

British Birds

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NATURAL HISTORY
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Redpolls – taxonomy,
identification and
British status

Colonisation of inland-
breeding Cormorants
in England



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Front-cover photograph: Mealy Redpoll *Carduelis f. flammaea* (left) and Coues's Arctic Redpoll *C. hornemanni exilipes*, Matheson, Ontario, Canada, February 2011. *Brandon Holden*

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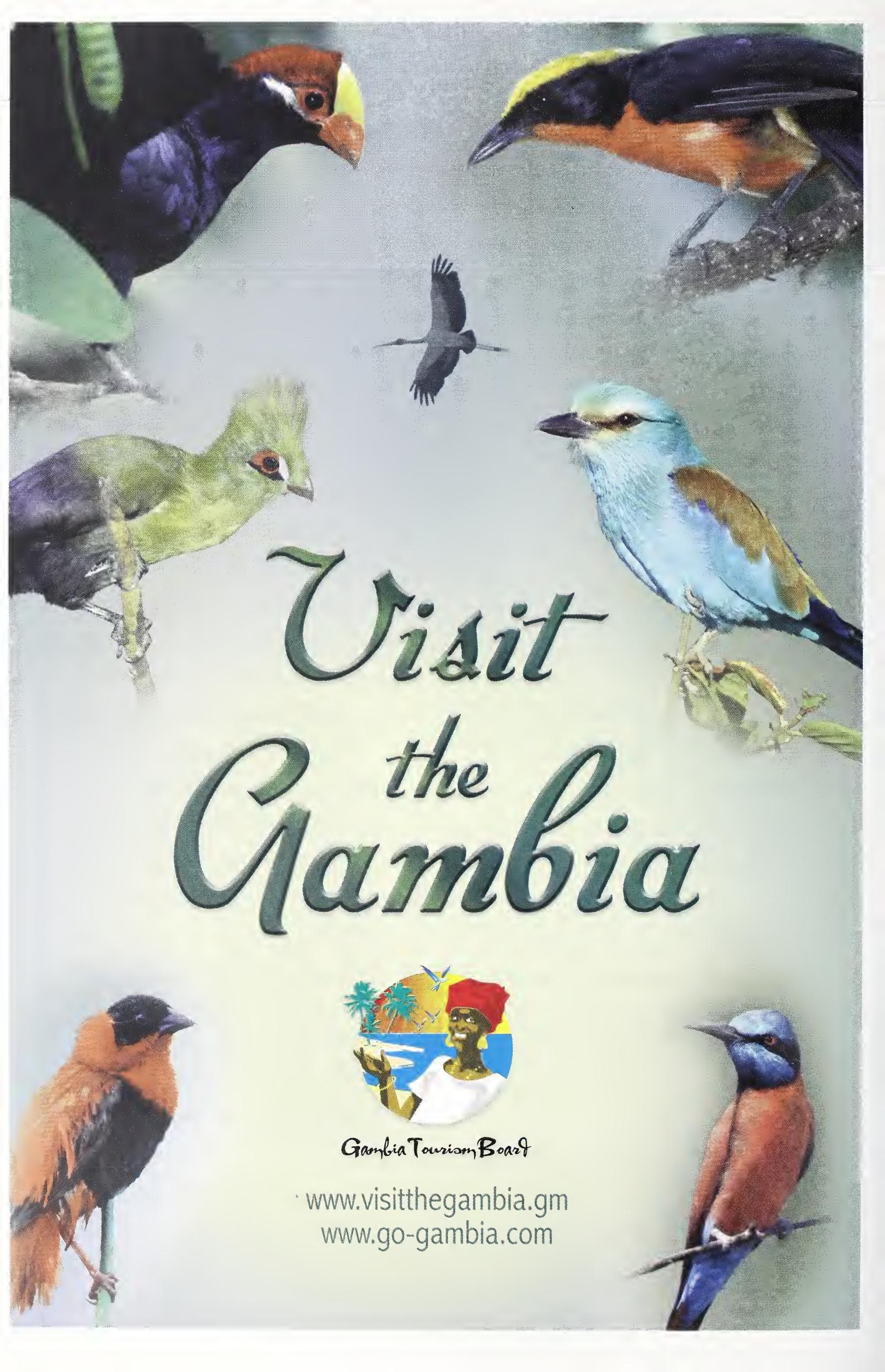
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British Birds

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Redpolls are the new gulls – a significant ID challenge, considerable plumage variation within each of the various forms, uncertain/debatable taxonomy and the potential for headaches at almost any season. Like gulls they are fairly widespread but you don't have to find a freezing/stinking landfill in order to enjoy them. What's not to like? In recent years there seems to have been a degree of resignation at the difficulty of sorting out the redpolls – 'they should all be lumped' is a comment I've heard not infrequently. Andy Stoddart takes a quite different view, arguing that we should celebrate the variety, make the effort to learn more and generally take a more positive attitude to the redpoll challenge. He won't mind me saying that his paper in this month's issue is by no means the last word on the subject but I am sure it will come to be seen as a big step forward in our understanding.

December – time to look back on another year in the field and savour the memories. It's been another good autumn in Shetland and, as well as pondering the slew of good birds, I was contemplating the growth in the number of visiting birders. Nowadays, a top rarity in late September or early October quickly draws a crowd of almost mainland proportions. I reckon visiting birders now contribute between a quarter and half a million pounds to the local economy in autumn (not including travel costs to and from the islands, and not including visitors to Fair Isle either). That's clearly a bonus for the local tourism industry but what about the wider community? As a way for birders to say thanks for the generally warm welcome they receive from the locals, Shetland Bird Club has set up a Just Giving page, with the funds going to Macmillan Cancer Support (see www.justgiving.com/Shetland-Bird-Club if you enjoyed the Pine Grosbeak, the Cape May Warbler or any of the other star birds this year). It's a great idea, more effective than a bucket for donations at the bird itself and is just one example of the important role that local bird clubs can still play in this internet age. It's a positive note on which to end the year, which reminds me to wish all our readers a happy Christmas and a peaceful New Year.

Roger Riddington



British Birds aims to: ❖ provide an up-to-date magazine for everyone interested in the birds of the Western Palearctic; ❖ publish a range of material on behaviour, conservation, distribution, ecology, identification, movements, status and taxonomy as well as the latest ornithological news and book reviews; ❖ maintain its position as the journal of record; and ❖ interpret scientific research on birds in an easily accessible way.

British Birds – the past, present and future

‘Where do you want to go today?’ was the slogan for a global marketing campaign of Microsoft, back in 1994 (the past).

‘What do you want?’ was one of the important questions we asked you in a Readership Survey in 2010 which has led to changes in your journal today (the present).

In November 2012, the *BB* directors (of whom I’m one, with particular responsibility for *BB*’s finances), trustees, our editor and other members of the *BB* team met to discuss strategy for your journal and the next question: Where do you want to go tomorrow? The future.

We covered many wide-ranging topics at that meeting a year ago and, at every turn, we were concerned with one overarching theme – what content do you want to read and how do you want to read it?

Our world abounds with information technology, which, by degrees, can often bedazzle and sometimes befuddle us as we are constantly inundated with data, news, views, images, videos, and prose. Some sage once said that ‘change is the only constant’ and that is invariably and inevitably true in publishing. The internet is here to stay, as is the delivery of the aforementioned inundations by such means.

Many of you will have noticed the number of publishers who have embraced the delivery of their product via the internet – you can now read the *Economist*, the *Financial Times*, the *Guardian*, *Vogue* (to name but a few) online. Such developments are closely linked to the decline of print advertising revenues and the rise of the portable telephone. Media are mobile these days and, as a consequence, we think that these are the sorts of questions that must be posed for your journal:

- How best to develop *BB* for the future?
- What to change to?
- How to make the change?
- When to make the change?

There are no easy answers to these questions but doing nothing is surely not an option. Personally, I rather liked the revival of

a pithy favourite acronym of a former Prime Minister around Budget Day in March earlier this year – namely TINA (There Is No Alternative!). Fortunately there are always options; we just have to be brave enough to pursue the best ones.

So... what options are there? The most obvious is a digital version of *BB* delivered across multiple devices, smartphones, tablets, desktops, etc. Another is our website, which, after being revamped three years ago, is now being refreshed once again to enhance access to – and enjoyment of – our 100-year archive. New *BB* readers will be increasingly savvy when it comes to technology.

Many of you regularly send us honest, straight-talking feedback on the content we deliver and the changes we have introduced in the past 12 months (such as the introduction of these editorials); pleasingly, most of this has been positive but we are just as keen to receive constructive criticism too. Thereby hangs the opportunity to improve our product and make it more attractive to more people, including the vital fresh blood of new subscribers.

Without refreshing, renewing and increasing its subscribers, any journal will die. I have already alluded to the decline of print advertising, and the examples of online publishing I mentioned earlier have adopted a business model of making premium content available at a reasonable price. They have found that doing it for free and relying on advertising is a non-starter and a death knell.

Internet advertising is predicated on millions or billions of hits at minuscule prices per hit – it really is a numbers game. If that scale is simply unattainable, then a different model, based on paying for what you want, is the only alternative. Like many others in a similar position, we have a great product with superb content but we are never going to compete with Google, Facebook and such like.

If it is great content that is unmissable (and we think it is), then it’s valuable to and valued by subscribers. The *BB* team is acutely aware of this and knows that it has to bridge



Richard Chandler

418. Part of the *BB* team, at Cley in November 2012. From left, Ian Packer, Adrian Pitches, Conor Jameson, Richard Porter, Jeremy Greenwood, Richard Chandler, Dawn Balmer, John Eyre, Peter Oliver, Ian Newton, Mark Holling, Ciaran Nelson, Roger Riddington and Adam Rowlands.

two worlds of change, with some overlap in the middle, for *BB*'s future. At present there are plenty of our subscribers who will continue to want their quality print copy dropping on their doormat every month and we fully intend to do that for as long as it's viable. We also recognise that the future of *BB* lies not only with our prized present readership but with the next generation of birders, and the one after that. Birding is constantly changing and we have to adapt or die – that's evolution for you.

Future readers will want their content to be with them and accessible at all times, anywhere. They won't need or nurture a doormat. In the interim, there will be those who value their traditional collection of paper issues but have augmented their consumption to embrace the digital view. Each experience offers different values to different readers and we consider that we really must offer these options, so that you may take whichever suits you best.

These changes require timing and investment – both of which the *BB* team is fully prepared to make, in terms of both human resource and cash. Whatever model we adopt, the journal must remain financially viable. It's relatively easy to suggest alternative models but not so easy to come up with

ones that ensure viability. The key question is: What do you want and what are our future readers likely to want?

In terms of content, our editorial team is sourcing great papers that we think you will like and from the Readership Survey we took cues on how to change the mix to make it better (and in many cases the best available anywhere). We have also changed the presentation, the layout and the order of material to engage you more. It has to stay fresh and vital to maintain, keep and grow your interest and appeal to potential new readers to the extent that they will want to have what's on offer.

As to delivery, we think we must move with the changing landscape in the publishing and media worlds. We do have a precious niche in our crowded media world to deliver cutting-edge, first-rate content to those who want it. We must use that space wisely, adapting and evolving to maximise your greater pleasure, knowledge and satisfaction.

So... where DO you want to go tomorrow? This editorial, along with other *BB* eye contributions, appears on our website as well as in the magazine. Do, please, use the comments facility on the website to tell us where YOU want *BB* to go.

Ian Packer

What do you think? Join the debate at www.britishbirds.co.uk/category/editorials

News and comment

Compiled by Adrian Pitches

Opinions expressed in this feature are not necessarily those of *British Birds*

Record flock of Spoon-billed Sandpipers in China

An international survey team has found a sensational record total of 140 Spoon-billed Sandpipers *Calidris pygmeus* and 1,200 Nordmann's Greenshanks *Tringa guttifer*, in Jiangsu Province on the Yellow Sea coast north of Shanghai. This is the largest number of Spoon-billed Sandpipers recorded anywhere in the world since 2008 and the highest count ever of the Endangered Nordmann's Greenshank. The sandpiper and the greenshank are two of the rarest and most threatened birds in the world.

'We believe the entire world population of adult Spoon-billed Sandpiper and Nordmann's Greenshank are staging at the highly productive intertidal flats on the coast of Rudong,' stated Dr Nigel Clark from the BTO, highlighting its vital importance for the survival of both species. Repre-

sentatives of the local and provincial government announced the creation of a special wetland reserve for Spoon-billed Sandpipers during a workshop following the survey in October.

'This is a historic moment in the conservation of the species. For the first time since our efforts to conserve the species began in 2000, we can realistically hope to save the species from extinction,' concluded Dr Christoph Zöckler, co-ordinator of the SBS Task Force, who organised the survey along 120 km of coastline between Dongtai and Rudong with Jing Li and Tong Menxiu from SBS in China.

Many of the most important intertidal wetlands along the Jiangsu coast are threatened by continuing reclamation for agricultural and industrial development. However, local and provincial authorities now recognise the international impor-

tance of the area, as shown by their announcement of the creation of a new protected area for Spoon-billed Sandpipers. This, together with two shellfish reserves which overlap with most of the wader feeding areas, provides the first protection for this vital link in the chain of wetlands on which these two species depend during their migration between breeding areas in Arctic Russia and wintering sites in tropical Southeast Asia.

'Our surveys confirm the intertidal wetlands of Rudong as the most important remaining stopover site for the Spoon-billed Sandpiper during its entire 8,000-km-long migration route. Protecting these internationally important intertidal wetlands is vital for the sandpiper's survival, and also for the maintenance of the shellfishery and other vital services provided by tidal flats,' said Jing Li.



Richard Chandler

419. Spoon-billed Sandpiper *Calidris pygmeus*, South Korea, May 2008.

Spoon-billed Sandpiper breeding at Slimbridge in 2014?

With an estimated breeding population of fewer than 100 pairs – and recent *annual* population decline of 26% – the Spoon-billed Sandpiper is in serious danger. The multi-agency SBS Task Force is tackling poor breeding success, hunting on the wintering grounds and rapid habitat destruction of mudflats along the shorebird's migration route. A captive-breeding programme at Slimbridge, the

WWT HQ in Gloucestershire, was also launched in 2011 as a last-ditch attempt to save the species if the wild population falls to an unsustainable level.

So what's been happening over the past three seasons at Slimbridge? In both 2011 and 2012, clutches of eggs were taken from nests in northeast Siberia, hatched in incubators and the young birds reared in specially constructed pens at Slimbridge.

There are 11 birds surviving from the cohort of 2011, which includes six males, two females and three birds of unknown sex. The 2012 cohort comprises 15 birds: seven males, seven females and one bird of unknown sex. Within this population of 26 birds, WWT is close to attaining its target population of ten breeding pairs. (No eggs or chicks were taken from Russia to Slimbridge in 2013.)

In the spring of 2013, all of the 2011 birds attained breeding plumage and the 2012 birds also moulted at the same time. The adults' behaviour also changed, with much displaying, chasing and calling, but no eggs were laid. However, this was not unexpected because Spoon-billed Sandpipers don't normally breed until they are three years old. Hopes are high that the first captive breeding will now take place in spring 2014.

WWT aviculturists also travelled to the Russian tundra in summer 2013 to conduct 'headstarting' of young spoonies on the breeding grounds. Six clutches of eggs were collected, 18 eggs hatched and 16 birds were released. Post-release monitoring

showed that these birds migrated 'normally', i.e. left the release site within ten days of being released. All were marked with individually coded white leg-flags. On 7th November the first unconfirmed sighting of a leg-flagged bird was reported in Thailand.

'Headstarting' clearly boosts nest productivity. Without intervention, productivity is c. 0.6 fledglings per breeding pair as predation from species such as skuas, stoats and ground squirrels is very high. But clutches of four eggs collected for rear and release yield at least three fledglings per nest based on experience gained in 2011, 2012 and 2013. To this five-fold increase in productivity can be added the fledglings produced by relaying of birds from whose nests the eggs had been taken (at least one female was known to have relaid and successfully reared chicks in 2011, at least one female relaid in 2012 and four in 2013). The WWT/Birds Russia team will return to Meinypil'gyno – a site which holds at least 10% of the world population of Spoon-billed Sandpipers – in 2014 to conduct more 'headstarting'.

Seabird death chemical to be banned

Wildlife charities have welcomed the International Maritime Organisation's swift action to ban ships across the world from discharging all forms of high-viscosity polyisobutylene (PIB) into the sea during tank cleaning operations. PIB was the chemical responsible for the deaths of over 4,000 seabirds on the coast of southwest England earlier this year, the largest marine pollution incident of its kind in the region.

Alec Taylor, Marine Policy Officer for the RSPB, said: 'We are delighted with the action taken by the IMO. The global trade in PIB products is increasing and with it the risks to our precious marine environment. The global ban on the deliberate discharge of high-viscosity PIBs into our seas is a real step forward and one that we hope will end this particular pollution threat to seabirds and other marine life.'

Between February and April this year over 4,000 seabirds, of at least 18 species, mainly Common Guillemots *Uria aalge*, were washed up

on beaches from Cornwall to Dorset in two separate incidents. The majority were dead, but some were alive and taken for treatment by the RSPCA at their West Hatch Centre in Somerset. The subsequent Maritime and Coastguard Agency investigation revealed that the birds had been smothered with high-viscosity PIB. The same substance was also responsible for the deaths of hundreds of seabirds off the Dutch coast in March 2010.

Peter Burgess, Devon Wildlife Trust's Conservation Advocacy Manager, said: 'This is an important decision for wildlife. It's pleasing to see how quickly the IMO has acted and heartening to hear that local people's concerns have helped build momentum towards achieving this. However, we do see the PIB incidents of 2013 as a wake-up call. Dead and dying seabirds washed up on some of the southwest's most popular beaches were hard to ignore. But how many unseen and unreported activities are damaging our precious marine wildlife in undersea habitats that are almost completely unprotected by law?'

Windfarm plan for the Flow Country

Twenty-five years after the bitterly fought campaign to prevent tax-break afforestation of the Flow Country with non-native conifers, a new threat has emerged – windfarms. RSPB Scotland has formally objected to an application for a 47-turbine windfarm proposed by SSE, owners of Scottish Hydro, and described it as one of the most worrying it has ever seen.

The Flow Country is the common name given

to the peatlands of Caithness and Sutherland, in the far north of Scotland, home to endangered breeding species such as Black-throated *Gavia arctica* and Red-throated Divers *G. stellata*, Golden Eagle *Aquila chrysaetos*, Hen Harrier *Circus cyaneus*, Merlin *Falco columbarius*, Golden Plover *Pluvialis apricaria* and Greenshank *Tringa nebularia*.

The peatlands are one of the world's rarest

habitats. As well as being a vital home for many bird species, they are an important carbon store. In its 30-page submission, RSPB Scotland criticised the windfarm proposal for its impact on breeding birds and its location, in the middle of the Caithness and Sutherland Peatlands Special Protection Area.

There is also concern that the development would undermine a shared vision to restore huge swathes of precious blanket bog within the Flow

Country. In October, the Scottish Government announced £15m of new funding to support restoration of Scotland's peatlands, such as those in the Flows. Stuart Housden, Director of RSPB Scotland, said: 'This is, without doubt, one of the most worrying windfarm applications we have seen in Scotland. Not only does it risk harming some of the UK's rarest species, it would make restoration of this core part of the globally important Flow Country much more difficult.'

Next Generation Birders

Older birders increasingly feel that a passion for birds – and their conservation – will die out if the Play Station generation refuses to lift its gaze from computer/smartphone screens and engage with the natural world. But there *is* an enthusiastic band of young birders out there who share their time between Facebook and bird book – and social media is helping to drive their birding, as Andrew Kinghorn of Next Generation Birders explains:

This week in birding...

02nd - 08th Nov

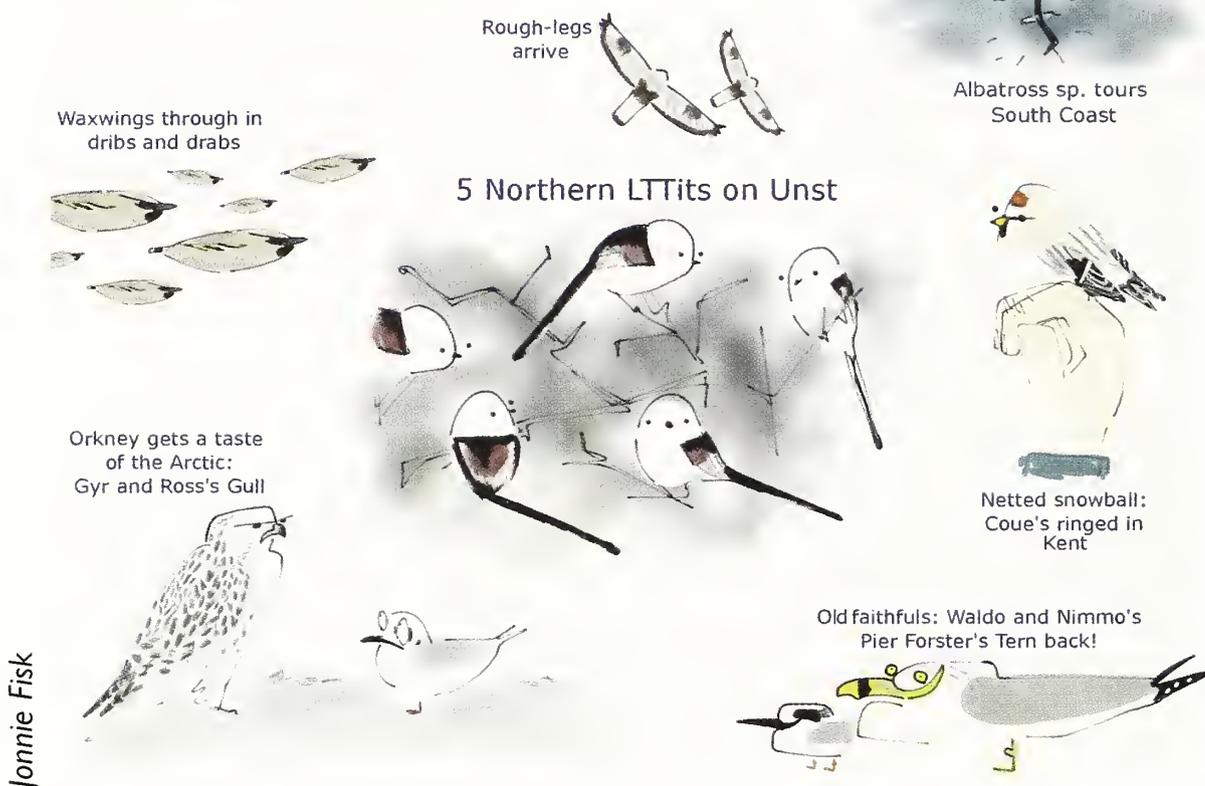


Fig. 1. 'This Week in Birding', 2nd–8th November, from the NGB.

'Next Generation Birders <http://nextgenerationbirders.blogspot.co.uk> is a group for keen young birders across the UK and further afield. The age range of the group is early teens right up to 25 years old. We have members across the globe, although most of our members are British birders. Our aim is to encourage birding in all its many forms, from ringing to hard-core twitching and everything in between.

'NGB is a group that understands that within birding there is a diversity of activities that contribute to an individual's enjoyment of birding; for

example, some may be keen on ringing whereas others are keener on patch work, county birding, twitching, or other activities. NGB is all about getting involved in what you enjoy in birding and sharing these experiences with others, picking up tips, learning about ID or just getting to meet like-minded individuals of a similar age.

'When individuals join NGB they soon become aware that the membership is active and takes birding seriously. Members of NGB have already begun to make their mark on the birding scene through ringing, finding rare birds and just by going around their local patch looking for birds.

'So what does the future hold for NGB? The group currently has a very active Facebook group with several posts and discussions a day and we have a growing following on Twitter @NGBirders. We hope to show the birding community that we are here and serious about birding. In 2014 our website will go live and the hope is that eventually NGB will be a "bookmarked" website for many birders to visit and see what the next generation of birders are up to.'

