (and where numbers of sheep have remained unchanged).

The range of woodland birds recorded at Carrifran is broadly similar to the avifauna described previously in studies of both deciduous and coniferous woodland habitat in various stages of succession (Lack & Lack 1951, Hope Jones 1972, Henty 1976, Moss 1978, Moss *et al.* 1979, Gillings *et al.* 1998, Gillings *et al.* 2000, Calladine *et al.* 2015). And the rapid colonisation at Carrifran from 2008 onwards is consistent with close positive correlations found between bird species diversity and foliage height diversity (Moss 1978) and between bird species diversity and their overall breeding density (Hope Jones 1972). Where the present study is unique is in showing the actual sequence of colonisation by woodland birds (Figure 4) in habitat with growing mixed-species and mixed-age broad-leaved trees and shrubs, where previously there had been virtually no trees. The two species that colonised first, Willow Warbler and Chaffinch, also accounted for most of the subsequent increase in total number of woodland birds.

In an Environmental Statement submitted in 1999 in support of a FC Woodland Grant Scheme application, Peter Gordon made predictions about what changes in bird species' presence could be expected at Carrifran following the removal of sheep and the growth of trees. Some predictions were of short-term responses, some medium term and some much longer term, as the ecological succession at Wildwood progresses gradually from pioneer and building (Plate 118) stages towards a climax community. Most, but not all, of the shorterterm predictions proved correct, and unexpected species have arrived. Such differences are not discussed here and it is sufficient to summarise in Table 4 the responses observed to 2015, and predicted future changes. The predicted future decline in Meadow Pipit and increase in Wren numbers were mentioned in the Results. Most of the near future colonisers have already been seen at Carrifran (Table 3), but not in the surveys. Like Meadow Pipit, Whinchat, Stonechat and Goldfinch will also decline eventually as scrub is replaced by woodland. And, finally, most predicted distant future colonisers will not appear until Carrifran Wildwood is a climax woodland community with plenty of mature trees for species like Pied Flycatcher and Redstart and plenty of dead trees for Tawny Owl and woodpeckers. This will probably not be for another 30 years at least.

Table 4. Summary of observed bird responses to sheep removal and tree planting at Carrifran (from systematic surveys) and predicted future changes.

Early decliners (2000-2007)

Skylark, Ring Ouzel, Wheatear, Pied Wagtail

Early colonisers (2000-2007)

Woodpigeon, Cuckoo, Willow Warbler, Grasshopper Warbler, Whinchat, Stonechat, Chaffinch

Later colonisers (2008-2015)

Woodcock, Great Tit, Blackcap, Garden Warbler, Sedge Warbler, Blackbird, Song Thrush, Mistle Thrush, Robin, Dunnock, Tree Pipit, Lesser Redpoll, Siskin

Predicted near future (2015–2025) decliner Meadow Pipit

Predicted near future (2015–2025) increaser

Predicted near future (2015–2025) colonisers (most already in Table 3)

Sparrowhawk, Long-eared Owl, Jay, Goldcrest, Blue Tit, Coal Tit, Long-tailed Tit, Chiffchaff, Whitethroat, Treecreeper, Spotted Flycatcher, Bullfinch, Greenfinch, Goldfinch

Predicted distant future (after 2025) decliners Whinchat, Stonechat, Goldfinch

Predicted distant future (after 2025) colonisers

Goshawk, Stock Dove, Tawny Owl, Green Woodpecker, Great spotted Woodpecker, Wood Warbler, Nuthatch, Pied Flycatcher. Redstart



Plate 118. Building stage of woodland development at Carrifran, autumn 2015. © J. Savory

Acknowledgements

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148 | Scottish Birds: 135–149 36:2 (2016)

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Appendix

The scientific names of all birds referred to in this paper. Sequencing and vernacular naming, here and elsewhere in the paper, are according to the current Scottish List on the SOC website.

Mallard Anas platyrhynchos, Goosander Mergus merganser, Red Grouse Lagopus lagopus, Black Grouse Tetrao tetrix, Grey Partridge Perdix perdix, Pheasant Phasianus colchicus, Grey Heron Ardea cinerea, Hen Harrier Circus cyaneus, Goshawk Accipiter gentilis, Sparrowhawk Accipiter nisus, Buzzard Buteo buteo, Golden Eagle Aquila chrysaetos, Osprey Pandion haliaetus, Oystercatcher Haematopus ostralegus, Golden Plover Pluvialis apricaria, Dotterel Charadrius morinellus, Common Sandpiper Actitis hypoleucos, Woodcock Scolopax rusticola, Snipe Gallinago gallinago, Stock Dove Columba oenas, Woodpigeon Columba palumbus, Cuckoo Cuculus canorus, Barn Owl Tyto alba, Tawny Owl Strix aluco, Long-eared Owl Asio otus, Short-eared Owl Asio flammeus, Swift Apus apus, Green Woodpecker Picus viridis, Great Spotted Woodpecker Dendrocopos major, Kestrel Falco tinnunculus, Merlin Falco columbarius, Peregrine Falco peregrinus, Magpie Pica pica, Jay Garrulus glandarius, Rook Corvus frugilegus, Carrion Crow Corvus corone, Raven Corvus corax, Goldcrest Regulus regulus, Blue Tit Cyanistes caeruleus, Great Tit Parus major, Coal Tit Periparus ater, Skylark Alauda arvensis, Sand Martin Riparia riparia, Swallow Hirundo rustica, House Martin Delichon urbica, Long-tailed Tit Aegithalos caudatus, Wood Warbler Phylloscopus sibilatrix, Chiffchaff Phylloscopus collybita, Willow Warbler Phylloscopus trochilus, Blackcap Sylvia atricapilla, Garden Warbler Sylvia borin, Whitethroat Sylvia communis, Grasshopper Warbler Locustella naevia, Sedge Warbler Acrocephalus schoenobaenus, Nuthatch Sitta europaea, Treecreeper Certhia familiaris, Wren Troglodytes troglodytes, Starling Sturnus vulgaris, Dipper Cinclus cinclus, Ring Ouzel Turdus torquatus, Blackbird Turdus merula, Fieldfare Turdus pilaris, Song Thrush Turdus philomelos, Redwing Turdus iliacus, Mistle Thrush Turdus viscivorus, Spotted Flycatcher Muscicapa striata, Robin Erithacus rubecula, Pied Flycatcher Ficedula hypoleuca, Redstart Phoenicurus phoenicurus, Whinchat Saxicola rubetra, Stonechat Saxicola rubicola, Wheatear Oenanthe oenanthe, Dunnock Prunella modularis, Grey Wagtail Motacilla cinerea, Pied Wagtail Motacilla alba, Tree Pipit Anthus trivialis, Meadow Pipit Anthus pratensis, Brambling Fringilla montifringilla, Chaffinch Fringilla coelebs, Bullfinch Pyrrhula pyrrhula, Greenfinch Chloris chloris, Twite Linaria flavirostris, Lesser Redpoll Acanthis cabaret, Crossbill Loxia curvirostra, Goldfinch Carduelis carduelis, Siskin Spinus spinus, Snow Bunting Plectrophenax nivalis, Reed Bunting Emberiza schoeniclus.

Obituary

Henry Robb (1933-2016)



Plate 119. Henry Robb ringing a Nuthatch, Callander, June 2015. © Mike Steward

A well-kent figure in Scottish ornithology, Henry Robb passed away in January 2016 at the age of 82. Born in Stirling, where his father practiced as a solicitor, Henry left home for education at Merchiston Castle School in Edinburgh, Oxford (BA) and Glasgow (LLB)) and for national service when, already speaking French and German and with a good knowledge of Latin, he trained as a Russian interpreter in the Intelligence Corps. After Glasgow, he joined the family firm, returning to live with his parents in the house to which they had moved when he was 14 years old and where he stayed for the rest of his life, much involved in the social, business and cultural life of the town.

Despite attending Merchiston, where the late Ian Balfour Paul influenced so many boys to take an interest in birds, Henry did not take up ornithology until his mid-30s inspired by a visit to Handa island. He soon made up for lost time, attending the inaugural meeting of the Stirling SOC branch in 1967. He became a staunch supporter of the Club and was regularly at branch meetings and national conferences. In 1972, he joined both the branch committee and Council, becoming Vice Chairman of the branch in 1977 and Chairman in 1979. He was called back to serve on Council

during 1985–89. His overlapping service on BTO Council (1976–79 and 1983–86) must have helped draw the two organizations together.

As local organizer for the first breeding bird atlas, he did much survey work himself and inspired many others to participate, often through SOC branch outings to remoter areas. He joined the national organiser and his family in their caravan in 1971 and 1972, covering a 10-km square each day, and also in 1972 spent four days atlassing on Jura. He participated in all the subsequent atlases. Intensive ringing and nest recording prevented his taking on census work in the breeding season, but he was freer in the winter and was able to conduct WeBS counts on the Lake of Menteith. He was an active member of the Scottish Wildlife Trust and of the Stirling Field and Archaeological Society, chairing the latter for a period and leading field trips.

Henry made many visits to the Isle of May, especially in the 1970s and 1980s. After the Nature Conservancy Council took over the island, the previously informal management committee for the bird observatory was reconstituted in 1990 as a Charitable Trust. Henry chaired the Trust for its first ten years, his legal expertise being particularly helpful in drawing up its constitution. As with all the chairmanships that he undertook, he ran meetings with good grace and a light touch; he was happy to leave the running of the observatory to the other office bearers.

Henry joined the Tay Ringing Group (TRG) in 1971. Ringing was to be his passion for the rest of his life. Hours were spent crawling under bridges for Dippers and Grey Wagtails; Swallow chicks were ringed in bus shelters and farm buildings all over rural Stirlingshire. Work as a solicitor provided many connections with country people to the considerable benefit of Henry's ringing and nest recording. He was

150 **Scottish Birds** 36:2 (2016)

careful to get to know those on whose land he ringed, calling on them to keep them informed of his activities (and often to drink the proffered cup of tea) and to give presents at Christmas. He participated in TRG communal projects, such as cannon-netting and swan round-ups. Most importantly, he was a key figure in the group's business. An effective chairman for almost ten years and also secretary for much of that time, he drew up the group's first constitution. On more than one occasion he provided anonymous financial support. Henry's patient negotiations were crucial in obtaining the first cannon net licences for TRG members, free of burdensome restrictions that were first imposed. He helped organise and chaired five Scottish Ringers' Conferences and made the closing remarks at another. He was a splendid chairman, with just the right proportions of humour and information, the latter based on careful preparation. It was a fitting reward for such steadfast contributions that in 2015 Henry became the first person to ring nestling Nuthatches in the TRG area (Plate 119).

As Clerk to the Water Board, Henry had access to the woodlands around Loch Katrine and, having seen Pied Flycatchers there, he erected some trial nest boxes in 1972. One was taken up by flycatchers, leading to a study that lasted the rest of his life. The obituary in the BTO's Life Cycle magazine (Issue 3, Spring 2016, page 26) has more detail. At its peak, he had over 190 boxes, up to 80 pairs of flycatchers and many Redstarts. His Mini, permanently topped with a ladder during the breeding season, became well known. (He was so fond of Minis that he once bought a second one to have in reserve in case British Leyland stopped making them). The Loch Katrine nest boxes produced 1028 nest record cards for Pied Flycatchers, 765 for Redstart, over 800 for tits and 134 for Tawny Owls. Beyond the boxes, Henry was a proficient finder of nests, submitting 3,350 nest record cards, covering 42 different species - Tawny Owls, raptors, waders, wildfowl, Grey and Pied Wagtails, Dippers, Wood Warblers and many other woodland passerines. He gave talks on the study to Scottish Ringers' Conferences, an SOC conference and elsewhere. His observations were quoted in both Valerie Thom's Birds in

Scotland and in the SOC's *The Birds of Scotland*; his observation of predation by Pine Martens of nests in his boxes was also quoted (Youngman, R. 2005. *British Birds* 98: 429)

Henry was keen on opera and theatre and never short of attractive ladies to accompany him. He had a great knowledge of architecture and enjoyed visiting art galleries. He was a long-time member of The Friends of the Smith Art Gallery in Stirling, serving as Chairman for some time. His cultural and local interests took up many evenings so his ornithological administration had to be fitted in after 10 p.m. "That will be Henry" came to be the response in many ornithological households to a late telephone bell. He travelled to every continent but Antarctica. He was an excellent and considerate travelling companion, enjoying the company of fellow enthusiasts and keeping in touch with many people whom he met on his travels.

Henry employed a series of house keepers who tolerated his foibles and the peculiarities of his bird-ringing friends, though a misunderstanding over dead birds in the freezer once caused a brief upset. Their culinary skills, displayed during meals at his house or through contributions to the refreshments at ringing excursions, were legendary. His immensely busy life would have been impossible without them though stories that he could not boil an egg or make a pot of tea were probably exaggerations. One of them even went on many excursions to bus shelters to hold the ladder for access to Swallows' nests.

Henry Robb will be remembered as an ornithologist and a gentleman. He was old-fashioned in the best possible way. He got on with everyone, including children. He cared for people and was unfailingly helpful, dependable and loyal. Tolerant and good-humoured, he rarely had a bad word to say about anybody apart from the Pine Martens that preyed on his Pied Flycatchers, the Grey Seals on the Isle of May (he served as the secretary of the Forth Salmon Fisheries Board) and a girl friend who committed the sin of boiling the soup (she was never invited again). He is sorely missed.

Compiled by many of Henry's friends



Plate 120. Conference delegates at Thornielee, Borders. © David Palmar/www.photoscot.co.uk

With the new South-East Scotland Bird Atlas nearing completion, it seemed fitting to return to the Borders to host this year's spring meeting. Indeed, the conference theme 'Birds across the Borders' set the scene for a sneak preview of results of the local atlas fieldwork as well as offering insights into particular species prevalent in the region, such as Merlin and Osprey. Borders-based wildlife artist, Chris Rose, was back by popular demand, giving an entertaining account of his work over the past year. Beyond the host region, the state of play with Sparrowhawks in urban areas and losses and gains in birdlife in Scotland's uplands were explored and the broader subjects of climate change and how birds adapt, as well as the ins and outs of recording rare breeding birds, topped and tailed the day's programme.

The Eastgate Theatre in Peebles, which last hosted the conference back in 2007, was full to the brim - indeed, places in the 220-capacity theatre became unusually booked up by the end of February, which meant that some members looking to book in March were disappointed. As a result, the Club and BTO Scotland have resolved to ensure that larger venues will be sought for the event in future.

Delegates were welcomed with a cuppa and a pastry on arrival and a chance to browse the exhibitor stands - this year, we were delighted

to host displays by Chris Rose, Joanna Thomson Jewellery, Photoscot, Second Nature, SWT, the Wildlife Information Centre (TWIC) and Wildscot photography.

SOC President, Ian Thomson, opened the conference and welcomed delegates, apologising in advance if anyone went home with his cold. He recalled that the last time he'd seen such a large gathering of bird enthusiasts in the Borders was in 1993 when the Marmora's Warbler turned up at St Abb's Head. This fed into an amusing reminiscence of how the world was back then: John Major and Bill Clinton were in power, petrol was a mere 46p/litre, Rangers won the Premier League, the first Dyson vacuum cleaner came onto the market, and Mark Holling and Ray Murray were poring over tetrad data for the last South-east Scotland Atlas... proof that some things never change! The programme for the day would explore various aspects of change and how these are affecting Scotland's birds. First up, the weather!

How birds respond and adapt to climate change *James Pearce-Higgins* (BTO Director of Science)

Birds are affected by changes in climate in many different ways. One area of concern is the likely disruption between a species and its food supply. Although Red Grouse is in many areas

152 | Scottish Birds 36:2 (2016)

subject to human management, the quality of its main food (heather) is affected by the dryness of the climate. Grouse chicks need insect food, particularly crane-flies, which are less numerous after a hot summer in the previous year.

The grouse disease of louping-ill is also dependent on climate. The world distribution of Red/Willow Grouse has been modelled using climatic factors and it is possible to predict future changes in distribution if global warming continues. Golden Plover is also dependent on the weather response of crane-fly larvae. Grey Heron has been censused since 1928 and it is well known that hard winters such as 2009/10 and 2010/2011 cause population crashes.

Redstart spends the winter in the Sahel region of Africa, where drier winters now mean that fewer birds reach Britain in spring. In Britain, the insect food of migrant warblers such as Willow Warbler is more plentiful if the spring is warm and the summer is moist; since 1965 changes have favoured the north rather than the south.

