

TBS 104



British Birds

June 2016 • Vol.109 • 309–366



NATURAL HISTORY
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The Hobby in Britain

Thayer's Gull

Ptarmigan in England

Twite in Derbyshire



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British Birds

Established 1907, incorporating The Zoologist, established 1843

Published by BB 2000 Limited, trading as 'British Birds'

Registered Office: c/o McPhersons CFG Limited, 23 St Leonards Road
Bexhill on Sea, East Sussex TN40 1HH

ISSN 0007-0335

www.britishbirds.co.uk

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Annual subscription rates

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Overseas (airmail) – £70.00
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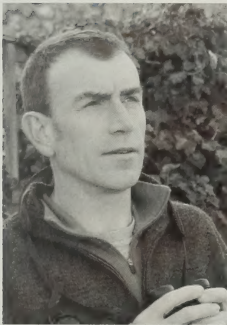




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This time next month it will be clear whether or not the UK is still a part of the European Union. As I write, the campaign is in full swing but, just as in the last general election, it seems that both sides have very little to say about the environment, other than a passing reference to climate change. Perhaps it's not surprising, in the sense that the majority of voters will be more concerned about issues such as trade barriers, security and ultimately whether there is more or less in their pockets at the end of the week. Yet membership of the EU has had a significant impact on environmental issues – not least through agricultural and fisheries policies (see last month's *BB eye*), and through much of our current environmental legislation. Knowing that many *BB* readers will want to take environmental matters into account on 23rd June, we asked the BTO's Director, Andy

Clements, for his thoughts, which you can read on pp. 310–311.

It's long been realised that bird conservation is often tackled most effectively at a wider scale – a flyway scale, as advocated by the recent *BB eye* on geese (<http://bit.ly/1NqxZhe>). Birders are typically very well aware of what's happening in the environment beyond our shores, and there will be widespread alarm over the threats faced by one of Europe's most important forests – in Poland, as described on pp. 364–366,

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.

The environment and Europe

Andy Clements is Director of the BTO, and has worked in conservation for more than 30 years. During that time he has recognised the contribution that the European Union makes to how we approach the challenges of securing the best environment for the future. Here he gives a personal reflection on his own experience of how Europe can shape our achievements, and thus what he suggests we might bear in mind when contemplating how to vote in the imminent referendum. Readers may wish to refer to more formal perspectives in www.ieep.eu/assets/2000/IEEP_Brexit_2016.pdf and in www.rspb.org.uk/community/ourwork/b/martinharper/archive/2016/03/09/ieep-report-launch.aspx

Twenty years ago I took English Nature into Europe. My role was to forge partnerships with other organisations managing land for nature conservation, a network known as *Eurosite*. At my first meeting with colleagues from across the continent, having attempted to dress with a bit of style, I was spoken to in Dutch – my dress code had worked, as I was mistaken for a European! I apologised, and explained that my role was to bring the UK closer to Europe. My correspondent exclaimed that Britain was already in Europe! This is the perception of many Europeans, but this exchange perhaps illustrates our own ambivalence. My own experience from 30 years working for nature leads me to want to emphasise three broad areas where Europe contributes to securing better outcomes for the environment: an **out-standing network of protected areas**, *Natura 2000*, enabled by the EU Nature Directives; **funds that support research and monitoring**, in addition to directly subsidising agri-environmental measures; and **partnerships**.

It was the Dibden Bay Public Inquiry between 2000 and 2003 that crystallised my own view of the importance of a strong regulatory platform protecting nature. Associated British Ports (ABP) applied to build a new container terminal in Southampton Water, affecting Dibden Bay SSSI, and the Solent and Southampton Water Special Area of Conservation, and Special Protection Area for Birds under the Habitats and Birds Directives respectively. English Nature presented evidence of the importance of the area for birds, invertebrates, coastal habitats and coastal geomorphological processes. ABP chose to challenge our evidence, not accepting that their port development would

damage the European protected sites. English Nature's position was not against the development per se, rather to ensure the Directives were properly implemented. Had ABP accepted that the development would be damaging, the new terminal may have been built, as the Directives can allow development to go ahead if there is overriding public interest and no alternatives, and there is compensation to address the damaging impacts. English Nature had established that there was the potential within the Solent and adjacent south coast to create new intertidal habitat that would have more than compensated for the damage caused. However, ABP's legal team were intent on challenging our evidence and, as we know from the Secretary of State for Transport's announcement, their application for a new port was turned down. Hailed as a landmark case, there are two postscripts that, for me, complete this story. First, the enlightened senior management at ABP asked me to go and explain where they went wrong, and this enabled future close working together on developments in the Humber Estuary, their acceptance of damage and delivering appropriate compensation, and the go-ahead for their desired port expansion – nature and commerce working together. Secondly, the evidence that stopped the Dibden development in its tracks was predominantly about birds, and was data collected by volunteer birdwatchers, curated, analysed and interpreted by BTO for English Nature – the power of the citizen scientist.

Which brings me on to Europe's support for monitoring and research. BTO research has been central to the whole farmland bird story, from identifying declines, through

diagnosing causes to designing solutions to this conservation issue. Over a decade or more into the 2000s, the BTO undertook a series of studies for Government and the Agencies, funded by the Common Agricultural Policy, on the effectiveness of agri-environment schemes (AES) for birds. BTO datasets mean that birds are the best-monitored taxon that provides an indicator of wider environmental health, and birds' responses to AES management are therefore an important measure as to the efficacy of the schemes. Funding allowed us to double the size of the Breeding Bird Survey (BBS) sample for lowland England and to analyse the changes in numbers of farmland bird species with respect to Entry Level Scheme measures. We established that winter stubbles and late winter food supply were both key measures that affected winter survival. However, this study showed that there was little evidence of a national level effect on farmland bird populations, although the schemes appeared to have regional benefits. Further research is addressing the policy questions raised by this study, hopefully better targeting effort towards those measures that work best, and providing evidence that more higher-level measures with stronger take-up by farmers will be more likely to benefit farmland bird populations. Once again, it is the data collected by birdwatching volunteers, this time through BBS, that fuels policy-relevant science. And the funding to support the research comes from a Member State's need to demonstrate the impact of environmental measures at a European scale.

Whichever levers we choose to deliver environmental benefits, it is the partnerships we have with European colleagues that enable us to better understand the wider context of our work, and to build collaborations to conserve species and habitats at a continental scale. Birds know no borders and, whether it is the wildfowl and shorebirds that arrive from the north in winter, or the warblers, hirundines and Common Cuckoos *Cuculus canorus* that come here for our summer, these many individuals are only part of a continental story. We are members of many Europe-wide consortia such as the European Bird Census Council (EBCC) and EURING, the network of European bird-ringing

schemes. While it may be the case that the UK could remain a partner within these collaborations if we were outside Europe, it may not feel the same either to ourselves or to our European partners. Much like the recently formed Cambridge Conservation Initiative, those within the collaboration feel a real sense of cooperation and engagement – sure we work with other organisations outside the group, but the engagement tends to be more at arms length. Recently BTO science has been focused on discovering what lies behind declines in long-distance migrant birds, and we have been working with colleagues in many European countries to see an emerging picture across a whole species range. Readers will know of our Cuckoo-tracking project, and we are now working alongside others in Germany and Denmark to understand patterns of movement at a European scale. Data from a range of European countries combine in the *EuroBirdPortal* project, www.eurobirdportal.org/ebp/en, where anyone can see visualisations of the migration patterns of a variety of European birds. The EBCC is developing the European Breeding Bird Atlas 2 and both these projects rely on funding from Europe to complete the work. With the UK in Europe, we are able to make our considerable expertise and knowledge more easily available to these collaborative initiatives, and benefit from European funding to support our work.

In those early *Eurosite* days, a very tangible gift I helped to secure from Europe was the Red Kite *Milvus milvus*. The birds we now see so frequently around the Chilterns and central southern England are descended from chicks we collected from Spain in the early 1990s. So, as we approach the referendum vote, let's reflect on the opinions of conservation professionals, and the continuity of our bird populations with those across Europe, and cast our vote with intelligence and integrity.