[The January 2014 issue of *BB* will contain an update on what some of the next generation of birders have achieved with their Young Birdwatchers' Grants awarded by the *British Birds* Charitable Trust.]

Make patchworking your New Year's resolution

Here's a question. In this year of amazing rarities, what did Bridled Tern *Onychoprion anaethetus*, Gyr Falcon *Falco rusticolus*, Semipalmated Plover *Charadrius semipalmatus* and Mourning Dove *Zenaida macroura* all have in common? The answer is that, among a host of other great birds, they've all been found by birders taking part in the 2013 Patchwork Challenge.

The Patchwork Challenge encourages birders to work a local patch of no more than 3 km², and accumulate a score over the course of the year based upon the number of species – and rarity of the birds they see. These scores can then be expressed as a percentage of the previous year's score – eliminating differences in quality between patches and levelling the playing field – which makes a comparison between a year spent patching on Shetland and one spent patching in central London a little more viable! Over 200 patches were entered for 2013 from Britain and Ireland, stretching from Virkie in Shetland to

Falmouth in Cornwall, and we're looking for many, many more in 2013.

While for the most part it remains a friendly competition, there is a little more to it. The finder of the best bird in 2013 will win a pair of binoculars courtesy of Meopta and Forest Optics (voted for by contestants) and we're hoping for something similar for 2014. Meopta and Forest Optics have also kindly agreed to donate £1 for each species seen over the course of the 2013 competition to the BTO's Out of Africa appeal – a donation which at the time of writing stands at a very respectable £311. We also encourage all contestants to submit their patch sightings to BirdTrack.

So if you're looking for a New Year's resolution, and if you work a local patch and think you'd like to take part in the Patchwork Challenge 2014, take a look at our blog <http://patchworkchallenge.blogspot.co.uk/> to sign up. The more the merrier!

(Contributed by Mark Lewis)

Last call for the Tawny Owl

First a big thank you to everyone who has responded to our appeal for records of daylight calling by Tawny Owls *Strix aluco*. The response to our study has blown the long-held theory that Tawny Owls are strictly nocturnal (in the UK at least) right out of the nestbox. We now have hundreds of records that show quite clearly that British Tawny Owls are far from being tucked up in bed in the middle of the day. It also illustrates how the behaviour and lifestyle of a fairly common species can change over the years, without being noticed by most people.

We intend to stop collecting records of daylight

calling at the end of this winter, as we shall then have sufficient information to present a report next year. Even so, we still need more information so all records from now until 28th February 2014 will be welcome. With this in mind, we are especially keen to receive records from Kent, Surrey, Sussex, Norfolk, Suffolk, Lincolnshire and north through to Scotland, the West Country, from Cornwall, Devon, Dorset and again north to Scotland.

Please contact jeff.r.martin@btinternet.com for a recording form and once again, many thanks to everyone who has contributed to the survey so far.

(Contributed by Jeff Martin and Heimo Mikkola)

New county bird recorder

Carmarthenshire Gary Harper, Maesteg, Capel Seion, Drefach, Llanelli, Carmarthenshire, SA14 7BS; tel. 01269 831496; e-mail gary.harper3@gmail.com

Corrections

In the November issue, the paper on *Subalpine Warbler: variation and taxonomy*, by Lars Svensson, contains an error in the paragraph on Western Subalpine Warbler *Sylvia i. inornata* (p. 658, col. 2). The penultimate sentence, discussing breeders in southern Iberia, should state that these birds are best treated within *S. inornata iberiae*, not nominate *inornata* as given. Also, the photograph of Bald Ibises *Geronticus eremita* on p. 649 was taken by Hanne & Jens Eriksen at Birecik, Turkey, in June 2002, not in Morocco as stated. We apologise for these errors. *Eds*

For extended versions of many of the stories featured here, and much more, visit our website www.britishbirds.co.uk

Redpolls: a review of their taxonomy, identification and British status

Andy Stoddart



Hugh Harrop

420. Hornemann's Arctic Redpoll, Cunningsburgh, Shetland, October 2009.

Abstract For taxonomists and birdwatchers alike, redpolls have long posed complex problems. This paper reviews our progress in solving those problems. It summarises the history and nature of the taxonomic debates and, for each form, describes its currently understood identification criteria and British status, both historical and present-day. A particular effort is made to disentangle some of the complexities surrounding Iceland's redpolls, notably its intriguing pale birds. Finally, some currently unresolved questions are posed.

Introduction

Britain is arguably the best place in the world to see redpolls *Carduelis cabaret/flammea/hornemanni*. Nowhere else provides such opportunities to see all the recognised forms. This happy situation brings with it some difficulties, however. Redpolls are both a delight and a frustration, charming and charismatic but also an infamously thorny

problem for both the taxonomist and the birdwatcher.

For the taxonomist, the proliferation of morphologically distinct but genetically similar forms provides a fascinating case study in speciation and the application of species concepts. There is, however, no consensus on the number of forms, let alone how these might be grouped into species. For

the birdwatcher, identification is frustrated by extensive plumage variation within, and by overlapping characters between, those forms. Identifying and recording redpolls accurately is a challenge, not helped by the birds' nomadic habits, erratic and unpredictable irruptions, rapid changes in population size and distribution, and a propensity for extralimital breeding. We still do not even know which redpoll forms breed in Britain.

The problems are therefore complex and, inevitably, our progress in solving them has been slow and halting. A brief historical review is therefore useful in providing a context and rationale for this paper.

A long and winding road

In the post-Witherby era the most intractable redpoll problem was considered to be the separation of Arctic Redpoll *C. hornemanni* from Mealy Redpoll *C. f. flammea*. However, even after the formation of the British Birds Rarities Committee (BBRC) in 1959, the identification of Arctic Redpoll continued to suffer from a major confidence crisis that persisted into the 1980s, driven mainly by debates over the bird's taxonomic position and therefore its diagnosability. As recently as 1977, BBRC qualified the few non-trapped acceptances as 'sight records', an 'accolade' granted to no other species.

In the 1980s, a consensus at last emerged over the taxonomic position of Arctic Redpoll (Molau 1985; Knox 1988) and over the following decade a series of influxes enabled a number of the long-standing myths about its identification to be banished (Lansdown *et al.* 1991; Stoddart 1991; Votier *et al.* 2000). Finally, the credibility barrier was broken and it was acknowledged that typical examples could, after all, be identified in the field. These episodes of rapid learning confirmed its status as a regular though erratic late-autumn and winter visitor, occurring mainly during periodic influxes of Mealy Redpolls.

The problems are not over, however. In the wake of the record influx of 1995/96, Coues's Arctic Redpoll *C. h. exilipes* was removed from the BBRC list at the end of 2005. Claims are now considered by local and county records committees but a run of poor

winters for this form has left the latest generation of observers and record assessors lacking in recent experience.

Nor are today's problems confined to the identification of Arctic Redpoll. The split of Lesser Redpoll *C. cabaret* (Knox *et al.* 2001) triggered a taxonomic debate that rumbles on to this day and also brought into focus the problem of separating some Lesser and Mealy Redpolls. In much of Britain, Mealy Redpoll is sufficiently rare to warrant careful documentation whereas in the Northern Isles the same is true for Lesser Redpoll.

In the late 1990s, the spotlight also fell on the taxonomic and identification problems associated with Greenland *C. f. rostrata* and Iceland Redpolls *C. f. islandica*, the latter a curious 'aggregate form' long sidelined in the convenient belief (or hope?) that it was resident in Iceland and could therefore be ignored. Two papers in particular (Riddington & Votier 1997 and Reid & Riddington 1998) helped to further our understanding of the taxonomy, appearance and status of these forms. Today, after a series of influxes beginning in 2003, we have also had to refresh our understanding of Hornemann's Arctic Redpoll *C. h. hornemanni*, a form previously neglected in the quest to separate Arctic and Mealy Redpolls.

The occurrence of these northwestern forms in northern Scotland is now well established but they remain unfamiliar to observers farther south. Yet, since there have been recent records of all these forms in southern England, we clearly have another new and potentially troublesome set of problems for observers and records committees.

Continuing challenges

It is now clear that all the redpoll forms should be 'on the radar' anywhere in Britain but we are still not well equipped to identify them. For example, *The Collins Guide* (Svensson *et al.* 2009) – the market-leading and most widely used field guide – makes only a fleeting reference to Greenland Redpoll and none whatsoever to Icelandic birds or to Hornemann's Arctic Redpoll, and none of these forms is illustrated.

Given that taxonomic difficulties remain

unresolved and that the number of identification challenges seems to be increasing, it is perhaps not surprising that a defeatist attitude sometimes prevails. Redpolls are, however, demonstrably not 'all the same' and calling for them to be lumped will not make the problems go away! The morphological, vocal and ecological differentiation between the forms is real – they are in most cases 'diagnosably different' – and, whatever their taxonomic status, we should still be attempting to identify and record them.

It is hoped that this paper will provide both encouragement and a useful resource for observers and records committees. It reviews our knowledge of the taxonomy, identification and British status of all the redpoll forms and highlights a number of areas where questions remain. A particular effort is made to disentangle some of the complexities surrounding Iceland's redpolls and to present as much information as possible on its intriguing pale birds.

The paper is based on an extensive review of the literature but also on many years of personal field experience, notably contact with well over a hundred Coues's Arctic Redpolls in Britain and others in Canada, Finland and Norway. It also draws on experience of Iceland and Hornemann's Arctic Redpolls in Iceland, and of Iceland, Greenland and Hornemann's Arctic Redpolls in Britain.

Taxonomy

Six redpoll forms are recognised by most authors, as follows (and using the English names given in Witherby *et al.* 1940):

Lesser Redpoll *C. cabaret*, which breeds in alpine central Europe, Britain & Ireland and around the southern North Sea, and is now spreading into southern Scandinavia and the southern Baltic region. In winter it withdraws from the more northerly or high-altitude parts of the range. It has been introduced to New Zealand, from where it has colonised a number of South Pacific islands.

Mealy Redpoll *C. (f.) flammea*, which breeds in the boreal zone across the whole of northern continental Europe, Asia and North

America. It winters to the south in all three continents but is highly irruptive and nomadic.

Greenland Redpoll *C. (f.) rostrata*, which breeds mainly in southern Greenland (where it is spreading north) and on Baffin Island and reportedly in northern Labrador. Most move southwest into eastern Canada and the northeastern USA but some move southeast to northwest Europe.

Iceland Redpoll *C. (f.) islandica*, which breeds in Iceland, where formerly considered resident, but there is increasing evidence that some wander southeast to Britain.

Hornemann's Arctic Redpoll *C. (h.) hornemanni*, which breeds in east and northwest Greenland and on Axel Heiberg, Baffin, Bylot, Devon and Ellesmere Islands. Many winter at high latitudes but some move southwest into eastern Canada and the northeastern USA and southeast to northwest Europe.

Coues's Arctic Redpoll *C. (h.) exilipes*, which breeds in the tundra zone across the whole of northern Europe, Asia and North America apart from Iceland, Greenland and the east Canadian Arctic. Many winter at high latitudes but some also move south with *flammea*.

Since the nineteenth century (when the fashion was to recognise many forms as species) the redpolls have generally been grouped into two polytypic species: Common Redpoll, comprising *cabaret*, *flammea*, *rostrata* and *islandica*, and Arctic Redpoll, comprising *exilipes* and *hornemanni*. However, since 2000 *cabaret* has been split by BOURC as 'Lesser Redpoll' (Knox *et al.* 2001).

Continuing controversies

Redpoll taxonomy remains controversial; by no means all authors agree on the above definition of forms and there has been much debate over the question of how many (or few) species might be involved. As few as one (Salomonsen 1951) and as many as seven (Coues 1862) species have been proposed.

Today, taxonomic controversies have intensified following the initial results of DNA analysis which have, in the markers so far examined, shown no differentiation between the forms and no genetic support for the current taxonomy (Seutin *et al.* 1995; Ottvall *et al.* 2002; Marthinsen *et al.* 2008). This might suggest that redpolls form a single gene pool with variation explained by Bergmann's rule (organisms inhabiting colder environments tend to be larger) and Gloger's rule (organisms inhabiting drier environments tend to be paler) (Marthinsen *et al.* 2008).

The absence of genetic differentiation does not, however, preclude the possibility that there are several species within the redpoll complex. Although genetic differences are a good indicator of species distinctiveness, lack of them cannot be taken as proof of conspecificity (Seutin *et al.* 1995). Indeed the 'diagnosable distinctiveness' of the forms (expressed in terms of morphology, vocalisations and ecology) suggests that at least some may qualify for species status under the Phylogenetic Species Concept (PSC), while the evidence of reproductive barriers might also indicate species status under the Biological Species Concept (BSC). The DNA results may merely indicate that these are recently evolved species which have yet to show detectable genetic divergence (Ottvall *et al.* 2002; Marthinsen *et al.* 2008).

The problem of *flammea* and *exilipes*

Traditionally, redpoll studies have focused on the taxonomic position of Common and Arctic Redpolls, more specifically the extent of gene flow between the two widespread sympatric forms *flammea* and *exilipes*. Some authors (e.g. Williamson 1961) have suggested that these forms exhibit a continuous cline in characters and have claimed the existence of a large number of apparent 'intermediates', which are cited as evidence of widespread hybridisation. Troy (1985) studied both forms breeding in Alaska and proposed that they should be regarded not only as conspecific but also as consubspecific.

However, most subsequent authors (notably Knox 1988) have rejected this hypothesis on the basis that the so-called 'intermediates' merely represent the normal, though overlapping, range of seasonal and age- and sex-related plumage variation in each form. In other words, most 'intermediates' are either bright, fresh *flammea* or dull, worn *exilipes*. Nor are the differences confined to plumage. Herremans (1990) considered that at least 95% (and perhaps as many as 99%) of *flammea* and *exilipes* can be separated biometrically, the latter being consistently shorter-billed and longer-tailed. Knox (1988) also argued that



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421. Mealy Redpoll, Anjalankoski, Finland, 2007. Ringing recoveries have shown Mealy Redpolls to be capable of exceptional journeys; in fact, this redpoll form is one of the most travelled of all passerines. Birds may be reaching Britain from as far away as northeast China.

the two forms are also diagnosably distinct and valid species on the basis of vocalisations, migration strategy and feeding and breeding ecology. Such multiple differences preclude the possibility of *flammea* and *exilipes* being colour morphs of a single form.

Furthermore, while *flammea* and *exilipes* inhabit vast and overlapping breeding ranges and are prone to extensive nomadism, there is no evidence of interbreeding. Conversely, there is ample evidence that assortative mating is the norm. Published statements to the contrary are based on the existence of apparent 'intermediates' (often in museum collections) not on observations of actual mixed breeding (Knox 1988).

These findings in respect of *flammea* and *exilipes*, also supported by the studies of Molau (1985) and Seutin *et al.* (1992), form the basis of the widely accepted split of Common and Arctic Redpolls. There is also no evidence of any significant gene flow between *rostrata* and *hornemanni* in Greenland (Knox 1988). Only in Iceland is the situation more complex (see below).

The position of *cabaret*

The traditional two-way split of the redpoll complex was abandoned in 2000 when BOURC split *cabaret* from *flammea* on the basis of morphology, vocalisations and sympatric breeding (Knox *et al.* 2001). This split has also been adopted in the Netherlands by the CSNA and in the USA by the AOU. Until recently, the ranges of these two forms lay some way apart but in the 1990s *cabaret* spread north to meet the southern Scandinavian range of *flammea*. Here, the first studies showed evidence of assortative mating between the two forms (Lifjeld & Bjerke 1996).

The position of *cabaret* has remained controversial, however. Ottvall *et al.* (2002) noted the small sample size of Lifjeld & Bjerke's study and claimed the occurrence of apparent 'intermediates', citing anecdotal difficulties encountered in southern Scandinavia in separating some *cabaret* from some *flammea*. Furthermore, even Lifjeld considered a split based on his paper to be premature (AERC TAC 2003). In view of these assertions, and also because of the subsequent results from genetic analysis,



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422. Lesser Redpoll, Out Skerries, Shetland, September 2011. Although this individual is relatively straightforward to separate from *flammea*, being strongly washed warm brown above and below, some can be more problematic. Nor are problems confined to identification, for the taxonomy of this form remains much debated too.

some authorities, including the IOC and BirdLife International, have not followed BOURC in splitting *cabaret*.

It is not yet clear whether identification difficulties mean that some birds are genuinely 'intermediate' (indicating hybridisation) or simply that, like some other redpoll forms, *cabaret* and *flammea* are variable and overlapping in their characters, an issue only now receiving attention in the wake of the split. Furthermore, the claimed high percentage of 'intermediates' implies that interbreeding must be taking place in an extensive area of range overlap. However, no such area is known and no such interbreeding has been recorded (Collinson 2006). Consequently, in the absence of any published contradiction of the findings of Lijfeld & Bjerke (1996), the BOU split stands, for the time being at least.

The situation in Iceland

Even more uncertainty surrounds the taxonomic position of redpolls in Iceland. Early accounts of the form breeding in that country were contradictory, variously claiming it to be *flammea*, *hornemanni* or *exilipes*. Hantzsch (1904) described '*islandica*' from a mixed (though largely dark) type series, likening it to *rostrata*. Witherby *et al.* (1940) took a similar view, only recognising the presence of dark birds in Iceland and regarding them as indistinguishable from *rostrata*. Salomonsen (1951) showed that the Icelandic breeding population contained both dark and pale birds, but he treated them as a single, continuously variable form, a 'hybrid swarm' in which the isolating mechanisms between the two types (assumed to be *rostrata* and *hornemanni*) had broken down.

The view that Iceland hosted only one, albeit highly variable, form was accepted for decades but Knox (1988) argued that two distinct forms, separable by plumage, were actually involved: a dark form most resembling *rostrata* and a pale form most resembling *exilipes* or *hornemanni*.

Herremans (1990) corroborated and extended Knox's findings, showing that Iceland's redpolls comprised two distinct lineages distinguishable not just on the basis of plumage but also in terms of

measurements. In a multivariate study of all the redpolls, he produced new evidence of biometric differences, showing that pale Icelandic birds are consistently smaller-billed and longer-tailed than the dark birds. The pale birds are biometrically distinct not only from Iceland's dark birds but also from all dark redpoll forms; their measurements cluster with (but are not the same as) those of *exilipes* and *hornemanni* to form a separate group of three pale taxa.

Herremans (1990) went on to argue that such multiple differences, encompassing both plumage and structure, preclude the possibility that Iceland's dark and pale birds are colour morphs of a single form. Given that such differences are unlikely to be found in a freely interbreeding population, they do not support the notion of a 'hybrid swarm' either. Regarding the dark Icelandic birds as indistinguishable from *rostrata*, he included them within that form; the pale birds were recognised as a separate entity, a hitherto undescribed and unnamed endemic form of Arctic Redpoll. This treatment was followed by Cramp & Perrins (1994).

As with *flammea* and *exilipes*, the question arises as to how easily a line can be drawn between the two types (dark and pale) and to what extent – if any – gene flow between them may explain the existence of apparent 'intermediates'. Knox (1988) noted that: 'most of the breeding Icelandic redpolls can easily be assigned to either the light or the dark form'. Herremans (1990) observed that it is 'generally easier to classify birds as dark than to decide between pale or indeterminate'. Herremans showed that, since the biometrics of so-called 'intermediates' cluster with those of pale birds, they represent the normal range of variation within that form. In other words, they are the more worn, or darker and more heavily streaked individuals, mainly female and young birds – a situation analogous to that now demonstrated for *exilipes*, where previously over-rigid plumage definitions created a large but false pool of 'intermediates'.

The situation in Iceland is clearly complex but to date there are no published Icelandic studies which might confirm or refine the above arguments.

A pragmatic approach

Given the absence of a stable taxonomy, it seems best to keep an open mind on whether the redpoll complex is formed of one, two, three or even as many as six species. From an identification and recording perspective, it makes sense to deal not in the currency of species at all but in that of forms, and with only those forms that are likely to be identifiable in a field situation.

In this respect, however, the form *islandica*, as currently constituted, is unhelpful. It contains both dark birds – some of which are effectively indistinguishable from *rostrata* – and pale birds – some of which are strikingly different, and which cannot be properly recorded if they are lost within an aggregate form. Consequently, I have followed Herremans (1990) and Cramp & Perrins (1994) in treating the dark birds from Iceland (henceforth referred to as ‘Dark Iceland Redpoll’ or ‘dark *islandica*’) with

rostrata and accord separate treatment to the pale birds. Since no unique English name exists for the latter, I have coined the provisional and taxonomically neutral term ‘Pale Iceland Redpoll’. If this pale form was regarded formally as a separate taxon, ‘Iceland Arctic Redpoll’ would better reflect its plumage and structural affinities, while the name ‘*islandica*’ (which was first used with reference to dark birds) would be unavailable and a new scientific name would be required.

The separate treatment here of pale Icelandic birds is intended simply to facilitate discussion of their appearance and status. It should not be construed as favouring a particular taxonomic position but it does recognise the reality that Iceland’s pale birds differ significantly in appearance from their dark counterparts. Since their occurrence in Britain has already been documented, it would be perverse not to give them full

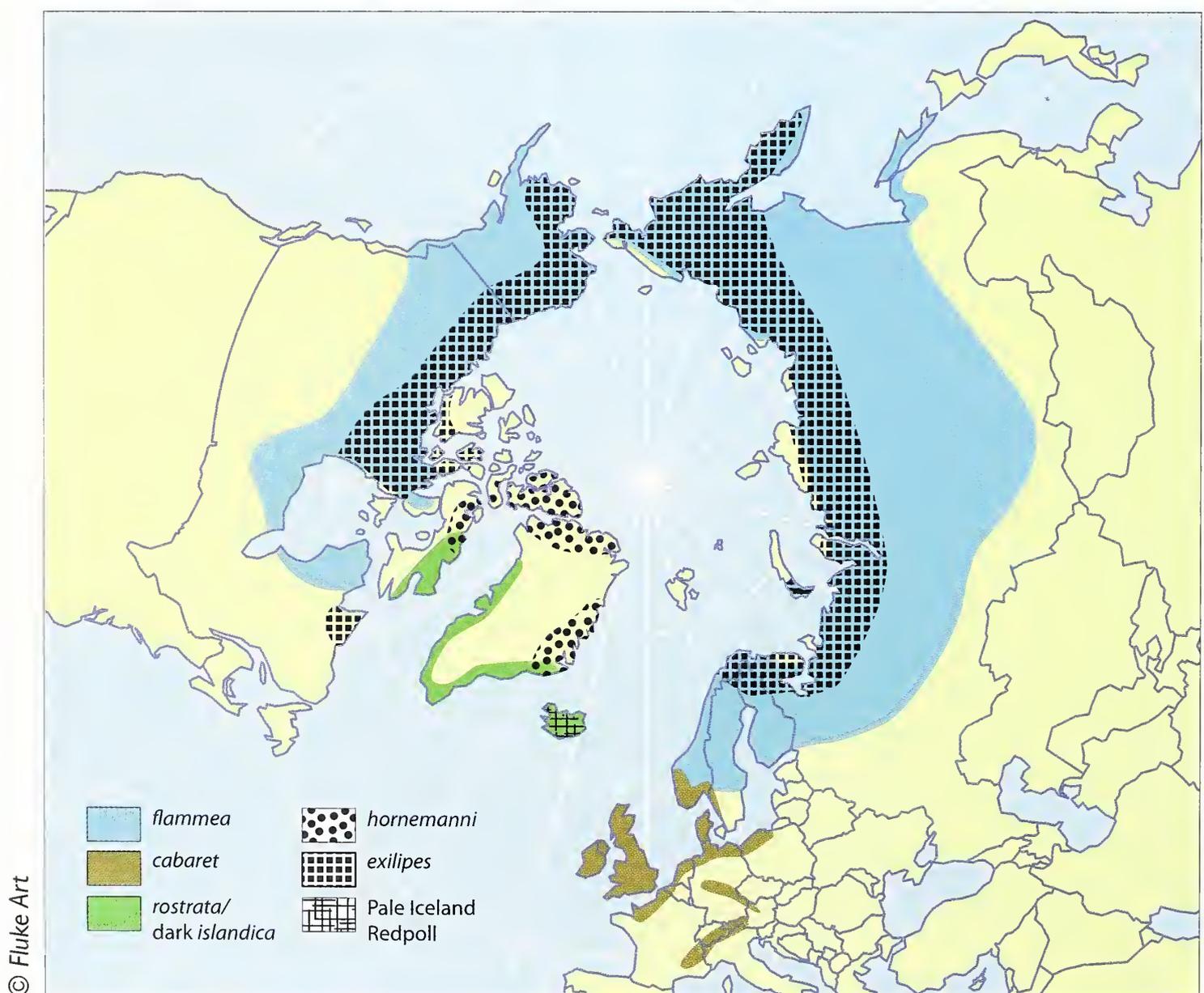


Fig. 1. The breeding distribution of the six redpoll forms, as treated in this paper, in the northern hemisphere.

treatment here. For British observers, it is these birds which will cause some of the greatest identification difficulties and from which we have the most to learn.