The northward advance of the Nuthatch in Britain is a spectacular response to climate change. Arctic-breeding duck species are wintering less far south - in Scandinavia rather than middle Europe. What can we do to help birds cope with climate change? We continue to need nature reserves spread over a wide range of climatic zones to enable species to move to new habitat. We can improve the quality of our habitats and their connectedness. We can try to limit the magnitude of climate change.

Graham Pyatt



Plate 121. James Pearce-Higgins. © David Palmar/www.photoscot.co.uk



Plate 122. Mark Holling. © David Palmar/www.photoscot.co.uk

South-East Scotland Tetrad Atlas: Winners and Losers *Mark Holling and Ray Murray (SE Scotland Atlas Group)*

Twenty years ago the SOC published the first regional tetrad-based bird atlas in the UK. Survey work on a new edition of *The South-East Scotland Tetrad Atlas* commenced in 2008 and fieldwork was completed in 2014. Coverage of all 1,770 tetrads in Lothians and Borders involved 13,852 hours of fieldwork, producing 456,808 records from 827 individual observers or organisations. The new atlas write up is well under way and publication should be later this year.

Improved computer techniques have allowed for more detailed analysis of the data permitting Ray Murray and Mark Holling, two of the joint authors, to present accurate information about the 'winners and losers' over the 20 years since the first atlas was published.

Of 160 bird species in the area, 90 were losers compared to 20 years ago. Ray deduced that the climatic effect and loss of habitat were the major factors in loss of species and reduction in abundance. In woodland species there was almost complete loss of Marsh Tit (-89%), Wood Warbler (-89%) and Pied Flycatcher (-97%). Water nesting species like Coot (-43%), Moorhen (-24%), Black-headed Gull and Tufted Duck were significantly reduced in number but Ray speculated that the increased Otter population might be a factor. Waders like Common Sandpiper (-24%), Redshank (-30%) and Golden Plover (-30%) were also down in number. Lapwing (-36%) and Curlew were

reduced especially in the lower altitude parts of their ranges, as were Ring Ouzel, Meadow Pipit and Merlin. Some previous scarce species such as Wigeon, Shoveler and Ruddy Duck were completely absent. Analysis of altitude-related abundance indicated that the greatest loss of loser species was in the hill margins and he cited the spread of urban Edinburgh, increased forestry activity and windfarm construction as being partly responsible.

Only 47 species were 'winners', having increased in distribution or abundance. Mark found stability in the populations of Chaffinch, Wren, Wood Pigeon and Carrion Crow. An increase of >6,000% in tetrad presence was recorded with Nuthatch, the northward progression of which is almost measurable on a "kilometres per year" basis. Nuthatch along with Siskin and Great Spotted Woodpecker have benefitted from a succession of milder winters and the abundant presence of garden bird feeding stations. Milder winters have also resulted in increases in some waterfowl like Mute Swan, Greylag Goose, Canada Goose, Shelduck and Little Grebe (+58%). Direct human influence was the cause of increases in Red-legged Partridge through game releases on hill areas, Greylag Goose and Canada Goose due to increases in feral populations from escapes, Lesser Black-backed Gull (>6,000%) owing to their populating and feeding in urban and industrial areas with farmland foraging at hay and silage cutting, and Water Rail through Ray Murray's use of tape lures! Reduced persecution and improved attitudes allowed for increases in Buzzard, Jay and Raven which also benefitted from the increased use of Larsen traps rather than poison as a means of control. Climate change has resulted in a move of Sand Martin to the North and West as well as moving away from rivers to quarries and other suitable nesting grounds at higher altitudes. Chiffchaff too (+172%) show a move to higher altitudes. Stonechat were showing increases >1,000% until the protracted winter of 2009/10 after which the numbers crashed again.

Mark concluded that the future might see breeding Mediterranean Gull, Little Egret and White-tailed Eagle while the feral populations of Canada and Greylag Goose might reach pest levels.

In conclusion, if we believe that climate change is a result of man's use of fossil fuels, it is noted that both winners and losers in the bird populations are directly or indirectly affected by man's activity - either through habitat loss (increased forestry, windfarms, improvements in drainage and farmland and urban sprawl), climate change (milder winters, wetter summers, changes in invertebrate food abundance, movement to higher altitude), reduced persecution or increases in farm ponds and bird feeders. So perhaps these population changes are to be expected and are predictable!

Malcolm Ross

Ups and downs in the Scottish Uplands *Chris Wernham (Head of BTO Scotland)*

The Index of Terrestrial Breeding Birds in the (British) Uplands is based on 17 species and the overall trend is downwards compared with farmland or woodland birds (also see the abundance change map on page 132 of the 2007–11 Bird Atlas). For example, breeding Curlews have declined by more than 50% in number in Scotland. Some raptors have increased, including Red Kite, Buzzard, Raven, White-tailed Eagle, but there are declines in Kestrel, Short-eared Owl, Red Grouse and Black Grouse.

Scotland's Moorland Forum recently set up a project *Understanding Predation* and the report was published in February 2016. The project attempted to review the science, collate relevant knowledge, identify common ground and explore the reasons for any divergent views between 'the land management sector' and 'the conservation sector'. The focus was on six ground-nesting birds: Black Grouse, Curlew, Golden Plover, Grey Partridge, Lapwing and Oystercatcher and generalist predators including Buzzard, Red Fox and corvids. There was agreement about population declines of the focal species and the need to restore and maintain healthy populations. Conservationists thought that habitat change was the most important factor involved, whereas land managers thought that predator control was the most important, but both groups agreed that both factors were involved and that the factors could also work together not just in isolation.

154 | Scottish Birds 36:2 (2016)



Plate 123. Chris Wernham. © *David Palmar/www.photoscot.co.uk*

All agreed that habitat improvement or predator control could be effective in assisting breeding waders in some circumstances. Land managers viewed recreational disturbance as a more important damaging factor than did conservationists or the scientific literature (as there have been few relevant studies). Land managers also believed that the list of important predators included 27 species of mammal and bird and rated Buzzard and Raven higher than did conservationists. The report explores carefully the various possible reasons for the differing views over some aspects of existing knowledge. The project identified much common ground between the different sectors, however, and it is hoped that it will be only a first step in encouraging them to work together to help breeding waders.

Graham Pyatt

By the end of the morning session, Peebles was basking in bright spring sunshine, just in time for delegates to enjoy the short stroll next door to the Green Tree restaurant, where a hearty hot buffet lunch was served.

Throughout the day, there was much promotion - not least thanks to Ray Murray's willingness to wear a bold 'For Sale' sign around his neck - of the chance to win a 'date' with Ray. The two highest bidders would be taken on a guided tour around mid-May to the best birding sites in the Borders on a quest to get 100 bird species in a day. The winning bids along with ticket sales for the many great raffle prizes on offer raised a staggering £700 for the South-Fast Scotland Atlas fund

Return of the Borders Ospreys Tony Lightley (Tweed Valley Osprey Project)

Forest Enterprise Scotland Environment Officer Tony Lightley started his entertaining talk with a description of the Osprey and its biology. It has a wingspan of 5–6 feet, its eye colour changes from orange to yellow with age (in contrast to Accipiters which do the opposite), it has specialised feet for grabbing and retaining slippery fish, and a one in four success rate when hunting for fish. Except, presumably, when hunting at a trout farm - Tony showed an amazing photo of an Osprey carrying two fish, one in each foot! The usual clutch size is three eggs (or two with young females) and most ringing recoveries of Scottish Ospreys have been in Gambia, Senegal and elsewhere in West Africa.

Back in the 1990s, the only Ospreys seen in the Borders were those flying over on their way north. Tony and his colleagues realised, however, that there was much potentially good breeding habitat there, particularly along river systems like the Tweed. So they started the Tweed Valley Osprey Project (TVOP), erecting nesting platforms on the tops of suitable trees. Their criteria for where to build the platforms were: water bodies with fish should be no more than eight miles away, platforms should be sturdy enough to last at least ten years, there should be easy access, minimum disturbance, landowner permission, and in a few sites appropriate line of sight to allow CCTV coverage.



Plate 124. Tony Lightley. © David Palmar/ www.photoscot.co.uk

There is now confirmed Osprey breeding in ten 10-km squares in the Borders, mostly along the Tweed, and 33 chicks have been reared in 13 occupied sites since 2003. Tony and his colleagues deserve great credit for this and also for the success of TVOP's community involvement. Visitor Centres at Kailzie Gardens and Glentress Forest, manned by volunteers, have attracted hundreds of visitors each year since the first CCTV coverage of local nests commenced in 2003. And to celebrate ten years of successful breeding by one Osprey pair monitored by CCTV, in 2013 children in P4/5 classes in St Ronan's Primary School in Innerleithen collaborated with TVOP and The Friends of Kailzie Wildlife to produce a delightful illustrated booklet entitled Osprey, Time Flies. Tony finished by telling us about recent satellite tagging of young Ospreys, including one which, unusually, has so far remained in southern Spain and Portugal.

John Savory

Merlins in the Lammermuirs Alan Heavisides (Lothian & Borders Raptor Study Group)

Alan calls himself an amateur ornithologist, but together with Ian Poxton, Andrew Barker and others, he has worked for 30 years on a study of Merlins in the Lammermuir hills, which is an amazing commitment by any standards. His interest in Merlins was first awakened by a teacher in 1966 as a schoolboy in South Shields: Fred Gray, an ornithologist who took his pupils on field trips to see raptors. This made a huge impression on Alan after which he wrote an essay entitled "A day in the life of a Merlin". He has remained interested in the birds ever since.

From 1984 to 2014, he and Ian surveyed the 350 km² of the Lammermuirs regularly and systematically, becoming well known by the local keepers and farmers who managed the land mainly for grouse shooting, with some sheep-farming, although the latter has since decreased.

Their aim was to monitor population numbers, breeding success and prey of all Merlins in the area. As amateurs, this was mainly done at weekends until they retired. On an annual basis, they managed to visit all sites where Merlin had been noted, checking in March for signs of activity, April for examining nests for egg numbers,



Plate 125. Alan Heavisides. © David Palmar/ www.photoscot.co.uk

May/June for hatching success and ringing the young, and later to check if all had fledged.

There were 30 known territories, which showed peak occupancy in 1989, remaining stable between 1993 and 2005 since when the number of occupied sites has been steadily falling despite nest productivity remaining the same. Possible reasons were thought to include land management with increased burning regimes, and changes to farmland practices resulting in reduced availability of small birds as winter prey. There seemed to be a failure of the birds to return the following year, despite minimal predation and disturbance. Alan believes there are many unanswered questions about what happens to Merlins post fledging. Numbers have equally dipped elsewhere and they are now on the Red List of National Concern.

Alan, Ian and Andrew are about to publish a paper on this important, thorough and exemplary piece of research, which is worthy of any professional ornithologist.

Judy Greenwood

Urban Sparrowhawks and how you can get involved in raptor monitoring *Mike Thornton and Amy Challis (Lothian & Borders Raptor Study Group and Scottish Raptor Monitoring Scheme)*

Mike Thornton provided an information-filled presentation, focused upon the Edinburgh Urban Sparrowhawk Monitoring Project. This is an ongoing Lothian and Borders Raptor Study Group project that, since 2009, monitors the breeding success and numbers of Sparrowhawks within the Edinburgh City Bypass.

156 | Scottish Birds 36:2 (2016)

Mike began with a summary of Sparrowhawk identification and ecology. They are very sexually dimorphic, with the female being larger, reflecting the strong division in roles between the sexes during the breeding cycle - the female does all the incubation and chick rearing and the male does most of the hunting. The barring pattern on both sexes' chests is believed to help them to catch their prey.

Unfortunately, Sparrowhawks had experienced considerable persecution by humans, often associated with game management. There was a respite during and after World War II as there were fewer gamekeepers. But then populations were greatly reduced again by the introduction of organochlorine pesticides. Happily, the use of these chemicals was banned in the 70s and 80s and the Sparrowhawk population has bounced back.

The monitoring project is informed by Mike McGrady's study of Sparrowhawks during 1986–89. Edinburgh's mix of habitats, and additional feeding of garden birds, clearly suits Sparrowhawks. They have become somewhat habituated to humans, with reports of a female observed with her Woodpigeon kill in the centre of the Royal Mile, and regular breeding taking place at the Botanic Gardens since the 1980s. There are over 40 known home ranges within Edinburgh and each of these is monitored for occupancy, followed by locating active nests and then recording clutches and hatching success. A clutch of five is most common within Edinburgh, accounting for 50% of all clutches recorded.

Another aim of the study is to enable students to carry out research on this often secretive species. To this end, over 150 chicks have been colour ringed each year. There have also been three undergraduate research projects completed. One was an analysis of prey species from pluckings by Kate Helliwell. It was notable that the results of this mirrored the known decline in the House Sparrow population. Another thesis involved recording behaviour of a pair nesting in the Botanic Garden Edinburgh via a video camera. Here it was observed that there were more prey deliveries when compared to a rural nest site.

There is much PR effort associated with this excellent project and over 40 volunteers have been involved. You can find out more from the Edinburgh Hawkwatch website: www.edinburgh-hawkwatch.org.uk

Amy Challis, the Scottish Raptor Monitoring Scheme officcer, introduced the pilot of the new Raptor Patch initiative. The target species are Buzzard, Kestrel, Sparrowhawk and Raven. Currently, these more common raptors are underrecorded: general bird surveys are not good at picking them up, likewise with surveys of rarer species. For instance, in 2014 just 53 pairs of Sparrowhawk were monitored in Scotland, 15 of which were in Edinburgh! The initiative will also serve as an introduction to raptor monitoring, with the typical patch being a manageable 2-km square that well-represents the local habitat. The survey work includes the usual tasks of finding occupied territories and then establishing clutch size and breeding outcomes. The Scottish Raptor





Plates 126-127. Mike Thornton (left) and Amy Challis (right). © David Palmar/www.photoscot.co.uk

Monitoring Scheme Website (raptormonitoring.org/raptor-patch) contains more information, including a simplified methodology based upon *Raptors: a field guide for surveys and monitoring*. This book is also now available to download chapter by chapter (raptormonitoring.org/need-advice-on-monitoring).

Mike Beard

Chris Wernham then chaired a question and answer session for the raptor speakers. The first question was in fact addressed to Chris herself in relation to her morning presentation about the Moorland Forum's current Understanding Predation Project. This led to a proposal from the audience that more pressure should be put on politicians to redress cuts in funding for prevention of wildlife crime and particularly persecution of raptors. Concerns were also expressed about land management, habitat impoverishment, tree removal and windfarms.

Playing devil's advocate, in his question to the panel, John Savory suggested that in (admittedly very labour intensive) long-term studies of raptor populations there is rarely sufficient additional information on contributing factors like prey availability to permit identification of underlying causes of population change with any confidence and that there may therefore be a tendency to sometimes arrive at unjustified conclusions. John quoted Alan Heavisides' excellent study of Merlins in the Lammermuirs as a good example, stating that in his talk. Alan showed a long-term decline in numbers of occupied territories and breeding attempts over about 20 years, but no apparent change in breeding success. The reason for this decline was unclear. He appeared to have no information, however, on numbers of the main prey species (presumably Meadow Pipit, Wheatear, Skylark) in his study area, and yet at a national level there have been declines in all these species over the same period (www.bto.org/volunteer-surveys/bbs/latestresults/trend-graphs). The suggestion was that these in turn may reflect an apparent dramatic reduction in a global index of all invertebrate species over the past 40 years (Dirzo et al. 2014. Defaunation in the Anthropocene. Science 345 (6195): 401-406). So were the Merlins in the Lammermuirs taking larger (and hence fewer) territories to maintain the same prey availability to allow the same breeding success? This theory seemed to be met with a degree of scepticism.

'Oh no, not him again!' Chris Rose

Yes, it was him again, and what an artist Chris is. Over the years we have watched and listened to him at several conferences and his mastery never seems to wane. People's preferences in artwork vary widely. My own is for accuracy and beauty, and Chris's paintings fit the bill perfectly.

His overall theme this time was one of water and he began by showing some paintings of marine subjects, mostly from the Borders' coastline. From stormy seas to ripples on sandy beaches, one could almost feel the wetness, and the reflections on wet rocks never cease to amaze. Of course, there were birds as well, from Purple Sandpipers narrowly avoiding breaking waves to the quiet reflection and shadow of a Black-headed Gull standing in shallow water.

Following an undersea art award, not only did Chris have to don diving equipment, but also learn to sketch underwater. His attempts to cope with currents and buoyancy did not interfere with his skills, even though perspectives and horizons are quite different underwater. Back at the studio, the resulting paintings of seas, jellyfish, inquisitive seals and corals were undoubtedly first class, even to the underwater depiction of surface ripples revealing the sky above.