News and comment

Compiled by Adrian Pitches

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

Diclofenac threat to Spanish vultures

Following the decision in 2013 to licence the use of two veterinary medicines containing diclofenac in Spain – the same drug that has wiped out 99.9% of *Gyps* vultures in the Indian subcontinent – researchers have published the first projections of Griffon Vulture *G. fulvus* mortality in its European stronghold.

Writing in the *Journal of Applied Ecology*, the team concluded that the decision by the Spanish regulatory agency Agencia Española de Medicamentos y Productos Sanitarios could jeopardise the viability of Europe's most important breeding population of Griffons (Spain holds more than 95% of European breeding birds); the team estimated the number of vulture deaths caused by diclofenac in Spain at between 715 and 6,389 per year.

Determining how much diclofenac remained in

a precautionary ban on the veterinary use of diclofenac in Spain and encouragement of the use of meloxicam, a vulture-safe alternative drug.'

He's supported by the British Veterinary Association President, Sean Wensley: 'NSAIDs [non-steroidal anti-inflammatory drugs] are important medicines for animal welfare but alternatives, like meloxicam, are available as generic and affordable preparations for use in livestock. These are safe for vultures and have replaced diclofenac in India.' He added that the BVA supported the withdrawal of permission to use diclofenac in the EU.

The approval of diclofenac in Spain threatens not only Europe's most important population of Griffon Vultures but also other scavenging raptors such as Red Kites *Milvus milvus*, Spanish Imperial Eagles *Aquila adalberti*, Egyptian Vultures

Neophron percnopterus, Eurasian Black Vultures *Aegypius monachus* and Lammergeiers *Gypaetus barbatus*, all of which are susceptible to the effects of diclofenac.

Asunción Ruiz, Chief Executive of BirdLife in Spain, said: 'The Spanish Government has a big responsibility to ban the use of diclofenac on farm animals, as well as responsibility for the conservation of the biggest populations of scavenging birds in the EU and one of the most

important in the world. We just cannot afford to allow an environmental disaster to occur like it did in Asia.'

Iván Ramírez, Head of Conservation for BirdLife Europe, added: 'Science has put numbers to what we had already expressed to the European Commission, the European Medicines Agency and the Spanish authorities: allowing the use of veterinary diclofenac in Spain is both illogical and irresponsible. European countries must take this evidence seriously and follow Asia's lead.'

Read more about the potential threat to Griffon Vultures in Spain from veterinary use of the drug diclofenac at <http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12663/full>



David Tipling/FLPA

175. Griffon Vultures *Gyps fulvus*, Pyrenees, Spain, November 2010.

medicated livestock (mainly cattle and pigs) after death, together with the expected numbers of medicated carcasses and data from experimental studies on diclofenac toxicity, researchers said there would be a potential decline of up to 7.7% per year in the Spanish population of Griffons.

Veterinary diclofenac is an anti-inflammatory medication used on livestock. Vultures are exposed to the drug – toxic to them but not to livestock – when they feed on carcasses of animals previously treated with it. Diclofenac causes kidney failure and death in vultures within a few hours of consumption. Lead researcher Prof. Rhys Green said: 'Because of the possibility of causing a major impact on vulture populations, our findings justify

Red Kite shot in Gateshead reintroduction area

Poisoning of raptors in Spain may be accidental, but in the UK it's a deliberate policy of game-shooting interests, with Red Kites frequently the victims of this indiscriminate killing. Three Red Kites were recently poisoned in Northeast England (*Brit. Birds* 108: 561) and now a further bird from the Gateshead reintroduction project has been shot.

The bird was found dead in the heart of the core breeding area for the species following the reintroduction project of 2004–09. Examination by a vet confirmed that the bird had two pellet wounds from an air rifle or shotgun. It's the latest blow to a population that is struggling to expand beyond the Derwent Valley of Gateshead more than a decade after the first young birds (taken from the thriving Chilterns population) were

released in the area.

The shooting is the second recent case involving a Red Kite in this region: police in North Yorkshire are investigating an incident near Malton where a kite was found alive after being shot. Happily, this bird was taken into care and subsequently released back into the wild. The bird shot in Gateshead was found over the Easter weekend and Northumbria Police are investigating the crime. Friends of Red Kites www.friendsofredkites.org.uk monitors the Northeast population and is exploring the possibility of establishing a new multi-agency initiative with police forces, the RSPB, Natural England and the Environment Agency, as has been done in Northern Ireland, called Operation Raptor to target those who kill birds of prey.

Goshawk shot in Cairngorms National Park

A Northern Goshawk *Accipiter gentilis* has been shot on an Aberdeenshire sporting estate inside the Cairngorms National Park. The shooting was witnessed by a man walking his dogs in the Strathdon area in April 2016. The bird was shot approximately 30 m away by an unseen gunman. The witness took the bird to a wildlife sanctuary where an examination revealed severe damage to the lung and shoulder and the bird was subsequently euthanised.

This part of the Cairngorms National Park is no stranger to illegal raptor persecution, and indeed Goshawks have been targeted here before – in May 2014 a nest was trashed by a gang of masked gunmen, an act recorded on video by the RSPB camera keeping watch on the nest. The situation is so bad in this region that in 2014 the Convenor of the Cairngorms National Park Authority wrote to the Scottish Environment Minister to warn that continued incidents of dead and 'disappearing' raptors threatened to undermine the reputation of the National Park as a high-quality wildlife tourism destination.

The Raptor Persecution Scotland blog <https://raptorpersecutionscotland.wordpress.com>

keeps meticulous records of ongoing illegal persecution and the litany for the Cairngorms National Park is shameful. Following the publication of the Cairngorms Nature action plan in May 2013, aimed at restoring raptor populations, that very month a young satellite-tagged Golden Eagle *Aquila chrysaetos* 'disappeared' on a Cairngorms grouse moor. Also in May 2013, witnesses reported the apparent coordinated hunting – and shooting – of a Hen Harrier *Circus cyaneus* on another grouse moor; another Hen Harrier, a satellite-tagged male called 'Lad' was found dead, apparently shot, on a grouse moor in March this year. In April 2014 the first young White-tailed Eagle *Haliaeetus albicilla* to fledge from a nest in eastern Scotland for more than 200 years also mysteriously disappeared on a Cairngorms grouse moor.

And then there's the mass slaughter of Mountain Hares *Lepus timidus* by shooting estates to boost grouse numbers because they believe the hares carry a virus that may infect 'their' birds and lower the potential bags come the Inglorious Twelfth. An example of this carnage can be seen here: <http://bit.ly/218zfr5>

Ban driven grouse shooting

It's an inescapable fact that the flagrant persecution of raptor populations in the Cairngorms National Park and every other area of the northern uplands is inextricably linked with 'management' of moorlands for grouse shooting. An important paper about the decline of the Hen Harrier population in Northeast Scotland in February's *BB* underlined this (*Brit. Birds* 109: 77–95). Britain is alone in tolerating the archaic practice of grouse

shooting and Mark Avery's (latest) e-petition to ban driven grouse shooting should be signed by everyone. The current petition on Parliament's website has a very healthy 36,000 signatures. Please sign – and persuade everyone you know to do the same. At 100,000 signatures the Government will be forced to have a debate in Parliament about the issue. <https://petition.parliament.uk/petitions/125003>

England's last Golden Eagle feared dead

This may not be a story of illegal persecution – but it's a sad tale nevertheless. England's last remaining Golden Eagle has failed to reappear this spring, leading RSPB staff and volunteers at its Lake District home to fear that it has died – probably of old age.

The male bird had been resident at Riggindale, Haweswater, since 2001/02 but had been alone since the death of his mate in 2004. RSPB staff at Haweswater haven't seen the bird since last November; it isn't always seen during the winter but in spring it would normally have been seen nest-building and displaying.

Lee Schofield, Site Manager at RSPB Haweswater, said: 'When the eagle didn't appear in March, we thought there was a chance he might be hunting in a nearby valley but over the past few weeks we've been gradually losing hope. We'll probably never find out what happened to him but, as he was around 19–20 years old... it's quite possible that he died of natural causes.'