This paper therefore discusses the identification and British status of six 'field identifiable forms'. These are: Lesser (*cabaret*), Mealy (*flammea*), Greenland/Dark Iceland (*rostrata/dark islandica*), Pale Iceland, Coues's Arctic (*exilipes*) and Hornemann's Arctic Redpolls (*hornemanni*), and the breeding distribution of the six forms is shown in fig. 1. Although this arrangement does not reflect some current taxonomy, it is a more rational and pragmatic approach in that it reflects the reality of what is seen in the field.

Identification

Redpolls are notoriously hard to identify, never possessing a single absolutely diagnostic feature. In this respect they are comparable with large gulls *Larus* and their identification requires a similar tolerance of uncertainty. Identifying redpolls can sometimes be as much an art as a science and progress involves much learning from mistakes. Most birds have to be identified by reference to a 'suite of characters' (an approach familiar to gull-watchers), which, when taken together, will render most birds assignable to a form. Some birds, however, will still be problematic. To identify such 'problem redpolls' may require a combination of previous experience, time and patience, good views, note-taking, photographs, sound recording and subsequent research and reflection. Even then, some may still defy certain identification and we should be content to leave them unidentified.

This section explores some generic aspects of redpoll identification before addressing that of each form through an identification summary and a series of captioned photographs.

Plumage

The most significant problem is the considerable seasonal and age- and sex-related plumage variation shown by all forms.

All redpolls have one moult per year. The adults have a complete post-breeding moult,

while first-years have a partial moult (not including most of the wing and tail feathers) in their first autumn. First-years are most readily aged by the slightly more worn and pointed tips to the juvenile tail feathers. In autumn, redpolls are in fresh plumage and most birds display considerable buff in the face and upper breast, bold wing-bars, broad, pale fringes to the upperparts and wing feathers and, in some forms, white in the rump.

As winter progresses, the buff hues fade and the pale feather tips gradually wear away to reveal more extensive dark feathering below. By the spring many birds have become quite abraded, appearing darker, greyer and more streaked. At this season, redpolls are at their hardest to identify, very different in appearance from fresh bright autumn birds (and from those illustrated in field guides). The red or pink of breeding plumage is acquired through abrasion (wear) but such hues can be pale or muted early in the season before their full colour and extent are revealed.

There is also considerable age- and sex-related variation in plumage, though redpolls are difficult to age and sex, even in the hand. Adults are generally paler than first-years and males are paler and less streaked on the flanks, rump and undertail-coverts than females. In breeding plumage adult male Common Redpolls (though see *rostrata/dark islandica*) show extensive red across the breast, lower face, upper flanks and rump, and some colour can also be shown by young males and adult females. Adult (and some young) male Arctic Redpolls show a restricted pale pink flush on the breast centre, sometimes also on the lower face and rump.

This high degree of plumage variability means that it is important to compare birds of the same age and sex and at the same time of year before coming to conclusions about their identity. It is also vital to consider the effect of light on a bird's appearance – on a dull winter's day a bright buffy bird can appear grey. Furthermore, when fluffed up, redpolls generally look whiter-rumped and whiter-flanked but sleeked down they appear correspondingly darker with more concentrated and organised streaking.

Table 1. Wing, tail, bill and weight measurements of six redpoll forms. Wing, tail and bill measurements are from Knox (1988), weights from Cramp & Perrins (1994).

		Lesser <i>cabaret</i>	Mealy <i>flammea</i>	Greenland/ Dark Iceland <i>rostrata/dark islandica</i>	Pale Iceland Redpoll	Coues's <i>exilipes</i>	Hornemann's <i>hornemanni</i>
Wing length (mm)	mean	69.5	74.4	78.4	78.5	74.5	84.1
	range	62–77	70–81	71–85	73–85	71–79	80–91
	sample	79	213	102	29	73	40
Tail length (mm)	mean	50.4	54.2	57.6	60.4	56.1	62.4
	range	46–55	49–62	52–66	52–66	52–62	55–70
	sample	79	211	100	29	72	40
Bill length (mm)	mean	8.5	9	9	8.6	7.8	9.1
	range	7–11	7–13	7.8–11	7.8–9.3	7–9.1	8.6–10
	sample	77	210	98	26	72	40
Bill depth (mm)	mean	5.5	5.9	6.4	6.2	5.8	6.9
	range	5–7	5–7	5.9–7.3	5–7	5–6.5	5.9–7.8
	sample	57	115	76	25	44	29
Bill width (mm)	mean	5.6	5.8	6.2	6	6.9	6.9
	range	5–7	5–7	5.8–7	5–6.8	5.9–7.8	6.0–7.9
	sample	71	204	101	28	69	40
Weight (g)	mean	11.9	12.9	16.3	NA	12.3	NA
	range	9–16.5	10.3–16	10.7–21.7		10.7–14.2	
	sample	1,343	321	37		6	

Table 2. To compare with redpolls, wing length and weight measurements of Siskin *C. spinus*, Twite *C. flavirostris* and Common Chaffinch *Fringilla coelebs*. All measurements are from Cramp & Perrins (1994).

	Wing length (mm)	Weight (g)
Siskin	mean 72.6	mean 12.8
	range 68–76	range 10.5–15.0
Twite	mean 77.5	mean 16.2
	range 76–80	range 11–23
Common Chaffinch	mean 86.5	mean 22.9
	range 78–95	range 20–28

Size and structure

An assessment of size and structure is just as important as one of plumage. Given that some forms show highly convergent or overlapping plumage characters, these can

often be decisive factors in identification. Caution is needed, however, since although the differences in average size are considerable there can be overlap at the edges of the range. It is also particularly hard to judge the size of a lone bird. Structure is perhaps a more valuable aid: even minor differences in bill proportions, body length and tail length can give a bird a rather different 'feel' (see tables 1 & 2).

Another important determinant of perceived size and structure is feather density, notably the dense body plumage of the Arctic Redpolls. This gives these forms a more bull-necked and broad-bodied appearance and an overall more fluffy and well-padded look. Furthermore, these forms habitually fluff up this dense plumage, making them look even bigger and fatter, sometimes almost spherical, and they often seem to have difficulty covering up their rumps. This feather density is, however, not well conveyed

by traditional biometrics, including weight.

Vocalisations

There is some evidence (e.g. Herremans 1989) of vocal differences, albeit often slight, between the forms, some of which may be sufficient to resolve the identity of an otherwise difficult bird. In general, *cabaret* is considered to have high-pitched and rather rapid 'chatter calls', while those of *flammea* are lower-pitched, slower and more staccato. The chatter calls of *exilipes* are often considered to be a little higher-pitched than those of *flammea* but the differences seem subtle at best.

The chatter calls of *rostrata*/dark *islandica* at least are more clearly different, however, being loud, harsh and low-pitched, often delivered slowly and comprising single, well-separated 'chup' notes (Reid & Riddington 1998; pers. obs.). Harsh, low-pitched chatter calls also appear to characterise Pale Iceland Redpoll and *hornemanni*.

The use of vocalisations in redpoll identification is still evolving, however. Redpolls have a wide vocabulary and their calls may vary individually, geographically or according to context. This is an area of study to which sound recordings and sonograms will doubtless bring a new understanding.



John Miller

423. Coues's Arctic Redpoll, Kelling, Norfolk, January 2012. Coues's Arctic and Mealy Redpolls (*exilipes* and *flammea*) differ in both structure and plumage. The short-billed, long-tailed and densely feathered appearance of this bird is typical of *exilipes*, as are its plain face, pale rear scapulars, sparsely marked flanks and apparently white undertail-coverts.



Michael McKee

424. Hornemann's Arctic Redpoll, Out Skerries, Shetland, October 2009. With its deep buff face, pale upperparts, crisp black-and-white wing markings and snowy, billowing flanks, this is surely the most attractive and desirable redpoll form of all.

Lesser Redpoll (*cabaret*)

This is the smallest redpoll, short-bodied and relatively short-tailed. In many cases it is readily distinguishable by size alone. There is, however, some overlap of measurements with *flammea* and even with *rostrata*/dark *islandica* though the latter's large bill, long body and long tail should be apparent.

There remains some debate over how diagnosable *cabaret* really is by plumage. Knox (2001) surely overstated the case by saying that this is 'the most distinctive of all the redpoll taxa, and the only form that is not liable to be confused with any other'. Svensson (1992) regarded *cabaret* as 'identifiable after some practice'.

Worn, grey-looking spring birds, particularly those with white central mantle 'tramlines' and white greater-covert wing-bars, may be distinguishable from some *flammea* only with difficulty, while *cabaret* and *rostrata*/dark *islandica* share dark and warm plumage tones and may also hardly differ in plumage.



425. Lesser Redpoll, Cambridgeshire, March 2009. This *cabaret* looks typically neat and compact. The plumage is dark, heavily streaked and strongly suffused with warm brown; the nape is dark, not contrasting with the mantle; there are no obvious white mantle tramlines; and the wing-bars and the fringes to the wing feathers are washed with buff.

Tony Mills



426. Lesser Redpoll, Norfolk, February 2009. This individual is a brighter buff or yellowy-brown in the face and upperparts, and shows white mantle tramlines. However, there is still extensive buff in the wing-bars and wing-feather fringes. The belly is white, contrasting strongly with the warm buff face, upper breast and flanks, the last overlain with prominent dark streaking, which extends to the rear.

John Miller

427. Lesser Redpoll, Norfolk, February 2009. A colder-toned bird, showing grey hues in the face, bright white mantle tramlines and a white greater-covert wing-bar. Such birds may closely resemble *flammea*.



John Miller

428. Lesser Redpoll, Norfolk, March 2009. This breeding-plumaged adult male is strongly washed brown across the upperparts and wings, while the pinkish-red in the underparts is both deep-toned and extensive, covering the lower face, breast and flanks.



John Miller

429. Lesser Redpoll, Fair Isle, October 2010. This fresh autumn bird is typically bright buff, this colour extending right down the flanks and also infusing the wing-bar and fringes to the wing feathers. The flank streaking is extensive and heavy. The undertail-coverts on such fresh birds in autumn typically show thin dark shaft streaks and there is often a rich buff wash across the whole feather tract.



Rebecca Nason

Mealy Redpoll (*flammea*)

This is a medium-sized redpoll, similar in structure to, but larger overall and larger-billed than, *cabaret*; and smaller, shorter-bodied and shorter-tailed than *rostrata*/dark *islandica* (though measurements overlap with both). It is closest in size to *exilipes*, though less densely feathered and, on average, longer-billed and shorter-tailed. Some (formerly attributed to '*holboellii*') are strikingly long-billed, resembling Goldfinch *C. carduelis*. Such birds are the longest-billed of any redpoll form.

Greyer, more frosty plumage hues will distinguish many *flammea* from *cabaret*. However, browner individuals may resemble that form more closely, while paler birds, particularly fresh, frosty and pink-breasted adult males, are most likely to be confused with *exilipes*.

Confusion with *rostrata*/dark *islandica* (particularly the latter) is also possible, though this form is typically darker, browner and more heavily streaked. There is also a risk of confusion with some Pale Iceland Redpolls but that form typically shows a plain, more buff-washed face and paler upperparts.



Markus Varesvuo

430. Mealy Redpoll, Kotka, Finland, January 2009. In terms of structure this bird appears similar to *cabaret*, but it is typically a dull grey-brown above, lacking any warm tones, and the greater-covert wing-bar is white. It also shows a pale nape, which contrasts with the mantle, and a well-defined ear-covert patch. The flanks are greyish-white and well streaked while the rump is bright white but heavily streaked throughout almost its entire length.



Rebecca Nason

431. Mealy Redpoll, Fair Isle, October 2010. This is a paler, greyer individual but it still shows a contrasting paler nape. Although it is in fresh plumage, note the relative lack of buff in the face and upper breast. The wing-bar is broad, crisp and white, as are the fringes to the wing feathers, while white tramlines are also visible on the mantle. The flanks are well streaked on a greyish-white background. The bill is typically quite stout.

432. Mealy Redpoll, Fair Isle, October 2010. Though bright white, this bird's rump is almost wholly marked with heavy, dark grey streaks. Some birds may be a little less well marked on the rump, however, and may show a narrow unstreaked area. Also obvious here is a near-absence of buff in the face, a contrastingly pale nape and a quite heavy-looking bill.



Rebecca Nason

433. Mealy Redpoll, Anjalankoski, Finland, 2007. In this breeding-plumaged adult male the breast, lower face and upper flanks (and even the fore-supercilium) are extensively washed deep pinkish-red. Typically, in this plumage, the upper flanks are unmarked, with streaking restricted to the mid and rear flanks. Just visible here are white undertail-coverts with apparently only a single dark shaft streak on the longest feather – a common pattern in adult males. Birds of other plumage classes typically show a broad dark shaft streak on the longest undertail-covert and similar marks on adjacent feathers too.



Markus Varesvuo

434. Mealy Redpoll, Kotka, Finland, January 2009. This bird shows a typical combination of grey-brown upperparts, contrasting pale nape and stout bill. However, this relatively fresh-plumaged individual still has white tips covering the pinkish-red in the breast and lower face – making it look paler and less extensive – and whiter, less streaked rear flanks, while its undertail-coverts are white with a single dark shaft streak on the longest feather. Such birds are most likely to be confused with *exilipes*, though they lack the densely feathered and bull-necked appearance of that form.



Markus Varesvuo

Greenland/Dark Iceland Redpoll (*rostrata*/dark *islandica*)

This form's large size, its long, deep and broad-based bill, and its long-bodied, long-winged and long-tailed appearance should allow separation from most *flammea* and *cabaret*, though there is some slight overlap in measurements with both forms. Owing to almost wholly overlapping measurements with *rostrata*, only small examples of dark *islandica* will be identifiable in the hand.

In terms of plumage *rostrata* and dark *islandica* are very similar, indeed some are identical. Such birds may also be indistinguishable from *cabaret*. Many dark *islandica* are, however, somewhat paler, both above and below, and whiter-rumped than *rostrata*, thus recalling *flammea*, but typically darker, browner and more heavily streaked than that form.

Most *rostrata*/dark *islandica* are clearly darker than Pale Iceland Redpolls but some birds are more difficult to assign to one form or the other and are probably best left unidentified. Such birds may either indicate genetic mixing of the two Icelandic forms or they may simply represent the extremes of variation in each.

Many adult males in breeding plumage show no red in the underparts, and those which do show colour may have just a pale wash on the breast.



Roger Riddington

435. Greenland/Dark Iceland Redpoll, Fair Isle, October 2012. This bird is typically sturdy-looking, large-billed, long-winged and long-tailed. The plumage is dark, recalling *cabaret*, with earth-brown tones to the face and upperparts and, most strikingly, heavily sullied flanks with long lines of thick, blurry streaking extending to the rear. The greater-covert wing-bar on this individual is whitish, though on others it can be more buff.



John Miller

436. Greenland/Dark Iceland Redpoll, Norfolk, March 2009. This bird is one of the very few so far recorded in England. It was clearly a large-looking redpoll in the field, and its identity was confirmed in the hand. Note the long-bodied appearance as well as strikingly long wings and tail. The bill is large and the culmen subtly convex. Most obvious, however, is the very heavy flank streaking, which continues to the rear to join up with broad, dark arrowhead markings on the undertail-coverts. In life, this bird was strongly grey-toned, typical for a spring bird, yet note also the deep buff wash to the face and throat.

437. Greenland/Dark Iceland Redpoll, Selfoss, Iceland, October 2009. This bird is long-bodied, long-winged and long-tailed, while the bill is long, deep and broad-based with a subtly convex culmen. The upperparts are dark, brown and heavily streaked, the white mantle tramlines are much reduced and the greater-covert wing-bar and wing feather fringes are extensively washed buff. In addition the nape is dark, concolorous with the mantle, and the face is rather plain with little ear-covert demarcation. Instead, there is a rather solid dark wash across the ear-coverts, and the face and upper breast are washed rich buff. The rump of this individual resembles that of *flammea*, but many are darker-rumped.



Örn Óskarsson

438. Greenland/Dark Iceland Redpoll, Selfoss, Iceland, February 2011. This bird also appears very dark and heavily streaked. Here too the nape lacks contrast, the ear-coverts are solidly dark and there is a rich buff wash across the face and the sides of the upper breast. The underparts are a cold greyish-white and the flank streaking is long and heavy and extends to the rear flanks.



Örn Óskarsson

439. Greenland/Dark Iceland Redpoll, Selfoss, Iceland, March 2009. This dark Icelandic bird is typical of many. It closely resembles *rostrata* in its long-billed, long-winged and long-tailed structure but its face and upperparts are a touch paler and its underparts slightly whiter. In these latter respects such birds can recall *flammea*. The subtle pink wash across the breast and fore-flanks may well indicate an older male (this form may show little red in adult male plumage).



Örn Óskarsson

Pale Iceland Redpoll

This is a large redpoll, larger than *flammea* and *exilipes* and closest to *rostrata*/dark *islandica* though, on average, very slightly slimmer-billed (therefore sometimes looking a little ‘pointy-beaked’) and longer-tailed. Like the Arctic Redpolls, it is densely feathered and fluffy-looking.

The plumage of this form is also that of an Arctic Redpoll and adult males in breeding plumage show the restricted pale pink breast of an Arctic. Most Pale Iceland Redpolls are clearly paler than *rostrata*/dark *islandica* but some birds are more difficult to assign to one form or the other and are probably best left unidentified. Such birds may represent genetic mixing of the two Icelandic forms or simply the extremes of variation in each.

Most Pale Iceland Redpolls give a first impression closest to an *exilipes* with ‘excessive’ flank, rump and undertail-covert streaking. A minority, however, are much paler and much less streaked. Such birds may be difficult to distinguish from even a pale *exilipes* or *hornemanni* though overall size and bill structure should provide clues.

These very pale birds are much debated in Iceland, where they need to be distinguished from both passage *hornemanni* and the occasional presumed vagrant *exilipes*, and they often remain unidentified. This is a potentially significant problem in Britain too. It is quite possible that some British records of both *exilipes* and *hornemanni* actually refer to very pale Pale Iceland Redpolls.



Örn Óskarsson

440. Pale Iceland Redpoll, Selfoss, Iceland, January 2013. This typical bird shows a combination of plain, buff-washed face and upper breast, buffy mantle and scapulars and buff hues in the wing-feather fringes. The rump is bright white but overlain with heavy dark streaking while the flanks have a bright white ground colour but with dark streaks extending to the rear flanks. Overall, the bird looks more like an Arctic Redpoll than a pale version of *rostrata*/dark *islandica*.



Andy Stoddart

441. Pale Iceland Redpoll, Norfolk, March 2009. This bird looks similar to that in plate 440 and was photographed in England. It looks densely feathered, long-bodied, long-winged and long-tailed; the face and upper breast are plain buff; and the upperparts are buff and there are buff edges to the wing feathers. The rump is white, though heavily streaked, and the flanks are also white but marked with three rows of heavy streaking at the rear. The longest undertail-coverts of this bird were marked with broad arrowheads. Though this streaking might suggest *rostrata*/dark *islandica*, the overall impression is much closer to *exilipes*.

442. Pale Iceland Redpoll, Selfoss, Iceland, May 2012. The fringes to the wing feathers of this bird are whiter than those shown by the other Pale Iceland Redpolls illustrated here and its flanks are much less streaked. Pale Iceland Redpolls are, like all the Arctic Redpolls, densely feathered and persistently fluff up their flank feathering. They can also have difficulty covering their rump.



Örn Óskarsson

443. Pale Iceland Redpoll, Selfoss, Iceland, April 2011. This individual is a touch paler than those in plates 440–442. It is densely feathered, long-bodied, long-winged and long-tailed and has a plain face pattern with, typically for spring, reduced buff on the face and upper breast. Other features include buffy upperparts, brownish fringes to the wing feathers, and white flanks with long streaks to the rear. The flank streaking on this bird is, however, quite fine and the undertail-coverts look white although a single, medium-width shaft streak was present on the longest feather.



Andy Stoddart



Örn Óskarsson

444. Pale Iceland Redpoll, Selfoss, Iceland, April 2011. This breeding-plumaged adult male is strikingly pale and ghostly with the typical (for Arctic Redpoll) weak and rather restricted pale pink flush on the breast centre. It resembles *exilipes* and *hornemanni* but, in life, its large size excluded the former while its bill structure (rather long though slim) was not typical of either. Note also the single, medium-width shaft streak on the longest undertail-covert.

445. Pale Iceland Redpoll, Fair Isle, June 2008. This breeding-plumaged adult male shows obvious similarities with the Icelandic individual in plate 444. It is a very pale, grey-looking bird with a plain face, weak and restricted pale pink breast flush and fine streaking on the flanks. It resembles *exilipes* and *hornemanni* but the bill is rather long and slim and there are fine dark marks throughout the undertail-coverts.



Mark Breaks

Coues's Arctic Redpoll (*exilipes*)

This is a medium-sized redpoll, smaller than Pale Iceland Redpoll and *hornemanni* and closest to *flammea* – though on average shorter-billed and longer-tailed. It is, like all the Arctic Redpolls, densely feathered and fluffy-looking.

The separation of darker examples of *exilipes* from paler examples of *flammea* is the classic redpoll identification problem. There are two main pitfalls – identifying a fresh, frosty and pink-breasted adult male *flammea* as an *exilipes* (the male Mealy trap) and, more likely, identifying darker, more streaked or worn female and first-year *exilipes* (particularly in spring) as *flammea*. The variation in *exilipes* has long been underestimated and many observers feel, understandably, most comfortable in claiming only the most 'obvious' birds as this form, labelling more difficult birds as 'intermediates' or, worse, identifying them by default as *flammea*. In reality, however, only a very small percentage are truly intermediate.

The separation of *exilipes* from *hornemanni* and Pale Iceland Redpoll is equally taxing. Hornemann's shares all its plumage characters with *exilipes* and is best identified by its larger size and large, deep bill. Pale Iceland Redpoll is also larger overall and longer-billed and many (though not all) exhibit more extensive flank, rump and undertail-covert streaking.



Dick Forsman

446. Coues's Arctic Redpoll, Kirkkonummi, Finland, February 2007. This bird is typically short-billed and long-tailed. It is also densely feathered, making it appear dumpy and bull-necked. It is often the case that *exilipes* seems to have trouble covering its rump with its wings, and when relaxed, as here, its rump and flank feathers can be 'inflated' to such an extent that it appears almost spherical. Among the best features of *exilipes* is a large pure white, unstreaked rump. The presence of light spotting or streaking can, however, still be compatible with identification as *exilipes*. Typically, dark streaking extends from the mantle into the upper rump, restricting the area of pure white to a narrower band.