Plate 128. Chris Rose. © *David Palmar/www.photoscot.co.uk*

158 **Scottish Birds** 36:2 (2016)

Chris also conveyed his audience through the progression of artwork, from the initial sketches to the finished article. One example was of a Long-eared Owl roosting in Sea Buckthorn. Firstly, the bird was sketched, and then work progressed through adding a myriad of twigs and a foreground of reeds, introducing colour and finally painting the berries, each one a mastery in itself. How one would like a whole houseful of Chris's work! His talk was a real treat.

Norman Elkins

Recording Scotland's rare breeding birds *Mark Eaton (RSPB/Rare Breeding Birds Panel)*

The last talk of the day was by Mark Eaton, Chair of RBBP. He spoke about the panel: what it does and why. It is an independent group founded in 1972 and funded by RSPB, JNCC and BTO. The members are volunteers but various organisations are represented and there is a professional secretary.

The panel collates information on all rare breeding birds in Scotland: it encourages monitoring, maintains an archive and website and produces an annual report, so that data is not lost. There are around 80 species which have fewer than 2,000 breeding pairs plus another 100 or occasional breeders and nonnative species are also recorded.

Mark went through the various categories, illustrating each with an example, such as Corncrake (1,000–2,000 pairs); Pochard (300–1,000 pairs); Black-throated Diver (<300 pairs) and even rarer species such as Wood Sandpiper with fewer than 30 pairs. Common Rosefinch was given as an example of an occasional or potential breeder and Snow Goose as a non-native species that does breed. The panel collates data from various sources such as RSPB staff, scientists, "specialist amateurs" such as raptor groups, nest records and most especially from local bird reports.

As for why, Mark listed several important reasons such as setting conservation priorities (red/amber lists), assessing conservation schemes, enabling research and identifying sites requiring special protection.



Plate 129. Mark Eaton. © David Palmar/www.photoscot.co.uk

He then showed the list of Scottish rare breeding species, one third of which are confined to Scotland and he gave examples of various species with comments on their present status. The main theme of this closing part of the talk was that many species are poorly recorded for various reasons and he made a strong plea to increase recording by looking at potential sites, checking back on sightings (whilst avoiding disturbance) and keeping the local recorders (or BirdTrack) informed.

Melvin Morrison

Chris Wernham closed the conference and then invited delegates to join her and colleagues at the local Italian restaurant, Franco's, which had been booked for dinner. The sun continued to shine for the following day's scheduled outing to Thornielee forest. An estimated 30–50 delegates visited the site during the course of the morning so there was plenty of opportunity to socialise while waiting for the birds to perform. A total of around 30 species were counted - not bad for an inland spot at a single location! Fortunately, this included the much-anticipated Goshawk; three were spotted, albeit not visible for very long, over about 10 sightings. The copulating Buzzards provided additional entertainment.

All in all, a very enjoyable conference, thanks largely to careful organisation and planning by Ben Darvill and Anne Cotton at BTO Scotland, and SOC Borders branch committee members, Ray Murray and Vicky McLellan. And of course sincere thanks to all the speakers whose excellent talks made for a varied, informative and entertaining programme.

NEWS AND NOTICES

New members

Ayrshire: Mr S. Inglis, Mr J. McPike, Borders: Ms M. Alcock, Mr R. Jamieson, Mr A. Martin, Dr D. McGarvie, Mrs F. Ryan, Caithness: Dr E. Masden, Mr & Mrs M. Thain, Clyde: Mr B. Beer, Ms M. McClair & Mr D. McDermott, Mrs I. McCulloch, Mrs J. Miller, England, Wales & NI: Prof K. Bennett, Mr N.D. Hand, Mr A. Harrop, Miss A.R. Price, Fife: Mr J. Cullen, Mr & Mrs P. Edwards, Highland: Mr C. Holliday, Mr D. Patterson, Mr A. Williams, Lothian: Mr & Mrs J. Blair, Mr M. Clarke, Miss P. Crerar, Mr J. Deacon, Dr & Dr D. Donaldson, Mr C. Finnie, Ms S. Japs & Mr R. Parsons, Mr S. Mathieson, Mr J. Maxwell, Mr I. McMullan, Dr S. Meddle, Ms L. Scott, Miss L. Shearer, Ms A. Thomson & Ms M. Young, Mr & Mrs G. Wilson, Moray: Mr & Mrs G. Larrington, Mr R. Somers Cocks, North-East Scotland: Mr E. Duthie, Mr D. Gregory, Mr B. Hill, Mr D. Malcolm, Mr I. Middleton, Mr A. Short & Ms I. Scott, Overseas: Lady E. Fowler, Mr W. Frange, Stewartry: Dr P.J. Garson, Mr & Mrs R. Lucas, Mr D. Rowson, Mrs S. & Ms J. Wood, Tayside: Mr J. Harrison, Mr G. Wilson.

200 Club

The latest prize winners are: February: 1st £30 Mrs Bielby, 2nd £20 Miss McCulloch, 3rd £10 Mrs Mylne. March: 1st £30 Mrs Denney, 2nd £20 Ray Murray, 3rd £10 T. Daniels. April: 1st £30 R.L.Gardner, 2nd £20 Mrs Leckie, 3rd £10 David Parkinson.

Details on how to join can be obtained by writing to Daphne Peirse-Duncombe at Rosebank, Gattonside, Melrose TD6 9NH.

Conferences

SOC Annual Conference & AGM, 23–25 September 2016. Atholl Palace Hotel, Pitochry (the programme, AGM agenda and booking information are enclosed with this issue)

Waterston House

New summer opening hours

Waterston House is now open 10 am-4 pm throughout the year (previously weekend opening hours were 12 noon-6 pm).

Discover moths

Tuesday 12 July, 9.00–11.00 am FREE event. Join East Lothian Countryside Ranger, John Harrison, to learn all about the amazing variety of moths to be found in the SOC HQ's garden. Come and marvel at the range of shapes and colours in the moth world as we study them close up before setting them free from the overnight moth trap. No booking required.

Art exhibitions

- Richard Allen and Jan Wilczur Saturday 28 May to Wednesday 20 July
- Jo Ruth Saturday 23 July to Wednesday 14 September
- Lisa Hooper Saturday 17 September to Wednesday 16 November



Plate 130. Guillemots. © Lisa Hooper

160 | Scottish Birds 36:2 (2016)



Plate 131. Barn Owl in flowering chestnut. © Jo Ruth

Evening Goose talk & watch

Thursday 29 September & Tuesday 4 October, 5.30 pm, £4.00 SOC members/child (£6.00 non-members). An entertaining illustrated talk by John Harrison (see below) on the migrating geese that descend on the county in their thousands each autumn. The talk is followed by the opportunity to watch the Pink-footed Geese fly in to roost on nearby Aberlady Bay. Places are limited so advance booking is essential. Refreshments served.

Morning Goose walk

Saturday 8 October, 7.00 am, £4.00 SOC members/children (£6.00 non-members). A guided walk led by John Harrison (see above). A gentle stroll from Waterston House to Aberlady Bay and back is a great opportunity to learn all about the geese as you go and to catch the spectacle of the birds taking off for the day to feed in the surrounding countryside. Price includes tea/coffee and a breakfast roll back at Waterston House. Advance booking essential.

Optics Demo Day

Sunday 16 October, 10 am—4 pm, Free event. A wide range of binoculars and telescopes to try out in field conditions. Or pop in for some free, friendly expert advice. If there are any models

that you are particularly interested in looking at, please let us know and we will do our best to have these available for you to try at the event.

Electronic renewal reminders

In a bid to be greener as well as reduce costs, headquarters will now be sending out membership renewal reminders electronically, where we have an email address on file for members (where we don't have an email, we will continue to send reminders by post). Ereminders will be sent via the online marketing facility, 'Mailchimp', and should arrive in your inbox around 3–4 weeks before your renewal date. If you haven't received an email, it is worth checking your Junk mail folder as Mailchimp correspondence can sometimes be flagged as spam. If there is still no sign, please give us a ring on 01875 871330 to make sure we have the correct email address for you on file.

Branch updates

Fife: Malcolm Ware (recorder), change of email: malware74@icloud.com

Highland: Peter Gordon (recorder), change of email: recorderhighland@outlook.com

Orkney: new secretary/vice-chair: Helen Aiton, Cuppar, Evie, Orkney DW17 2PJ, tel: 01856 751482. email: helendavidaiton@hotmail.co.uk Helen joins Peter Slater (chair/treasurer) who has single-handedly been keeping the branch afloat for the past 18 months, assisted by Jane Cleaver at SOC HQ. Council thanks Peter for helping to navigate the branch through this challenging time and is delighted that he and Helen have joined forces in order to secure a promising future for the local group.

Argyll Bird Report, Volume 26 - with Systematic List for the year 2014. This volume was published in March 2016. SOC members can buy copies from the Argyll Bird Club via Bob Furness for £10 per copy including packing and postage to a

UK address. Please send a cheque payable to 'Argyll Bird Club' to Bob Furness, The Cnoc, Tarbet, Arrochar, Dunbartonshire G83 7DG. Copies are also available for sale at Waterston House, priced at £8.00 each.



Welcome to Highland Birds

The Scottish Ornithologist's Club was established in 1936 and exists to promote the study, enjoyment and concernation of wild birds and their habitats across Scotland. This is the website of the Highland Branch of the SOC, which coordinates recording and activities, with regular meetings and outlings.

Highland is the largest recording area in Scotland and supports a huge range of habitats which in turn host a wide range of



Plate 132. Screen-grab of the SOC Highland branch website.



Plate 133. David Clugston (left) receiving his presentation from Alan Knox, Waterston House, February 2016. © Alan Knox

162

SOC Highland branch website

Highland SOC are pleased to announce details of the SOC Highland Branch website which went live in early April. The website address is www.highlandbirds.scot. The Latest Sightings page shows what has been seen recently in the area and will be regularly updated. The Gallery has pictures of past rarities. Take a look now and enjoy!

Correction

Bernie Zonfrillo points out that Ailsa Craig is part of the Ayrshire recording area and not Clyde Islands. *Scottish Birds* 36 (1): 15.

Library hand-over

David Clugston, who recently stepped down as Chairman of the SOC's Library Committee after 36 years in the post, recently received a presentation from his successor, Alan Knox, who has no plans to try and beat this record of service (Plate 133). David joined the committee as far back as 1976 and steered the growth and development of the library through many critical years, including the move out of Regent Terrace and into the splendid facilities at Waterston House. David's experience is not being lost, however, as he is remaining on the Library Committee as the Club's Honorary Librarian.

Scottish Birds 36:2 (2016)

From the Library Visitors' Book courtesy of David Bates: *The Destruction of Shortbread* (loosely based on Byron's The Destruction of Sennacherib)

The Committee came down like the wolf on the fold

And devoured all the biscuits - three packets all told

And drank coffee and tea all the day without halt

Til the chairman went home with a nice single malt

Scotland the Best

Waterston House is included in Pete Irvine's latest (12th) edition of Scotland the Best, a bestselling guide to Scotland for over 20 years, featuring, not surprisingly, the best of what Scotland has to offer. Congratulations to

13th International Seabird Group Conference, 6–9 September 2016, University of Edinburgh

Three days of talks on all the latest topics in seabird ecology, including further plenary talks from top researchers in the field. For programme and booking details, visit www.seabirdgroupconference2016.info

everyone who has made this accolade possible.

Highland SOC fly the flag for the Club at the Highland Wildlife Fair, University of the Highlands and Islands Campus, Inverness

A small team of volunteers from the Highland Branch (Carol Miller, David Galloway, Carol James and Alex Joss) recently attended the first ever Highland Wildlife Fair on behalf of the branch. Organised by the Highland Environment Forum, the one-day event featured stalls, talks, guided walks and exhibitions showcasing the many different projects underway to protect and conserve Highland wildlife. By all accounts it was a successful day for the team who spent the day enthusing visitors about the Club and local branch activities. At the time of writing, their appearance at the Fair had also generated at least one new membership for SOC!

If you spot an event you think would be worthwhile for your branch to attend, contact Headquarters for advice and materials!

SOC Annual Report & Accounts 2015/16

The annual report will be circulated with the September issue of *Scottish Birds*, as usual. However, the report, along with the full Club accounts, will be available to view or download from the SOC website from 22 August. Visit: www.the-soc.org.uk/about-us/what-we-do

SBRC - seeking a new member for the committee

SBRC is seeking a new member for the committee to replace John Sweeney, who retires later this year. To maintain geographical representation across Scotland SBRC would prefer a candidate from south and west mainland Scotland. Any potential candidates should send their name to the Secretary (Chris.McInerny@glasgow.ac.uk). If more than one name is put forward, a ballot will be instigated, with Local Recorders having one vote each.

Chris McInerny, on behalf of SBRC



Plate 134. Carol Miller and David Galloway at the SOC stand talking to some of the people attending the Highland Wildlife Fair, Inverness, April 2016. © *David Galloway*



Plate 135. A Sunderland flying boat of 201 Squadron on patrol out of Sullom Voe, Shetland, 1941. © RAF Museum, London

Summer 1941

The Royal Air Force is at full stretch against the Luftwaffe. U-boats are attacking convoys in the Atlantic. Unperturbed, RAF Coastal Command is about to begin aerial photography of Scottish seabird colonies during its patrols. By peacetime, these sorties culminate in naturalists being aboard Sunderland flying boat expeditions in 1946–47.

The initiator is ornithologist James Fisher, the man who 'invented the Fulmar' and also 'annexed Rockall.' In 1941, he asks Coastal Command to help document the spread of Fulmars by photographing their likely breeding islands. The photographs should also help to investigate whether seabirds nested on isolated Rockall.

Approval is granted "in a most prompt and friendly manner" by Air Vice-Marshals Geoffrey Bromer and James Robb. "These gallant

officers took a personal interest in the problem of Rockall and in many other natural history problems of Britain's edge," wrote Fisher. "I found myself in the years following, visiting nearly every Coastal Command station in the Western Isles of Scotland; and through this liaison between the British Trust for Ornithology and Coastal Command, I was able to collect much detailed information about the distribution of seabirds, particularly the Fulmar, from air photographs and from observations by airmen in the neighbourhood of their stations."

As James Fisher recalled: "On no less than five occasions in 1941 and four in 1942, aircraft of Coastal Command took photographs of Rockall, on which birds could be identified. I well remember my excitement at the arrival of the first print. It was a huge photograph (taken on 19 June, 1941), as crisp and sharp as could be ...", showing a Gannet and just over 50 Guillemots on the rock.

164 **Scottish Birds** 36:2 (2016)

May 1945

There are 24 or 25 Guillemots, "half-a-dozen of them ...crouching in the attitude of incubation." Two months later, the first professional ornithologist to fly over Rockall is Flight Lieutenant Robert Hinde. Captaining his RAF Sunderland on several runs over the rock, he observes Guillemots, but no evidence of breeding. (Post-war, Robert Hinde became an internationally eminent zoologist and ethologist, including holding posts as Royal Society Research Professor at Cambridge and then Master of St John's College).

The next naturalist overhead is Highlands & Islands wildlife author Seton Gordon, on 24 June, 1946, in an RAF Sunderland out of Portree via St Kilda. He reported: "After we had made nine runs over Rockall, half-a-dozen Guillemots still sat doggedly. There was, I think, little doubt that these six birds were brooding eggs, for their brooding attitude was characteristic." But this was not proof positive. As Seton Gordon acknowledged, "a number of our younger ornithologists have set their hearts on clearing up the mystery. Good luck to them."

30 July 1947

From Stranraer to Rockall and back in nine hours of perfect visibility, flat-calm weather, not a single bump! Aboard the RAF Sunderland, James Fisher leads the observers: photographers Eric Hosking and Robert Atkinson, polar zoologist Brian Roberts, ornithologist Christopher Lewis and retired colonial official Sir Frederick Whyte.

At Rockall, "all the Guillemots we saw were adults," noted Fisher. "We looked very carefully for young, particularly on the three close runs devoted to pure observation without photography, when six pairs of eyes were searching for nothing else. There was no young Guillemot on Rockall, or on the sea within a mile or so of it... The Kittiwakes were not breeding, and did not have any nests, or any traces of nests."