'His disappearance marks the end of an era as he has been an iconic part of the Haweswater landscape for the past 15 years. During this time, thousands of visitors have travelled from across the country hoping to catch a glimpse of him at the Riggindale eagle viewpoint. With him gone, the

Lake District has become a bit less wild.'

Golden Eagles arrived in the Lake District from Scotland in the late 1950s and a pair first bred at Haweswater in 1969. The original male died in 1976 and was replaced by Britain's oldest known eagle, who lived until he was at least 32 years old. In turn, he was replaced in 2001/02 by the most recent male. The original female was replaced in 1981 by the last female, who died in 2004. Between 1970 and 1996, 16 young were produced at Haweswater, while a second pair of eagles bred in the Lake District from 1975 to 1983, fledging four chicks.

Although the RSPB considers it unlikely that Golden Eagles will take up residence again at Haweswater in the near future, there is an extensive programme of habitat restoration underway which it hopes will eventually encourage eagles to nest again at the site. Lee Schofield again: 'At the moment the Lake District isn't particularly attractive to Golden Eagles as there is a shortage of suitable habitat and food. By restoring a range of natural habitats at Haweswater, we hope this will lead to an increase in wildlife including birds and small mammals, which would provide a sustainable food source for Golden Eagles.'

Hands across the sea

The Strait of Dover Project is a collaboration between birders on both sides of the English Channel and held its latest meeting on 9th March in Boulogne-sur-Mer, attended by representatives from the Dungeness and Sandwich Bay Bird Observatories and French seawatching and ringing groups from Cap Gris-Nez. This followed meetings in April 2014 and July 2015 (*Brit. Birds* 108: 505). At the latter gathering it was agreed to set up a pilot scheme of standardised recording for a select number of species common to both sides of the Strait. A paper on seabird movements (for

which there are already 15 years of records available) is in preparation, with emphasis on Brent Goose *Branta bernicla*, Common Scoter *Melanitta nigra* and Balearic Shearwater *Puffinus mauretanicus*. Additional welcome news was that the Parc Natural Regional des Caps et Marais was studying the site of a potential Bird Observatory near to Cap Gris-Nez to which the Dungeness and Sandwich Bay Bird Observatories would be asked to offer advice. See also pp. 360–361.

(Contributed by Philip Redman)

Bird Atlas of Mauritania

The first version of the Bird Atlas of Mauritania is now available free online at <http://atlasornmau.org>. The work is a follow-up to *Birds of Mauritania* (Isenmann *et al.* 2010), which lacked bird distribution maps. For each of over 500 species it shows the half-degree squares where the species has been observed in the country as well as where there is evidence of breeding, and of wintering of Holarctic migrants.

OSME Summer Meeting

The OSME Summer Meeting will be held on Saturday 2nd July at BTO Headquarters, Thetford, Norfolk. Doors open at 10.00 hrs, there is no attendance charge and non-members are welcome. Talks range from 'Combating Illegal Bird Killing on the Arabian Peninsula' to 'Connecting People through Bird Migration in Azerbaijan'. Contact Irene Sabiniarz at secretary@osme.org for further details.

Windfarm reduced breeding Golden Plover population

A new study has shown a significant reduction in the number of breeding birds following the construction of turbines at a windfarm in northern Scotland. RSPB Scotland staff, funded by Scottish and Southern Energy, studied European Golden Plovers *Pluvialis apricaria* at the Gordonbush windfarm in Sutherland for five years, before, during and after construction. They found that Golden Plover numbers dropped by 80% within the windfarm site during the first two years of operation, with these declines being markedly greater than on areas surrounding the windfarm over the same period.

Lead researcher Alex Sansom said: 'Golden Plovers breed in open landscapes and it is likely that the presence of wind turbines in these areas

leads to birds avoiding areas around the turbines. This study shows that such displacement may cause large declines in bird numbers within windfarms. It will be important to examine whether these effects are maintained over the longer term at this site, and we should also use these detailed studies to examine the effects of windfarms on other bird species.'

Kenna Chisholm, the RSPB's Conservation Manager for North Scotland, said: 'RSPB Scotland objected to this project when it was first proposed, stating that it was not a suitable site for a windfarm. The new research suggests that the site is unlikely to be suitable for repowering when the current windfarm reaches the end of its life.'

Put your stamp on *The Birds of Spurn*

Spurn Bird Observatory is on a roll this spring – in April it opened a new obs and in June we're promised the definitive book about the peninsula and its birds.

The Birds of Spurn by Andy Roadhouse is being published by Spurn Bird Observatory Trust Ltd, which is seeking sponsorship to cover the cost. The 700-page book will list all birds recorded in the Spurn area since the mid-nineteenth century and draws on 70 years of recording by Spurn Bird Observatory. Since the observatory trust is a registered charity, it's hoping to cover the cost of producing the book through sponsorship, with all the proceeds going into the New Observatory building fund.

Three types of sponsorship are available: major book sponsorship of £10,000 would secure a company's logo on the spine of the book, a description of the company on the dedicated sponsor's page and ten free copies of the book; species section sponsorship of £1,000 would see a logo on the main species section introduction page, a description of the company on the dedicated sponsors' page and three free copies of the book; individual species sponsorship of £500 secures a corporate logo on your chosen five species' pages plus one free copy of the book. For more information e-mail friendsofspurn@hotmail.co.uk You can see sample pages here:

www.facebook.com/The-Birds-of-Spurn-1511758819114484 And there's more information on the SBO website www.spurnbirdobservatory.co.uk where you can also buy tickets for this year's Migration Festival on 9th–11th September.

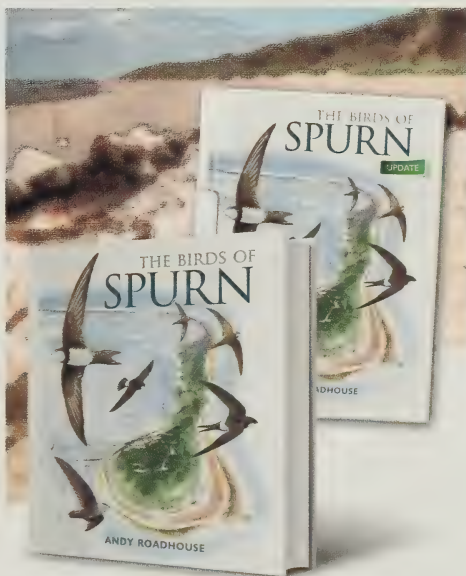


Fig. 1. *The Birds of Spurn*.

New county bird recorder

Sussex Mark Mallalieu, 29 Cobbetts Mead, Haywards Heath, West Sussex RH16 3TQ, tel. (01444) 441425, e-mail recorder@sos.org.uk

See the full list of recorders at <https://britishbirds.co.uk/birding-resources/county-recorders-2>

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The Hobby in Britain

– a revised population estimate

Rob Clements, Colin Everett and
Anthony Messenger



Alan Harris

Abstract Recent atlas data, at both national and local level, show that the breeding distribution of the Hobby *Falco subbuteo* in Britain has expanded markedly. Dedicated survey work in parts of central and southern England shows that Hobbies may breed at higher densities than recorded hitherto. This paper summarises the evidence from atlas work and targeted survey work on the Hobby, which is used to suggest the parameters of a new population estimate for Britain of at least 3,000 pairs.

In 2014, the Rare Breeding Birds Panel (RBBP) reviewed the status of several less scarce breeding species in the UK where there was evidence that the national population was consistently above 2,000 pairs. The Hobby *Falco subbuteo*, with a recent published estimate of 2,800 pairs in Britain (Musgrove *et al.* 2013), was an obvious candidate for such an appraisal. Because of the level of uncertainty over an earlier estimate (Clements 2001), and consistent under-recording of the species in many counties, the Hobby has remained on the RBBP list for the time being, at least until there is sufficient evidence from across the country that the population exceeds 2,000 pairs (Holling *et*

al. 2014). However, *Bird Atlas 2007–11* (Balmer *et al.* 2013) showed the extent of the spread of breeding Hobbies in Britain, while RBBP data show a consistent, long-term upward trend in numbers. This paper summarises recent data on the numbers and distribution of breeding Hobbies in Britain, both from targeted survey work in several counties and from the many county atlases and avifaunas that were published after fieldwork carried out at the same time as the national atlas project. We suggest that the British Hobby population is now well above 2,800 pairs and that the recent atlas work is a spur to further survey work to refine the population estimate.