Arto Juvonen

447. Coues's Arctic Redpoll, Finland, October 2005. This autumn bird is typically fresh and bright. The eye is drawn immediately to the bird's plain face, golden-buff wash to the face and upper breast and bright white sides marked only with fine, wispy grey streaks concentrated at the breast sides and on the upper and mid flanks. Also visible here are pale straw-coloured upperparts, apparently clean white undertail-coverts and white rump sides wrapping round to the rear flanks. The similarity of this individual to some of the *hornemanni* illustrated on pp. 728–729 emphasises the overlap of features between the forms.



Brandon Holden

448. Coues's Arctic Redpoll (right) and Mealy Redpoll, Matheson, Ontario, Canada, February 2011. This is a greyer and more worn, late-winter bird but it is also a much more heavily streaked and *flammea*-like individual. In this highly instructive comparison, the *exilipes* shows a densely feathered and bull-headed appearance while the rear scapulars are contrastingly pale and the undertail-coverts appear wholly white. The flank streaking is at the heavy end of the spectrum for *exilipes* but within the normal range of variation. Birds like this are subtle and require close attention.

449. Coues's Arctic Redpoll, Inari, Finland, April 2006. This presumed male (note the subtle pale pink in the breast centre) shows the classic plumage characters of *exilipes*, notably a relatively plain face, pale mantle with only thin dark feather centres and clearly paler rear scapulars. Its flanks are stunningly white with thin, wispy grey streaking restricted to the mid flanks.



Markus Varesvuo

450. Coues's Arctic Redpoll, Inari, Finland, April 2010. This breeding-plumaged adult male is especially eye-catching and shows just how white and frosty *exilipes* can look. The pink on the breast is particularly pale and restricted while the flanks and undertail-coverts are bright white and almost unmarked.



Tomi Muukkonen

Hornemann's Arctic Redpoll (*hornemanni*)

This is the largest redpoll of all, larger even than *rostrata*/dark *islandica* and much larger than *exilipes*. However, *hornemanni* is most likely to be seen alongside redpolls from Greenland or Iceland and may therefore not look quite so large, while a fluffed-up *exilipes* can look disconcertingly big. Hornemann's is very long-winged and long-tailed and its bill is strikingly deep and broad-based. It is also very densely feathered, appearing particularly heavy-headed and bull-necked.

The main identification issue is the elimination of *exilipes*. On average, *hornemanni* is 'whiter', with a paler mantle and scapulars, less streaked flanks and a bigger white rump but there is complete overlap in characters between the two forms and a bright *exilipes* may look 'better' than a dull *hornemanni*. Perhaps the best plumage clue is the tendency for some to show a greater contrast between a pale mantle and a particularly deep buff wash to the face and upper breast.

The other identification problem is the separation of *hornemanni* from Pale Iceland Redpoll, though the latter is slightly smaller overall and slimmer-billed, while many (though not all) show more extensive flank, rump and undertail-covert streaking.



Hugh Harrop

451. Hornemann's Arctic Redpoll, Cunningsburgh, Shetland, October 2009. Apart from size, perhaps the best clues in identifying *hornemanni* are structural. It most resembles *exilipes* but is even more densely feathered. It looks large and heavy-headed, broad and long-bodied, deep-chested, bull-necked and 'front-heavy' while its bill is deep and broad-based. Also obvious here is a strong deep buff wash to the face and upper breast.



Brandon Holden

452. Hornemann's Arctic Redpoll, Ontario, Canada, February 2011. This bird is strikingly densely feathered, its bill appearing a little lost in the thick feathering. It shows pale, frosty mantle and scapulars; crisp white wing-feather fringes; white flanks with minimal, wispy grey streaking confined to the upper/mid flanks; and clean white undertail-coverts. By late winter, the buff wash to the face and upper breast is muted. Although this is a striking bird, its appearance can be matched by *exilipes* so ultimately the identification comes down to size; here, the comparison with a *flammea* is revealing.

453. Hornemann's Arctic Redpoll, Suffolk, December 2012. This bird shows the typically dense feathering and deep-based bill of this form. As for plumage, it is strikingly white with few markings on the flanks and an extensive 'wrap-around' of white from the rump and uppertail-coverts to the rear flanks. The undertail-coverts are also pure white. The buff wash to the face and upper breast has faded considerably, however.



John Miller

454. Hornemann's Arctic Redpoll, Norfolk, October 2012. Though structurally convincing (note the heavy head and deep-based bill), this *hornemanni* is, in terms of plumage, perhaps less striking, showing strong buff hues in the mantle, a narrow, buff-tinged greater-covert wing-bar and liberally streaked flanks. Some also show streaking in the rump and undertail-coverts. Such birds can be less visually striking than many *exilipes*. In reality, all of the supposedly distinctive aspects of *hornemanni* plumage can be matched or even exceeded by *exilipes* and there is no single plumage feature that will conclusively identify this form. The best plumage clue here is the deep buff wash to the face and upper breast.



Jim Lawrence

455. Hornemann's Arctic Redpoll, Matheson, Ontario, Canada, February 2011. This breeding-plumaged adult male is stunningly pale with a typically weak, pale pink flush restricted to the breast centre and lower face. In most Arctic Redpoll plumage classes, flank streaking is least prevalent towards the rear (the white rear flanks thereby 'wrapping round' to the white rump), but all pink-breasted Arctic redpolls can show, as here, streaking concentrated on the rear flanks. This bird would be difficult to separate from a very pale *exilipes* from this image but its true size was assessed in the field.



Brandon Holden

Status in Britain

Lesser Redpoll (*cabaret*)

This is the commonest redpoll across most of Britain and the only regularly breeding form. It nests in pioneer woodland, birch *Betula*, willow *Salix*, alder *Alnus* and hawthorn *Crataegus* thickets, untidy hedges and young conifer plantations (Newton 1972). It is common throughout much of Britain although there are large gaps in its distribution in central, southern and southwest England. It breeds on the Outer Hebrides but has only very rarely bred in Orkney and Shetland (Stevenson 2005; Forrester *et al.* 2007).

Redpolls are known to experience marked fluctuations in population size and distribution and this is especially true of *cabaret*. After a rapid population increase between 1900 and 1910, it underwent a long period of decline only to increase once more between 1950 and the 1970s to around 300,000–600,000 pairs, largely in response to the proliferation of commercial forestry plantations and a prevalence of young birch woodland (Sharrock 1976). At this time it also spread from Britain to coastal dune plantations on the near continent. Since the late 1970s, however, *cabaret* has declined once more, possibly due to the increasing age of conifer plantations, a reduced availability of birch seed in maturing woodland and the removal of hedgerows and farmland trees (Gibbons *et al.* 1993). The population was estimated to be 160,000 pairs by Gibbons *et al.*, although Musgrove *et al.* (2013) suggested 190,000 pairs.

This form can be seen in Britain all year round but it is also a partial short-distance migrant, with a varying proportion of the British population leaving in autumn according to food availability. Great emigrations occurred in 1959, 1964 and 1977 (Wernham *et al.* 2002). Most foreign ringing recoveries come from France, Belgium, the Netherlands and Germany (Wernham *et al.* 2002). In winter *cabaret* can be found in a wide variety of habitats including coniferous and deciduous woodland (typically birch and alder) and weedy fields but also gardens, where it is increasingly attracted to nyjer seed feeders.

Mealy Redpoll (*flammea*)

This form is predominantly a late autumn and winter visitor, mainly to Scotland and the north and east of England. Its appearances are erratic, however, with very few in some winters while in other years large influxes occur. Large irruptions have been documented since at least 1829, occurring approximately once every decade throughout the nineteenth century. In the twentieth century a particularly large influx occurred in 1910, with another in 1923 (Witherby *et al.* 1940). More recently, significant irruptions occurred in 1965, 1972, 1975, 1984, 1990 and 1995, with smaller arrivals in some other years (Riddington *et al.* 2000).

Influxes normally take place in October and November (though birds can arrive in September or even earlier) and can persist into the winter, particularly in cold weather and/or easterly winds. Even in irruption years, however, the arrivals are quickly absorbed in northern and eastern parts of Britain and this remains a very scarce bird in the south and west of England and in Wales (Lovegrove *et al.* 1994; Brown & Grice 2005). Pre-departure flocks can build up in spring (1,000 were at a single site in North-east Scotland in early spring 1996; Forrester *et al.* 2007) and return spring passage is often recorded in the north and east. As with *cabaret*, winter birds are best sought in stands of birch or alder but they will also frequent weedy fields and visit garden feeders.

The Mealy Redpoll is a rare, irregular breeder in Highland, Orkney, Shetland and the Outer Hebrides (and, in 2011, on Tiree, Argyll; Holling 2013). Numbers are very variable, however. A colony of eight pairs bred in Sutherland (Highland) in 2000 (Forrester *et al.* 2007), 19 pairs were found on the Outer Hebrides in 2004 (Holling 2007) and in summer 2005 up to 50 (including juveniles) were recorded at a site in Caithness (Holling 2008). In recent years, however, only a handful of breeders have been recorded, the current average being around four pairs per year (Holling 2013).

Though assumed to be *flammea*, the possibility that some of these breeding records might actually relate to *rostrata*/dark *islandica* or Pale Iceland Redpoll has also been raised (Stevenson 2005; Forrester *et al.*

2007). Identification difficulties hinder a proper assessment of the breeding status of *flammea*, which is confounded by the presence of breeding *cabaret* in Highland and the Outer Hebrides.

This form is, like other irruptive boreal species, highly nomadic, shifting both its breeding and its wintering areas within and between years according to the size of the post-breeding population and food availability. Ringing recoveries include three movements between northeast China and western Europe (a distance of over 8,000 km) while, even more remarkably, a bird ringed in Michigan, USA, was later recovered in eastern Siberia, a movement of 10,200 km (Newton 2008). It is clear, therefore, that some *flammea* in Britain may have travelled from a very great distance. Although as yet unproven by ringing recoveries, there must also be the potential for transatlantic vagrancy to Britain from North American populations.

Greenland/Dark Iceland Redpoll (*rostrata*/dark *islandica*)

The first British record was a bird on Barra, Outer Hebrides, in October 1896 (Witherby *et al.* 1940). Eagle Clarke (1912) recorded this form as a regular visitor to Fair Isle in the first decade of the twentieth century and noted that it was 'extremely abundant' there

in the autumn of 1905. Witherby *et al.* (1940) listed a number of further records, all but two from the islands of north or west Scotland. A 'party' was near Glasgow in November–December 1913 (a specimen from there was noted in Forrester *et al.* 2007) and one was on the Isle of May in October 1934. Notable arrivals occurred on Shetland in 1925, 1955 (when as many as 200 were reported on Foula), 1959, 1976, 1996, 1997 (when 180 were on Unst) and 2003 (Williamson 1965; Reid & Riddington 1998; Forrester *et al.* 2007).

Today, *rostrata*/dark *islandica* remains a familiar and expected feature of autumn in northernmost Scotland, particularly in Shetland but also in Orkney and the Outer Hebrides. In some years this is the commonest redpoll form in these areas. Arrivals usually occur in northwesterly airflows and show no correlation with those of *flammea*. This form also occurs earlier in the autumn, sometimes as early as late August but mainly from early September, though arrivals can continue into November. There are, however, only a small number of winter records from these areas and only a few are noted in spring. The winter quarters of these autumn immigrants remain largely unknown but perhaps lie on the British mainland.



Michael McKee

456. Greenland/Dark Iceland Redpoll, Out Skerries, Shetland, September 2004. With its strong brown plumage hues and heavily lined flanks, this form resembles a giant Lesser Redpoll. Though it is a familiar feature of autumn in Britain's far north and northwest, there are still very few records farther south.

Murton & Porter (1961) described the successful breeding of 'Greenland-type' birds in Inverness-shire (Highland) in 1959, while occasional birds of unknown identity, but resembling this form, have also been recorded on the Outer Hebrides in summer (Stevenson 2005). There is clearly a possibility that *rostrata*/dark *islandica* may breed undetected in Scotland, albeit irregularly and/or in small numbers; Forrester *et al.* (2007) speculated that some Shetland breeding records of *flammea* may in fact relate to this form.

Away from northernmost Scotland, *rostrata*/dark *islandica* is very rare. The first for England was found in Norfolk, on the north side of Breydon Water, on 31st December 1947 (Evans 1951); the second was a bird on Scilly in October 1966 (Flood *et al.* 2007). Subsequent twentieth-century records came from Scilly in October 1971 and 1985

and from Cumbria in November 1995 (Brown & Grice 2005; Flood *et al.* 2007).

There are four well-documented English records since 2000: on Scilly in October 2004 (Flood *et al.* 2007), in Norfolk in March 2009 (Miller & Stoddart 2010), in Hampshire in March/April 2009 (Cox 2010) and in Cambridgeshire in March 2011 (Thomas 2013). All these birds were photographed and those in Norfolk and Cambridgeshire were also trapped and measured.

Clearly there is further potential for *rostrata*/dark *islandica* to be found wintering on the mainland, including in England, particularly following autumns which have seen influxes to northern Scotland. Interestingly, the three most recent records were all at feeders. Local and county records committees should clearly have this form on their description lists.

Most birds reaching Britain are considered to be *rostrata*, widely regarded as more migratory than dark *islandica*, but small birds have been trapped (Riddington & Votier 1997) and small and slightly paler-looking birds have also been noted in the field (Pennington & Maher 2005), indicating that dark Icelandic birds might not be exclusively sedentary. Confirming an out-of-range dark *islandica* will be challenging, however, so the precise proportion of Icelandic birds amongst the *rostrata*/dark *islandica* reaching Britain is likely to remain unknown.

Pale Iceland Redpoll

The British status of pale Icelandic birds is clouded by their current taxonomic treatment, by a lingering belief that they are sedentary and by a lack of awareness of their appearance. Despite these difficulties, there is increasing evidence that Pale Iceland Redpolls are reaching Britain.

The first reference to the occurrence of pale redpolls from the northwest in Britain was in



Andy Stoddart

457. Pale Iceland Redpoll, Selfoss, Iceland, April 2011. An out-of-range bird of this form will prove problematic, resembling an Arctic Redpoll with its plain, buffy face and pale upperparts, but being too large for an *exilipes* and with disconcertingly bold streaking on the flanks, rump and/or undertail-coverts.

Davis (1960). In his account of the 1959 *rostrata* irruption he described a paler-mantled and whiter-rumped bird in September 1959, noting that it was ‘perhaps a pale example from the hybrid populations (“*islandica*”) of Iceland’. Williamson (1961) described two such birds, possibly of this form, and a few other ‘indeterminates’ in an examination of skin collections from the Northern Isles and Outer Hebrides. He also noted that earlier reports of *islandica* by Ticehurst (1929) referred to dark birds and are therefore most likely to have been *rostrata*. Riddington & Votier (1997) described three pale northwestern birds on Fair Isle in late autumn 1996 while Reid & Riddington (1998) confirmed the occasional appearance of these birds on Shetland and included a photograph of one on Fair Isle in September 1997.

Pennington & Maher (2005) noted the continuing occurrence in Shetland of paler redpolls which do not match the appearance of *rostrata*/dark *islandica* but which occur within influxes of these birds. They provided details (including photographs) of several such birds from Unst in autumn 2003. They assumed that such birds were Icelandic in origin and referred to them as ‘putative Iceland Redpolls’. A similar situation exists on the Outer Hebrides where occasional pale birds are also noted. As with *rostrata*/dark *islandica*, these occur in northwesterly airflows and arrive earlier in the autumn than would be expected for *flammea* (A. Stevenson *in litt.*).

Around a dozen records of apparent Pale Iceland Redpolls (the majority supported by photographs) have been published online but their official recording in local bird reports seems less secure. A presumed Pale Iceland Redpoll on Shetland in November 2010 was well documented (Riddington 2011). Most such birds were on Shetland (the others being on the Outer Hebrides) and all were in September, October or November with the exception of a bird on Fair Isle in June 2008.

Pale Iceland Redpoll has also been found and photographed in England. At least one accompanied the *rostrata*/dark *islandica* in Norfolk in March 2009 (Stoddart 2011), having presumably wintered successfully in England. There is clearly the potential for further mainland discoveries of this form.

Intriguingly, a few pale redpolls, thought more likely to be of this form than *flammea*, have also been recorded breeding on the Outer Hebrides since at least the 1960s (Stevenson 2005). There is clearly scope for further study of these birds.

The status of Pale Iceland Redpoll in Britain is therefore still not fully elaborated, though on current evidence it may be rarer than both *exilipes* and *hornemanni*. This form is scarce even in Iceland (where it is greatly outnumbered by dark birds) and the very pale birds there are particularly rare. Indeed, a number of putative very pale Pale Iceland Redpolls in Iceland have proved on closer examination to be passage *hornemanni* rather than native birds (Y. Kolbeinsson *in litt.*). All of this suggests that this form is unlikely ever to be anything other than a rare visitor to Britain. It also suggests that it should be considered by BBRC but, despite its often identifiable appearance, it has no official status as a distinct form and is therefore slipping through the recording net.

To add a further twist, BOU has now removed Iceland Redpoll from the British List since no first record was ever properly accepted (BOU 2013). In view of the taxonomic question marks hanging over these birds, however, there is surely a need to define what we mean by ‘Iceland Redpoll’ (i.e. pale birds, dark birds or, as currently, an aggregate of the two) before any first for Britain can be formally accepted.

Coues’s Arctic Redpoll (*exilipes*)

This form is almost exclusively a late autumn and winter visitor to Britain, where it occurs in very variable numbers, usually accompanying influxes of *flammea*. The first British *exilipes* was taken at Easington, Yorkshire, in the winter of 1893/94 but only ten subsequent records were listed by Witherby *et al.* (1940), including three on Fair Isle in the great *flammea* invasion of 1910. Only a few records were accepted in the first 25 years of BBRC’s existence, a high proportion of which were in the *flammea* influx years of 1965, 1972 and 1975. However, a number of other presumed *exilipes* occurred on Shetland in these influxes but details were not submitted, owing to BBRC’s caution over sight records

at the time (Pennington *et al.* 2004). Of those that were accepted and published, many are not specifically attributed to *exilipes* but their dates and locations leave little room for doubt that this was the form involved (Sharrock & Sharrock 1976).

Clearly greatly overlooked in the past, it was not until 1984 that the first significant influx of this form was properly registered, with 33 accepted records, 25 of which were from Fair Isle, including a flock of ten. Since then, further irruptions have occurred in 1990 and 1995. The first of these produced over 100 birds, including a flock of 20 in Norfolk, still England's largest. The second was even larger, with at least 440 recorded and a new British single-site record set in North-east Scotland, where 48 birds were accepted.

Most *exilipes* occur from October onwards, although the earliest birds have occurred in late September. Unlike northwestern redpolls, which are rarely seen away from northern Scotland and rarely after November, *exilipes* has been found more widely in Britain throughout the winter, and a few departing birds are also seen in spring. Summer records are very rare. Unsurprisingly, the geographical spread of records, in Scotland and in the north and east of England, mirrors that of *flammea*. This form remains very rare in the south and west of England and in Wales (Lovegrove *et al.* 1994; Brown & Grice 2005). Though most readily found in flocks of *flammea*, it may also be found with *cabaret* or even alone. It favours birch and alder but weedy fields can also be attractive, as can garden feeders.

The 1995 influx ensured the removal of this form from the BBRC list at the end of 2005 but in other years, and particularly since 1996, *exilipes* has remained rare or very rare and is now, in most years, rarer than *hornemanni*. Given the very real problems involved in separating *exilipes*, *hornemanni* and Pale Iceland Redpoll, there is perhaps a case for *exilipes* being considered by BBRC once more.

Hornemann's Arctic Redpoll (*hornemanni*)

The first British *hornemanni* was at Whitburn, Co. Durham, in April 1855, but only a handful of further records was listed

by Witherby *et al.* (1940), all singles apart from five on Fair Isle in September and October 1905. The subsequent British status of *hornemanni* is relatively poorly documented and for much of the early BBRC era most published records of Arctic Redpoll failed to distinguish between this form and *exilipes*; it seems clear that *hornemanni* has been under-recorded (Kehoe 2006).

Only recently has due attention been given to the documentation of this form, thanks mainly to at least 12 birds in 2003 and then further influxes of 22 in 2009, 12 in 2010 and a record arrival of around 30 (including a flock of five on Unst) in 2012 (Pennington & Maher 2005; Thomason & Pennington 2013). In recent years, *hornemanni* has become a regular irruptive visitor and, in an unexpected status reversal, is currently occurring more regularly than *exilipes*. The comment by Kehoe (2006) that *hornemanni* 'does not seem prone to irruptions' has now been overtaken by events.

The occurrence pattern of *hornemanni* is rather different from that of *exilipes*. It occurs earlier in the autumn, usually in late September and early October. As with other redpolls from the northwest, it is largely confined to the far north and northwest, in particular to Shetland. Records in England, or in fact anywhere on the British mainland, are very rare indeed. Birds definitely or potentially *hornemanni* have only previously been reported from Northumberland, Co. Durham, Yorkshire, Norfolk, Kent and Scilly so the occurrence of three birds in autumn 2012 (in the Isles of Scilly, Norfolk and Suffolk) was all the more notable. In northern Scotland *hornemanni* often accompanies other redpolls from Greenland and Iceland but the two well-watched birds on the east coast were both alone and, despite a wider choice of habitats than is available in northern Scotland, both were found in bare, open locations not normally attractive to redpolls.

Few *hornemanni* have been recorded in winter but a number have been seen in spring, often in April but also as late as early June. This pattern accords well with a recently discovered light spring passage of *hornemanni* through Iceland (E. Rickson *in litt.*; pers. obs.), presumably of birds

returning to east Greenland. Some of these Icelandic birds may be displaced migrants from winter quarters in southern Greenland but others may be birds that have wintered in Britain or elsewhere in northwest Europe.

Further questions

Despite our progress in solving redpoll problems, there remain, inevitably, many unresolved issues. Some interesting questions are:

1. Can a definitive taxonomic position be reached for Pale Iceland Redpoll? In particular, can the degree of reproductive isolation between pale and dark birds be determined?
2. What is the status within Iceland of Pale Iceland Redpoll? There is some evidence that its occurrence patterns differ from those of dark birds. The very pale birds are recorded mainly in spring (E. Rickson and Y. Kolbeinsson *in litt.*) – are there ecological as well as plumage and structural differences? Does it, for example, have different altitudinal or habitat preferences? Does it breed or winter in different areas?
3. Which redpoll forms breed on the Outer Hebrides?
4. Where do the autumn *rostrata*/dark *islandica* seen in northern Scotland winter?
5. Is there any further evidence of reproductive isolation between *cabaret* and *flammea*?
6. Might recordings, sonograms and an improved knowledge of vocalisations help in identification? Are there, for example, any vocal differences between Pale Iceland Redpoll and *rostrata*/dark *islandica*?

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Colonisation and range expansion of inland-breeding Cormorants in England

Stuart Newson, John Marchant, Robin Sellers, Graham Ekins, Richard Hearn and Niall Burton

Abstract Following the establishment of a tree-nesting colony of Great Cormorants *Phalacrocorax carbo* at Abberton Reservoir, Essex, in 1981, the inland breeding population in England has increased considerably. Successful breeding has now occurred at 89 inland sites and, while Cormorants have been actively dissuaded from breeding at a number of these, the inland population in England reached about 2,362 breeding pairs at 48 sites in 2012. Increasing numbers of Cormorants on inland waters in England have intensified conflict between Cormorants and fisheries. This resulted in an increase in the number of Cormorants that could be killed under licence to 3,000 per year during the winters of 2004/05 and 2005/06, after which licences for up to 2,000 birds per year have been issued. There is some evidence that the inland breeding population is now stabilising, mainly as a result of declines at some of the older colonies established in the 1980s and early 1990s. New inland colonies continue to be established, however, most notably through expansion of their range into the southwest.

In 1981 an inland, tree-nesting colony of Great Cormorants *Phalacrocorax carbo* (hereafter referred to simply as ‘Cormorants’) became established at Abberton Reservoir in Essex (Ekins 1989). Continental birds (*P. c. sinensis*) are known to have played the more important role in the initial colonisation and subsequent development of an inland-breeding Cormorant population in England, but these colonies now comprise both *sinensis* and nominate *carbo* (Goostrey *et al.* 1997; Winney *et al.* 2001; Newson *et al.* 2004).