The return flight was via the Flannans, the Butt of Lewis and the Minches, "calling at all the wonderful bird islands on the way, suppressing our excitement in the tasks of accurate photography and quick, precise observation," enthused Fisher. "At the end of the day we had



Plate 136. Flight Lieutenant Robert Hinde, 1943 or 1944 - the first professional ornithologist to fly over Rockall. © *Hinde family*

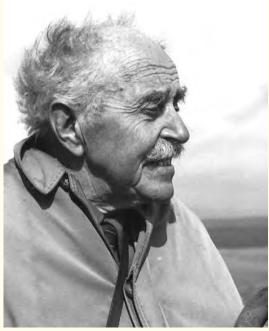


Plate 137. Seton Gordon, in later years - the first naturalist to fly over Rockall. © SOC archive, courtesy of Arthur Ferguson

discovered at least eight hitherto unknown colonies of the Fulmar..." He added that the spread of the Fulmar "has been very carefully watched, but colonies in the remoter parts of the Hebrides are extremely difficult to find except from the air."

"James was in his element," reminisced Eric Hosking. "He was calling out, Fulmars to starboard - small breeding colony, no more than ten pairs," or "I say, chaps, can you see those Fulmars on the port side - must be a new colony..."

Fisher switched from in-flight exuberance to atdesk 'officialese' when later reporting to the Royal Society: "The collection of photographs by a trained team of biologists with a professional nature photographer is infinitely better than the taking of random photographs from an ordinary RAF flight. The biological party knows exactly what it wants and can get it by inter-communication and cooperation with the air crew." Robert Atkinson agreed: "This was a proper use for an aeroplane ...the flying omnibus, the RAF Sunderland, its guns and bombs left at home. James Fisher had borrowed it for a day, for a survey of bird cliffs under the aegis of Airborne Research Facilities" - these facilities were coordinated by advisers to the Air Ministry and the Royal Society.

Atkinson mused: "One by one, every single outlier of the Hebrides was to pass below the flying boat's wing; so easy - in one day each island I had struggled to at sea level was brightly mapped from above. My twelve years (of island going) were telescoped into one day."

18-19 September 1947

An often turbulent Sunderland flight over Welsh and Scottish islands, in search of Grey Seal colonies, while also recording seabirds, especially Fulmars and Gannets.



Plate 138. Sunderland flight of 30 July 1947. The naturalist civilian observers are (left to right): James Fisher, Robert Atkinson, Sir Frederick Whyte, Brian Roberts and Christopher Lewis. Captain is Flying Officer Cookson, navigator Flying Officer Davies, radar operator Flying Officer Adams. Photograph by Eric Hosking. © *The Eric Hosking Trust*

166 **Scottish Birds** 36:2 (2016)

Again James Fisher is in charge. His observers are Eric Hosking (photographer), Max Nicholson (BTO), Stephen Potter (BBC), Keith Piercy (Bedfordshire Natural History Society), Brian Roberts (now polar specialist at the Foreign Office), Bruce Campbell (ornithologist), J.L. Davies (mammologist) and Skokholm island's R.M. Lockley. Ronald Lockley was a prolific author (over 50 books) and yet uncharacteristically he seems not to have written a word about this Sunderland survey.

From Wales, where Lockley's family wave as the flying boat passes over their farm, the route is via the Isle of Man, Ailsa Craig, overland to the Bass Rock and up the east coast to an overnight berth near Invergordon.

Next morning, naturalist Frank Fraser Darling joins the expedition. "Within half an hour (of take-off), as he craned his neck out of the hatch, the airstream whipped off his cap," remembered Eric Hosking. Worse was to come as the Sunderland flew through rough weather over the Northern Isles, North Rona, Sula Sgeir, the Flannans, St Kilda, the Butt of Lewis and Cape Wrath back to Invergordon.

"We were slightly embarrassed by having, at one time, nearly half the civilian observers incapacitated with air sickness," admitted Fisher, "as the flight was very bumpy."

None was more stricken than Fraser Darling, as Eric Hosking witnessed: "I shall never forget seeing him terribly air-sick, forcing himself to look out of a port-hole at [North Rona] the island he knew so well and then sink back into his bunk." Darling himself sighed: "Magnificent, but I was very ill, and all [those islands] in one day."

Nevertheless, this flight, and its precursors, had gathered valuable observations and photographs of Scotland's seabird sites and Grey Seal nurseries, including new seal colonies in Orkney and Shetland and rediscovery of "an immense colony on the Hebridean island of Gasker".

In his closing report to the Royal Society (Fisher 1947), James Fisher declared: "It would be extremely interesting to have a complete aerial survey of Fulmar colonies around Britain" and

"an aerial tour of Orkney and Shetland particularly would be valuable".

His report went on expansively to propose airborne ornithological reconnaissance of Ireland's shores, saying "a map of the Irish Fulmar colonies could be secured from the air in two days". Too, the report ambitiously urged cooperation with Norway to air survey its coastal wildlife - adding for good measure that "an aerial survey of the Channel Isles and coasts of France and Normandy would be most valuable."

Such were Fisher's inspired flights of imagination for the future - but alas what became of any of them?

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Acknowledgements

Thanks for help and encouragement go to Karen Bidgood, Michael Brooke, David Clugston, Michael Hayward, Joan Hinde, David Hosking and Stuart Murray.

> Peter Holt Email: peter.holt@bluewin.ch



Plate 139. Woodcock. © Richard Chandler

To help to take the pressure off declining British-breeding Woodcock, many estates are already delaying the start of the Woodcock shooting season. How might this make a difference? (This is a modified version of an article published in *Shooting Times* on 30 September 2015)

Each autumn, the British population of Woodcocks is swamped by the arrival of up to a million birds, returning from northern Europe and Scandinavia. The exact timing of their migration is very much influenced by weather, with birds crossing the North Sea as early as October or as late as December. The numbers each year are thought to vary markedly, reflecting peaks and troughs in the size of the European breeding population, annual chick production, the amount of frost and snow on the other side of the North Sea and the timing of periods of cold weather.

A quick look at the bag index for Woodcock, produced by the Game & Wildlife Conservation Trust (GWCT), shows annual variation in the numbers shot each winter but no downwards trend. Hunting appears to be sustainable. Unfortunately, there is a problem; Britishbreeding Woodcock are in serious decline and there is no way to differentiate between a local bird and one from continental Europe. As the Woodcock tracking **GWCT** project (www.woodcockwatch.com) has shown, birds share the same woodland habitats during winter months. Mara and Jack, for instance, two birds caught in March 2014 on Islay (Argyll), have very different annual stories to tell, with Mara breeding locally and Jack migrating to Russia.

A shrinking distribution

Bird Atlas 2007–11 confirmed that our Woodcock are in trouble (Figure 1). Between 1968–72 and 1988–91, the number of 10-km

atlas squares where Woodcock were present fell from 1,439 to 917, representing a decline of 36%. By 2008–11, the number was down to 632, a further drop of 31%. In the 1968–72 Atlas, Woodcocks were generally widespread, with birds absent only from parts of southwest England and Wales and easy to find from the North Midlands through to northern Scotland, other than in the highest mountains. Fragmentation that was becoming apparent in 1988–91 was glaringly obvious in 2008–11, especially in the south and west. In Ireland the situation, if anything, looked worse.

These early results from Bird Atlas 2007–11 confirmed that there was an urgent need for a special Woodcock survey, to try to assess numbers as well as distribution. This was organised for 2013, before the publication of the Atlas. The GWCT and BTO wanted to replicate the survey they had organised in 2003, which suggested that the breeding population across Scotland, Wales and England included just over 78,000 territorial males.

Andrew Hoodless of GWCT has shown that the number of Woodcocks observed during a standard evening watch period provides a good index of local abundance, so the national survey just necessitated the deployment of hundreds of birdwatchers, who were asked to visit chosen sites, many of which had been visited ten years previously. Standing at dusk and listening to the distinctive roding calls of male Woodcocks, as they patrol the boundaries of their territories, provides magical moments for lucky birdwatchers. However, the chance of success in many parts of the country was far lower in 2013 than it had been in 2003. A paper, with a full regional analysis, has just been published in Bird Study, revealing an estimated fall in numbers of 30%, to just over 55,000 roding males (Heward et al. 2015). As suggested by the Atlas distribution maps, percentage losses were higher in Wales and England than in Scotland. There was a similar north-south split in the results for Scotland, with much higher losses in southern areas. Northern Scotland may now hold up to 43% of the British breeding population, although this figure is based on relatively sparse survey coverage.

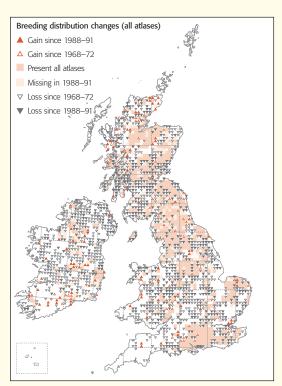


Figure 1. The shrinking breeding distribution of Woodcock in the UK and Ireland. The Bird Atlas 2007–11 shows that breeding Woodcock are disappearing from southern and western Britain, as well as from Ireland. Downwards pointing black arrows show losses, with bigger symbols indicating recent changes.

The main aim of the 2013 Woodcock survey was to assess the population, rather than to understand the causes of decline, but it is interesting to note that there were smaller losses in the largest areas of woodland. More detailed studies have suggested that larger woods may offer a greater diversity of habitats and damper micro-climates in which to feed. Booming deer populations are having major effects on a lot of English woodlands; by browsing the vegetation they can open up the understorey, thereby removing nesting habitat and drying out soils. There are probably several factors driving down the breeding population and it has been suggested that recreational disturbance and over-winter hunting of resident birds could each be playing a part in declines.

Changes to the hunting season?

One way to help our breeding Woodcock may be to change the start of the shooting season, currently 1 September in Scotland and 1

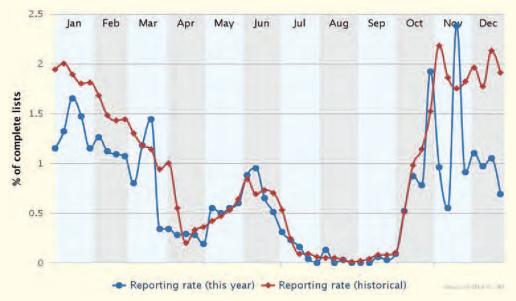


Figure 2. The 'occurrence rate' of Woodcock on BirdTrack lists for 2015 (blue line) and historically (red). These lists provide fascinating information about the timing of migration, annual breeding patterns and species' abundance. See www.birdtrack.net to learn more.

October across the rest of the UK. Looking at historical BirdTrack data (Figure 2, red line), collected from species lists sent in by thousands of birdwatchers across Britain & Ireland, it is clear that there are virtually no continental Woodcock in these islands during September and precious few until at least the second half of October. The pattern varies markedly each year. The blue line for 2015 indicates a pulse of arrivals in early October, largely as observed by birdwatchers on the east coast, and another influx in November. It looks as if many birds that might have been expected to cross the North Sea before the end of December chose to take advantage of unusually warm conditions on the continent.

The BirdTrack pattern will come as little surprise to gamekeepers and shoot-owners, many of whom already restrict Woodcock shooting to the winter months, in order to minimise losses of local, resident birds. Game and Wildlife Conservation Trust scientists have been encouraging restraint in these autumn months for some while. Now, having analysed the results of the GWCT/BTO 2013 Woodcock survey and shown a further decline of nearly a third in just ten years, they are researching the potential impact of shooting on resident birds. This will include an assessment of whether a

170

formal change to the timing of the hunting season for Woodcock is required, in order to add an extra level of protection to resident birds.

The 2013 Woodcock survey was funded by the Game & Wildlife Conservation Trust, the *Shooting Times* Woodcock Club and a charitable trust. We are grateful to *Shooting Times* for giving permission for this updated article to be published in *Scottish Birds*.

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BOOK REVIEWS

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

Birds of Caithness including the Breeding & Wintering Atlas 2007–2012. Edited by P. Davey, S. Manson, E. Maughan, D. Ormand & J. Smith, 2015. Caithness SOC, DVD only, 458 pages, £15 + P&P.



It is to the great credit of the Caithness SOC branch that they have published this important work. Caithness is a remote area, with few local

birdwatchers, yet the team of six editors, plus Karen Munro as photographic editor, have produced a professional and attractive digital 'book' which includes the results of their tetrad atlas. And all within three years of the completion of the atlas fieldwork! I say six editors, though only five are listed on the frontispiece (see above). Iain Outlaw is, however, credited later as a member of the editorial team. All will be justifiably proud of this DVD (hereafter referred to as a book).

For your £15 you get a DVD and an eight-page booklet which asks five key questions about the birds of Caithness - all are answered within the pages of the book. Loading the disk in the computer presents the reader with six separate PDFs. One is the whole work, the others the same but split up to make access to the right part of the book easier, as explained in a 'Read Me' file. Purchasers also receive a code with which they can access an exclusive website where they can read the pages using a page turner format. This means that you can read this on a regular PC or laptop, or access it on an internet-enabled tablet and take it with you anywhere. Every page is laid out just as it would be in a book; there are no shortcuts to sections so you have to work through page by page. Sadly, this makes it harder just to pick up and dip into; a pity because this book is crammed with interesting and stimulating information stunning photographs of birds and habitats. You get full details of the atlas survey, papers on local ornithological history, landscape and a heartfelt view on the changes in bird populations and variety. Regular occurring species each have two pages which include sections on historical and present future trends, descriptions of the tetrad maps which are also shown. These accounts form the bulk of the book but there is another super section covering rare and scarce species recorded in the period 2007-2012, many illustrated with photographs of the birds within the county.

Perhaps the authors felt this DVD would have limited appeal as only 200 copies have been produced. It should be read by many more than that; if you have an interest in Scottish ornithology then I have no hesitation in saying that you should have a copy. A re-print will surely be necessary. Recommended.

Mark Holling

Cuckoos. Cheating by Nature.
Nick Davies, 2015. Bloomsbury,
London, ISBN 978-1-40885656-7, hardback, 289 pages,
£16.99/eBook £14.99.
Recently awarded BTO/BB Best
Bird Book of the Year 2015.

Recently, Cuckoos have become higher profile with the work that the BTO has been carrying out using satellite-tagged birds to reveal their previously unknown migration routes through Europe and their wintering areas in Africa.

The book includes this initial work, but looks mainly at the birds during

the five months that they are present during the British summer. There are eight pages of photographs and the start of each chapter is illustrated with a sketch by James McCallum, which help to reveal the secret life of



this species. Much of the information is based on the work carried out by the author at Wicken Fen, Cambridgeshire, where Reed Warblers are the primary host.

In the first few chapters, he describes the early references to the Cuckoo and its habitats and habits and includes the first systematic works on the species including the first photographic attempts. The species is rarely recognised by the general public, but its call is known to all, it is commonly included in folklore and he recounts many anecdotes about the bird.

In subsequent chapters he describes different hosts, especially Meadow Pipit and Dunnock and looks at differences in eggs and their colours, describing his own experiments with egg variations. He looks at the reactions of young Cuckoos to the chicks of their host species and their dumping from the nest. This is followed by observations on the development and growth of the young birds.

He describes foreign Cuckoos and their behaviour together with their different hosts, before looking forward to the future for the Cuckoo.

Nick Davies is one of the few academics who can write in an easy, informal style, readily understandable by birders. This is a great skill which makes this book a very good read; it's full of information and is recommended to all.

David Okill

Collins BTO Guide to Rare British Birds. Paul Sterry and Paul Stancliffe, 2015. William Collins, London, ISBN 978-0-00-755154-5, hardback, 304 pages, £30, ISBN 978-0-00-755156-9, paperback, £25.

This book is the companion volume to the excellent *Collins BTO Guide to British Birds*. It covers the rare and scarce birds that have occurred in Britain and Ireland, four times or more, up to September 2014.

One section covers advanced birding identification - with the caveat that all birders should know the common birds thoroughly using the Collins Guide, especially the sections dealing with hybrids etc.



This is a photographic guide and the photographs have been carefully chosen to show the key features of the birds as described in the text. It also covers jizz, vocalisation, status and habitat. Maps have

been deliberately excluded as vagrant birds can turn up anywhere, but mention is made of Scottish connections for some birds. Towards the end of the book there is a section on the 'rarest of the rare'; birds recorded three times or fewer in Britain and Ireland.

This is an excellent addition to the Collins stable and will be an asset to most birders' libraries.

Doreen Main

The Most Perfect Thing: inside (and outside) a bird's egg. Tim Birkhead, 2016. Bloomsbury, London, ISBN 978-1-4088-5125-8, Hardback, 288 pages, £16.99.