John Hawkins/FLPA

176. Female Hobby *Falco subbuteo* with chicks at a nest (an old Carrion Crow *Corvus corone* nest) in Shropshire, August 2011.

The distribution of the Hobby in Britain – evidence from *Bird Atlas 2007–11*

Bird Atlas 2007–11 showed that the Hobby had increased its range by 295% since the first national atlas (1968–72), and by 64% since the second atlas (1988–91), spreading north, east and west from its heartland in central southern England. Across Britain (it does not breed in Ireland), confirmed breeding was recorded in 463 hectads (10-km squares), probable breeding in 216 and possible breeding in 354 hectads in 2007–11. In addition, it was seen in a further 321 hectads, but with no evidence of breeding recorded.

The breeding distribution (fig. 1) shows that the highest level of breeding evidence recorded across the country is very variable, which suggests that confirmed and probable breeding were under-recorded. This is perhaps not surprising for a species that may not have arrived during the first tetrad visits (in April–May) and will have been engaged in incubation during much of the later visits (in June–July). In fact, the distribution of higher-level breeding evidence may be in part a reflection of where raptor fieldworkers were

active. Yet Hobbies were recorded in almost every hectad in a rough rectangle covering England as far north as Lancashire and south Yorkshire. Many possible breeding records in the core part of the range, together with some ‘seen only’ records and even a few blank hectads in that area, could potentially have held breeding Hobbies. For example, in Hampshire there have been either recent or pre-2008 breeding records from most of the hectads that recorded only possible breeding during 2008–11.

We suggest that Hobbies were breeding in a minimum of 900–1,000 hectads during the 2007–11 atlas period. To derive a national breeding population estimate from this requires information on average breeding density.

Dedicated survey work in three English counties

Derbyshire

Hobby survey work in Derbyshire up to 2010 provided records of up to 40 occupied sites, widely scattered across the county, which gave little indication of the true population level. In 1994, the county population was

estimated at around 20 pairs (Messenger & Roome 1994), while by 2001 the figure was thought to have risen to a minimum of 40 pairs (Messenger & Roome 2007). In 2010–12, the main survey concentrated on a core area of 100 km² (i.e. equivalent to one hectad) of mixed farmland in lowland south Derbyshire. The mean breeding density in this core area rose from 3.00 pairs per hectad in 1992–94 to 8.67 pairs per hectad in 2010–12, with mean nearest-neighbour distance falling from 5.60 km to 2.92 km over the same period. All the evidence from the later period pointed to a thriving population breeding in all parts of the county except urban areas and the gritstone uplands. A new population estimate for the entire county assumed that farmland in north Derbyshire held Hobbies at lower density than the south, and that the high limestone area of White

Peak was also occupied at low density. Based on known population densities, with extrapolation into less well-covered areas, the county population in 2012 was assumed to be at least 115 pairs (Messenger 2012).

Hertfordshire

Since 2000, two main study areas in the county have been covered (Clements & Everett 2012). In south Hertfordshire, an area of 201 km² was surveyed in 2008–10. A minimum of 21 pairs were present (equating to 10.4 pairs per hectad) with a mean nearest-neighbour distance of 1.9 km. In the north of the county, a 48 km² study area was covered in 2009; seven breeding pairs were located

with a mean nearest-neighbour distance of 2.1 km. Regular spacing of territorial pairs was noted in both study areas. When areas of built-up habitat were excluded, the breeding density in the two areas was almost identical (16.6 and 16.9 pairs per hectad). An analysis of Hertfordshire records over a five-year period demonstrated that only a minority of pairs in the two study areas had been detected by observers submitting records to the county recorder. The 2008 data suggested one reason for this: the majority (56%) of Hobby records came from wetlands, a habitat that covers less than 1% of the county but which is very popular for recreational birding. This implies that many Hobbies remain undetected in

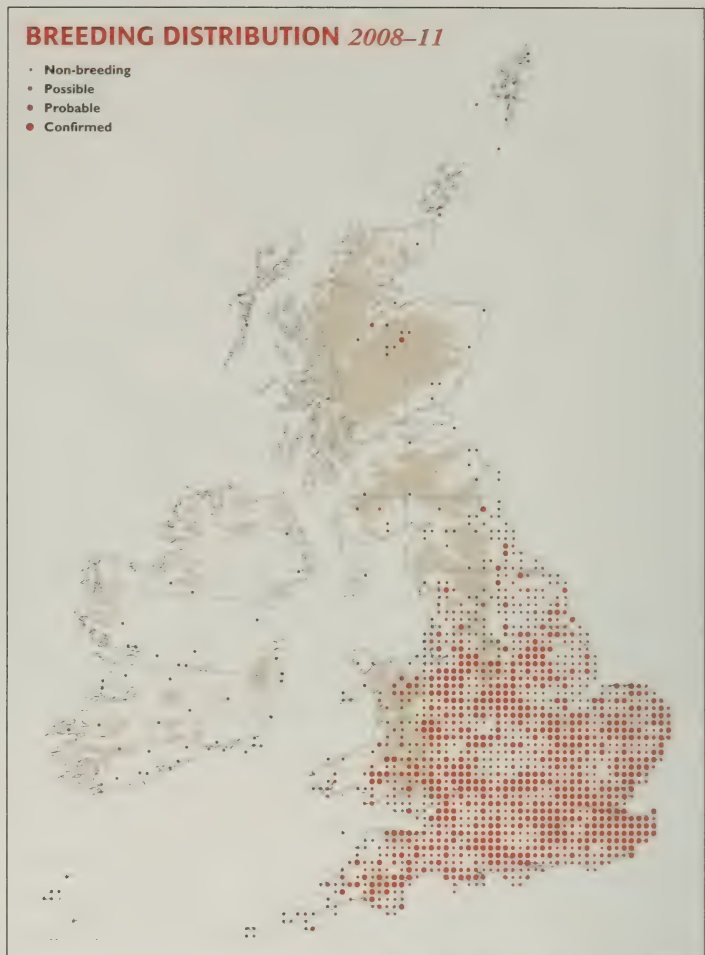
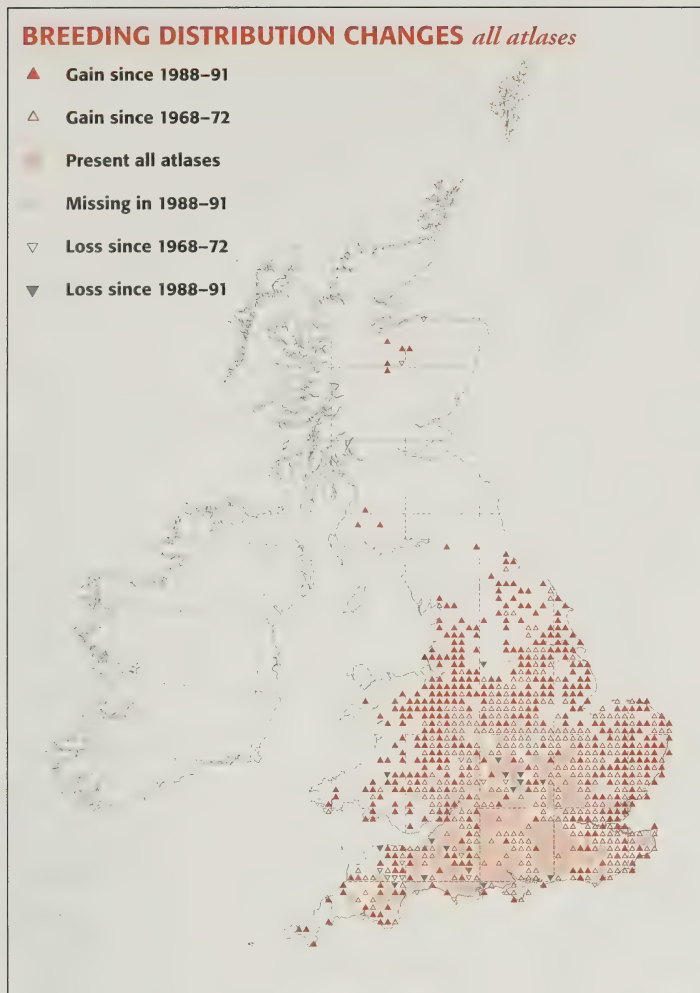


Fig. 1. The breeding distribution of the Hobby *Falco subbuteo* in Britain & Ireland in 2008–11 (fig. 1a, above) and breeding distribution change (since 1968–72; fig. 1b, right), from *Bird Atlas 2007–11*, which was a joint project between BTO, BirdWatch Ireland and the Scottish Ornithologists' Club. Maps reproduced with permission from the BTO.