During the winter period, the situation is quite different in that inland waters in England support Cormorants from a number of breeding populations. In addition to birds of both races from the inland breeding

population in England, from about the mid 1960s coastal-breeding *carbo*, mainly from England and Wales, have also shown an increasing tendency to winter on inland waters in England (Rehfishch *et al.* 1999). These, together with an increase in the number of wintering *sinensis* from the continent (Newson *et al.* 2007), have intensified the conflict between Cormorants and fisheries in recent years (Smith *et al.* 2008).

While there is currently no co-ordinated annual monitoring of inland-breeding Cormorants in England, considerable effort has been made to document the subsequent population growth and range expansion up to 1995 (Sellers *et al.* 1997) and subsequently to 2005 (Newson *et al.* 2007). ‘Inland’ is defined here as breeding away from traditional

coastal cliffs, stacks and offshore islands, although a number of these alternative sites are close to estuaries or open coasts.

Including here two additional sites where counts were obtained after Newson *et al.* (2007) went to press, Cormorants bred successfully in one or more years at 63 inland sites in England between 1981 and 2005, with a maximum of 39 colonies occupied in any one year. While further breeding was discouraged at a number of these sites during this period, the inland-breeding Cormorant population had grown to about 2,200 breeding pairs by 2005. This exceeds the number of coastal-breeding *P. c. carbo* in England, which was estimated to be about 1,430 breeding pairs in 1999–2002 (Sellers 2004).

In 2012, a complete census of inland-breeding Cormorants in England was carried out as part of a European census proposed as part of the EU CorMan ('Sustainable

Management of Cormorant Populations') initiative and taken up by the Wetlands International Cormorant Research Group. To maximise this opportunity, additional effort was made to collate nest counts for 2006–11. Together, the results update Newson *et al.* (2007) to present an overview of the colonisation and subsequent range expansion of the inland-breeding Cormorant population in England to 2012.

Methods

Colony counts

Counts of apparently occupied nests (AON), defined as nests in use and sufficiently finished to hold one or more eggs (Bregnballe & Lorentsen 2006), were obtained through a number of sources. First, a review of county bird reports highlighted any nest counts that had already been documented. This identified a few colony counts from 2006 that were not considered by Newson *et al.* (2007), but county reports were generally incomplete and some 2–5 years behind the current year. Second, a review of all previous personal correspondence with site managers, ringers and bird-watchers identified a number of individuals who visit known colonies on a regular basis. Those individuals were e-mailed to see whether they could a) fill any missing gaps in nest counts and b) provide nest counts in 2012. Third, because Grey Herons *Ardea cinerea* have similar breeding requirements to Cormorants, BTO Heronries Census data were interrogated, to extract any incidental nest counts of Cormorants and to identify counters who visit heronries, and who might also count Cormorant nests at the same sites in 2012. Fourth, taking advantage of the massive survey effort for Bird Atlas 2007–11 (Balmer *et al.* 2013), we extracted all records of probable or confirmed breeding of Cormorants for 2008–11. This revealed a small number of new colonies, which were validated by



Jack Chapman/FLPA

458. Great Cormorant, Greater London, February 2010.

contacting county recorders and field observers. Fifth, for a small number of Wetland Bird Survey (WeBS) sites, where counters had not already been identified through the above steps, WeBS counters were e-mailed to try and recruit them as Cormorant nest counters for these sites. Finally, after collating counts and counters identified through the steps outlined above, county recorders were contacted with the details of any remaining gaps in counts, in an attempt

to find counters for them.

Following Bregnballe & Lorentsen (2006), a colony is defined as a group or groups of nests that are within 2 km of one another. Groups in close clusters are often referred to as 'subcolonies'. A single nest is sufficient to be termed a colony as long as it is not located within 2 km of other colonies. While considerable effort has been made to compile a complete list of colonies for each year, it is possible that some breeding attempts have

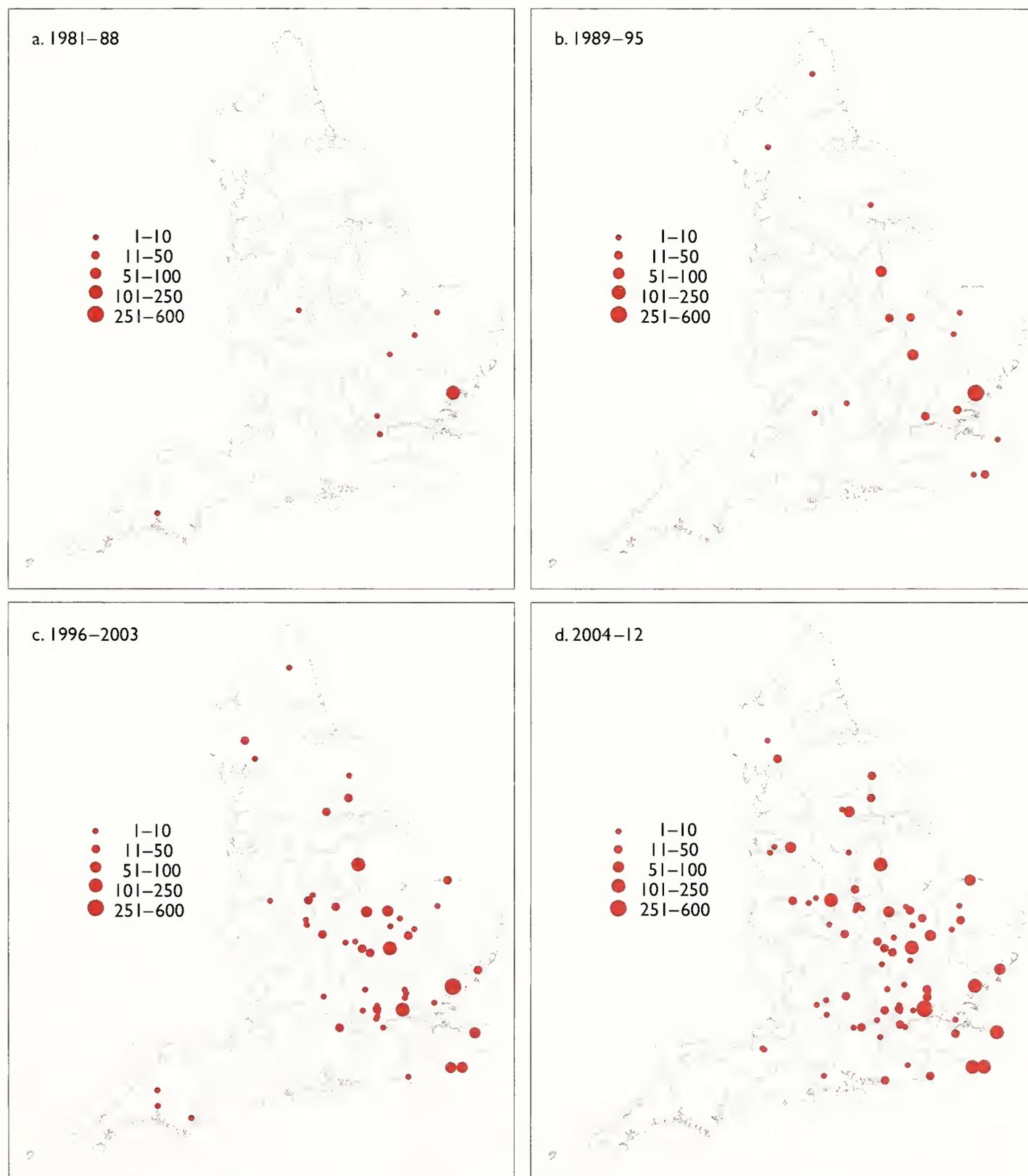


Fig. 1. Inland Great Cormorant *Phalacrocorax carbo* colonies in England with successful breeding in one or more years. These maps show the extent to which the number of colonies increased during the periods (a) 1981-88, (b) 1989-95, (c) 1996-2003 and (d) 2004-12. Dot size indicates average number of Apparently Occupied Nests at each site over the period. Confidential sites are shown at a low spatial resolution.

been missed, with details either unreported or unavailable. Despite the large and often conspicuous nest of this species, counts of AONs are not necessarily straightforward. Where there was more than one count for a particular site and year, the largest count is reported here. The locations of most sites referred to in this paper have already been published, but locations are not disclosed in a few cases where confidentiality was requested.

Dealing with missing counts

We aimed to obtain or collate colony counts for every colony in every year. In practice a complete count was not possible, and 4% of colony counts were not available for certain years (51 missing counts from a possible 1,240). While the proportion of missing counts is small, to minimise the chance of these influencing the population trend, we estimated values for the small number of missing counts by interpolation, assuming a constant rate of proportional annual change.

Results and discussion

Development of the inland breeding population

Following the establishment of a colony of nine pairs at Abberton Reservoir in 1981, the colony grew rapidly to 310 pairs by 1988.

During this period, confirmed breeding (a single nest in most cases) was reported from a further seven sites: in Cambridgeshire (two sites), Cornwall, Greater London, Norfolk, Staffordshire and Surrey (fig. 1a).

Between 1989 and 1995, a further nine colonies were established: in Cambridgeshire (Paxton Pits), Cumbria (Haweswater), East Yorkshire (Lower Derwent Valley), Essex (Walthamstow Reservoirs), Kent (Stodmarsh and Dungeness), Leicestershire & Rutland (Rutland Water), Lincolnshire (Deeping St James) and Nottinghamshire (Besthorpe Pits). Successful breeding was reported from a further eight sites, although breeding at these sites was short-lived (fig. 1b). The colony at Haweswater is interesting in that field observations suggest that the colony may hold only nominate *carbo* rather than *sinensis* (SEN pers. obs.), and may not be related to the core inland population development.

The period between 1996 and 2003 was characterised by rapid growth of existing colonies and the establishment of new colonies at a further 16 sites (fig. 2). This included the successful establishment of colonies in Bedfordshire, Berkshire, Cambridgeshire, Derbyshire, Essex, Greater London, Leicestershire & Rutland, Norfolk, Northamptonshire, Oxfordshire, Staffordshire, Suffolk, Sussex, Warwickshire and Yorkshire. Successful but short-lived breeding was also reported from a further 24 sites (fig. 1c). These included Willington Gravel-pits (Derbyshire), where breeding on a pylon was reported for the first time in England, in 1998 (James & Key 2001), although breeding here was subsequently discouraged. It is believed that illegal shooting of Cormorants during the breeding season at Besthorpe and Deeping St James,

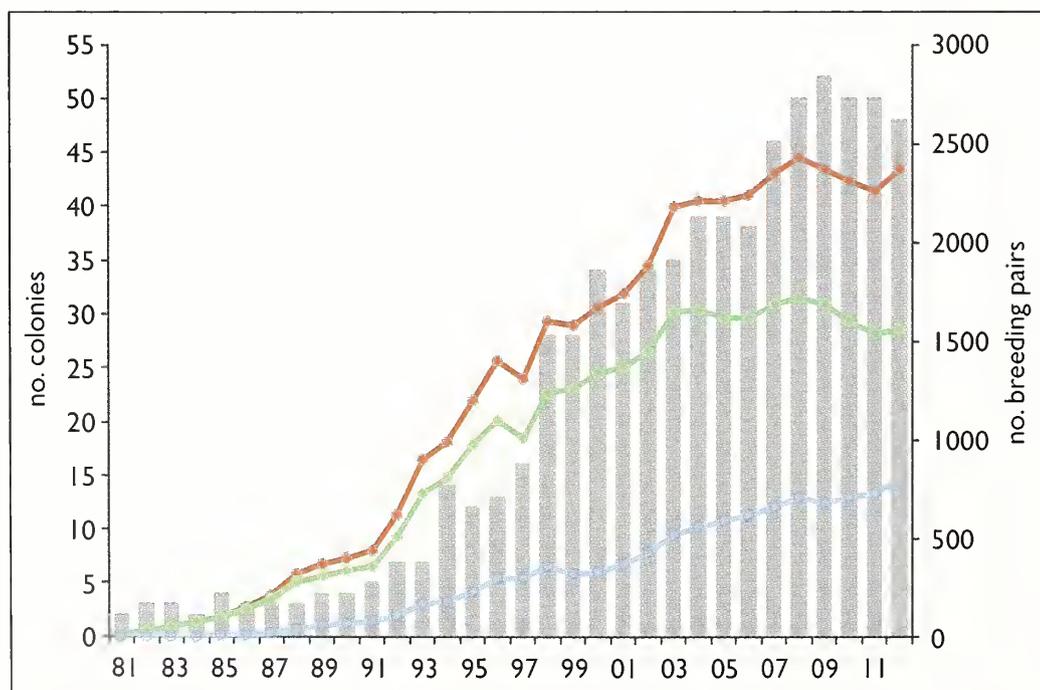


Fig. 2. Population growth (red line) and number of inland Great Cormorant *Phalacrocorax carbo* colonies (columns) in England between 1981 and 2012. In addition, we provide an estimate of the number of *P. c. sinensis* (green line) and *P. c. carbo* pairs (blue line) based on a relationship between colony age and percentage *P. c. sinensis* presented in Newson et al. (2007).

in 2000 at least, is thought to have influenced breeding numbers at those sites, with shooting suspected at a number of other sites during this period. Legal control of Cormorants was also carried out at Haweswater from 1999 onwards, to reduce the potential for predation of Schelly *Coregonus stigmaticus*, a threatened freshwater whitefish.

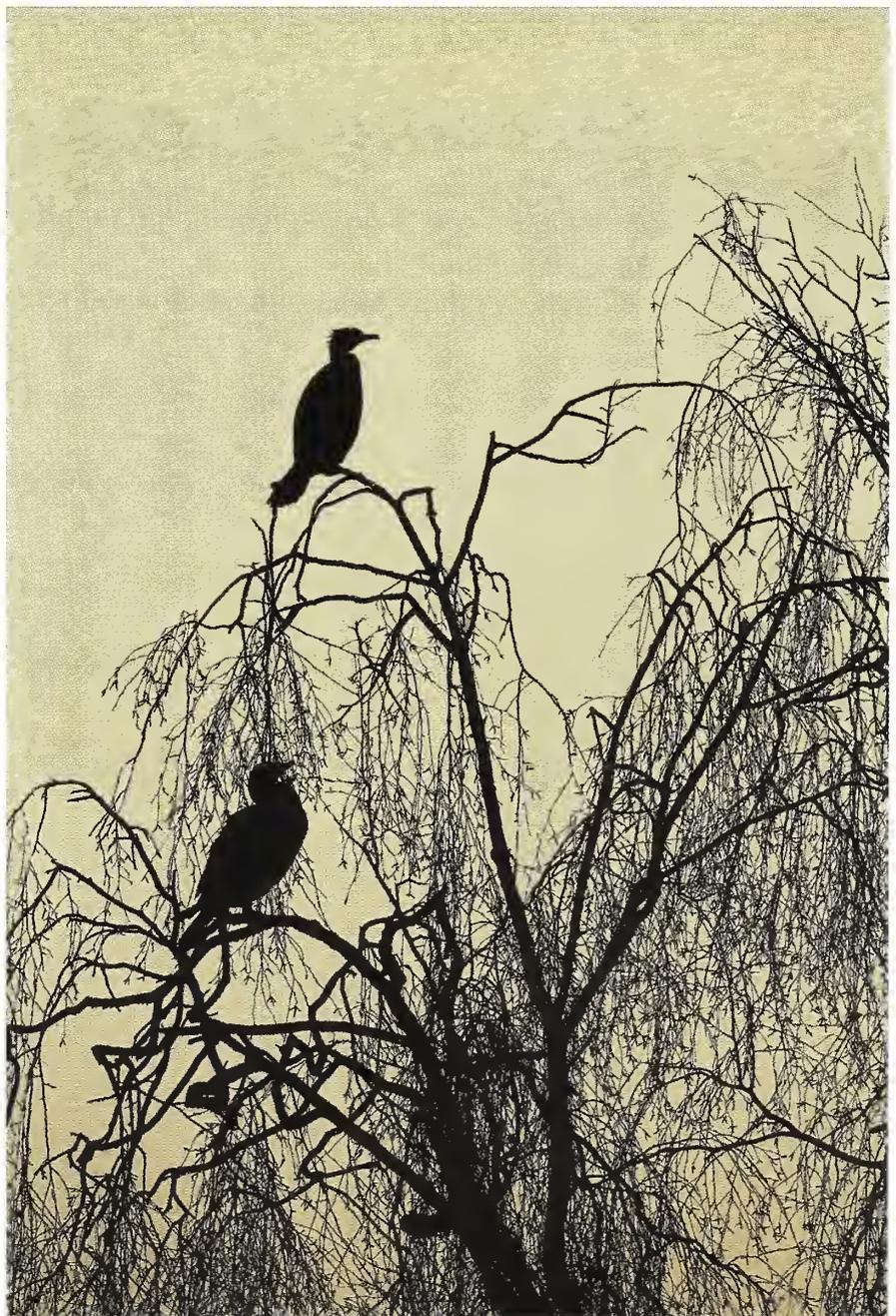
Data for the period 2004–12 suggest that the inland breeding population had stabilised at about 2,300 pairs (fig. 2). However, this trend is mainly the result of continued declines in numbers breeding at the larger, older colonies established in the 1980s and early 1990s, including Abberton Reservoir, Paxton Pits, Besthorpe, Walthamstow Reservoirs and Rutland Water. Cormorants are usually faithful to their natal colony, but as a colony nears its carrying capacity an increasing proportion of (mostly) younger birds breed elsewhere, either by moving to existing colonies or by establishing new ones (Newson 2000). Between 1993 and 1996, about 7% of Cormorants hatched at Abberton dispersed (Newson 2000), but the proportion breeding (or attempting to breed) away from the colony increased to 12% in 1997 and 18% in 1998 (Newson 2000). In contrast to these declines, however, colonies established between 1996 and 2003 have remained fairly stable or increased over the same period, while successful breeding was reported from 15 additional sites (fig. 1d). New colonies have become established mainly within the existing breeding range, although there has been a notable expansion into the southwest: Somerset (two colonies), Wiltshire (two colonies) and Gloucestershire (one colony). These colonies raise the possibility for further expansion of the inland breeding population, into Wales.

Using an observed relationship between colony age and the percentage of *sinensis* recorded at six inland colonies in the late 1990s

(after Newson *et al.* 2007), we estimate that, by 2012, approximately two-thirds of the inland breeding population shows characters of *sinensis*. However, intergrades between the two races (identified by molecular work) have been shown to occur at inland colonies in England (Goostrey *et al.* 1997; Winney *et al.* 2001). The level of intergradation and the influence of that on Cormorant biometrics is unknown, but it is possible now that distinction between the two subspecies is becoming blurred.

Continued growth or stabilisation?

Control measures, to limit the expansion of the Cormorant population and minimise the impact on inland fish stocks, have been implemented in several European countries (Smith *et al.* 2008). In the UK, to prevent serious damage to fisheries, licences have been made available since autumn 1996 for



Mike Lane

459. Great Cormorants, Warwickshire, March 2013.

limited control of local wintering Cormorant populations by shooting. Initially, the numbers of licences involved were small (licences to control up to 517 Cormorants nationally per year), while shooting was considered mainly as a technique for scaring, rather than a means of population control (CSL 2005). In 2004, however, there was an increase in the number of birds that could be controlled per year, with an upper limit of 3,000 individuals for two years, and up to 2,000 birds annually thereafter (Smith *et al.* 2008). In practice, the number of Cormorants reported as shot each winter in England between 2004/05 and 2011/12 ranged between 1,227 and 1,885 individuals. Recently, data from WeBS (the main source of counts used to estimate annual peak counts; Holt *et al.* 2012) and current population estimates of the national winter Cormorant population (Musgrove *et al.* 2013) have been used to examine the extent to which control intensity (proportion of the local population shot per winter) is associated with site-level population change (Chamberlain *et al.* 2013). However, there was no clear difference in population growth rate of wintering Cormorants between sites that had experienced control versus sites where no control had been exercised. This suggests that Cormorant removal at local sites is having little effect on longer-term (i.e. year-to-year) population size at the site level, presumably being buffered by local movements. It is unclear, however, how control has influenced Cormorant numbers at a larger, regional (or even national) scale and we also do not know the influence of control on the inland or coastal breeding populations. While there are some signs that the inland breeding population is beginning to stabilise in overall numbers, new colonies continue to be established, so it is difficult to predict how the inland breeding population will change in the future.

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Notes

Mediterranean Gulls at a Hampshire pig farm

Pig farms across the UK, their open, bare fields dotted with the corrugated arches of pig shelters, have long been known to attract birds, especially gulls and corvids (mainly Rooks *Corvus frugilegus* and Jackdaws *C. monedula*). An outdoor pig farm near Sopley, in the Avon valley, Hampshire, covers several fields and extends to about a square kilometre in total. Although 8 km from the coast at Christchurch Harbour (in Dorset), the pig fields attract large numbers of commoner gulls. In recent years there have been rarer species too, including a Sabine's Gull *Xema sabini* in August 2011, an Iceland Gull *Larus glaucooides*, four Ring-billed Gulls *L. delawarensis* and a count of 85 Mediterranean Gulls *L. melanocephalus* on 16th July 2011. In the summer of 2013, Mediterranean Gulls reached exceptional numbers, matched at few UK localities away from breeding sites. After 180 in early July, numbers reached 625–650, mostly adults, on 18th July, and at least 300 remained at the end of the month.

Counts in 2013

In early July 2013, David Taylor counted 160 Mediterranean Gulls on and around the Sopley pig farm, and on 8th July I visited the site and counted a conservative 360; others saw at least 380 that day (www.chog.org.uk). The vast majority were adults in breeding plumage, well into moult but still with complete hoods, with single-figure numbers of first- and second-summerers. There were around 750 Black-headed Gulls *Chroicocephalus ridibundus*, 100 or so immature Herring Gulls *L. argentatus*, a few Lesser Black-backed Gulls *L. fuscus graellsii* and one Common Gull *L. canus*. On 11th July, I counted a jaw-dropping 540+ Mediterraneans, mostly adults still with complete hoods, but c. 15–20 each of first- and second-summerers. As usual, the adults were distinctively vocal in flight but seemingly silent on the ground. On 18th July, I counted 625–650, again mostly adults, now rapidly losing their

hoods, but also a few first-years and one juvenile. There were small flocks in three different pig fields, a larger group in a riverside meadow, and 100 or so bathing in riverside shallows. On 20th July, more than 600 were again present (CHOG). By late July and into early August there were just 150, but a higher number of juveniles (36 on 24th July) and more second-year birds (first-summerers had not yet quite moulted into their next plumage, so would not have caused any apparent increase). It seems that quite a lot of these birds were not present in the mid-July peak counts, indicating a turnover of individuals, with many leaving but new ones discovering the pig-field bonanza.

Foraging behaviour

On 11th July, the field containing most of the gulls had about 50 small, corrugated pig shelters and about 40 larger ones, each with a

band of straw outside. The pigs (about 200 pigs, plus families of piglets) were mostly in dry grassy strips, or lying in the straw, with a few rooting about in wide bands of dry earth. The gulls stood around on the dry earth, avoiding the grass and taking little notice of the feeding pigs. Six square, raised and covered hoppers dropped food into small troughs almost at ground level when 'triggered' by approaching pigs. Some of these were used by pigs some of the time. Now and then five or six pigs would feed at a hopper, followed by a flurry of bird activity when they moved off, allowing birds access to surplus feed for a very short period. Rooks and Jackdaws piled in to the hopper troughs and squabbled alongside, attracting mixed gull flocks. Then a few gulls would clearly feed from the troughs and the ground alongside, for barely a minute or so, with 50–100 nearby milling around on foot, while the rest simply ignored them and

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460. Pigs at the hoppers trigger the release of feed: animals are feeding from the green-topped hopper on the extreme left; the green-topped hopper in the centre is empty of pigs but a few gulls are trying to feed from it; the red-topped hopper has been recently vacated by pigs, allowing corvids to feed for a few minutes. Most gulls are ignoring all this. About 170–180 Mediterranean Gulls in this picture, Sopley, Hampshire, July 2013.