Tim Birkhead has so far produced nine outstanding bird books and here is a new one every bit as engrossing as the others. If you have ever wondered about reasons for the amazing variety in size, shape and colouring of birds' eggs, not to mention other fascinating details about their shells, what is inside them, how they are formed, fertilisation, laying, incubation and hatching, then this book tells it all, or nearly all.

Since he did his PhD on the breeding biology of Guillemots on Skomer Island, Tim has had a special interest in auk eggs,



particularly the large, boldly marked ones of Guillemots and Razorbills. Guillemot and Razorbill eggs differ in shape, and I had always accepted the claim that the more pointed Guillemot's egg was an adaptation so that it would roll in a narrower arc on the narrower ledges where the birds incubate, and not fall into the sea when they are disturbed. Tim dispels this myth convincingly, showing that this arc is not narrow enough to prevent large numbers of eggs falling into the sea, and that a more likely explanation is that the more pointed shape of the Guillemot egg "keeps the blunt end out of the muck". In other words, there is greater risk of faecal contamination where Guillemots lay their eggs than where Razorbills lay.

Tim has put an enormous amount of research into this book and there is much more to it than auk eggs. With nine chapters, plenty of historical anecdotes, numbered notes for each chapter, a bibliography 20 pages long, a glossary, a list of 150 bird species mentioned in the text, and some nice illustrations, it is a mine of information and beautifully written. The only thing I thought was missing is a description of the hormonal control of egg laying, which has been studied in poultry

and which is relevant when considering unusual laying behaviour like that of the Cuckoo.

John Savory

Other new books received in the George Waterston Library

British Birds - names, facts, myths. Geoff Green, 2015. Published by the author, ISBN 978-0-9933340-3-0, paperback, 166 pages, £7.95 from Amazon.

This book examines the wide range and meaning of local and common bird names, the derivation and meaning of the official vernacular English name and an analysis of the birds'



scientific name. It is a quirky, interesting book and the author has taken some time to research the folklore uncovering some fascinating tales. There is a section on collective nouns, handy for the next quiz! An interesting book with some fascinating facts about birds.

A Wealth of Wildlife - a year on a Highland Perthshire estate. Alan Stewart, 2015. Thirsty Books, Edinburgh, ISBN 978-0-9932828-3-6, paperback, 273 pages, £9.99.



The book is a culmination of a lifetime's knowledge of wildlife, the author guiding the reader into the secret lives of birds and animals in his

native Perthshire. It is written in a lively, conversational manner and includes an appendix on the topography of the estate and another with a summary of the birds and mammals identified.

Karen Bidgood

OBSERVATORIES' ROUNDUP

Observatories' Roundup is a regular bi-annual feature about our bird observatories in Scotland. The intention is to publicize the work of the observatories, visiting opportunities, as well as incidental snippets of news from the islands.

Fair Isle Bird Observatory

By the time you are reading this, we should be well towards the end of spring migration, but as I write it is mid-April and this morning's census was temporarily interrupted by snow showers. Despite today's weather, it's actually been a really good start to the spring for birding. The rarity highlights have involved a Hornemann's Arctic Redpoll, along with Great Grey Shrike and three Hawfinches, but the overall spring migration has been what has really caught the eye. So far, a remarkable total of five species have all set new Fair Isle arrival date records (Pied Wagtail 25 January, Great Skua 14 March, House Martin 4 April, Whitethroat 10 April and Tree Pipit 10 April), whilst Redstart (also 10 April) was the earliest in the Observatory's history and a Sand Martin (2 April) was the joint-earliest ever. Alongside this, there has been a strong push of some of the early migrants, which has resulted in record counts of Chiffchaff (87) and Black Redstart (ten), both on 13 April. Given the coverage of Fair Isle provided by the Observatory in the last 67 years, to achieve so many records in such a short time is very unusual and it will be interesting to see how the rest of the spring pans out and whether these early arrivals are matched by other sites in Scotland and the rest of the UK.

The earliest of the seabird work involves Tystie counts, in which the breeding-plumaged adults on the east coast are counted in the early mornings. The weather so far has allowed only one count, but it showed similar numbers to 2015. It's too early to say how things will go for the rest of the seabirds yet, but we will again spend a large part of the summer monitoring breeding numbers and productivity as part of the JNCC's Seabird Monitoring Programme, for which Fair Isle has been one of the four key sites in the UK since 1986. Although population plot counts are carried out for all species on an annual basis, some of the more numerous have their entire population counted on a five-year



Plate 140. Fair Isle Bird Observatory wardening team for 2016 (left to right): Lee Gregory (Assistant Warden), David Parnaby (Warden), Ciaran Hatsell (Senior Assistant Warden). All FIBO clothing featured is available via the FIBO website www.fairislebirdobs.co.uk!

rotation and this year one of the species for which we will count every nesting pair is Fulmar. The last count produced 29,640 pairs, making them Fair Isle's commonest seabird, so if you're on Fair Isle in June and you can't find any of the Wardening team, you can assume we'll be counting Fulmars somewhere around the island!

Speaking of the Wardening team, I'm joined this year by the same staff as 2015, with Senior Assistant Warden Ciaran Hatsell returning for his third season, Lee Gregory, back for his second year as Assistant Warden and Chris Dodd returning for his third full season as Ranger (a post supported by SNH). For those of you who enjoyed the food in 2015, you'll be please to know that Orlando has returned as Cook, whilst we're also pleased to have islander Alice Sinclair Best back as childcarer, so Grace and Freyja's Shetland vocabulary continues to grow!

David Parnaby, FIBO Warden.



Plate 141. Patio area at Low Light, Isle of May, April 2016. © Mark Oksien

Isle of May Bird Observatory

The Low Light

The improvement of the facilities at the Low Light continues. The new water tanks arrangement is working well, while the solar panels are delivering an excellent electrical supply while the sun shines, but less so when the clouds, rain and haar/fog take over! The patio at the back door and path around the north section of the Obs is now pretty much complete, but there is still some work to be done with the pipework to the septic tank and from the gas supply.

With the six successful applicants now chosen, 2 July sees the start of the third SOC-IoMBOT "Young Birders' Training Course" - more about this next time.

2015 - a record equalling year list

Last year finished with a grand total of 168 species recorded, equalling the record set as recently as 2013, and included three new birds for the island - the totally unexpected and amazing Red Grouse, a Great White Egret and an immature Pallid Harrier. Congratulations to the finders, and thanks to all who contributed records during the year.

2016 sightings

Winter trips to the Isle of May are few and far between but can be extremely revealing and rewarding. So it proved this year, with a stay from 11-13 January, with pride of place going to the isle's third record of Water Pipit which, although only seen briefly, was seen again on an early March trip and was still present until at least 30 March. Other early season highlights included a first-winter male Black Redstart which was found in January and also remained until late March. A Barn Owl on 11 January was only the 13th record for the isle, while a Long-eared and an impressive 21 Short-eared Owls were also present. A Black Guillemot was logged, while 20 Woodcocks and a Mealy Redpoll were notable.

Visits in early and late February revealed a similar range of species, but generally in lower numbers with single Buzzard, Sparrowhawk and Kestrel appearing throughout. The highlight was a Blackthroated Diver close offshore on 26 February, only the 10th record for the isle. A Mistle Thrush late in the month was notable with the first Pied Wagtails returning on 22nd. By 7 March the Short-eared Owl total had dropped to seven, while a Grey Wagtail was early and a Greenfinch was welcome given the decrease in numbers of late. The 15th saw the main arrival of Puffins offshore, but it was another week before they came onto land. The first Chiffchaff arrived on 24th with 10 on 26th along with an arrival of 40 Robins and 10 Goldcrests. A seawatch on 28th produced 12 Long-tailed Ducks, three Velvet & three Common Scoters and nine Red-throated Divers (the third highest day count).

On 4 April the first Swallow (2), Blackcap (2) and Wheatear (4) were amongst a good fall of 100 Fieldfares, 50 Redwings, 25 Blackbirds, 10 Song Thrushes and 25 Goldcrests. The 5th brought a record count of 80 Whooper Swans, with the year's first Ring Ouzel, Sand Martin, Brambling (7) and a scarce Yellowhammer. A Redstart on 6th was the third earliest ever on the isle. A male Stonechat on 10-13th was on a typical date for this scarce species, while another spring Mistle Thrush appeared on 11th. Four Black Redstarts were present on 15th and 17th yielded the first incubating Guillemot of the season. An adult Iceland Gull on 18th was the 18th island record, and a Grasshopper Warbler the same day was the earliest for 30 years, while a White Wagtail was the first of the year. The 19th brought a Hooded Crow amongst a passage of Carrion Crows heading south, and a single Dunlin and House Martin were the first of the year. A Tree Pipit and Collared Dove on 20th were year ticks while 22 Sand Martins and 147 Meadow Pipits were high passage counts. Single Rook, Snipe and Golden Plover were of note. Offshore on 21st, Tufted Duck (6) and Sandwich Tern (2) were the first of the year with another single Hooded Crow and a Tree Pipit seen. A lingering Whimbrel on 24th was the year's first, while two Short-eared Owls were still present before a period of cold northerlies brought things to a halt. Finally, southeasterlies with rain late on 28th brought a fall the following morning: both Whitethroat (2) and Common Sandpiper were the first of the year, but it was thrushes that dominated with the nine Ring Ouzels getting pride of place. An impressive spring total of 40 Song Thrushes and 12 Fieldfares were also present although most had moved on by 30 April.

Hoping for a tern in fortunes... Tern Terraces Following the breeding seabird season of 2015, a review of the nesting areas for both Arctic and Common Terns was conducted on the Isle of May. It was agreed to attempt to improve suitable nesting areas through a combination of tried and tested management techniques, mainly in the form of specially designed 'Tern Terraces'.

The area beside the Old Beacon lighthouse was selected to improve and enhance the habitat and a total of 64m² was covered in shingle and tern boxes, similar to the design used in other tern colonies elsewhere in the UK. The hope is that this will help further increase the tern population levels and improve productivity in this area. Monitoring over the summer will also inform and direct future management with the possibility of increasing the size of the terraces.

Mark Newell, Stuart Rivers & David Steel



Plate 142. Beacon Tern Terrace, Isle of May, May 2016. © David Steel

Daffy DuckBlackdog's orange-billed scoter

N. LITTLEWOOD

The scoter flock that summers off Blackdog and Murcar, North-east Scotland, hit the birding headlines in June 2011 with the discovery of Britain's first White-winged Scoter (Baxter et al. 2011). This was quickly followed by a Black Scoter (Littlewood 2011) and then a second Black Scoter the following year (Littlewood 2013). Whilst scanning for this latter bird on 29 June, I encountered a drake scoter that has subsequently provoked more protracted identification discussion locally than any of these topquality vagrants. The bird's most striking feature was an entirely orange-coloured bill, prompting comparisons with Daffy Duck of Looney Tunes fame. The bill looked chunky and, combined with a few white features on the nape and on the lower forehead, this encouraged some thoughts that the bird may be a Common Scoter × Surf Scoter hybrid. I subsequently saw the bird several more times up to 15 September that year, although never closely enough to critically assess features such as bill shape.

In 2013, during my usual regular watches off Blackdog, I saw the bird just once, on 18 August. In 2014, though, the bird put in regular



Plate 143. Presumed aberrant drake Common Scoter (with a further adult drake and two female Common Scoters), off Murcar golf course, North-east Scotland, 12 June 2014. Although the scatter of white body feathers are obvious here, they are usually less conspicuous when the bird is seen at longer range. © *Nick Littlewood*

appearances from 10 June to 21 August. On a couple of dates in June, it drifted closer to shore in calm conditions with good light and finally gave the opportunity for closer scrutiny. Alongside Hugh Addlesee, I had my best views on 12 June that year. Despite much lower scoter numbers present in 2015, the bird again returned and was present off Blackdog and Murcar from 5 to 30 July at least. The bird has only been reported once away from the Blackdog/Murcar coast, when it was off Girdle Ness, a few miles to the south, on 29 June 2014.

Aside from the striking bill, the scoter has rather a random scatter of white feathers. When the bird is seen at distance, though, these are generally far less apparent than they are in Plates 143 and 144 and the typical impression is more similar to the image published as Plate 74 in Littlewood (2013). Whilst, in 2012, these white feathers somewhat mirrored those on a drake Surf Scoter, in other years the same pattern has not been apparent. In both 2012 and 2014 at least, some tail feathers were white and, in the latter year, the bird also had a generous scatter of white feathers along the flanks and a few across the wings and mantle. In flight, a whitish belly is obvious, a feature shown by immature, but generally not adult, drake Common Scoters, whilst the primaries are paler than the remainder of the wing, perhaps even more markedly so than in Common Scoter. The legs are orange, rather than black as on a normal Common Scoter.

It is the bill, though, that sets this bird apart from the crowd. Whilst appearing entirely orange from a distance, closer views show this colour fading towards horn at the tip. The shape is difficult to judge and, during observations in 2012 and 2013, it appeared to be somewhat chunkier and broader based than in Common Scoter. The views in 2014, though, suggested that this may have been an optical illusion with



Plate 144. Presumed aberrant drake Common Scoter (with two further adult drake, two first-summer drake and four female Common Scoters), off Murcar golf course, North-east Scotland, 12 June 2014. © *Nick Littlewood*

black areas on a drake common Scoter's bill making it appear smaller than in this bird. Crucially, we could now detect the bump above the nostril and thus became much more confident that the bird is indeed an aberrant Common Scoter. Whilst this identification now seems far the most likely, the bird does appear rather thicker-necked than is typical of Common Scoter and has never (to me at least) displayed the sometimes rather sinuous-necked look that an alert Common Scoter can have.

There are apparently no documented examples of Common × Surf Scoter hybridisation (McCarthy 2006, Reeber 2015). An orange-billed scoter seen in 1995 and 1996 off Burghead and Lossiemouth, Moray, though, was postulated to be such a hybrid (Pullan 1998) whilst a rather convincing candidate for a Black Scoter × Surf Scoter hybrid was photographed in Washington State, USA in 2011 (Plate 145). In Ireland, a yellow-billed scoter has appeared for a number of years along the coast between Co. Dublin and Co. Louth and whilst, similarly to the Blackdog bird, showing reddish legs, it appears to be structurally entirely consistent with Common Scoter (Plate 146).

Thanks to Hugh Addlesee and Chris Gibbins for commenting on this note and to Keith Brady and to Aidan G. Kelly for allowing use of their images.



Plate 145. Putative drake Black Scoter × Surf Scoter, Washinton State, USA, 6 October 2011. This bird shows a rather convincing Surf Scoter-like ghosting of a white nape patch. © *Keith Brady*

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Plate 146. Three Common Scoters, including an aberrant adult drake, Laytown, Co Meath, 22 February 2014. © Aidan G. Kelly





Plate 147. Rufous Turtle Dove, Scalloway, Shetland, November 2015. © Jim Watt

Our house in Scalloway, Shetland, has a rather large garden. Over the years my wife and I divided it up into different habitats for wildlife. The front lawn is long, flanked by a row of large 50-year-old Sycamore trees; at one end we have established a wooded area, to give the birds shelter, whilst the other end houses a couple of different bird feeding stations.

At midday on 25 November 2015 I was cleaning up the wooded area of the garden, trying to get some work done before the daylight hours waned, or the weather took a turn for the worse. Carrying bags of wet leaves and branch cuttings, I looked over to the other end of the garden and saw two doves near the bird table. One of the birds was clearly a Collared Dove and it flew up into a tree, but the other bird, which was much darker in colour, remained feeding on the ground. The birds that frequent the garden are quite used to me pottering about, sometimes they come down to feed when I am just a few feet away from the bird table. But as I got nearer to it, I realised that it was a 'turtle dove'. The

scaly pattern on its wing was most obvious; a brownish plumage, much darker than the pale grey of a Collared Dove.

I brought it to the attention of my wife, and my eldest grandson who was visiting us for the day. Our glass-covered porch has excellent views of the front garden and we stood inside observing the visiting dove through a pair of binoculars. As the bird appeared to be settled for a time, my wife Liz suggested that I should try and get some photographs of it. Using a Canon 70-200 mm lens with a 1.4x extender, I set up the tripod outside and managed to get a few photos. It wasn't a good light for taking photographs and just then it started to rain, so we had to head inside. The porch has been a useful 'hide' throughout the year, allowing me to set up my camera inside with the telephoto lens out the window, but the rain in Shetland does not fall straight and I had to wait it out. Forty minutes later, when the rain subsided, we came out to discover that the 'turtle dove' was nowhere to be seen.