Hobby into the county in the 1970s and the extent of infilling that has occurred since. The county population was estimated at 15–40 pairs in 1996, but subsequent surveys suggest that the population is now much higher.

Three 100 km² study areas in different parts of the county were covered during 2005–07, resulting in 9, 12 and 15 pairs of Hobbies being located, respectively (Clements & Everett 2012). Further fieldwork in one study area found evidence of even higher breeding density, with 19 territorial pairs located in 70 km² in 2010, of which at least 14 pairs bred successfully. Such a high density almost certainly does not apply across larger areas, but it was assumed that 8–10 pairs per hectad fairly represented mean breeding density in suitable habitat

other suitable habitats, presumably less frequently visited by birds.

In 1993, based on fieldwork for the second national atlas, the Hertfordshire Hobby population was estimated at 20–30 pairs (Smith *et al.* 1993), although since the species was recorded in 168 tetrads this is likely to have been an underestimate. Based on recorded densities found during survey work in 2008–09, the county population was considered, by extrapolation, to lie within the range of 130–180 pairs (Everett & Clements 2012; Smith *et al.* 2015).

Kent

The figures in table 1, showing the number of tetrads recording possible and probable/confirmed breeding during the three Kent atlas periods, illustrate the initial spread of the

across the county. Excluding built-up areas and allowing for lower density in coastal habitat with few nest sites, it was assumed that there were around 30 hectads of breeding habitat in the county, resulting in an estimate of around 250–350 pairs (Clements *et al.* 2015). In contrast to Derbyshire, there were no parts of the countryside where habitat was unsuitable, so only built-up areas were excluded from the calculations.

Table 1. Records of the Hobby *Falco subbuteo* in three atlas periods in Kent.

atlas period	possible	probable/confirmed	total
1967–73	0	0	0
1988–94	96	22	118
2007–13	184	162	346

Recent county population estimates and evidence of breeding density

County population estimates

Many counties have published breeding bird atlases or avifaunas since 2010, utilising data gathered during the *Bird Atlas 2007–11* period. Few of these have offered estimates of county breeding populations, so we have few extra data to add to the already published county totals.

Where counties have published estimates, they tend to follow one of two methods. The first is based on an analysis of breeding records over a period of time. For example, *Birds of Dorset* (2004) suggested 100–130 pairs of Hobbies in the county using this method, which represents an average density of 4.0–5.0 pairs per hectad across the county. *Birds of Sussex* (2014) reported an estimate from 2001 of 174 pairs, based on a mix of survey work and breeding records, an average of 4.6 pairs per hectad across the whole county. This method may lead to an underestimate, given that most counties have areas where few birders ever visit, and even in well-covered areas, the lack of systematic searching may mean that pairs are missed. In Derbyshire, only 7% of the breeding pairs located by Anthony Messenger during a ten-year period were reported to the county recorder by other sources.

The second method is based on fieldwork in study areas, followed by extrapolation over the whole county. Perhaps the most accurate

estimate produced by this method is that for Derbyshire, where over 20 years of systematic survey work produced an estimate of 115 pairs for the county (approximately 4.4 pairs per hectad across the county). In Kent, an estimate of 250–350 pairs was based on fieldwork in several different study areas in different habitats and parts of the county. This method may lead to an overestimate, given that densities within favourable habitat are extrapolated over areas of less suitable habitat.

Table 2 gives a range of county population estimates since 2000, based on the two different methods. The first six are based on survey work within the county, and show the generally higher densities found by dedicated surveys. Cheshire was colonised only recently, so shows a lower density than the other counties. The remaining five are based on analysis of data gathered during atlas survey work and show the lower breeding densities generally found by this approach. The Norfolk estimate is remarkably low, especially considering a record of eight pairs in one Breckland hectad from 2005 (*Norfolk Bird Report 2005*). However, there may be a link between the landscape of large intensive arable fields with little woodland found in parts of Norfolk, Lincolnshire and Cambridgeshire and low Hobby breeding density. The areas of high breeding density in Derbyshire, Kent and Hertfordshire are typically mixed farmland with fields of varying size, interspersed by small woods and mature hedgerows.

Table 2. County population estimates of the Hobby *Falco subbuteo* since 2000.

county	area (hectads)	population	mean density (pairs per hectad)	source
Hertfordshire	16.4	130–180	9.4	Everett (2012)
Kent	37.3	250–350	8	Clements <i>et al.</i> (2013)
Sussex	37.8	174	4.6	Thomas (2014)
Derbyshire	26.3	115	4.4	Messenger (2012)
Dorset	26.5	100–130	4.3	Green (2004)
Cheshire	23.3	60	2.6	Barber & Barber (2012)
Cambridgeshire	34.0	60–100	2.4	Bacon <i>et al.</i> (2013)
Wiltshire	34.9	70–80	2.2	WOS (2007)
Herefordshire	21.8	42	1.9	Davies <i>et al.</i> (2014)
Lincolnshire	59.2	100	1.7	<i>Lincolnshire Bird Report 2013</i>
Norfolk	57.0	40–70	1.0	Taylor & Marchant (2011)

Breeding density

More than 30 years ago, Fuller *et al.* (1985) showed that Hobbies were breeding at a minimum density of 3.8–4.8 pairs per hectad in two study areas of farmland in the southern English midlands. The evidence from more recent survey work in Kent, Hertfordshire, Bedfordshire, Derbyshire and Cheshire is of further spread and infilling within similar habitat, so that a higher breeding density may now be expected over much of the Hobby’s range. Evidence of recent breeding density above five pairs per hectad has come from a number of English counties (table 3).

Without further survey work we cannot be sure that such densities apply over large areas, but it seems unlikely that high breeding density occurs only in specialised habitat within such a range of counties. In general, Hobby breeding density is highest in the southeast, and is lower farther west and north, as shown by *Bird Atlas 2007–11*. This may be due to the more recent colonisation of the north and west, or the generally warmer, drier climate and more suitable habitat in the south and east. Recent survey work confirms this pattern with low density in Cheshire, which has been colonised recently, higher and still increasing densities in Derbyshire, and the highest densities in Kent and Hertfordshire. This still leaves much uncertainty as to the average density across the whole of the Hobby’s range, since there is little published evidence of breeding density from most counties.

Discussion and conclusions

Hobbies may be nearing carrying capacity in some southern counties, so we might expect to see national numbers levelling off. The BBS trend data (Harris *et al.* 2015) shows a slight decline in recent years, albeit from a small sample. Anecdotal evidence suggests that the increasing Common Buzzard *Buteo buteo* and Common Raven *Corvus corax* populations may have some impact through predation of eggs and fledglings and competition for nest sites, whereas housing and other development will reduce the area of potential breeding habitat in many counties. In some areas, Northern Goshawk *Accipiter gentilis* predation may prove significant, with some evidence from the New Forest and elsewhere of regular nest predation and reduced Hobby population levels (R. Clements & A. Page unpublished data). Farther north, however, there is evidence of a continued spread into farmland in northern England, and the possibility of colonisation of some parts of lowland eastern Scotland, where there appears to be sufficient suitable habitat and prey resources for several hundred pairs.