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461. Pigs feeding at three hoppers, corvids collecting around the left-hand one but as yet unable to feed. Most gulls typically loafing, inactive. About 150 Mediterranean Gulls in this picture, Sopley, Hampshire, July 2013.

carried on doing nothing. Most of the time, most of the gulls were inactive (as they generally are). On 11th July, just 15–20 Mediterraneans (and more Black-headed) were feeding in a field without hoppers, and were more active around open troughs and water, where pigs had clearly been rooting.

On 3rd August, these hoppers had been removed and there were no birds of any kind in this field, yet loafing gulls remained in other pig fields without such hoppers. On other fields, Rooks and Jackdaws, but not gulls, were clearly foraging for invertebrates on open dry ground.

Breeding Mediterranean Gulls in southeast Hampshire go long distances inland to find terrestrial invertebrates to feed to their chicks (Chris Cockburn pers. comm.) and similar behaviour has been documented elsewhere in southeast England and in the Netherlands (Meininger & Flamant 1998). Mediterranean Gulls generally feed on insects in summer (*BWP*), but forage opportunistically like other gulls for fish and scraps of offal, almost entirely on the shore, outside the breeding season. On the pig fields of Sopley, there was no obvious foraging for invertebrates, such as earthworms, in July 2013, although this may be partly explained by the fact that the soil was unusually hard and dry.

Gulls and pig farms

Gulls have clearly tested the ingenuity of the pig farmers, who were confronted by gulls consuming colossal amounts of the animal pellets (formed of cereal and vegetable protein) in recent years. At the Sopley site alone it was estimated that 100 tons of feed

(at £200–300 per ton) per year was lost to gulls (Terry Ledbury pers. comm.). At Sopley, feed was broadcast directly onto the fields, simply being sprayed out from a tractor-drawn trailer, and in 2010 up to 1,000 immature Herring Gulls remained all summer and many gulls fed there in winter (David Taylor pers. comm.). An alarm system, playing gull distress calls, worked for a short time but gulls sat on top of the alarm and ignored the sounds when they became used to it. A falconer was brought in, but the gulls overwhelmed the hawk, which refused to fly when confronted with aggressive gull flocks. Eventually, a new system, in which the food was placed directly into ground-level troughs, was introduced and quickly solved the problem. Apart from the economic effects of birds eating large quantities of pig feed, farmers are particularly concerned about the risk of disease, especially *Salmonella* contamination.

Trends in Mediterranean Gulls breeding in Hampshire, and possible origins of the Sopley birds

Mediterranean Gulls began breeding in Hampshire in the late 1960s, and more than 50 birds a year were seen in Britain by the early 1970s. I used to study them in single figures in Swansea in the early 1970s; now, I can count 600 spectacular adults in a field, watch 25 catching insects over my garden or even feed them bread on Bournemouth's beaches. I still enjoy every one. The change in fortunes of the species is every bit as remarkable as that of the Little Egret *Egretta garzetta* or the famously exploited Avocet *Recurvirostra avosetta*.

The numbers of breeding Mediterranean



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462. In the foreground, pigs are partially blocking the view of the green-topped hopper, which has corvids feeding in the troughs, with a few gulls ready to pick up scattered scraps. The foreground pigs are close to ground-level, open troughs, which largely solved the problem of gulls taking large quantities of food. Sopley, Hampshire, July 2013.

Gulls in Britain reached a new high of 1,016–1,034 pairs in 2010 (Holling *et al.* 2012) with more than 400 nests in Hampshire, 288 in Kent, 176 in Sussex and 80 in Dorset. Hampshire breeders moving west could therefore easily account for the pig-farm counts, but usual Hampshire counts away from colonies, certainly west of the Solent, fall well below such totals, although recent winter counts farther west in Dorset include a remarkable 816 at Ferrybridge/Portland Harbour on 5th January 2013. Counts at the Avon river mouth at Stanpit/Christchurch Harbour are usually in single figures, but in July 2013 there were 122 on 14th, 127 on 16th and 320+ on 26th July (CHOG). For a short time in autumn 2013, after the pig-farm concentrations dispersed, 650 were counted in Hampshire east of the Solent.

Breeding Mediterranean Gulls in Langstone Harbour left the colony from late June and on through July in 2013 (Wez Smith pers. comm.) and this ties in with the increase in numbers at Sopley. There is a

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general westerly movement after the breeding season, however, and the gulls could have come from farther east, or have a continental origin. That later birds may have been from the continent, with no link to the Lymington population, is suggested by the presence of some birds with green and pink/red colour rings (unfortunately too distant to read), which are not used in UK schemes.

David Taylor gave me much useful information and interesting discussion during the preparation of this note, and I also thank John Clark, Chris Cockburn, Willie Manners, Wez Smith and Terry Ledbury of Fawley Farms Ltd for their help.

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Plumage state and appearance of Arctic Redpolls in summer: two examples from Fair Isle

Two subspecies of Arctic Redpoll are currently recognised: Hornemann's Arctic Redpoll *Carduelis h. hornemanni*, which breeds in Greenland and on Baffin and Ellesmere Islands in Canada, and Coues's Arctic Redpoll *C. h. exilipes*, which breeds in northern Fennoscandia, northern Siberia, and from Alaska to Hudson Bay (BWP). Both are partially migratory and occur as vagrants in Britain. Most occur in autumn and winter but sightings in late spring and summer are much more unusual; there have been fewer than ten records of Arctic Redpoll since 1950 in June, July and August (Forrester *et al.* 2007; ap Rheinallt *et al.* 2011; McGowan *et al.* 2013; BBRC annual reports 1950–2013).

The appearance of Arctic Redpolls in autumn is relatively well documented but there is little information on what these birds look like in summer. Two birds on Fair Isle in 2012 are documented here. The first was found on 4th June, seen in the field and then

caught in a nearby Helgoland trap and identified as a Hornemann's Arctic Redpoll. The second was found on 14th July at the Bird Observatory, later caught in a Helgoland trap and identified as a Coues's Arctic Redpoll in the hand. In both cases, the plumage did not look particularly clean and snowy during initial field views and the identification was not immediately obvious. In the hand, it was clear that many feathers were heavily abraded; overall, the plumage of both birds was quite coarse, ill-defined, relatively dark and quite different from the neat, gleaming looks of 'classic' autumn individuals.

Identification was based on a suite of features. The mantle and scapular feathers were strikingly pale and frosty, being cold, pale brown-grey with broad, though much abraded, grey-white fringes (plate 463). Both birds had a mostly white rump, with a band of >10 mm that was unstreaked (plate 464). The greater and median coverts were frosty



Will Miles



Will Miles

463. Hornemann's Arctic Redpoll *Carduelis h. hornemanni* (left) and Coues's Arctic Redpoll *C. h. exilipes*, Fair Isle, summer 2012; Hornemann's photographed on 4th June, Coues's on 14th July.



Will Miles



Will Miles

464. Hornemann's Arctic Redpoll *Carduelis h. hornemanni* (left) and Coues's Arctic Redpoll *C. h. exilipes*, Fair Isle, summer 2012; Hornemann's photographed on 4th June, Coues's on 14th July.

Will Miles



Will Miles

465. Hornemann's Arctic Redpoll *Carduelis h. hornemanni* (left) and Coues's Arctic Redpoll *C. h. exilipes*, Fair Isle, summer 2012; Hornemann's photographed on 4th June, Coues's on 14th July.

brown-grey with broad, partially abraded, white tips that formed two distinct wing-bars. The breast and flanks were white, but for a few narrow, faint, brown-grey streaks down the breast-sides and fore-flanks (plate 465). The overall texture of the body plumage, particularly of the underparts, was very thick, full and almost fur-like. The undertail-coverts of the Hornemann's were clean white, with just a few pencil-fine grey shaft streaks. Those of the Coues's were white, but for one narrow pale grey streak of even width (c. 1 mm) on the longest feather, one very faint and narrow

grey smudge around the shaft of another feather, and the shaft partially pale grey on a third feather (plate 466). The ear-coverts of the Hornemann's were streaked cold, brownish-grey, rather monotone and concolourous with the rest of the head and mantle, and the overall impression quite different from the 'chamois-leather-coloured' facial appearance of autumn birds. The Coues's was similarly plain-faced, with the pale ear-coverts and cheeks cold brownish-grey, the crown streaked cold brownish-grey, and only the supercilium relatively distinct, being pale greyish-white above and behind the eye.

In the hand, the long wing-length of the Hornemann's and the short bill-length and bill-depth measurements of the Coues's helped to eliminate the possibility of Icelandic Common Redpoll *Carduelis flammea islandica*, the most likely candidate for confusion (see table 1). In addition, the extent of white and frosty-greys in the plumage and the relatively limited, faint and narrow flank and undertail streaking of both birds also pointed away from Icelandic Common Redpoll; typically, though not always, this

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466. Hornemann's Arctic Redpoll *Carduelis h. hornemanni* (left) and Coues's Arctic Redpoll *C. h. exilipes*, Fair Isle, summer 2012; Hornemann's photographed on 4th June, Coues's on 14th July.

Table 1. Biometric measurements of two Arctic Redpolls *Carduelis hornemanni* trapped and ringed on Fair Isle in summer 2012. All measurements are in millimetres. Compare with table 1 in Stoddart 2013 (p. 716).

	Wing length	Tail length	Bill length (to feathering)	Bill depth (at feathering)
Hornemann's Arctic Redpoll, Fair Isle, 4th June 2012	85	69	8.5	6.75
Coues's Arctic Redpoll, Fair Isle, 14th July 2012	73	57	7.8	5.5

subspecies is more heavily streaked on the flanks and undertail-coverts, with buff tones on the head, mantle, scapulars and fringes of the remiges, at least in autumn (Reid & Riddington 1998; Pennington & Maher 2005). Size and structure were crucial for allocating each bird to one of the two recognised subspecies of 'Arctic Redpoll'. The Hornemann's was large, long-winged and long-tailed, with wing and tail length well outside the measurement ranges for Coues's (table 1). The Coues's was very small, with a tiny, pinched-in bill; the wing length, tail length, bill length and bill depth were all outside the range of published measurements for Hornemann's. The plumage of the birds was not especially useful for separation of the two subspecies.

In summary, these two individuals show how plumage wear and abrasion can alter quite dramatically the overall appearance and colour tones of Arctic Redpolls. Such birds, in which underlying dark feathering and streaking is revealed as white feather fringes

are worn away, provide an even greater set of challenges than fresh birds in autumn.

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Thanks to Nigel Hudson and Mike Pennington for supplying information on summer records of Arctic Redpolls in Britain.

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Red Kites eating Hawthorn berries

On 8th October 2012, north of Katesbridge, Co. Down, a field recently sprayed with slurry had attracted a number of Red Kites *Milvus milvus* and Common Buzzards *Buteo buteo* to feed on invertebrates. After several minutes, I noticed an immature Red Kite (tagged Green/White 35 in the nest, in Scotland in 2011) perched in a Hawthorn *Crataegus monogyna* bush at the edge of the field. Through a telescope, I could clearly see that it was plucking berries from the bush and eating them.

In the same area, on 13th January 2013,

Michael Stinson and I watched the same bird plucking Hawthorn berries off a bush and eating them. A juvenile kite (tagged Brown/Red 57 in the nest, in Northern Ireland in 2012) was also feeding on Hawthorn berries.

Although a wide range of foodstuffs is recorded in the diet of Red Kites, including anecdotal records of birds in the Chilterns feeding on slices of apple, and a captive kite that would eat vegetables such as cabbages and potatoes (Ian Carter pers. comm.), I can find no published records of kites taking berries.

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Obituary

Russell Slack (1967–2013)

On the evening of 26th February 2013, Russell Slack passed away after losing a short, fierce battle with liver cancer. Russ was a private and quiet man, keeping the devastating news of his diagnosis from all but his closest friends and family. He was the only son of Sue and Ricky and a devoted husband to his wife Linda and father to their two daughters, India and Ruby.

Russ was born in North Staffordshire on 12th April 1967, but the family moved to North Yorkshire when he was a small boy, and he became a Yorkshireman to the core. His passion for birds started early, as a teenage YOC member, and he could be found birding whenever possible at Wheldrake Ings in the Lower Derwent Valley. Later in his teens, aided and abetted by fellow Wheldrake birder and lifelong friend Tim Barker, Russ did his fair share of dashing about Britain for rarities, but twitching soon lost its appeal. A number of lengthy birding trips overseas instilled a fascination with the birds of Southeast Asia and the Orient and numerous trips to India, Nepal and Thailand all added to his global perspective of birds, their identification, migrations and behaviour.

With the benefit of this wider context, the appeal of driving around the UK for rarities seemed alien to him, and from then until his death he was a dedicated and passionate local-patch birder. In addition to Wheldrake Ings, he adopted a stretch of coast around the town of Whitby as his second local patch. A small team of birders including Russ, Tim Barker and John Beaumont worked the area tirelessly, and over the years turned up some great birds including Isabelline Wheatear *Oenanthe isabellina*, Olive-backed Pipit *Anthus hodgsoni* and Hume's Warbler *Phylloscopus humei*.

As well as being an excellent bird finder, Russ was the very best of birding companions, a kind-hearted man with a quiet voice and warm personality, having a mischievously sharp wit and cracking sense of humour. When birding, he was never competitive, never dismissive, always humble and patient

and treated all birdwatchers with respect regardless of their experience or level of interest. Russ was always happy to share his very considerable knowledge and enthusiasm with anyone who shared his passion.

Professionally Russ was a statistician, spending his early career as a

university researcher. He was the ideal person to take up a position at BirdGuides, establishing and running the online news service Bird News Extra. Later he put his considerable talents and skills to work on both the groundbreaking BWPi and British Birds *interactive*. Russ continued studying and added a Masters in Ornithology to his CV. He had another brief spell in university research after leaving BirdGuides before moving into full-time bird survey work.

The name Russell Slack is well known in birding circles, primarily for the publication of his two books: *Rare and Scarce Birds in Yorkshire*, which he co-authored with Andrew Wilson, and *Rare Birds Where and When – Vol. 1*. He was working on Vol. 2 of the latter until a few weeks before his death – his dedication to birds was resolute to the end.

Russell was a man who put justice and sincerity into everything he did. He loved his wife, daughters and family with a passion, and always did the right thing by them and others. Time should be an open book in front of us – blank pages to be filled with fulfillment, love, passion and experience. There are no more pages in Russ's book, but what have been left for us are a fabulous read and an inspiration.

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Alister Benn



Jono Leadley

467. Russell Slack in January 2012.

Corrections

The following table is a list of corrections reported to us since publication of the 'Report on scarce migrant birds in Britain in 2004–2007' (*Brit. Birds* 106: 368–404 (non-passerines), 448–476 (passerines)). Some of these corrections relate to the fact that sightings submitted to the birding information services, which were all that were available for some counties when data for the report were being gathered, have not subsequently been submitted formally to the relevant local, regional or country committee. It is likely that many of these records may be genuine, but at present they are not part of the ornithological record. If readers can assist with the submission of any of these missing records, that would be very welcome.

In addition, Dave Britton has contacted us to point out that: 'The Rarities Committee news item (*Brit. Birds* 106: 284) correctly described the criteria for removing species from the BBRC list. This is: at least 150

records during the past ten years and at least ten (records) in each of at least eight of those years. I devised this system over 30 years ago and am quite pleased to see it still in use today. The formula was misrepresented slightly in part 1 of the scarce migrants report: 150 or more in ten years, with records in at least nine of those years. There was never an element of a species having to be seen in all ten years. I never really envisaged that any species could be absent for an entire year if it met the other criteria (and I doubt that this has ever happened).'

Note also that the labelling of fig. 24 (Rough-legged Buzzard) in part 1 was in error. On the x-axis, the bars represent winter periods, not years, and should run for 21 winters, from 1986/87 to 2006/07. In addition, the Arctic Redpoll *Carduelis h. hornemanni* at Quendale in plate 289 was photographed in October 2007 not 2010 as stated.

Night Heron	Port Logan, Dumfries & Galloway, 13th March 2006, record not submitted to SBRC.
Great White Egret	Fig. 16 shows three records in the Outer Hebrides in 2006–07, but only two were accepted by SBRC (one in each year).
Purple Heron	Loch of Strathbeg, North-east Scotland, 3rd June 2004, not submitted to SBRC.
Black Kite	Hirsel, Borders, 8th May 2007, not submitted to SBRC.
Rough-legged Buzzard	Following accepted records missing: Bettyhill, Highland, November 2004; Dowlaw, Borders, October 2005.
Red-footed Falcon	Male in Orkney, 25th July 2006 was accepted as 'adult or immature' (rather than 'immature'); male in Highland, 15th October 2007 was accepted as adult male (rather than unaged).
American Golden Plover	Fig. 32 shows 12 in the Outer Hebrides in 2006–07, but only ten were accepted by SBRC (four in 2006, six in 2007).
Kentish Plover	The bird in the Outer Hebrides which arrived on 10th November 2007 was last seen on 20th April 2008 (not 19th December 2007 as stated).
White-rumped Sandpiper	In Shetland/Fair Isle in 2006–07, only six individuals were accepted (not seven as given), since one in Unst from 27th September to 1st October 2007 was considered the same as one on Fair Isle on 2nd October 2007.
Buff-breasted Sandpiper	In the Outer Hebrides, the accepted records in 2005 and 2006 were 14 and 14 respectively (not 15 and 12 as given).
Pectoral Sandpiper	The single record for Radnorshire in 1988–2007 is in error.
Sabine's Gull	An accepted record in Northamptonshire (Thrapston GP, 28th September 1997) is missing.

Ring-billed Gull	Accepted records for 2004–07 include 2nd-winter, Stranraer, Dumfries & Galloway, 20th October 2004 and adult, Kinneil, Upper Forth, September–November 2005, returning in 2006 and 2007 (both missing). No accepted records for Lothian or Northamptonshire (both shown as one in fig. 51). The bird in Fife in February 2006 was at Thornton Pool, not Thornton Point as stated.
European Bee-eater	Aberlady, Lothian, 27th September 2006, record not submitted to local rarities committee.
Great Grey Shrike	Two accepted autumn records for Borders in 2004 missing from fig. 5.
Woodchat Shrike	Total of accepted records in Scotland in 2004–07 was seven (singles in 2004 and 2005, five in 2006), not six as stated. Also, the bird at Raffin, Highland, was present on 21st–27th July 2005, not 20th–27th July 2007 as stated.
Red-rumped Swallow	An accepted record for Angus & Dundee in November 2006 is missing from fig. 9. One in Northamptonshire (Finedon, 1st June 2007) was not accepted by the county rarities committee. The Hoswick, Shetland, bird arrived on 28th August 2006, not on 23rd August as stated.
Pallas's Leaf Warbler	Fig. 12. Dot size for Fair Isle is in error (two records in that year).
Yellow-browed Warbler	Fig. 14. In 2005, missing dot for Isle of May (three records in that year), while there were no accepted records for Highland or Argyll. In 2007, missing dot for Argyll (four records in that year).
Radde's Warbler	Fig. 17 shows only one record for Shetland in 2006–07, but two were accepted (singles in both years).
Dusky Warbler	The Nottinghamshire bird in 2007 was accepted only for 7th October, and the report in December that year was regarded as not proven. Fig. 19 shows four records for Shetland in 2007, but only three were accepted.
Subalpine Warbler	The accepted departure date for the Isle of May bird referred to in the text was 19th August 2007, not 17th August as stated.
Rose-coloured Starling	Fig. 30. There were no accepted records in 2004–07 in Upper Forth (one shown), while one in Clyde Islands in 2005 was accepted (missing).
Richard's Pipit	The record of one at Stanwick GP, Northamptonshire, on 15th October 2005, was not submitted to the local rarities committee.
Tawny Pipit	An accepted record for South Uist, Outer Hebrides, in June 2007 is missing.
European Serin	Fig. 38 shows one record for Northamptonshire for 2004–07, which is an error.
Rustic Bunting	The departure date for the Fair Isle bird in 2006 was 5th October, not 15th October as stated.

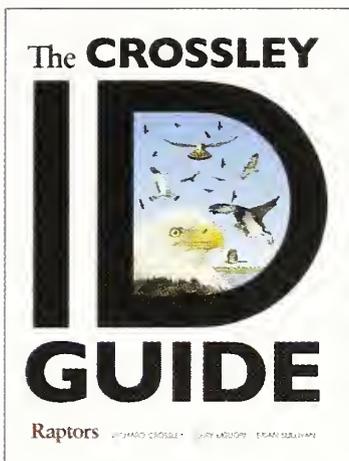
Acknowledgments

We thank Mike Alibone, Dave Britton, Dougie Dickson, John Hopper and Pete Jennings for contacting us. Particular thanks to Ian Andrews, Chris McInerny and Tristan ap Rheinallt for checking the Scottish records. Readers should note that the Scottish Birds Records Committee (SBRC) assesses all records of species classed as rarities in Scotland. A list of accepted records is available online on the SOC website (www.the-soc.org.uk/sbrc-recent-decisions), while data for other scarce species in Scotland, which fall below the SBRC threshold, are also available online using the Scottish Bird Report facility on that website [www.the-soc.org.uk/publications/scottish-bird-](http://www.the-soc.org.uk/publications/scottish-bird-report-online)

[report-online](http://www.the-soc.org.uk/publications/scottish-bird-report-online). SBRC also publishes annual reports in *Scottish Birds* and these should be considered the definitive statement on Scottish rarities. Those relevant to this report on scarce birds are as follows:

- ap Rheinallt, T., McInerny, C. J., Lauder, A. W., & McGowan, R. Y., on behalf of the Scottish Birds Records Committee. 2010a. Scottish Birds Records Committee report on rare birds in Scotland, 2005–08. Part 1. *Scottish Birds* 30: 99–123.
- , —, —, & — 2010b. Scottish Birds Records Committee report on rare birds in Scotland, 2005–08. Part 2. *Scottish Birds* 30: 211–229.

Reviews



The Crossley ID Guide: Raptors

By Richard Crossley, Jerry Liguori and Brian Sullivan
Princeton University Press, 2013

Pbk, 286pp; 101 colour plates, 34 colour maps
ISBN 978-0-691-15740-5 Subbuteo code M21657
£19.95 **BB Bookshop price £17.95**

Richard Crossley has done more to ignite debate about how to display field-guide photographs than

anyone else in the last two decades. His groundbreaking *The Crossley ID Guide: Eastern Birds*, published in 2011, created much debate with up to 16 photographs digitally superimposed onto a common background landscape. These busy scenes had several individuals of each species in all plumages, and posed in every conceivable position. The book's production values were high but it divided birders into two camps. Those who liked to see birds lined up as if they were on a police identity parade probably found that book to be somewhat surreal. Many others, however, and I would suggest that these were in the majority, were pleased that the images presented birds in a way that truly reflected how they appeared in the wild.

There certainly is still a place for books that line up birds facing the same way, but as we all know, raptors are the least generous of birds when it comes to offering such easy comparisons. In his preface, Crossley gives several pointers that this book is more for reference than for use in the field. In fact it is not a field guide but a master class in raptor identification, and in many ways the best part consists of the 32 plates that are designed as tests to see what you have learnt. Here there are busy compilations of unlabelled raptors flying over in different directions and angles. The answers are given at the back of the book, which encourages you to try harder to work out the identities, but is a bit annoying when you really want the answers easily.

In each plate the birds are shown near and far, often perched but mostly in flight and always at every angle possible – front, back, side, above and below, and often in silhouette. A total of 34 raptor species are considered. There is always an impressive background photograph of a stunning habitat, even including a cityscape. Many of these, such as that for the American Kestrel *Falco sparverius*, are

really great because of the clear sky and uncluttered background. Those with busier backgrounds of mountains and canyons are a bit more challenging on the eye, but the truth is that many raptors do not make life easy!