After the light faded I decided to confirm my sighting by comparing the field guide with my camera images. I quickly realised that this was not simply a European Turtle Dove, but a possible Rufous (or Oriental) Turtle Dove¹. I looked at a few field guides and was glad to have photographic proof. My wife and daughter posted this sighting on the local online wildlife site on Facebook, but we were not prepared for the quick response and confirmation of identification by other birdwatchers. Throughout the evening the escalation of excitement on the Facebook pages was tangible and I just hoped that this dove would still be about the next day. I need not have worried. With a few local bird watchers present, the dove arrived at the feeding station just after first light. An official identification of Rufous Turtle Dove Streptopelia orientalis of the subspecies meena was made and all of the birdwatchers who saw it were delighted to add this beautiful bird to their lists of sightings. It transpired that this was the 13th recorded sighting of the species in Britain, fifth in Scotland and only the second record for Shetland, following one on Fair Isle back in 1974.

We know of at least six people who travelled up to Shetland solely to see the Rufous Turtle Dove, though there may have been more; their journeys to Shetland ranging from Dunfermline, Sunderland, Lancashire and London. The majority of individuals who visited from within Shetland had seen or heard about the original Facebook posting. As every birdwatcher or naturalist will know however, timing is everything when trying to observe wildlife — some individuals unfortunately did not see the bird for themselves.

As keen birdwatchers, my wife and I understand how frustrating it can be when trying to access private gardens in order to observe rare birds. For that reason, we were more than happy to invite visiting birdwatchers into our house and garden. For us it was an enjoyable experience and an opportunity for us to be part of the birdwatching community; to catch up with old friends and make some new ones along the way. Our

feathered friend 'Rufus' was frequently seen from 25 November through to mid-December - last seen in our garden on 17 December, feeding on the ground alongside ten Collared Doves.

In a surprising footnote, 'our' Rufous Turtle Dove was relocated by Silas Olofson at Tórshavn on the Faroe Islands on 5 January 2016 see birding-faroes.wordpress.com.

Jim Watt, Scalloway, Shetland Email: jastwatt@btopenworld.com



Plate 148. Rufous Turtle Dove, Scalloway, Shetland, November 2015. © *Jim Watt*

¹ The names Oriental Turtle Dove and Rufous Turtle Dove have been used for this species. The IOC international English name for the species is Oriental, but the vernacular species name used by BOURC (and SOC) is Rufous Turtle Dove. It has also been suggested that the name Rufous Turtle Dove should be restricted to the western form *meena*, and Oriental Turtle Dove for the nominate *orientalis*. Either way, here we use the name Rufous Turtle Dove.



Plate 149. Rufous Turtle Dove, Scalloway, Shetland, November 2015. © Jim Watt

Status of Oriental Turtle Dove in Scotland

This species breeds in Siberia from the Ural Mountains and southern Kazakhstan through India to Sri Lanka and eastwards to Khabarovsk, Sakhalin, and the Kuril Islands and south through Mongolia, China and Japan to Burma and Thailand. Up to six subspecies are recognised, with the northerly populations migratory and wintering south of the Himalayas in India and SE Asia. All British records relate to birds from the two northernmost races (Streptopelia orientalis orientals and S. o. meena).

There are accepted records for 11 individuals in Britain to the end of 2014, with four of these in Scotland. The first British record was from Scarborough, Yorkshire on 23 October 1889, with the next not until a female was shot at Castle Rising, Norfolk on 29 January 1946 and one was present on St Agnes, Isles of Scilly on 2–6 May 1960. The first Scottish record (fourth British) was a first-year on 31 October to 1 November 1974, and all since then have been juvenile/first-winter individuals with one at Spurn, Yorkshire on 8 November 1975, one at Portmahomack Bay, Dornoch Firth, Highland on 9 November 2002 and a long-staying bird (meena) at Stromness, Mainland Orkney on

20 November to 20 December 2002 (seventh). An even lengthier stay was made by one (meena) in the Hill of Ratter/St. Johns area, Caithness from 5 December 2003 to 24 March 2004 (eighth). Since then one (orientalis) was at Chipping Norton, Oxfordshire from 15–18 December 2010 and again from 12 February to 9 May 2011, one at Barsham, Suffolk on 13–15 April 2011 and another at Hickling, Norfolk on 19 March 2012. Only meena is currently accepted on the Scottish List, although the Fair Isle record was considered to exhibit characteristics more consistent with orientalis.

Records exhibit a pattern of late autumn and early winter arrivals, with find dates from 23 October to 29 January and a small spring window of three finds from 19 March to 2 May. The 2015 Shetland bird fits well into this pattern. Unsurprisingly, most records are from east coast counties, though several were inland and individuals have reached Oxfordshire and the Isles of Scilly. Five were only present for one day (two being shot!), but the Oxfordshire bird was seen over 87 days and the Caithness bird also over-wintered and was noted over a period of 111 days.

Additional details by Paul Harvey & Roger Riddington

I (PVH) had just started tea on 25 November when both Phil Harris (text) and Mike Pennington (e-mail) contacted me to ask if I had seen the photos of the 'turtle dove' at Scalloway, posted on the Nature in Shetland Facebook page. Both wondered what I thought of the bird. Mike had forwarded a link so I quickly brought up the pics on my mobile phone. I was gobsmacked by what I saw - the dove looked very dark, showed two fairly obvious wing-bars, broad pale tips to the primaries, broader dark centres to the moulted scapulars, coverts and tertials than a typical Turtle Dove, limited bare skin around the eye, a pale-tipped bill and what appeared to be five dark bars on the neck. It had to be a Rufous Turtle Dove, almost certainly of the race meena. I put the news out on the local grapevine. The bird had been found and photographed by ex-Fair Isle lighthouse keeper Jim Watt - who had suggested correctly that it was a Rufous Turtle Dove. What a great find!

Next morning (26th) a good gathering of local birders assembled at the entrance to Jim Watt's garden at first light. After a short wait, and to everyone's relief, the bird flew in to a tree at the edge of the garden. Over the next few hours, it

fed sporadically on the lawn, but also spent a lot of time sat deep in the mature conifers of an adjacent house. In some ways the identification was a little more subtle than I had first thought and over the course of the next few days I spent some time watching and discussing the bird with RR. The bird was clearly a first-winter that had replaced many of its juvenile feathers, across a variety of feather tracts. Rather than provide a full description, the key points that differentiated this bird from a Turtle Dove are given under a series of headings below, in rough order of their value.

Size and structure: The bird was really very similar to a long-winged/short-tailed Collared Dove in terms of overall size and bulk. At times, when alert, it could look slimmer and longer-necked than Collared Dove but on the ground when feeding among up to half a dozen Collared Doves it was more similar, and looked bulkier in the body - with heavier, more pot-bellied underparts. Interestingly, it was clearly also dominant over the Collared Doves, regularly running towards any Collared Dove that it perceived to be too close, forcing it out of the way.

Primary projection: The gap between the longest tertial and the longest primary (wing-point) was the same as that between the wing-point and the tail tip. In European Turtle Dove the primary projection often appears longer than the distance between the wing-point and the tail; a ratio closer to 2:1 rather than 1:1.



Plate 150. First-winter Turtle Dove, Fair Isle, October 2015. Note the longer primary projection, more extensive area of bare orbital skin, dark bill, whitish colour of fringes to dark neck bars, less obvious wing-bars and narrower dark centres of moulted adult scapulars and coverts. © *Ian Andrews*

The fine detail of the wing formula also pointed to Rufous Turtle Dove. Roughly 5/6 primary tips were visible beyond the tertials, depending on posture and how you assess the numbering - since the three longest primaries were very close together, so effectively counting as one. The detail from the better photos show that the wing-point was p9, with p8 very slightly shorter (maybe 2mm), and p10 also shorter slightly shorter than p8. P7 looked around 15–20mm shorter than the wingtip. All of this is pro Oriental. BWP suggests that juvenile European Turtle Dove has p9-p10 longest, about equal, with p8 4-10 mm shorter and p7 18–24 mm shorter. Note – most primaries on the Scalloway bird were juvenile, dark brownish with a broad, well-defined buffish fringe, with the innermost three, newly moulted adult primaries, appearing blackish with a greyer fringe.

Bill: The bill appeared pale greyish or a dirty flesh colour with a hint of purple towards the base at times, with a distinctly paler tip (distal third). European Turtle Doves generally look dark billed without an obvious pale tip.

Orbital skin: This was much less extensive than on typical European Turtle Dove and often looked limited to a small triangle in front of the eye. It did not show a clear narrow extension (elongation) fore and aft as is often the case in European Turtle Dove. The eye perhaps appeared to sit a bit further back in the head than in European Turtle Dove.

Plumage: The overall impression was of a dark bird, with heavily saturated underparts.

Neck pattern: It appeared that there were five dark bars on the neck and the fringes to these were bluegrey. European Turtle Dove shows only up to four dark bars and the fringes are whiter.

Primary coverts: The tips to the primary coverts were very indistinct, being a barely discernible buff – they could just be made out to be paler with a 30x telescope. European Turtle Doves generally show much more obvious pale tips to the primary coverts.

Wingbars: The median and greater coverts both showed extensive pale tips that manifested themselves as two pale wingbars. The secondaries also had pale tips. This provides a stronger suggestion of wingbars than in typical European Turtle Dove.

Outer tail feather: It took some time (several days) to get a view of the pattern of the outer tail feather but when it finally revealed itself the dark blackish could be seen to end distally in a more rounded shape than typical of European Turtle Dove, with a bleed across over the shaft on to the outer web of the feather.

Feather centres: The un-moulted median and greater coverts, and tertials, showed broader darker centres

than typical in juvenile European Turtle Dove, without the obvious dark shaft streaks so often shown by juveniles of that species.

Underparts: These were a deeper, more saturated, colour than is typical of European Turtle Dove. This colour varied from an orange-brownish, to a mauvepink depending on the light. The light was often pretty poor, and many of the photographs show the underparts with a slightly more vinous tone than they appeared to have in life.

Rump/back: These were a deep blue-grey, more extensively so than in European Turtle Dove, the juveniles of which often show blue-grey tones to the rump.

Primary tips: These were broad and pale, although it appears some juvenile European Turtle Doves can show equally broad, pale fringes.

Adult scapular/covert pattern: Several observers commented upon how similar to European Turtle Dove some of the dark centres to the moulted scapulars and coverts were. The feathers were blackish centred, and the centres quite broad but also narrowing to a point; and the fringe was also quite broad and bright orange-brown. So the pattern was essentially intermediate between European Turtle Dove and orientalis – quite subtle in terms of an identification feature.

We identified the bird as a *meena* rather than an *orientalis* based on the white vent and undertail (greyer in *orientalis*), the white tips to the tail (greyish white in *orientalis*), its size - similar to Collared Dove (often larger in *orientalis*), and the shape of the dark centres to the moulted adult-type scapulars and coverts (broader and rounder, with a narrower fringe in *orientalis*).

STOP PRESS

It now seems the bird was originally found in a different garden just three days before it turned up at Jim Watt's.

An image, taken by Graham and Stella Smith, has recently come to light after their daughter Jayne showed it to the single pupil at the school on Foula where she teaches - that single pupil just happens to be a keen young birder and quickly identified it as the Scalloway Rufous Turtle Dove!

Little Swift, Thorntonloch, 31 December 2015 - the first record for Lothian

W. EDMOND & M. GLADSTONE

Having had an interest in birdwatching as far back as I can remember, trips to Jamaica, Dominican Republic, Thailand, Menorca, Morocco etc. have resulted in some spectacular birding trips. Over the last 15 years, I have also had the privilege of accompanying Murray Gladstone in pursuit of our hobby. Together we have travelled to Spain, Poland, Lesvos, Canada and Gambia, as well as may places in the UK. Murray and myself have in the past have been up close to some very special birds over the years. However, nothing prepared us for our very own special bird in East Lothian!

Over the years, we have always tried to get out on Hogmanay, our last chance of catching up on our birding year and what has it delivered to us. Even having been struck down with flu a few days before, the feeling of being trapped indoors, plus the thought of letting this Hogmanay pass without getting out, meant that doing some birding wasn't negotiable.

After a text and a phone call, Murray asked if I fancied heading down the coast to Thorntonloch, just south of Dunbar, where Scotland's record long-staying Barred Warbler had been seen up until 13 December. Thorntonloch is around 20 miles away from my home town and to be honest, I would rather have spent some time a little closer to home - maybe the ash lagoons at Musselburgh, around 5 miles away, where there was no shortage of Short-eared Owls hunting and spectacularly interacting with each other. However, I thought ok, there maybe be a chance of the Barred Warbler still making an appearance.

I met up with Murray at around 11:00 hrs near Torness power station. We had a walk along the path where the Barred Warbler had been seen on some feeders. Apart from some Tree Sparrows, Chaffinch and Goldfinch, the Barred Warbler had certainly gone. We then decided to have a walk down past the caravan park at the east end of the walkway, then on towards the beach. As always, I was looking through the small waders feeding in the rock pools for any flags, rings, metal or coloured - I just can't help myself!

After dropping my binoculars to my chest for a few seconds, out of the corner of my eye I just happened to notice this sharp-winged bird flying towards me. I shouted to Murray "look a Swift at this time of year" as Murray looked in the same direction as me, we both commented at the same time "it has a white flash on its chin". As it glided past us we both noticed how much smaller it was than our Common Swift and slightly chunkier, with its wings a light brownish colour compared to a darker upper body. As it flew over our heads, it was then that we both noticed the large white rump. It was travelling quite fast along the beach heading towards the caravan park at Thorntonloch. As we both ran along the beach to try and get a better view, it went out of sight. We both knew we had been observing something special, so we thought we should release the news for others to come and view - hoping that it would stay around long enough to be seen again. After a few minutes, we then relocated it hawking over the field between the caravan park and Torness power station car park, we clambered up the sand dunes to try and get better views, we then watched it for a further 10 minutes as it glided back and

forward over the field. It was then that we observed it more clearly and that its tail was more of a martin shape, with just a small notch and more square when closed. However, when it was hawking and turning while catching insects, it opened up its tail to reveal it was more fan shaped, it was then we could see it revealing the larger white rump coming almost to its flanks which was much whiter than the flash on its chin/face. This is when I was convinced it was typical of the Little Swifts I had observed in Morocco.

I'm afraid we didn't manage any photos of the Little Swift. I believe around five other birders managed to connect with it while it was there on its short stay of just over an hour in total.

A fourth record I believe for Scotland! A wee dram ensued to celebrate both our sighting of the Little Swift and Hogmanay.

Willie Edmond & Murray Gladstone Email: wedmond@sky.com

Status of Little Swift in Scotland

This 'Old World' species has an extensive breeding range across Africa south of the Sahara, the south-west coast of the Arabian Peninsula, SW Iran to Pakistan and from the Himalayas south through India to Sri Lanka, with smaller scattered populations in the Western Palearctic in NW Africa, Israel, Jordan and SE Turkey. The Turkish population appears to be totally migratory to Africa, with the NW African and Middle Eastern ones only partial migrants.

There have been three birds in Scotland out of a total of 24 accepted records in Britain to the end of November 2015: the first was at St. Andrews, Fife on 29 May 1985, the next was on Fair Isle on 1 November 1991 and the third at Houbie, Fetlar, Shetland on 29 May 1997. The first British record was one at Skewjack, Cornwall on 16 May 1981.

Of the British records 10 are distributed across SW England from the Isles of Scilly to Hampshire, two in South Wales, nine across central England from Cheshire and Lancashire to East Anglia and Cleveland and the three in Scotland. These records group into a broad peak of find dates from 28 April to 15 August, with one in April, July and August and 10 in May and eight in June. There is a second small cluster of three records from 1–26 November. There are also two southern Irish records - one over Cape Clear Island, Co. Cork on 12 June 1967 and one at Great Saltee Island, Co. Wexford on 16 May 2002.

The spring/summer peak of records can be explained as overshoots from the migratory populations of NW Africa or the Middle East/Turkey, which have been notably increasing and expanding in recent decades, and both the Fife and Fetlar records, remarkably on the same date (albeit 12 years apart), sit in the middle of this grouping. The Lothian bird most closely fits with the previous November cluster of records, which includes one at Studland, Dorset in 1983 (26th), and one at Cromer, Norfolk in 2005 (12-13th), as well as the Fair Isle bird. These are trickier to explain but may reflect overshoots from the migratory populations of southern Africa or south Asia heading north as vagrants arising from their (austral) breeding season movements rather than random, late postbreeding wanderers from northern parts of the breeding range.