The Hobby is a popular species with bird-watchers, which often leads to detailed survey work, especially when they reach areas previously unoccupied, but there is a dearth of breeding-density data from many areas in the west and north of the current range. We would welcome any proposed surveys in such areas and are keen to provide encouragement and assistance (see Appendix 1). Hobby survey work can extend into September, so should not conflict with BBS and other surveys.

In terms of a national population estimate,

Table 3. Recent population studies with evidence of Hobby *Falco subbuteo* breeding density of more than five pairs per hectad.

county	density	source
Bedfordshire	11 pairs per hectad, one study area	Clements & Everett (2012)
Derbyshire	mean 8.67 pairs per hectad, 2010–12	Messenger (2012)
Hampshire	6–9 pairs per hectad, 2011–14	R. Clements & R. Jacobs unpublished data
Hertfordshire	10+ pairs per hectad, two study areas	Clements & Everett (2012)
Kent	9–15 pairs per hectad, three study areas	Clements & Everett (2012)
Norfolk	8 pairs per hectad	<i>Norfolk Bird Report</i> (2005)
Somerset	7–8 pairs per hectad	Ballance <i>et al.</i> (2014)
Sussex	8–10 pairs per hectad	Thomas (2014)



177. Hobby *Falco subbuteo*, Staffordshire, September 2009.

if Hobbies are breeding in 900–1,000 hectads across Britain, it seems most unlikely that the population is below 2,000 pairs. It is difficult to distil the evidence from a variety of different sources and produce a mean density estimate for the whole country. The evidence in table 2 suggests that mean density across the species' range could be approaching four pairs per hectad. This would equate to a lower limit to the national population, in the region of 3,000–3,500 pairs. Our collective view is that the actual current population is rather higher, at around 5,000 pairs, but we recognise that more data on breeding density is required from marginal areas for that figure to be widely accepted.

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Rob Clements has studied rare breeding birds, especially raptors, for over 30 years, taking a special interest in their changing distribution and population levels. He has published articles and papers in *Bird Study*, *British Birds* and county bird reports and recently co-authored the *Kent Breeding Bird Atlas 2008–13*. He recently moved to Hampshire, where the rarer woodland species are now his main focus. **Colin Everett** is a Hertfordshire-born ornithologist whose main interests include breeding bird surveys, nest finding and monitoring, the detectability of elusive species, and establishing reliable local population estimates. **Anthony Messenger** is interested in all forms of wildlife, but his main interest is birds of prey. He has spent 25 years studying Hobbies and Merlins *Falco columbarius* and their contrasting fortunes in his home county of Derbyshire, focusing on population levels, phenology and breeding productivity.

Appendix I. Survey methodology for the Hobby

The following guidelines are intended to help prospective surveyors.

Study areas: Ideally, a chosen study area should include several different habitats, such as heathland, river valley, conifer plantations and parkland estates, and cover at least 50 km², preferably around 100 km² so that the pattern of occupation across the whole area becomes more apparent.

Season: From around 10th May to 10th June, check for territory occupancy: surveyors should be particularly alert for pairs catching insects together, elements of display, aggression to conspecifics and behaviour that suggests nest-site selection. From mid June to mid July, most successful pairs are engaged in incubation and feeding newly fledged young. Because of the difficulty in locating nest sites during this period, and to avoid unnecessary disturbance, no visits are recommended during this period. From around 20th July to the end of August, prey is brought to the nest by the male on a regular basis. Fledged young may be seen (and heard) from early August onwards. Towards the end of this period, family parties, comprising both adults and young, are often seen catching insects in warm weather. In September, activity continues in the general area of the nest site, with juveniles often present into early October.

Timing: Visits during all daylight hours can prove productive. Early morning/late evening visits may reveal noisy interaction between the male and female around the nest, while in the middle of the day in warm, sunny weather adults may catch insects over the nest site while guarding the fledgling young. Males may arrive carrying small-bird prey every 1–2 hours as a guide, leading to a noisy hand-over to the female or fledged young. Such observations provide evidence of ‘confirmed’ breeding.

Searching: When visiting a new area, look for good viewpoints that allow a wide field of vision. Scan with binoculars regularly and follow up distant sightings with a closer but cautious approach. Watch possible nest sites (woodland edges and hedgerow trees) from a range of at least 400 m, to avoid inhibiting the birds’ normal behaviour. Listen for calling and contact notes, as well as alarm calls from hirundines. Where territories appear to be occupied by single second-summer birds, follow-up visits are needed since these birds may be ‘helpers’, tolerated around a nest site by a breeding pair. Even when a nest site is located, watch for the possibility of another nest close by. As numbers grow, some pairs will nest only 500–1,000 m apart, so the presence of two pairs may be proven only by repeated visits. Don’t discount any parts of the study area: Hobbies will nest close to human habitation and may use pylon nests in areas of open farmland.

Further information on surveying and monitoring Hobbies can be found in Hardey *et al.* (2013), while guidelines for submission of breeding-season records of this Schedule 1 species can be found on the RBBP website (www.rbbp.org.uk).

'Thayer's Gull' in Essex: new to Britain

Steve Arlow

Abstract The observation of an adult 'Thayer's Gull' *Larus glaucooides thayeri* at Pitsea Landfill, Essex, on 6th November 2010 is described and illustrated. This bird was eventually accepted as the first record for Britain; one other record, of a juvenile in Lincolnshire in April 2012, has also been accepted and others are still being considered. The taxonomic history of this taxon is summarised; it is still treated as a race of Iceland Gull *L. glaucooides* by BOU, but most other authorities now consider it a separate species.

Having been an avid gull-watcher since the early 2000s, I have spent many a frozen hour at numerous gull hotspots, bettering my identification skills with the challenging group that is the large white-headed gull complex. Sifting through many tens of thousands of gulls has given me a sound understanding of the wide variety of plumages and structural characters that the commoner large gulls exhibit, thus helping me to pick out something different among the crowd.

Over the years I have also visited several locations where gulls that are potential vagrants to the UK occur commonly and in a wide range of plumages with plenty of variation. In November 2009 I travelled to California, USA, with the intention of studying a number of the commoner gulls there, in particular 'Thayer's Gull' *Larus glaucooides thayeri*, Glaucous-winged Gull *L. glaucescens* and 'Mew Gull' *L. canus brachyrhynchus*. While my visit did not yield many Thayer's and just two adults – they were a little late arriving that year – I did see enough to give me a reasonable understanding of the bird. I tend to gain a better understanding of a species' character and identification from field observations than from reviewing photos on a monitor.

A year later, on 6th November 2010, I visited Pitsea Landfill, my favourite patch in Essex, to check the gulls. Using a Land Rover means that I am able to get up close and personal with many gulls, something that is

rarely possible otherwise, and that day was no different. The weather was bright and calm with little or no wind. My first stop that morning was to check a group of about 200 large gulls on and next to the track as well as on nearby raised mud mounds. As I scanned the flock through the windscreen, I came across a 'stand out' adult gull showing an obvious hood that extended onto the breast, and a fairly longish primary projection compared with the nearby Herring Gulls *L. argentatus*. Despite looking through a dirty windscreen, all I could say was: 'I've got a Thayer's Gull!' I needed to move closer so that I could see it clearly, through the door window. Cautiously, I did just that and once again I said: 'It's a Thayer's Gull!' – at which point I realised that I was the only person in the Land Rover...

At this point I reached over to my camera on the passenger seat and rattled off about ten images. I checked these quickly on the back of the camera to make sure they were sharp and not overexposed, then returned to looking at the gull. Although a relatively chunky bird, it was still smaller and more neatly proportioned than the nearby Herring Gulls. Since it was standing at a slight angle towards me, not fully in profile, I decided to change the position of the vehicle to improve my view but in doing so the closest Herring Gulls spooked, taking the Thayer's with them. I cursed that in my eagerness I had managed to disturb the bird without getting the all-important shots of the wing-tip

pattern in flight. While moving the car I had managed to keep my eyes firmly locked on the bird in flight and saw that there was very little black in the wing-tip and a lot of white/grey, so it lacked the large black wedge of a Herring Gull. I really needed to see the bird again but had that sinking feeling that it had gone for good – there is a lot of turnover of gulls between the landfill and nearby creeks and fields. During this initial period I had been watching the bird for around three minutes at a range of approximately 25–30 m, although at times it was partially obscured by other gulls.