While Richard Crossley provided most of the photographs, the species texts have been predominantly written by Jerry Liguori and Brian Sullivan. The introduction describes the concepts of migration, moult and topography, and then outlines the various raptor groups. Each account extends from two to four pages with detailed sections on Flight Style, Size and Shape, Plumage, Geographic Variation, Moult, Similar Species, Status and Distribution, Migration, and Vocalization. A decent-sized colour map shows the breeding and wintering zones for each species, although there is no colour to indicate main passage routes.

I was impressed by the amount of space devoted to the commonest species – the Red-tailed Hawk *Buteo jamaicensis*. No less than ten pages are used to show how the species, which has several geographic morphs, may appear across the range, with particularly excellent photographic studies of the *harlani* and *kriderii* races found in the north-west and north-central regions respectively.

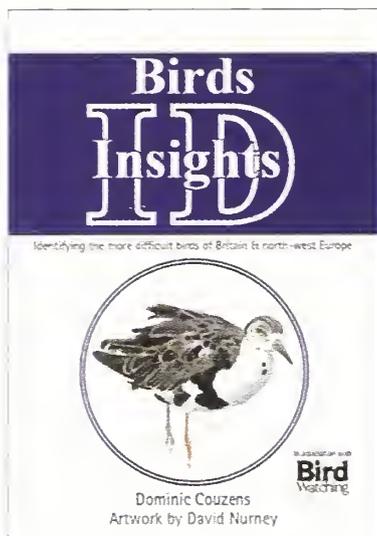
In the 1950s it was Roger Tory Peterson who changed the way field-guide plates were presented and used arrows pointing towards each species' main features. That general style of education has served us well for more than half a century. Although this photographic montage-style departs hugely from the path that Peterson guided us along, I suspect he would have approved of its ability to improve our identification skills.

Keith Betton

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Birds: ID Insights

By Dominic Couzens and David Nurney

New Holland, 2013

Hbk, 272pp; many colour illustrations

ISBN 978-1-780-09058-0 Subbuteo code M21318

£16.99 **BB Bookshop price £15.00**

This identification guide is aimed at 'improvers', those wishing to take their identification skills to the next

level, becoming more confident with separating traditional 'problem pairs' such as Willow Warbler *Phylloscopus trochilus* and Common Chiffchaff *P. collybita* and also identifying a wider range of scarcer species. It springs from the long-running series of identification articles published in *Bird Watching* magazine and so its approach differs from that of a conventional field guide in that it covers only a selection of species or species pairs/groups. The scope is broader than just Britain, covering a wider range of northwest European species (though Arctic and Mediterranean species are not included).

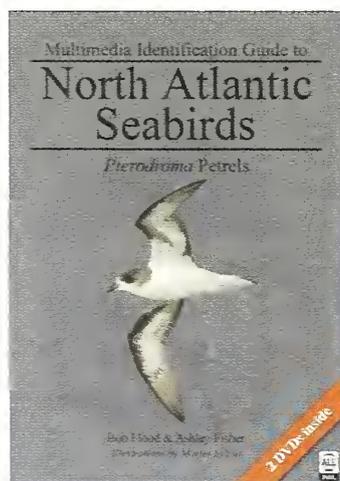
The book begins in the usual fashion with a brief introduction covering bird topography and plumage terminology. Then, each identification section has a very short introductory text detailing the species covered, their distribution, size, habitat, etc. Next come the annotated illustrations, which form the main focus of the book. The drawings are sketchy and diagrammatic rather than feather-perfect but this is entirely in keeping with the book's aim of presenting a species' distinctive demeanour and general appearance rather than its

plumage minutiae. The drawings go beyond those in many field guides, showing birds in action, from a variety of angles, etc.

Most of the drawings are pleasing and some, such as the Ring Ouzel *Turdus torquatus* and Green Woodpecker *Picus viridis*, are just delightful, almost Ennion-esque. Some are less successful, however, and this deficiency goes to the heart of the problem with a 'jizz-led' approach. Some forms/species (e.g. Caspian Gull *Larus cachinnans* and Greenland Redpoll *Carduelis flammea rostrata*) just do not lend themselves to this type of deliberately 'sketchy' treatment and it is no surprise that these are among the least convincing and informative illustrations. The reader is unlikely to be able to recognise either of these two from what is presented here.

This book therefore reinvigorates the old 'jizz versus tertial fringes' debate. In reality, some birds require a more detailed analysis than others and the trick is knowing how to strike the right balance between the two approaches. Here, the reader could, on occasion, do with a little more guidance. Despite such niggles, however, this is still a useful book. It is bright, appealing and well laid out, while its treatment of the traditional problems is sound. It should serve its target market well.

Andy Stoddart



Multimedia Identification Guide to North Atlantic Seabirds: *Pterodroma* Petrels

By Bob Flood and Ashley Fisher, with illustrations by Martin Elliott

Pelagic Birds & Birding Multimedia Identification Guides, 2013

Hbk, 316pp; 350 colour photographs, 40 colour illustrations, 11

distribution maps, two accompanying DVDs with over 120 minutes of footage

ISBN 978-0-9568-8671-2 Subbuteo code M21728

£42.95 **BB Bookshop price £38.50**

This is the second of what promises to be a series of guides to North Atlantic seabirds, the first of which dealt with the storm-petrels and Bulwer's Petrel *Bulweria bulwerii*. This volume addresses nine (or more, depending on taxonomy) *Pterodroma* species,

which have occurred or are considered likely to occur in the area. However, it omits two species tenuously recorded from the region, Stejneger's Petrel *P. longirostris* (an accepted record from Texas, USA, of an apparent tideline corpse in September 1995), and Mottled Petrel *P. inexpectata* (an

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inland record, from New York, USA, in April 1880), but includes Great-winged *P. macroptera*, Atlantic *P. incerta* and Kermadec Petrels *P. neglecta*, of which there are no accepted North Atlantic records.

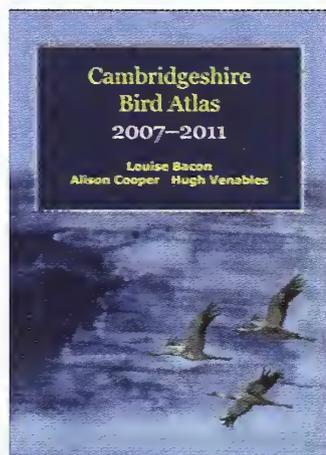
The authors' breadth of pelagic experience and enthusiasm for their subject, often conveyed in a somewhat informal style, is apparent throughout. The photographs are mainly good to excellent and most depict birds in flight, although a few show birds swimming, in the hand or museum specimens. Martin Elliott's illustrations are of a very high standard – he does paint a good tubenose! The DVD footage, given the difficulty of filming birds with the arcing and swinging *Pterodroma* flight style from a vessel at sea, is generally quite good. Having said that, I was not always able to see all the features mentioned in the commentary and the image quality is not quite as good as was achieved with the storm-petrels volume. Most of the taxa covered here are scarce, so even getting to see them is not easy – the rare at-sea footage of Bermuda Petrel *P. cahow* captures what was evidently a great moment for those on board too! The DVDs do bring the birds to life in a way that even good-quality still shots do not.

Appropriately, given that some of these petrels are rare and endangered, there are sections in both the book and the DVD on conservation. I particularly enjoyed hearing the inspiring stories of the ornithologists who saved Zino's *P. madeira* and Bermuda Petrels.

Much of the book and DVDs addresses identification. There are 32 pages devoted to general aspects of *Pterodroma* identification, followed by the species accounts. These include clear range maps, details of subspecies, range and population, along with detailed descriptions of flight, structure and plumage. Comparisons between taxa are mainly made in the following section, which places them into confusion groups and pairs. There are also 'insets' throughout, which deal with various topics including identification of particular birds (e.g. the famous 2009 Varanger petrel) and of the Fea's Petrel *P. feae* complex. The latter, confusingly, comes immediately after the same complex is dealt with in the main text. The result of all this is an immense amount of useful information, but also an element of repetition and a certain lack of clarity in the layout. At times the authors seem to have been unable to resist the temptation to include every last snippet of information they have about these birds – this could surely have been resolved with some judicious editing.

The price per species is undoubtedly high, especially if compared with *Petrels, Albatrosses & Storm-petrels of North America* (Howell 2012, Princeton University Press), which treats 76 species for around £25. Nonetheless, for the avid seabirder this is essential reading and they will surely wish to own both.

John P. Martin



Cambridgeshire Bird Atlas 2007–2011

By Louise Bacon, Alison Cooper and Hugh Venables

Cambridgeshire Bird Club, 2013

Pbk, 294pp; colour distribution maps, tables, line-drawings

ISBN 978-0-902038-27-1 Subbuteo code M21808

£14.99 **BB Bookshop price £13.50**

Almost 60 years after I learnt so much from the (then) Cambridge Bird Club, and 50 years

since bird mapping was first mooted, the fourth BTO national atlas (and the first dual-season atlas) is imminent. Trailing it in Cambridgeshire comes this handy, more locally focused and informative reworking of the 2007–11 data. It presents a full snapshot of how birds currently use the county's diverse habitats. It also represents past findings from earlier mapped surveys, stretching back to 1979–83 and other historically significant records. It disclaims, however, any attempt to be a complete avifauna or site guide.

The book opens with 12 crisp pages of scene setting, method summary and main avifaunal changes. Its core product comes from 267 pages of 199 species accounts. Resident birds are accorded up to a full page of text, two pairs of summer and winter maps showing both distribution and abundance, and a digest of status. One-season birds get generally less text and just one pair of maps; a few scarcities warrant only comment. Overall, the presentation of facts and places is concise and clear, and among the 51 black-and-white drawings there are some real gems. Given the restricted page area (248 x 170 mm) the maps are small and, for easy distinction of the tiny coloured symbols, I recommend a magnifying glass.

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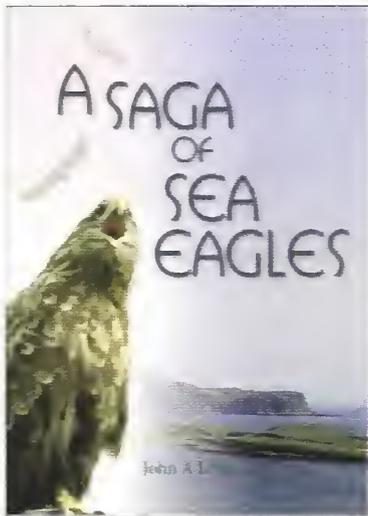


While I was generally impressed with the remarkably detailed reprise of an avifauna that I so enjoyed six decades ago, one feature made me itch. The headline estimates of county populations were derived ‘downwards’ by proportionate spatial recalculations of the recent UK population figures (*Brit. Birds* 106: 64–100). Surely, the 906 ‘citizen scientists’ who reached all but five of the county’s 969 tetrads (and made dual-season visits to at least 75% of them) would have been better rewarded by the ‘upwards’ construction of locally informed and thus more sensitive figures. Why were the team of

16 authors so shy of expanding the final appendix of atlas effort into just such an attempt?

Owing to the county’s wealth of old and new wetlands and nearly 60 reserves, the birds of Cambridgeshire seem better set than those of many other English counties. Only the balance of trends for seed-eaters is woeful. No chance today of jumping on a bike and finding a Cirl Bunting *Emberiza cirlus* within 40 minutes of pedalling from the city’s centre!

D. I. M. Wallace



A Saga of Sea Eagles

By John A. Love

Whittles Publishing, 2013

Pbk, 248pp; many colour and black-and-white photos

ISBN 978-184995-080-0 Subbuteo code M21601

£19.99 *BB Bookshop* price £17.99

I own a battered and well-thumbed copy of John Love’s book *The Return of the Sea Eagle*, published in 1983. It is an ex-library copy withdrawn from Sydney City Library in the late 1990s, though not before being borrowed many times – testament to the worldwide interest in the pioneering Sea Eagle (White-tailed Eagle *Haliaeetus albicilla*) reintroduction project in Scotland. This new book brings the story up to date and includes much new material as well as repeating relevant sections from the earlier volume. It is very much a personal account, with numerous anecdotes, personal reflections and a comprehensive selection of the author’s own photographs, spanning several decades of hands-on involvement in the project.

The 1983 book finished with a postscript welcoming the fact that several pairs of eagles had succeeded in laying clutches and predicting that 1984 might be the landmark year when released birds first managed to rear young successfully. As it happens, John Love was one year out. It was not until 1985 that the first Scottish-bred eagle took to the wing and, since then, the population has increased steadily and expanded its range. In the early years, progress was slow, causing some concern among scientists, and leading to a second phase of releases in western Scotland from 1993 to 1998. The future now seems assured, however. In 2012 there were 66 territorial pairs and 60 young were fledged. New release projects have started in

eastern Scotland and southwest Ireland, both using young birds imported from Norway. Attempts to initiate a release project in lowland England, where there is much suitable habitat, have so far come to nothing.

Back in the 1970s there were far fewer administrative obstacles to overcome in order to get a major reintroduction project such as this off the ground. There were no complex reintroduction guidelines to follow and the first birds were released on the Isle of Rum with minimal public consultation, something that would certainly not happen today. Although, as the author ruefully points out, a reintroduction was only required because the bird was exterminated in the first place, without anything by way of public consultation.

The book includes a comprehensive review of the diet and feeding behaviour of the Sea Eagle, including recent studies in western Scotland to investigate the potential for predation of lambs. These show that, while scavenging is commonplace, relatively few live lambs are taken and where this does occur it can be managed effectively through schemes to improve livestock husbandry. While the author is sympathetic towards those few people with a genuine problem, he has grown rather weary of persistent attacks on the project based largely on exaggerated or inaccurate claims in the local media. He is freer to speak his mind than in 1983 and that helps to make this book a lively and interesting read.

Ian Carter



Recent reports

Compiled by Barry Nightingale and Harry Hussey

This summary of unchecked reports covers the new arrivals in the period from early October to early November 2013.

Headlines A series of deep Atlantic depressions brought some remarkable birds, including a Cape May Warbler on Unst, a Ruby-crowned Kinglet on Cape Clear and a Mourning Dove on Rum. A strong supporting cast included two Soras, a Semipalmated Plover on the south coast of England, Northern Harriers in Co. Wexford and Cambridgeshire, Red-eyed Vireo and Hermit Thrush in Cornwall, four Grey-cheeked Thrushes, two American Robins and two Yellow-rumped Warblers. Occasionally, the wind swung into the east, bringing a White's Thrush and Pallas's Grasshopper Warbler to Scilly, Siberian Rubythroat, Lanceolated Warbler and Pechora Pipit to Fair Isle/Shetland, and wide-ranging influxes of Pallid Swifts, Red-flanked Bluetails, Siberian Stonechats and Parrot Crossbills, together with a scattering of Radde's and Dusky Warblers, and Olive-backed Pipits. There were sightings of Black-browed Albatross off Norfolk and Cornwall, a Lesser Kestrel in Devon, while a Ross's Gull and a Gyr Falcon in the Northern Isles brought autumn migration to a close.

Cackling Goose *Branta hutchinsii* Islay (Argyll), one or two, 21st–25th October at least. **Blue-winged Teal** *Anas discors* Rahasane Turlough (Co. Galway), 19th October. **Lesser Scaup** *Aythya affinis* Chew Valley Lake (Avon), 4th–7th November.

White-billed Diver *Gavia adamsii* Sandy Bay (Co. Kerry), 28th October to 3rd November; Bluemull Sound (Shetland), 28th October.

Black-browed Albatross *Thalassarche melanophris* Overstrand (Norfolk), 27th October; Bass Point (Cornwall), 2nd November. **Zino's/Fea's Petrel** *Pterodroma madeira/feae* Ballycotton (Co. Cork), 2nd November.

Night Heron *Nycticorax nycticorax* Frampton (Gloucestershire), 9th October; Heligan (Cornwall), 12th October; Shapwick Heath (Somerset), 24th October. **Cattle Egret** *Bubulcus ibis* Harty Ferry (Kent), 11th October to 7th November; Wallasea

(Essex), 27th October to 3rd November. **Glossy Ibis** *Plegadis falcinellus* Following the influx in September, there were records from many counties, including groups of four in Carmarthenshire and Greater Manchester, five in Kent, six in the Outer Hebrides and seven in Yorkshire.

Black Kite *Milvus migrans* Dungeness (Kent), 10th October. **Northern Harrier** *Circus cyaneus hudsonius* Tacumshin (Co. Wexford), 15th–27th October; Ouse Washes (Cambridgeshire), 26th October to 4th November.



468. Sora *Porzana carolina*, Tresco, Scilly, October 2013.

Steve Young/Birdwatch

Recent reports

Lesser Kestrel *Falco naumanni* Torquay (Devon), 28th–29th October. Red-footed Falcon *Falco vespertinus* Bawdsey, and Shingle Street (Suffolk), 12th October. Gyr Falcon *Falco rusticolus* Evie (Orkney), 2nd November.

Sora *Porzana carolina* Tresco (Scilly), 9th–29th October, another St Mary's, 19th October.

Pacific Golden Plover *Pluvialis fulva* Breydon Water (Norfolk), 19th October. Semipalmated Plover *Charadrius semipalmatus* Hayling Island (Hampshire), 17th–29th October, also at Pilsey Sands (Sussex), 18th–20th October. Baird's Sandpiper *Calidris bairdii* Slimbridge (Gloucestershire), 7th–10th October; Ballycotton, 8th–10th October; Fanad (Co. Donegal), 26th October. White-rumped Sandpiper *Calidris fuscicollis* Up to 22 in the period, with records from Co. Cork, Cornwall (up to four), Co. Derry, Devon, Co. Galway, Lincolnshire (up to four), Co. Mayo, Norfolk (two), Outer Hebrides (up to four), Shetland (one or two) and Sussex. Buff-breasted Sandpiper *Calidris subruficollis* Fair Isle, 9th–10th October. Semipalmated Sandpiper *Calidris pusilla* Ballycotton, 26th October. Wilson's Phalarope *Phalaropus tricolor* Sand (Shetland), 10th–15th October. Spotted Sandpiper *Actitis macularius* Inishmore (Co. Galway), 7th October. Long-billed Dowitcher *Limnodromus scolopaceus* Rhaslas Pond (Gwent), 8th–14th October.

Forster's Tern *Sterna forsteri* Galway Bay (Co. Galway), 4th November. Bonaparte's Gull *Chroicocephalus philadelphia* Rush (Co. Dublin), 17th October; Bamburgh, 30th–31st October, then Farne Islands (Northumberland), 1st–2nd November; Rostherne Mere (Cheshire & Wirral), 7th November. Ross's Gull *Rhodostethia rosea* Westray (Orkney), 4th November.

Mourning Dove *Zenaida macroura* Rum (Highland), 28th October to 3rd November.

Pallid Swift *Apus pallidus* At least two in Norfolk but not seen together: Winterton 22nd October, Cley/Salthouse/Weybourne 23rd, Felbrigg Hall 24th, Cromer 25th–27th, Trimmingham 26th–27th and Sidestrand 27th October. Elsewhere, Hartlepool Headland (Cleveland), 17th–23rd October; Christchurch Harbour (Dorset), 24th–25th October; Flamborough Head (Yorkshire), 26th October; Foreness Point (Kent), up to three 27th, one to 28th October.

Red-eyed Vireo *Vireo olivaceus* Prussia Cove (Cornwall), 23rd October.

Isabelline Shrike *Lanius isabellinus* Foula (Shetland), 10th–12th October; Flamborough Head, 15th–18th October; Whalsay (Shetland), 17th–28th October; Donna Nook (Lincolnshire), 20th October. Great Grey Shrike *Lanius excubitor* Widespread influx in

mid October, with a peak of 12 in the Spurn area (Yorkshire) on 13th October.

Ruby-crowned Kinglet *Regulus calendula* Cape Clear (Co. Cork), 27th October.

Penduline Tit *Remiz pendulinus* Dungeness, one or two, 24th–30th October; Newport Wetlands (Gwent), 7th November.

Arctic Warbler *Phylloscopus borealis* Fair Isle,



Will Soar

469. Juvenile Semipalmated Plover *Charadrius semipalmatus*, Hayling Island, Hampshire, October 2013.

14th–15th October. **Radde's Warbler** *Phylloscopus schwarzi* Ten in the period, with records from Borders, Co. Durham, Hampshire (two), Lincolnshire, Norfolk, Scilly, Suffolk, Sussex and Yorkshire. **Dusky Warbler** *Phylloscopus fuscatus* About 24 in the period, records from Caernarfonshire, Cleveland, Cornwall, Dorset, Fair Isle (two), Fife, Hampshire, Lincolnshire (two), Norfolk (three), Scilly, Shetland, West Midlands, Co. Wexford and Yorkshire (eight). **Western Bonelli's**



Kit Day

470. First-winter Hermit Thrush *Catharus guttatus*, Porthgwarra, Cornwall, October 2013.

Warbler *Phylloscopus bonelli* Flamborough Head, 7th October; Whalsay, 9th–18th October; Burray (Orkney), 11th–17th October; Hartlepool Headland, 13th–29th October; Holkham (Norfolk), 24th October. **Subalpine Warbler** *Sylvia cantillans* St Mary's, 24th October to 7th November. **Sardinian Warbler** *Sylvia melanocephala* Mire Loch (Borders), long-stayer to 2nd November. **Pallas's Grasshopper Warbler** *Locustella certhiola* Gugh (Scilly), 16th October. **Lanceolated Warbler** *Locustella lanceolata* Fair Isle, 20th October. **Melodious Warbler** *Hippolais polyglotta* Cape Clear, 8th October; Cot Valley (Cornwall), 8th October. **Paddyfield Warbler** *Acrocephalus agricola* Unst (Shetland), 12th October; Kirkwall (Orkney), 21st October; Fair Isle, 22nd October; St Agnes, 30th October. **Blyth's Reed Warbler** *Acrocephalus dumetorum* Sumburgh, 11th October; Fair Isle, 11th–15th October; North Ronaldsay (Orkney), 15th–16th October.

Black-bellied Dipper *Cinclus c. cinclus* Unst, 11th–12th October and 2nd–4th November; South Ronaldsay (Orkney), 22nd October.

Hermit Thrush *Catharus guttatus* Porthgwarra (Cornwall), 29th October to 1st November. **Grey-cheeked Thrush** *Catharus minimus* St Mary's, 7th and 12th–14th October; Barra

(Outer Hebrides), 10th October; Fair Isle, 11th October; Mizen Head (Co. Cork), 17th October. **White's Thrush** *Zoothera dauma* St Agnes, 25th October to 1st November. **American Robin** *Turdus migratorius* Tresco, 29th October to 5th November; The Lizard (Cornwall), 1st November. **Thrush Nightingale** *Luscinia luscinia* Portland, 9th–11th October; Dursey Island (Co. Cork), 22nd October. **Siberian Rubythroat** *Calliope calliope* Fair Isle, 21st–23rd October. **Red-flanked Bluetail** *Tarsiger cyanurus* Crail (Fife), 13th–14th October; Happisburgh (Norfolk), 13th–14th October; Warham Greens (Norfolk), 14th October; Sizewell (Suffolk), 14th–17th October; Westray, 18th–21st October; Spurn, 18th October; Voe, 20th–21st October; Walls (both Shetland), 25th–26th October; North Ronaldsay, 31st October. **Siberian Stonechat** *Saxicola maurus* Bressay (Shetland), 12th October; Wells-next-the-Sea (Norfolk), 14th–15th October; Scalby Mills (Yorkshire), 16th–22nd October; Howick Burn (Northumberland), 20th–23rd October. **Isabelline Wheatear** *Oenanthe isabellina* Martin's Haven (Pembrokeshire), long-stayer to 10th October. **Pied Wheatear** *Oenanthe pleschanka* Bardsey (Caernarfonshire), 13th October.