Plate 151. Mourning Dove, Lerwick, Shetland, December 2015. © Austin Taylor

2015 promised the first full moon on Christmas Day for the first time in 38 years, with the next one not due until 2034. But Shetland isn't the place for guaranteed clear skies at any time of year, let alone mid-winter, so the fact that it was clear on both nights of Christmas Day must have been a sign of good things to come - but it wasn't until the next day that the real rarity struck.

Boxing Day dawned fine, cloudy and not very bright, but that didn't matter since my plans for the day were quite simple; dinner with the family followed by a get together at a local hall with friends in the evening was all we intended to do after the excitement of opening presents and eating far too much the previous day. Or so I thought.

By late morning it was time to go and get our dinner guests and as I was getting ready I glanced into the back garden, with its various trees, Pampas Grass, shrubs and a variety of bird feeders that, together, attract a reasonable range of birds, though seldom anything terribly unusual.

At that moment there were plenty of Starlings around on the ground, on the feeders and hanging round in the perimeter trees, together with a couple of Collared Doves and a Rock Dove. However, my eye was instantly drawn to a dove that was altogether different to any I'd seen before; it was smaller, darker and less uniform than the Collared Doves I often see. My first thought was that it was the Oriental Turtle Dove from Scalloway - I hadn't seen that bird, but knew of it because of all the excitement it had generated locally.

I needed to get a photo as a record and to verify its identification, so I rushed through the house to get my camera gear. The doves I generally get in the garden tend to be very easily spooked and just the sound of opening the window latches is usually enough to scare them away. So, I took a couple of photos through the glass before I even tried to open the window, just in case those were the only shots I got.

I opened the window very carefully, initially just wide enough to get a shot of the dove, though with the window frame obstructing the sides of the image. But it remained calmly feeding on the seeds on the ground below the feeder so I opened the window wider to get a good clear shot. Fortunately, the other doves in the garden didn't appear to notice me so all the birds remained oblivious to me manoeuvring my camera lens around the window opening. It was just a few minutes after noon, but the light was poor, as it often is here in mid-winter, so I had to up the ISO to get a fast enough shutter speed the first few shots were not sharp. But then it all came together; a clear shot with the dove side on, looking in my direction and still just long enough as the shutter fired. I had it! A reasonably good shot that I would be happy to share. Then, without warning, a sudden sound from next door and the dove flew off over neighbouring houses and it was gone. It was 12:09 hrs.

It was all over in less than five minutes and I thought I'd get a photograph uploaded to the Nature in Shetland Facebook page, still casually thinking it was the Scalloway bird. I downloaded the few shots I'd got, selected the best one and readied it for upload. I then searched for the photos of the Oriental Turtle Dove, but quickly realised that my bird was nothing like it, so I then did an image search for doves and quickly came across very many images of this bird photographed from various angles and it was easy to see my bird was in fact a Mourning Dove.

From the moment I sat down to upload the photos I had been on the phone to my sister, so I hadn't given it my full attention and, because I now had to go and collect our dinner guests, I didn't have any time to do any further research. Even a quick check would have shown me that the Mourning Dove is "...one of the most abundant and widespread of all North American birds." (Wikipedia) That would have been my first clue, it wouldn't have been hard to then discover how infrequently it makes it to Britain - though I had no idea it hadn't ever been seen in Shetland.

Anyway, about 45 minutes had passed by this time and I had to go, so I quickly posted the image with the comment "Mourning Dove (?) briefly in my garden this morning before being

disturbed by neighbours". Though, of course, I wasn't in any doubt - some false modesty creeping in! Twelve minutes later one of the local birders phoned, rather excited to ask if it was still there and to tell me it was a first for Shetland. I was just heading out of the door and over the next half an hour or so my phone didn't stop pinging with notifications and text messages about my find! I was driving of course, so it was some time before I got to check and reply to the comments, but while I was out it dawned on me that there would probably be a collection of twitchers at my house by the time I got back!

Sure enough, many of the local birdwatchers had already arrived, some from quite a distance away. Shortly after I got back home a friend from round the corner phoned to ask "Austin what have you done?" He was amused by all the sudden excitement and all the cars, binoculars, telescopes and long lenses that had suddenly appeared in this normally quiet residential street! I had a short walk round the block to chat with the birders and I saw the dove again briefly in a neighbour's tree; there was about 6-8 birders at this time, but I know several others came to look judging from their posts, messages and notifications. I didn't look out again for it that day because there was dinner to be had and, in any case, it was already beginning to get dark by this time.

The next day dawned calm, dry and clear and there were already a few birders around when I got up. Soon enough, it was spotted again and, about 10:30 it was calmly sitting in one of the Alder trees along the back fence of my garden; birders keenly watching photographing it. The dove calmly watched as I added some seed to the garden feeder and the ground round about - it's not as easily disturbed as the doves that normally visit. I managed to get another photo, this time in much better light than that of the previous day - so now I had a photo of it both on the ground and in a tree and I was happy with that.

Quite a number of birdwatchers visited the area that day and with the clear sky it remained light enough for observations to continue until after 15:00 hrs by which time all but one of the watchers had gone. The following day was very poor, with heavy rain and strong winds all day;



Plate 152. Mourning Dove, Lerwick, Shetland, December 2015. © *Austin Taylor*

there were a few visitors and the dove was seen briefly, but not by me. It remained in the area until it was last seen on 15 January 2016, flitting variously between my, and my neighbours' gardens - all of us providing plenty of food! Many birders visited from far and wide and I was very taken with their politeness to us, good behaviour around our garden and the very nice emails I received from birders contemplating long journeys. I was very pleased so many folk managed to come and see it - in spite of the fact that the ferry from Aberdeen suffered several delays at the time due to storm force winds.

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Status of Mourning Dove in Scotland

This common Nearctic species is resident from SW Canada and easternmost Canada south from Nova Scotia and throughout the USA with a summer extension in the breeding range north to southern Alberta and eastwards through southern Ontario and Quebec to Newfoundland. This northern 'summer' population is wholly migratory, wintering in the resident areas, and is presumably the source of vagrants in the Western Palearctic.

There have been three previous records in Britain to the end of November 2015, all of them in Scotland: a first-winter at Carinish, North Uist, Outer Hebrides on 13–15 November 1999; a first-winter at Carnach, North Uist from 29 October to 7 November 2007, and one at Kinloch, Rum, Highland on 28 October to 3 November 2013. There is an earlier record of one found moribund at Calf of Man, Isle of Man on 31 October 1989 (found dead next day), but technically this is not part of the 'British' List. There are two records from Ireland - one on Inishbofin, Co. Galway on 2–15 November 2007 and one at Garinish, Co. Cork on 25 October 2009.

Consistent with a Nearctic vagrant the records are all from W/NW coastal sites, while the find dates all fall within a narrow window from 25 October to 13 November. The timina and location of records suggests individuals have been displaced as reverse-migrants caught up in weather systems traversing the northern Atlantic and in NW winds rather than swept up from lower latitudes in SW winds (as happens for most Red-eyed Vireos etc arriving in SW Britain). The Lerwick bird falls just outside this window of find dates, but it seems highly likely this individual may have made first landfall earlier elsewhere on Shetland, or even the Faroe Islands, before being discovered in Lerwick. This individual was seen for 21 days, a week longer than the Inishbofin bird, with the Carnach bird noted on 10 days and the Kinloch individual for seven days.

Scottish Bird Sightings

1 January to 31 March 2016

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 - Ayrs; 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.

January started unsettled, with rain from the west, and southeasterlies on the east coast brought record rainfall to NE areas, giving way to colder settled weather mid-month, then mild, wet and very windy. First half of February saw Storms Henry and Imogen bring severe gales and much rain from W/SW, plus considerable snowfall on high ground. Second half was colder, generally drier and sunny with several frosty nights. March was initially changeable and cold, with some snow, then more settled with greatest sunshine in western parts and generally dry.

Bewick's Swan: an adult was at Caerlaverock WWT Reserve (D&G) on 30 January to 1 February, then nearby at Ruthwell (D&G) on 2 February and Brow Well (D&G) on 3 February. Taiga Bean Goose (fabalis): 143 were present at the regular Slammanan roost on 17 January and c.200 on 21 January; elsewhere one was at Anstruther (Fife) on 17 January on

8 February, with presumed same at Abercrombie (Fife) on 3 February, and Anstruther again on 8 February; one at Spiggie, Mainland (Shet) on 17 January, and at Ringasta, Mainland (Shet) on 18 January; one at Brough, Whalsay (Shet) on 10–23 February, and two flew inland at Ruddons Point (Fife) on 28 March. Tundra Bean Goose (rossicus): one was near Sandwick, Mainland (Shet) on 5 January; three were at Barns Ness/Skateraw (Loth) on 9–17 January, with four on 13-14th and 23-28 January and one still on 31st; five were at Loch of Spiggie, Mainland (Shet) on 17 January, nearby at Ringasta, Mainland on 18th, and Spiggie again on 10 February; one at Bridge of Don (NES) on 17 January; one at Mintlaw (NES) on 23 January; three at Burns, Whalsay (Shet) on 24 January; one near Baltasound, Unst (Shet) on 29 January to 6 February; six were near John O' Groats (Caith) on February; one near Conon Bridge (High) on 27 February; one at Loch Leven (P&K) on 15 March; one at Burravoe, Yell (Shet) on 17 March, and one at Skaw, Whalsay (Shet) on 24 March.

Snow Goose: the blue-morph/intermediate adult and three juveniles from December were again at Loch of Skene (NES) on 11 January to 5 March, and nearby at Drumoak (NES) on 4–8 February, and Blackburn (NES) on 6 March, and Balmeddie CP (NES) on 13 March; a white-morph bird was again at Stenness, Mainland (Ork) on 7–8 January, and nearby at

Kirwall, Mainland on 17-24 January; an intermediate was at Stranraer (D&G) on 31 January; an intermediate was at West Freugh Airfield (D&G) on 3-8 February; was at Bankhead/ Caerlaverock (D&G) on 7-8 February, then Mersehead RSPB Reserve (D&G) on 18-20 February, near Southerness Point (D&G) on 21 Feb and then Caerlaverock WWT Reserve also on 21st: a blue-phase bird was near Wigtown (D&G) on 10 March, and a white-morph was near Kirkwall Airport, Mainland (Ork) on 15 March. Richardson's Cackling Goose: singles were at Loch Brusda, Berneray (OH) on 9 January; near Port Ellen, Islay (Arg) on 23 January; at Bridgend, Islay on 7 February; at the Mull of Oa, Islay (Arg) on 26-28 February, and nearby at Kintra, Islay on 3-13 March, with two near Ballygrant, Islay on 6 March, and one at Carnairn, Islay on at least 28 March. Ridgeway's Cackling Goose (form minima): a presumed escape was again at West Freugh Airfield (D&G) from 2015 to 24 January. Egyptian Goose: two birds were near Loch of Rummie, Sanday (Ork) on 1 February, and one on the River Tweed at Coldstream (Bord) on 18 February.

American Wigeon: single drakes were seen in OH, Ork, High, NES and Fife, with two Aileodair Loch, North Uist (OH) on 24 January and again on 10–17 March; and two at Loch of Harray, Mainland (Ork) on 7 March. Green-winged Teal: single drakes were in D&G, Clyde, Arg, OH, Ork, Shet, Caith, High, P&K, A&D, Fife and Loth,

with two at Caerlaverock WWT Reserve (D&G) on 23 January, 19 February and 5th & 11 March; two at Loch of Skaill, Mainland (Ork) from 5 January, with three there on 12–13th, and at least two still to 18 January; two were on Loch Flemington (High/M&N) on 13–19th and 30 March.

Ring-necked Duck: the adult drake remained at The Cuilc, Pitlochry (P&K) from 2015 to 27 February; the first-winter drake at Caerlaverock WWT Reserve (D&G) from 2015 stayed to 19 January; an adult drake at Loch of Skaill, Mainland (Ork) from 2015 lingered to 18 January: a firstwinter drake was at Carlingwark Loch (D&G) from 19-24 January, with it or another also on 11th and 14 March: a drake was at Trabboch Loch (Ayrs) on 24 January to 6 February: one was at Milton Loch (D&G) on 5 February, with two there on 23 February and one still to 19 March; one at Martnaham Loch (Ayrs) on 15th and 23-27 February; one was at Loch o' the Lowes (Ayrs) on 5th and 15-27 March; one was at Kilconquhar Loch (Fife) on 25-27th & 29-31 March; an adult drake was at Caerlaverock WWT Reserve on 29-31 March. Lesser Scaup: a first-winter drake from at Loch 2015 was Benston/Loch of Houlland, Mainland (Shet) to 16 January.

King Eider: the regular female was off Ruddons Point (Fife) from 2015 into April; a female was seen in the Sound of Harris from the Leverburgh-Berneray ferry (OH) on 15 January. (American) Black Scoter: one was off Kinshaldy (Fife) on 15 January. Surf Scoter: single adult drakes were still Musselburgh/Joppa (Loth) from 2015 into April; off Ruddons Point, Largo Bay (Fife) from 2015 into April; off Easting, Unst (Shet) on 1-13th and 30 January and 18 February into April; off Gullane (Loth) on 10-13 January; an adult and a first-winter drake off Kinshaldy (Fife) on 15-16 January; an adult drake in Bay of Kirkwall, Mainland (Ork) on 16th & 23 January; one off Rerwick Point, Mainland (Ork) on 20 January and 4 February; one in Inganess Bay, Mainland (Ork) on 20th and 28 January; a first-winter again off Kinshaldy on 9 February; a group of three (two drakes) were in the Sound of Taransay, off Luskentyre, Harris (OH) on 11 February; a drake was in St Andrews Bay (Fife) on 15-16 February, and one off Cockenzie (Loth) on 27 March, and Ferny Ness (Loth) on 29 March.

Hooded Merganser: a female of unknown origin was at Blair Drummond Ponds (UF) on 28 March. Smew: a drake was seen intermittently at Blair Drummond Ponds (UF) from 1 January into April; a redhead at Barnshean Loch (Ayrs) on 2-25 January, with two on 13 February to 27 March; a redhead at Loch of Skaill, Mainland (Ork) from 2 January into April; a redhead at Lochore Meadows CP (Fife) on 4 January to 14 March, with a drake there on 10 February; a drake and a redhead at Loch Leven (P&K) on 6 January to 15 February, with the drake still on 5-18 March at least: a drake near Stirling (UF) on 13-17 January; two redheads at Loch Scarmclate (High) on 17 January; one at Loch of Snarravoe, Unst (Shet) on 17th; a drake at Lindores Loch (Fife) on 18th; a redhead at Musselburgh (Loth) on 18th; a redhead at Loch of Stenness, Mainland (Ork) on 18th; a redhead at Lochwinnoch (Clyde) from 24 January into April, and a drake there from at least 18 February into April; a redhead at Loch Eye (High) from 3 February into April; a drake at Gartmorn Dam CP (UF) on 4-22 February; a drake at Loch of Strathbeg (NES) on 4-16 February, a redhead on 7 February; a drake

and redhead on 17–18 February, and a redhead on 14–15 March; a redhead at Castle Loch NR, Lochmaben (D&G) on 27–28 February; a redhead at Loch Gelly (Fife) on 28 February; a redhead on North Ronaldsay (Ork) on 28 Feb, and at least 21–29 March, and a drake at Camphill Reservoir, near Whitehill (Ayrs) on 25 March.

White-billed Diver: the regular bird in St. Margaret's Hope Bay, South Ronaldsay (Ork) was reported intermittently to 29 February, with it or another nearby at Herston, South Ronaldsay on 30 March; two were in Bluemull Sound Yell/Unst (Shet) on 17 January; one in Sound of Hoy from Strom Ness, Mainland (Shet) on 20 January: one near Gorton. Coll (Arg) on 23 February; one off Uig, Isle of Skye (High) on 28 February to 15 March; one off Point of Ardnamurchan (High) on 5 March; one at Mellon Udrigle, Gruinard Bay (High) on 10 March; one was off Skigersta, Lewis (OH) on 14th and 19 March, two nearby at Port Nis, Lewis on 15th, and two at Skigersta on 23-24 March; two were at Portsoy (NES) on 16 March, with one to 18th; one was off Burghead (M&N) on 18-30 March; one off Macduff (NES) on 22nd; one flew past Kingsbarns (Fife) on 28 March; a first-year was off Portsoy (NES) on 28 March, and one was off Eoligarry Jetty, Barra (OH) on 29-31 March. Great Shearwater: one was seen at Rockall Bank, 'At Sea', 163 nautical miles west of St Kilda (OH) on 28 March. Sooty Shearwater: one flew past Yellowcraig (Loth) on 4 January; one passed Fort George (High) on 25 January, and one flew north past Bilsdean (Loth) on 17 March. Balearic Shearwater: one flew past Nairn (M&N) on 4 January. Cormorant: a bird showing characteristics of the continental form sinensis was at Airthrey Loch, Stirling University (UF) on 8 February.