Having noted where the bird had disappeared to – about 30 m from me and out of view down the slope and behind the mud mounds – I headed to a nearby vantage point that overlooked much of the tip face and also the area below where gulls were loafing. After about five minutes I relocated it at the back of the 'melee', where once again it stood out from all the gulls around it, even from those Herrings that had a similar 'hoodie' effect. Big sigh of relief... I put the camera back on the bird and took some rather washed-out

images. While I was adjusting the exposure settings on the camera, the bird turned around to face away from me – not ideal, but I managed to take some better images of it in relation to the other gulls around it. After about another minute it took flight and flew down below the tip face. Despite the camera being firmly latched onto the bird on the ground, the autofocus struggled to cope when it was in flight, with all the other gulls flying around, so the only usable images I obtained were when it took off. Fortunately, these showed the spread wing-tip pattern: another big sigh of relief. I had been watching the bird for a total of just five or six minutes and I wanted more prolonged views, so I continued scanning through the gathered gulls. Despite spending many hours scanning through them, I did not see the bird again that day, nor on subsequent days despite extensive searching, and it was not seen by any other observers.

That evening I downloaded the images from my camera and set about reviewing them, half expecting to talk myself out of the identification of the bird as a Thayer's and



Steve Arlow

178. Adult Thayer's Gull *Larus glaucooides thayeri*, Pitsea Landfill, Essex, 6th November 2010. Note the head and neck streaking becoming more diffuse and blotchy on the lower hindneck, neck sides and onto the upper breast; the lower edge is fairly sharply demarcated from the white underparts. The head shape appears fairly rounded and the bill is rather long, heavy and fairly bright for an adult Thayer's. The heavy bill points to this being a male. Note also the extent of white in the wing-tip, with 'hooks' along the inner edge of the feathers, and the extensively pale underside of P10 on the far wing. The primary projection beyond the tail-tip is longer than in Herring Gull. The legs are bright pink – compare with the adult Herring Gull *L. argentatus* in plate 179.

turn it into a Herring Gull. But I couldn't: the photos of the bird on the ground and especially the open-wing images all pointed to it being Thayer's Gull, a potential first British record. Would I have picked out this bird had I not made that trip to California the previous autumn, specifically to look at this particular gull? Possibly – but that trip certainly provided enough familiarity to make this bird 'jump off the page' at me.

Description

Size Judged to be a little smaller than Herring Gull.

Structure Overall, slighter and more slender than Herring Gull, with a smaller, more rounded head, higher breast, flatter back, shorter legs and slightly longer primary projection.

Head and neck The head appeared smaller and more rounded than that of Herring Gull, with the crown peak above and slightly behind the eye. It thus lacked the angular shape of a typical Herring Gull, though was perhaps more comparable with the more rounded shape of a small female *L. a.*

argenteus (plate 178). The bird had extensive streaking on the head, neck and upper breast, which was rather sharply demarcated from the clean white lower breast and remainder of the underparts. On the head the streaking was fine, muddy grey, appearing less dense around the rear ear-coverts. On the breast and lower neck sides it became more diffuse and mottled, and less striated, as in the winter plumages of *argenteus* and *argentatus* Herring Gulls. This streaking showed a 'hashed' quality with transverse barring, creating a rather lightly arrow-headed or barred impression. The whole effect was typical of several of the large white-headed gull species from North America.

Upperparts Pale grey, estimated to be a shade paler than Herring Gull; in plate 179, the grey upperparts of the Thayer's lack the slightly bluish tone of the Herring Gull to the left. The back was rather flat, unlike the slightly curved back shown by some Herring Gulls.

Wings and primary pattern Plates 179 & 180 show the scapular crescent to be large and obvious, appearing as a white 'blob'. Even more noticeable is the broad white tertial



Steve Arlow

179. Adult Thayer's Gull *Larus glaucooides thayeri* (right of centre), with adult Herring Gull *L. argentatus* (left), Pitsea Landfill, Essex, 6th November 2010. Note the large white tertial and scapular crescents. The grey tone of the mantle is slightly paler and lacks the bluish tinge of the Herring Gull. It is also easy to see the more extensive white primary tips of the Thayer's in comparison with the Herring Gull, while the primary projection is slightly longer. Note also the darker eye, slightly lemony-yellow base of the bill, small red spot at the gonys and rounded head.

crest, broadest in the centre. The Herring Gull to the left in plate 179 shows a narrower crescent of more even width across the feather tips.

The primaries were a little longer than those of a Herring Gull, with P10–P8 (primaries numbered descendantly, i.e. P10 is the outermost) extending beyond the tail-tip, and the tip of P7 level with the tail-tip. The primary tips appeared dark slate-grey or blackish, rather than black as in Herring Gull. Each of the exposed primaries showed a large white tip, at least a third greater in size than that of Herring Gull.

In plate 178, where the bird is positioned at a slightly more forward angle, the white 'spurs', bleeding away from the wing-tip along the edge of the inner web on P6–P8, are more noticeable. The outer edges of the inner primaries are exposed below the tertials,

revealing the narrow dark outer webs that fail to reach the greater coverts. The underside of the primary tips were extensively white.

A detailed analysis of the primary tip pattern from plates 181 & 182 revealed:

P10: Slaty-black along the outer web, from the primary coverts to the large white mirror,



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180. Adult Thayer's Gull *Larus glaucooides thayeri*, Pitsea Landfill, Essex, 6th November 2010. This image clearly demonstrates leg colour, primary pattern, the large tertial and scapular crescents and the lower rear-neck blotching.



Steve Arlow

Steve Arlow

181 & 182. Adult Thayer's Gull *Larus glaucooides thayeri*, Pitsea Landfill, Essex, 6th November 2010. These images reveal the pattern of the spread primaries, described in detail in the main text, and that the pattern is similar on both wings.

while the inner web is grey. The mirror is separated from the white primary tip by a narrow blackish subterminal band, slightly broader on the inner web.

P9: Slaty-black on the outer web, not reaching the primary coverts. The inner web is grey, becoming whiter towards the 'mirror', where it bulges outwards in classic *thayeri* pattern. The mirror is basically a diffuse extension of the inner web and does not form a discrete spot.

P8/P7: The dark leading edge to the outer web extends for around two-thirds of the visible length of P8, and around half of P7.

P6: A large white tip and dark subterminal band, which extends slightly along the edge of the outer web. There is a white spur along the edge of the inner web, and the shaft is pale (plate 180).

P5–P1: All show extensive white feather tips creating a broad, white trailing edge; there are no dark subterminal marks in P5.

Bare parts

The eye appeared rather small, dark amber with a purple orbital ring, and lacked prominent eyelids (plate 183).

The bill was a little on the heavy side and showed a fairly pronounced gonydeal angle for a classic Thayer's Gull. It does, however, appear to be within the range shown by bulkier males. It was pale lemon-yellow, slightly brighter, richer yellow at the curvature of the culmen, while the bill-tip was

paler. The red gonydeal spot was small with quite straight edges and a dark mark at the rear, perhaps indicating that the bird was not fully adult. The nostril slit was broader at the distal end.

The legs were bright, 'bubblegum' pink and on the short side, only a minimal length of tibia was exposed below the body feathers, giving the bird a rather 'squat' appearance (plates 178 & 180).