Citrine Wagtail *Motacilla citreola* Fleck (Shetland), 17th–22nd October. **Olive-backed Pipit**

Michael McKee



471. White's Thrush *Zosterorhina dauma*, St Agnes, Scilly, October 2013.

Anthus hodgsoni At least 12; records from Cleveland, Essex, Fair Isle (2), Northumberland, Orkney, Pembrokeshire, Shetland (3) and Yorkshire (2). **Pechora Pipit** *Anthus gustavi* Toab (Shetland), 10th–12th October. **Red-throated Pipit** *Anthus cervinus* Mizen Head, 12th October; Gibraltar Point, 12th October; Spurn, 12th October; Fair Isle, 12th–24th October; Flamborough Head, 13th October; St Mary's, 15th October; Lundy (Devon), 25th–27th October; Highbridge (Somerset), 2nd November.

Arctic Redpoll *Carduelis hornemanni* At least 19 in the period, with seven in Shetland, four

Roger Riddington



472. First-winter female Cape May Warbler *Setophaga tigrina*, Baltasound, Unst, Shetland, October 2013.

in Norfolk, two each in Kent and Outer Hebrides, and singles in Cleveland, Fair Isle, Orkney and Yorkshire. **Two-barred Crossbill** *Loxia leucoptera* Leith Hill (Surrey), intermittently 8th October to 4th November; Margate, 11th October; Hemsted Forest (both Kent), 13th–29th October. **Parrot Crossbill** *Loxia pytyopsittacus* Gunners Park (Essex), four, 12th–14th October; Stiffkey,

13th October; Winterton, 14th October; Wells Woods (all Norfolk), four 15th October, one 19th–20th October; Hemsted Forest, 15th October, two 17th, five 18th–20th, up to seven to 27th, then 1–2 to 3rd November; Bacton Woods (Norfolk), two, 24th October. **Snow Bunting** *Plectrophenax nivalis* Fetlar (Shetland), 1,000, 9th October.

Rustic Bunting *Emberiza rustica* Fetlar, 8th–9th October; Warham Greens (Norfolk), 11th October; Flamborough Head, 11th–15th October; Cove (North-east Scotland), 1st–3rd November. **Little Bunting** *Emberiza*

pusilla About 24 new arrivals, with records from Cleveland, Co. Durham, Fair Isle (four), Northumberland (two), Orkney, Outer Hebrides, Scilly (three), Shetland (five) and Yorkshire (six).

Cape May Warbler *Setophaga tigrina* Unst, 23rd October to 2nd November. **Yellow-rumped Warbler** *Setophaga coronata* Lundy, 28th–29th October; Inishmore, 29th October.

Talking point

Southill revisited

In 1963, the *Bedfordshire Naturalist* included an account by Bruce Campbell of a nesting bird survey that he and the (then) *British Birds* editor, James Ferguson-Lees, carried out that year. They were repeating a survey first conducted sixty years earlier.

Campbell takes up the tale: 'On June 4th, 1903, Jannion Steele-Elliott, the great Bedfordshire naturalist, and his friend Ronald Bruce Campbell, my father, spent the day at Southill Park and found nests with eggs of 27 different species of bird, a feat which can have few parallels in British field ornithology.' Sixty years on: 'On June 5th, 1963, Jannion's nephew, Dennis Elliott, James Ferguson-Lees, like my father a Scoto-Bedfordian, ... and I celebrated the diamond jubilee of the 1903 visit.'

In 1963, the three searched from mid morning till around 9.00 pm, and only just failed to emulate their predecessors: 'Allowing ourselves the Blackcaps *Sylvia atricapilla* [fledged young rather than the nest itself], our tally was 60 occupied nests of 26 species. Considering the effect of the previous winter and that none of us knew the area well, whereas Steele-Elliott was certainly familiar with it, we felt we had not done too badly.'¹

With the 50th and 110th anniversaries of this unusual and occasional survey approaching, I felt that it ought to be repeated. Richard Bashford, Barry Nightingale and I approached the estate; the necessary permission was generously granted by the Whitbread family and we did a dry run in June 2012 (see *Brit. Birds* 105: 491–492). It was clear that the emphasis of our informal survey would not – indeed should not – be on locating the actual nests of many of the species likely to be present and breeding, to avoid risk of causing disturbance. Times, and of course ornithological conventions, have changed.

And so, on 9th June 2013, the three of us met at 6.00 am on the edge of the Park. In

common with 1903 and 1963, our spring followed a hard winter, although not on the scale of 1963's fabled three-month freeze. 'From a general comparison of the two days,' wrote Campbell, 'it [1903] must have been a late season, whereas 1963, in spite of the famous cold spell, had by June become rather an early one.' Nothing was published at the time of the 1903 visit, but Campbell had his father's diary of the event for reference.

A cold wind from the east made for thinner pickings than we might have expected at the Keepers Warren, where we set off. It was evidently heathland and not long planted in 1963. The predated Wood Pigeon *Columba palumbus* fledgling we found on the track may have been evidence of Eurasian Sparrowhawk *Accipiter nisus*, absent 50 years ago. We found some other signs of life, such as the Muntjac Deer *Muntiacus reevesi* that trotted calmly across the track up ahead of us. The one that Bruce Campbell noted in this very part of the estate he described as his first glimpse of that recently introduced species in the wild.

At a clear-felled area we speculated on the species that might have occurred in days gone by – European Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea*, Whinchat *Saxicola rubetra*, Tree Pipit *Anthus trivialis* – but we found nothing. We did pick up half a white eggshell, which looked good for Tawny Owl *Strix aluco*. I popped it in my bag for later verification.

The '63 group had gone first to the lake, and enjoyed early success. 'The boathouse gave us our first score, a House Sparrow *Passer domesticus* with four eggs on a beam; there were several others to which we did not climb,' Campbell reported. The boathouse is still there, crowded by trees, but the House Sparrows are long gone. The lake covers around 20 ha and remains a place busy with waterfowl and other wetland specialists. In 1963, Campbell recorded that '... herons

¹ Another account of their endeavours appears in *Best Days with British Birds* (Ogilvie & Winter, 1989).

Table 1. Species recorded breeding in Southill Park, Bedfordshire, in 1903, 1963 and 2013.

	1903	1963	2013		1903	1963	2013
Mute Swan <i>Cygnus olor</i>		✓	p	Marsh Tit <i>Poecile palustris</i>			✓
Greylag Goose <i>Anser anser</i>			✓	Barn Swallow <i>Hirundo rustica</i>		✓	p
Canada Goose <i>Branta canadensis</i>			p	House Martin <i>Delichon urbicum</i>			p
Egyptian Goose <i>Alopochen aegyptiaca</i>			✓	Wood Warbler <i>Phylloscopus sibilatrix</i>	✓		
Mallard <i>Anas platyrhynchos</i>		✓	✓	Common Chiffchaff			
Tufted Duck <i>Aythya fuligula</i>			p	<i>Phylloscopus collybita</i>			✓
Red-legged Partridge <i>Alectoris rufa</i>	✓		p	Willow Warbler <i>Phylloscopus trochilus</i>	✓	✓	
Grey Partridge <i>Perdix perdix</i>	✓		p	Blackcap <i>Sylvia atricapilla</i>	✓	✓	p
Common Pheasant <i>Phasianus colchicus</i>	✓	✓	✓	Garden Warbler <i>Sylvia borin</i>	✓		
Grey Heron <i>Ardea cinerea</i>		✓	✓	Common Whitethroat			
Great Crested Grebe <i>Podiceps cristatus</i>	✓	✓	p	<i>Sylvia communis</i>		✓	p
Red Kite <i>Milvus milvus</i>			p	Sedge Warbler			
Eurasian Sparrowhawk <i>Accipiter nisus</i>			p	<i>Acrocephalus schoenobaenus</i>	✓	✓	p
Common Buzzard <i>Buteo buteo</i>			✓	Reed Warbler <i>Acrocephalus scirpaceus</i>		✓	p
Moorhen <i>Gallinula chloropus</i>	✓	✓	✓	Eurasian Nuthatch <i>Sitta europaea</i>			✓
Common Coot <i>Fulica atra</i>	✓	✓	✓	Eurasian Treecreeper <i>Certhia familiaris</i>	✓		✓
Oystercatcher <i>Haematopus ostralegus</i>			✓	Wren <i>Troglodytes troglodytes</i>	✓	✓	✓
Stock Dove <i>Columba oenas</i>			p	Common Starling <i>Sturnus vulgaris</i>		✓	
Wood Pigeon <i>Columba palumbus</i>	✓	✓	✓	Blackbird <i>Turdus merula</i>	✓	✓	✓
Collared Dove <i>Streptopelia decaocto</i>			p	Song Thrush <i>Turdus philomelos</i>	✓	✓	p
Turtle Dove <i>Streptopelia turtur</i>	✓	✓		Mistle Thrush <i>Turdus viscivorus</i>			p
Common Cuckoo <i>Cuculus canorus</i>	✓			Spotted Flycatcher <i>Muscicapa striata</i>		✓	p
Barn Owl <i>Tyto alba</i>			p	Robin <i>Erithacus rubecula</i>	✓		✓
Tawny Owl <i>Strix aluco</i>			✓	Common Redstart			
Common Swift <i>Apus apus</i>			p	<i>Phoenicurus phoenicurus</i>	✓		
Common Kingfisher <i>Alcedo atthis</i>	✓			European Stonechat <i>Saxicola rubicola</i>	✓		
Green Woodpecker <i>Picus viridus</i>			✓	Dunnock <i>Prunella modularis</i>	✓		p
Great Spotted Woodpecker				House Sparrow <i>Passer domesticus</i>	✓	✓	
<i>Dendrocopos major</i>			✓	Pied Wagtail <i>Motacilla alba</i>			p
Eurasian Jay <i>Garrulus glandarius</i>			p	Common Chaffinch <i>Fringilla coelebs</i>	✓	✓	✓
Jackdaw <i>Corvus monedula</i>			✓	Greenfinch <i>Chloris chloris</i>	✓	✓	p
Carrion Crow <i>Corvus corone</i>			p	Goldfinch <i>Carduelis carduelis</i>			p
Common Raven <i>Corvus corax</i>			p	Linnet <i>Carduelis cannabina</i>		✓	
Goldcrest <i>Regulus regulus</i>			✓	Lesser Redpoll <i>Carduelis cabaret</i>	✓		
Blue Tit <i>Cyanistes caeruleus</i>		✓	✓	Bullfinch <i>Pyrrhula pyrrhula</i>		✓	p
Great Tit <i>Parus major</i>			✓	Reed Bunting <i>Emberiza schoeniclus</i>			✓
Coal Tit <i>Periparus ater</i>			✓	Total	27	26	27

Note: for 2013 p indicates species was present but not proved breeding, ✓ indicates species was proved to breed.

lumbered off the tall trees on the island. The heronry was not in existence in 1903, so this gave us one species in hand for a start.’ We too were able to add Grey Heron *Ardea cinerea* to our list.

The 1963 search became ‘amphibious’ – the two men were equipped with gumboots and a mirror on a stick. They found Sedge Warbler *Acrocephalus schoenobaenus* and – curiously – a Bullfinch *Pyrrhula pyrrhula* nest in sedges over the water. ‘The colony of Reed Warblers *A. scirpaceus* was known to Steele-Elliott but no nests were recorded on the 1903 visit... we tallied eight Reed Warblers with eggs.’

In 1963, the Turtle Dove *Streptopelia turtur* accidentally flushed from its nest and

young as the men returned to shore we could only dream of nowadays. They also stumbled on a Common Whitethroat *Sylvia communis* nest nearby. We found a pair not far away, but only derelict nests were apparent.

For all their abundance over the lake, we could add no hirundines to our list of breeders. The lake gave us one notable record – Egyptian Goose *Alopochen aegyptiaca* with goslings – and also two species that our predecessors had noted, but of which we were unable to prove breeding on the day: Mute Swan *Cygnus olor* and Great Crested Grebe *Podiceps cristatus*.

Things improved after lunch, as we found Green *Picus viridus* and Great Spotted Woodpeckers *Dendrocopos major* attending nest

holes, Eurasian Nuthatches *Sitta europaea* with a brood of five, and family groups of Eurasian Treecreepers *Certhia familiaris* and Goldcrests *Regulus regulus* ('a rarity in 1963'). Perhaps best of all were the Marsh Tits *Poecile palustris* feeding recent fledglings.

The arable fields added little to our list, the winter wheat no doubt too high and dense already for ground-nesters. The lack of hedgerows here ruled out several others. One real bonus was our discovery of the return of Spotted Flycatchers *Muscicapa striata* to the vicinity of Gothic Cottage. They were missing in 2012.

Ten hours in, and flagging, we went in search of what would have been no. 26, returning to a Stock Dove *Columba oenas* nest hole we'd identified on our recce last year, but without success. We looked instead for Song Thrush *Turdus philomelos*, but chanced on a Common Chiffchaff *Phylloscopus collybita* gathering food. A pleasing one to end on.

What was most enjoyable was reflecting, as we strolled between habitats, on what these surroundings might have looked and felt like to our forerunners. Am I right to imagine that what has changed most is the general abundance of life?

It's tempting to believe that there was just more in the way of life forms present 50 years ago. Notwithstanding our competence, there is the definite sense that nests were easier to find back then, presumably because birds were simply much more abundant. Perhaps insects were too. Campbell describes Ferguson-Lees being bothered by midges as he tried to locate Willow Warblers *P. trochilus* in a patch of Ground-elder *Aegopodium podagraria*. I wonder if this snapshot alone reveals a lot about the contrasting world they inhabited. We didn't hear a Willow Warbler all day, and saw nothing resembling a midge. I don't think we saw more than a single butterfly all day either, even after the sun broke through towards the end. What is perhaps more troubling is that this didn't even occur to me as odd until I thought about it later that evening.

It also then occurred to me that I still had the eggshell in my bag, and towards midnight I checked it against the book. It made a perfect match with the Tawny Owl egg depicted there. So this gave us number 27,



Richard Bashford

473. Conor Jameson, Southill Park, June 2013.

the same score as the class of 1903. And one more than in 1963.

So we could say that we matched their feat, more or less, though we did rewrite the rules. In fact, the only intact eggs we saw all day were those of Common Coot *Fulica atra*, which would have been impossible to miss. What seems clear is that, not only were our predecessors' nest-finding techniques greatly superior to and much less trammelled than ours, it also seems likely that there were, in all likelihood, many more nests to find.

Really, we can't claim to have emulated the feat but that was not really the point. What is much more instructive is the glimpse the outing has given us of what has changed, and the pleasure of walking this interesting and varied landscape and imagining it five and eleven decades ago, our counterparts in tweeds or khakis, with their basic optics and much closer search focus. The need to prove nesting was novel for us. 'It really changed the way we birdwatched,' Richard later reflected. It also gave us some life firsts – the family parties of some of the species, in particular. The Red Kites *Milvus milvus*, Common Buzzards *Buteo buteo* and Common Ravens *Corvus corax* that we saw would also have gladdened our forerunners, I am sure.

So how will it be, 50 years hence, in 2063? One thing's for sure, we won't be the ones doing the ten-hour trek.

Conor Jameson

The year that was

1903 *British Birds* journal was still three years from its inception, but in spring 1903 the Society for the Protection of Birds (its Royal Charter was still a year away) was launching *Bird Notes and News* – the precursor to *Birds* magazine – to provide 'news of the doings of the Society' to its members. The first issue spoke of the challenges of tackling the 'conspicuous brutality' of the plumage trade – the absence of herons from the 1903 Southill survey may reflect a wider depletion of the heron family – and the practices of caging and often blinding songbirds.

1963 In spring 1963, Rachel Carson's *Silent*

Footnote In July 2013, while browsing once again in the file of *Bedfordshire Naturalist* journals, I discovered that the 1963 group repeated the survey two years later. It is worth



Conor Jameson

474. Richard Bashford and Barry Nightingale, Southill Park, June 2013.

With thanks again to the Whitbread family and Southill estate staff for their kind permission to repeat this historic survey, and of course to Barry and Richard for their vital contributions.

Spring was published in the UK. The perils of which it warned were only just dawning on a wider public. And while we have no record of Southill Park being affected, estates not too far away had been reporting dead and dying birds (and other species such as Foxes *Vulpes vulpes*) in great numbers. The RSPB, BTO and Game Research Association had formed an alliance to mobilise volunteer support and quantify the carnage. On top of this, resident species were recovering from one of the harshest winters on record. Barry Nightingale can himself recall field edges littered with the corpses of Wood Pigeons. *Bird Notes* was still two years from evolving into *Birds* magazine. It reported that National Nature Week had just been held.

adding this for the record, and to pick out a few of the noteworthy aspects of that visit. They returned on 1st June 1965, a 'dull but promising' day, and the promise was fulfilled as they racked up 100 nests of 35 species, way in excess of their 60/26 score of two years earlier. It supports the theory that there were many more nests to find half a century ago – even more so perhaps as bird numbers recovered in the wake of the big freeze of winter 1962/63. There are some other poignant reflections: 'The Muntjac was certainly not dreamed of at Southill in 1903 nor, probably, was the Grey Squirrel [*Sciurus carolinensis*],' wrote Bruce Campbell. 'Another striking change, we reflected, was in the variety of noises which have invaded the countryside. At least during working hours, tractors, aircraft, bird-scarers and a power-saw reminded us of the age of technology. Perhaps in another 60 years science will have conquered noise and our successors will not strain to catch the off-nest calls of Chiffchaff and Willow Warbler.'

It may be that there was more human activity and therefore more noise then than now. But I think Campbell may have been especially surprised to learn that, 48 years on, there are no Willow Warblers left to hear.



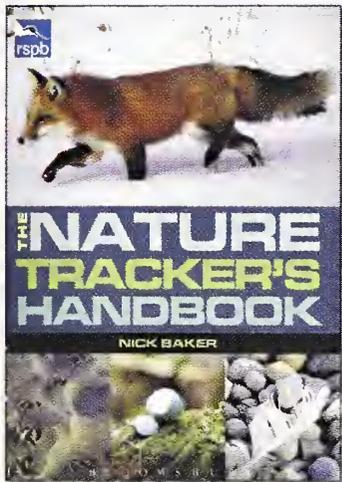
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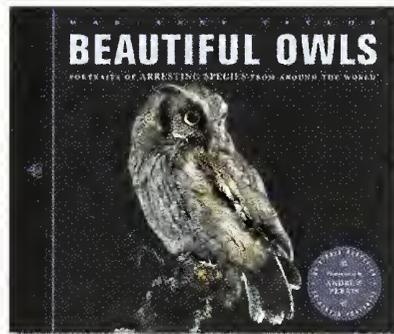
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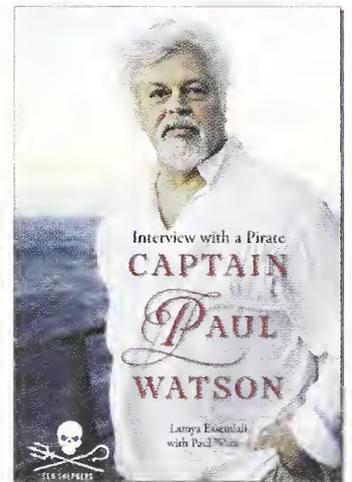
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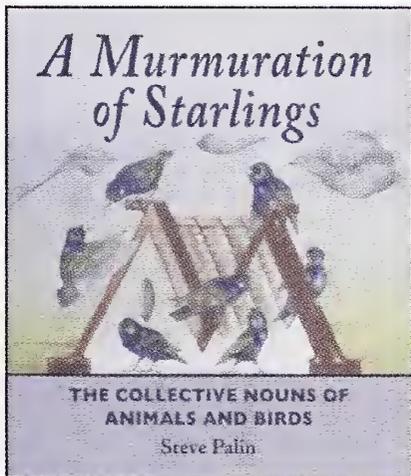
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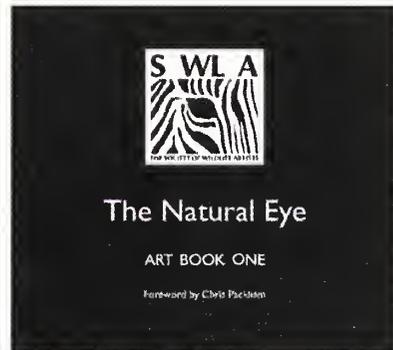
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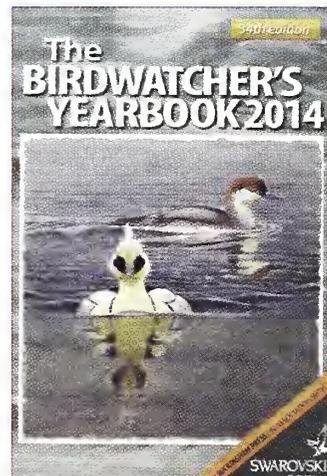
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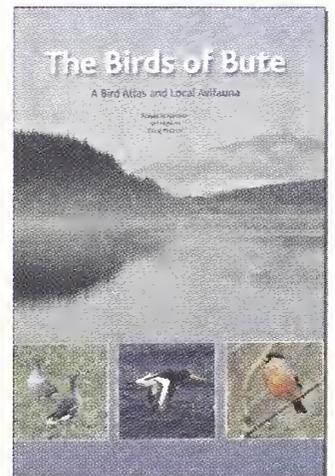
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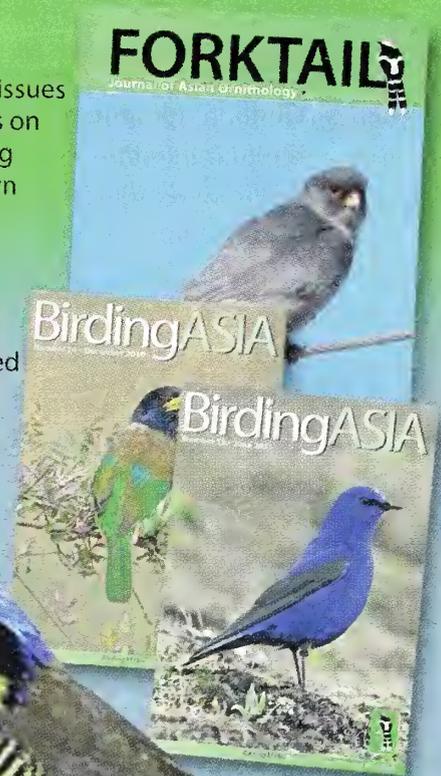
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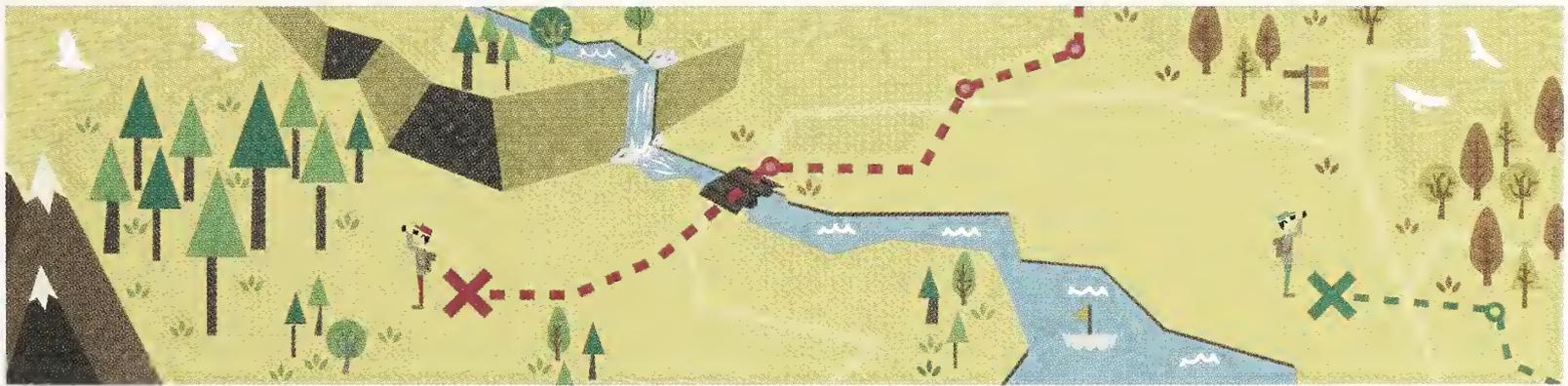
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