Plate 153. Bittern, RSPB Loch of Strathbeg, North-east Scotland, February 2016. © Andy Webb

Bittern: singles were at Loch Insh (High) on 1-5 January; at Montrose Basin (A&D) on 13 January to 17 February; near Conon Bridge (High) on 16 January; at Loch Spynie, near Elgin (M&N) on 23 January to 11 February; at Loch of Kinnordy RSPB Reserve (A&D) from 24 January to 18 March, with three on 21 January and two on 25–28 February; at Loch of Strathbeg RSPB Reserve (NES) on 24 January to 12 March, and one at Lochore Meadows CP (Fife) on 8 February. Little Egret: Much under-recorded, but one made it as far west as Bayhead, North Uist, Grimsay and Bornish, South Uist (all OH) in mid-January; highest counts reported were three at Higgin's Neuk (UF) on 3 January; three roosting at Seafield Pond, Dunbar (Loth) in January; three at Tayport (Fife) on 9 February, at least 15 in D&G in February; three at Skinflats and four at Powfoulis (both UF) on 6 March, and three at Aberlady Bay (Loth) from 22 March Great White Egret: one was at Calcots,

near Elgin (M&N) on 2 January, then nearby at Loch Spynie (M&N) on 4 January to 21 February, and at Milltown Airfield, near Loch Spynie on 4–5 March; one was at Bennybeg Pond, near Crieff (P&K) on 19–20 January, and one at Balranald RSPB Reserve, North Uist (OH) on 30–31 March. Glossy Ibis: one was at Ormiclate, South Uist (OH) on 1–2 January, and one at Kyleakin, Isle of Skye (High) on 10 January.

Marsh Harrier: one was at Loch of Kinnordy RSPB Reserve (A&D) on 13 January; a female flew over Quoyangry, South Ronaldsay (Ork) on 29 March. Northern Harrier: the male present on North Ronaldsay in autumn 2015 was seen there again on 20-21 January and intermittently again on 10th, 15th, 21st & 26-28 February. Rough-legged Buzzard: one remained near Sullom, Mainland (Shet) from 2015 to 17 March; a juvenile was at Wanlockhead (D&G) on 12 February; one was

at Balmore of Leys, near Inverness (High) on 14 March; singles were near Tomatin and at Lochindorb (both High) on 24 March. Gyrfalcon: the immature white-morph female was still in the Balranald area, North Uist (OH) from 2015 to 8 January, then at Loch Bee. South Uist (OH) on 15th and Bornish/Ardvule area, South Uist on 18 January to 6 February; then at Kyles Paible, North Uist (OH) on 21 February and Baleshare. North Uist on 25 February; one was near Butt of Lewis, Lewis (OH) on 1 February; one of these, or another, was in the Loch Paible/Balranald area, North Uist on 14-22 & 27 March into April. Crane: one was at Reiss, near Wick (Caith) from 2015 to 8 January; one at Tarbat Ness (High) on 20-21 January; one on North Ronaldsay (Ork) on 26-27 February; two were at Kirkton of Maryculter, near Aberdeen (NES) on 10 March, and one at Sandside Bay, Reay (Caith) on 28 March.

Avocet: one was at Lunan Bay (A&D) on 10 January, and presumed same flew over Mains of Usan (A&D) the same day; it or another was at Kyle of Tongue (High) on 10-23 February: and Tankerness, Mainland (Ork) on 3-14 March; one was at Tyninghame Bay (Loth) on 28 March into April. Long-billed Dowitcher: one was on Stronsay (Ork) on 24 January. Grey Phalarope: one lingered off Peninerine, South Uist (OH) on 1-2 January; one was off Leith, Edinburgh (Loth) on 4 January, with two off Hound Point (Loth) on 5th; one in Starney Bay, St Abbs (Bord) on 5th; one off Mains of Usan (A&D) on 6th, and one off Fife Ness (Fife) on 8-9 January. Pomarine Skua: singles flew past Ardersier and Milton of Culloden (both High) on 1 January, past Embo (High) and Chanonry Point (High) on 2nd & 3rd; a juvenile passed Fort George (High) on 2nd, one flew past Avoch (High) on 3rd; a juvenile was off Leith, Edinburgh (Loth) on 6th; one was in Lunan Bay (A&D) on 17th, and a palemorph adult was off Irvine (Ayrs) on 27 January. Mediterranean **Gull:** away from the Firth of Forth and Ayrshire strongholds a second-winter was at Achintraid, Loch Kishorn (High) on 20 January; one at Kylerhea, Isle of Skye (High) on 25 January; an adult at Fraserburgh (NES) on 10 February, and one inland at Loch Gelly (Fife) on 28 February. Ringbilled Gull: returning adults were reported intermittently at Dingwall (High) from 2015 to 28 March, and at Strathclyde Loch (Clyde) from 2015 to 27 February. Bonaparte's Gull: an adult was at Castletown/Dunnet Bay (Caith) on 29 January, with presumed same at Thurso (Caith) on 23 February and 29-30 March. Yellow-legged Gull: an adult was at St Andrews (Fife) on 1 January; an adult was at Balgray Reservoir (Clyde) on 2nd, 9th, 15th & 31

January and 6th, 8-10 February, with two on 12th & 14 February; an adult was at Shewalton (Ayrs) on 20th & 27 January, 2nd & 17 February, and 26 March; an adult was at Strathclyde Loch (Clyde) on 31 January and a secondwinter on 13th and 26 February, 7th & 9 March; a second-winter was at Carbarns Pool (Clyde) on 26 March, and one at Carron (UF) on 29 March. Caspian Gull: an adult and two first-winters were at Thurston Landfill, near Dunbar (Loth) on 23 February, with the adult and one first-winter still on 24th, and a first-winter only on 25th and again on 1 March. American Herring Gull: a firstyear bird was at Crossapol, Tiree (Arg) on 15 February; a juvenile was at Garrygall, Barra (OH) on 26 February to 7 March.

Iceland Gull: only moderate numbers reported - at least 15 in January, over 30 in February and early March declining to fewer than 20 by end March. Mostly ones and twos and in the north and west, with higher counts of three at Lossiemouth (M&N) on 31 January, three at Tiumpan Head, Lewis (OH) on 8 February and 3 March; four at Symbister, Whalsay (Shet) on 19 February, with five there on 23rd; three at Balormie, near Hopeman (M&N) on 20 February and 7 March; four at Butt of Lewis, Lewis (OH) and three at Lerwick, Mainland (Shet) on 21 February; five at Loch Eriboll (High) on 6 March, and three at Ardvule, South Uist (OH) on 9-11 March. Kumlien's Gull: juvenile was Balinoe/Crossapol, Tiree (Arg) on 18–21 January and 8-15 February; a juvenile was at Donmouth, Aberdeen (NES) on 19-24 January; a second-winter was at Scatness, Mainland (Shet) on 28 January; a near-adult at Balgray Reservoir (Clyde) on 9 February, and a second-winter was at Hopeman (M&N) on 21 March. Glaucous Gull: only

moderate numbers reported - at least 10 in January, over 25 in February and early March, dropping to 15 by end March. Mostly ones and twos and in the north and west, with higher counts of three juveniles at Cullivoe/North Sandwick, Yell (Shet) on 11–12th, 16th, and 27–28 January, with four on 2 February and three again on 3 February; three at Butt of Lewis, Lewis (OH) on 4 February, and five at Loch Eriboll (High) on 6 March.

Little Auk: a notable movement brought 1,000s to eastern Scotland in the first 10 days of January - highest counts included 900 past Brora (High), 150 from Chanonry Point (High), 230 off Collieston, 1,136 from Girdle Ness, Aberdeen and 844 from Newtonhill (all NES), 122 from Arbroath and 209 from Fishtown of Usan (both A&D), 536 from Kinghorn (Fife) and 270 past Hound Point (Loth) on 3 January. On 4th, 670 passed Kinghorn. This continued with 183 off Point of Ayre, Mainland (Ork) on 6th, and a passage rate of 3,000/hour off Fraserburgh (NES) on 7th; 150 were in Scapa Bay, near Kirkwall, Mainland (Ork) on 7th and 100+ on 8th; 100 flew past Fort George (High) and 960 flew past Fraserburgh (NES) in 30 minutes on 8 January; 75 flew past Fort George and 15 passed Lossiemouth (M&N) in 2 hours on 10 January, and 20 were off Dalmore Pier, Cromarty Firth (High) on 16 January. Only single figure counts were reported from 17 January to end March. Brünnich's Guillemot: one was in Scapa Bay, near Kirkwall, Mainland (Ork) on 8–12 January. Mourning Dove: a first-winter was in Lerwick, Mainland (Shet) from 2015 to 15 January. Snowy Owl: a male was at Dalchork, near Lairg (High) in mid-February; a male was near Bridge of Orchy (Arg) on 27 February. Hoopoe: one was at Strathain, near Ullapool (High) on 19 March.

Great Grey Shrike: one was in Glen Tromie, near Kingusie (High) on 1st; one near East Linton (Loth) on 13-17 January; one at Knock Saul, near Alford (NES) on 4 February; one 3km west of Laxford Bridge (High) on 11 February, and one was seen [from a train] near Cobbinshaw Reservoir (Loth) on 23 March. Firecrest: one at Ullapool (High) from end 2015 was seen again on 13-14 January, one was at Queen's Park, Glasgow (Clyde) on 4 January; one at Portree, Isle of Skye (High) on 23-25 February & 9 March, and one on Eigg (High) on 26 February [probably since Nov 2015]. Woodlark: one was on North Ronaldsay (Ork) on 23 March. Waxwing: only very low numbers reported: three were at Montrose (A&D) on 1 January; one in Lerwick, Mainland (Shet) on 1-2nd & 19-21 January and again on 23 February; three in Blairgowrie (P&K) on 3 January; seven at Tomatin (High) on 4 January; one was at Kinross (P&K) on 12th; one at Dunbar (Loth) on

16-24 January; one at Broxburn (Loth) on 20-24 January; one at Victoria Hospital, Kirkcaldy (Fife) on 24 January; three were at Nethybridge (High) on 23 March, and three at Dulnain Bridge (High) on 24 March. Blackbellied Dipper: one was at Lower Voe, Mainland (Shet) on 11 January, with two present on 12 January to 19 February; an unraced Dipper at Eastside, South Ronaldsay (Ork) on 18 January was most likely of this subspecies. Water Pipit: singles were noted at Aberlady Bay (Loth) on 17 January & 28 February; at Barns Ness (Loth) from 23 January into April; at Skateraw (Loth) on 14 February and 12 March; at Pease Bay (Bord) on 16 February; on the Isle of May on 10-30 March - only the third record for the island, and at Dunglass (Loth) on 19 March into April.

Hawfinch: 40 were at Scone Palace (P&K) on 12 February. Snow Bunting: relatively few, with ones and twos recorded as far south as Borders, and larger counts of 21 at Belhaven Bay, Dunbar (Loth) on 1 January, and 20 there on 9th; 24 at Balranald, North Uist (OH) on 4th; 19 at Lossiemouth (M&N) on 10th, and 25 there on 12-19th; 80 at Borve, Berneray (OH) on 15th, with 120 there on 19th; 48 at Dornoch (High) on 21st, with 30 still on 28th; 16 at Castlehill, Dunnet Bay (Caith) on 28 January; 15 at Kinshaldy (Fife) on 4 February, with 13 still on 10 February; 15 at Lossiemouth on 9 February; 59 at Dornoch (High) on 13th, and 36 still on 29 February; 20 at Arbroath (A&D) on 14th; 150 at Borve, Berneray on 15th; 42 at Abington (Clyde) on 18th; 38 at Marwick Head, Mainland (Ork) on 6 March, and 20 at Balranald, North Uist on 20 March. Lapland Bunting: only two were reported, both on the Outer Hebrides - singles at Balgarva, South Uist on 14 February, and at Bornish, South Uist on 13 March.

Plate 154. Firecrest, Portree, Skye, Highland, February 2016. © Bob McMillan



Advice to contributors

There is a basic division in Scottish Birds between papers and short notes that are peer-reviewed and articles, news and Club items that are not. This split in content is differentiated by fonts used and paper colour.

The first part accepts manuscripts on the status, distribution and populations of birds in Scotland and, particularly, changes in these over time. Write-ups of census work find a natural home in this section, as do the culmination of research topics and updates to information in *The Birds of Scotland* (Forrester *et al.* 2007). Original work and observations are encouraged, but summary papers will be considered and key-note papers of a more general nature may occasionally be commissioned. Papers should be fully referenced as in any scientific work, and our house style should be followed. Articles of less than 700 words are generally considered as Short Notes, but are otherwise in the same format.

Authors should bear in mind that only a small proportion of the *Scottish Birds* readership are scientists and should aim to present their material concisely, interestingly and clearly. Unfamiliar technical terms and symbols should be avoided wherever possible and, if deemed essential, should be explained. Supporting statistics should be kept to a minimum. All papers and short notes are accepted on the understanding that they have not been offered for publication elsewhere and that they will be subject to editing. Papers will be acknowledged on receipt and are normally reviewed by at least two members of the editorial panel and, in most cases also by an independent referee. They will normally be published in order of acceptance of fully revised manuscripts.

Scottish Birds publishes obituaries of Club members and others who have contributed to Scottish ornithology. These are organised through Waterston House, where the Office Manager will liaise with contributors. Book reviews are organised through the Club Librarian.

The second part of *Scottish Birds* welcomes informal as well as more serious contributions about any aspect of birds and their habitats in *Scotland*. It is not peer-reviewed, has minimal editing and contributions can be descriptive, anecdotal, controversial, humorous or quirky. They can report on surveys, express opinions, describe birds and places, look back into history, speculate as to the future and can represent organisations or be the work of private individuals. The documentation of rare and scarce birds in *Scotland*, plus a wide range of identification, site and species related information is lavishly illustrated by high quality colour photographs. We welcome photographs, maps, cartoons, and will accept basic graphs and tables when relevant. Meeting reports or field trip accounts are all welcome, but our main aim is to focus on *Scottish* birds in *Scotland* or abroad. We will occasionally include articles from other parts of the world and sometimes about other wildlife. In terms of length, we accept anything from short notes up to articles of c. 2,000 words. There are no strict guidelines as to format, but we would encourage contributors to follow our house style shown in the excerpts from a recent issue available on the SOC publications web page.

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Contributions should preferably be submitted in electronic format either on disk or by email to mail@the-soc.org.uk, stating the type of word processing package used if not Microsoft Word or a generic 'rich text format'. Only short articles and letters can be accepted in printed or hand written form. No fees are paid.

Tables, maps and diagrams should be designed to fit either a single column or the full page width. Table and photograph captions should be self explanatory and should be able to stand alone from the text. Please include all captions after the text. For photographs please supply the locality and month/year taken, together with the name of the photographer.

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Plate 155. One of my aims this winter was to get a decent photo of the Gyrfalcon that had been on the islands since early December 2015. As the year advanced, others produced a range of good images of the juvenile falcon, I felt my opportunity was slipping away; that is until I came across the bird on 14 March, perched on the very same rock I had seen another Gyrfalcon on a couple of years prior to this bird. The distinctive rock stands above Craig Hastain near Balemore, North Uist and provides an excellent vantage to view the machair and lochs nearby.

The Gyr was around 300 metres away and perched above my position. Apparently unconcerned by human activity, a couple of crofters moved and clanged feeding rings around mid-way between me and it. I took a series of photos before this massive falcon, as large as a Buzzard, flew off to gorge on a Greylag Goose carcass nearby. When I returned to my car, parked near Craig Hastain, the falcon was back on the same rock - this was surely my moment? I moved around below the bird, positioning the sun behind me as best I could, whilst slowly approaching as it sat imperious on the lichen-encrusted rock. Looking up against the now blue(ish) sky I slightly over-exposed the image, reducing the slight shadow, and finally securing the shot I'd hoped for during the last four months. Luckily, my new lens obviously has pretty good image stabilisation, I'm sure it suppressed more of my excitement than I managed to!

Equipment used: Nikon D810, 200-500mm f5.6 lens, Manual, ISO 450, shutter 1/1000, aperture f8.

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