I felt that it was important to gather opinions from observers who are familiar with Thayer's Gull and also the range of variation shown by 'Kumlien's Gull' *L. g. kumlieni*. I sent the images to a number of people in the UK, Ireland and North America, and comments were received from Michael Force, Martin Garner, Steve Hampton, Steve Howell, Bruce Mactavish, Killian Mullarney and Jeff Poklen, all of whom supported the identification as Thayer's. So, despite some aspects of the Pitsea bird not fitting a perfectly 'classic' Thayer's Gull, this individual fell within the accepted range of characters that define the taxon, in particular for large males. As I have noted with Herring Gulls (and Caspian Gulls *L. cachinnans*), the variety of plumage and structural differences is complex and any bird that does not meet the stereotypical image depicted in field guides is not necessarily a hybrid or rarity but may be an acceptable variant. Like other taxa, Thayer's also shows a range of variation, so it seems not unusual that the few 'non-classic' characters shown by this bird fall within the range of some males, thus making it perfectly acceptable as a Thayer's Gull.

Distribution

Thayer's Gull breeds in scattered cliff colonies throughout coastal regions of the Canadian High Arctic, from Banks Island east to northern Baffin Island and Ellesmere Island, and extreme northwest Greenland. The breeding range lies to the north and west of that of Kumlien's Gull, which breeds from southern Baffin Island and the Digges Sound area, west to eastern Southampton Island. Birds breeding in west Greenland south of 70°N and in east Greenland belong to the nominate form of Iceland Gull *L. g. glaucooides*.



183. Adult Thayer's Gull *Larus glaucooides thayeri*, Pitsea Landfill, Essex, 6th November 2010. This heavy crop shows the dark eye and purplish eye-ring.

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The majority of Thayer's Gulls winter along the Pacific coast of North America, from British Columbia south to Baja California, in northern Mexico. It is a rare but regular wintering bird in the Great Lakes region, and is being found with increasing frequency along the east coast of North America, the continental interior and the Gulf coast. Whether these reports reflect an eastward shift by part of the wintering population, or birders becoming more aware of the identification criteria, is unknown.

Records elsewhere in Europe

In Europe, Thayer's Gull has been recorded from Iceland, Norway, Denmark, Ireland, the Netherlands and Spain as follows:

Iceland Three accepted records

Adult, Hafnarfjörður, 8th–9th April, 2006.

First-winter, Þorlákshöfn, 30th January to 1st February 2008.

Second-winter, Stykkishólmur, 27th September 2010.

Norway One accepted record

Juvenile/first-winter, Bergen, Hordaland, 3rd January 2000.

Denmark One accepted record

Juvenile/first-winter, Hirtshals Havn, Nordjylland, 15th–16th January 2002.

Presumed same individual Hanstholm Havn, Nordjylland, 19th February 2002 (150 km to southwest).

Ireland Nine accepted records

Juvenile/first-winter, The Lough, Cork City Dump and Cobh, Co. Cork, 21st February to 5th March 1990.

Juvenile/first-winter, Belfast Dump, Co. Antrim, 1st–7th March 1997.

Adult, Killybegs, Co. Donegal, 22nd February to 10th March 1998.

Juvenile/first winter, Newport Dump, Co. Mayo, 19th December 1998 to 3rd April 1999.

Juvenile/first-winter, Killybegs, Co. Donegal, 2nd–5th February 2003.

First-winter, Barnatra, Co. Mayo, 5th–19th March 2005.

First-winter, Cleggan, Co. Galway, 19th January to 10th February 2010.

First-winter, Rossaveel, Co. Galway, 18th

February to 5th March 2011, also at Nimmo's Pier, 5th April 2011.

Adult, Killybegs, Co. Donegal, 16th

December 2013. A comparison of plumage characters established that this was the same individual first recorded in Spain (Charles 2014; see below).

Netherlands One accepted record

Juvenile/first-winter, Egmond aan Zee and Bergen aan Zee, Noord-Holland, 11th–27th April 2015.

Spain One accepted record

Juvenile/first-winter, Xove and San Cibrao, Galicia, February 2008, returning in subsequent winters: 7th December 2009 and 20th March to 8th April 2010; 13th–23rd March 2011; 10th–17th March 2013. Same as Co. Donegal, December 2013.

A history mired in controversy and misunderstanding

Thayer's Gull has been a taxonomic conundrum since it was described by Brooks (1915) from a (breeding) specimen collected by J. S. Warmbath on 10th June 1901 at Buchanan Bay on Ellesmere Island (78°58'N 75°10'W), in what is now Nunavut, Canada. Soon afterwards, Dwight (1917) treated several large gull taxa, including *thayeri* and *smithsonianus*, as races of Herring Gull *L. argentatus*. A decade later, in his classic study, Dwight (1925) continued to treat Thayer's Gull as a race of Herring Gull; he also considered Kumlien's Gull to represent a hybrid between Thayer's and Iceland Gulls, and while he noted the intergradation between Thayer's and Kumlien's Gulls he still maintained Thayer's as a race of Herring Gull.

This situation prevailed until 1973, when the American Ornithologists' Union (AOU) made Thayer's Gull a separate species, *L. thayeri*. That decision was based, in part, on the findings of Macpherson (1961), who had demonstrated that (American) Herring and Thayer's Gulls were breeding sympatrically and without interbreeding. Also supporting that decision was the work of Smith (1966), some of which was subsequently discredited. Smith had undertaken research at Home Bay, Baffin Island, where he claimed that *kumlieni*

and *thayeri* were reproductively isolated. He conducted a series of ingenious experiments that included changing the colour of the orbital ring, wing-tips, head plumage and mantle tone of birds captured when pairs were forming or shortly thereafter, and observed the results. For example, by painting and changing the colour of the orbital ring, Smith claimed that this subsequently resulted in mixed pairings of 55 Thayer's x Glaucous Gulls *L. hyperboreus*, whereas unmarked birds paired only with their own species. These results, however, have not been reproduced by other researchers. Sutton (1968) was the first to challenge Smith's (1966) study. He remarked that the 'super-eye-ringed' Thayer's Gulls 'perplex and discomfort me. In one breath he asks us to believe that the success of a gull's whole reproductive cycle depends on eyesight keen enough to keep it from wasting effort on a gull of opposite sex which does not have precisely the same eyelid colour as its own, and that this same gull will be fooled into considering a big black circle as an "eyelid", and an "eye" as a "pupil", etc.'

Despite the AOU's continued treatment of Thayer's as a full species, evidence that Thayer's Gull was not reproductively isolated continued to mount. For example, Gaston & Decker (1985) reported that a mix of light- and dark-eyed gulls representing Kumlien's and Thayer's phenotypes, with varying wing-tip pigmentation and patterns, were randomly interbreeding on Southampton Island in northern Hudson Bay. In *The Birds of Canada*, Godfrey (1986) treated *thayeri* as a race of Iceland Gull, stating that 'Studies made by Brian Knudsen for the National Museum of Natural Sciences in summers of 1975 and 1976 at Home Bay, Baffin Island, produced no evidence of assortative mating of the morphs but indicated instead an area of widespread interbreeding among the phenotypes of these two taxa.' Snell (1989, 1991) attempted to replicate Smith's experiments at Home Bay but without success. Instead he found non-assortative mating was occurring between Kumlien's and Thayer's Gulls. Snell also assessed the logistical difficulties that Smith would have faced when conducting his orbital-ring experiments: collecting data and travelling long distances between study sites

in the Arctic. He concluded that it was not possible for Smith to have completed all the work as reported, and that Smith's methodology and conclusions should be regarded with caution: 'I think that it is time to accept the consensus of Canadian ornithologists and reduce *thayeri* to a subspecies of the Iceland Gull... like *kumlieni*.' Smith (1991) later agreed that there were some errors in his study, but claimed that these did not affect his findings and conclusions.

After analysing variation among 317 adult *glaucoides*, *kumlieni* and *thayeri* specimens collected throughout the breeding range from Greenland to Banks Island in the west Canadian Arctic, Snell & Godfrey (1991) and Snell (2002) concluded that the Iceland Gull forms a poorly understood and taxonomically controversial species complex. They found no evidence to suggest that *glaucoides*, *kumlieni* and *thayeri* formed morphologically discrete breeding populations. Instead, they concluded that differences across the breeding range are clinal, with an increase in the degree of mantle melanism, primary feather melanism, primary pattern score and bill size from east to west, and with substantial overlap in all characters between geographic regions. By examining such a large series, they concluded that the type specimens of *kumlieni* and *thayeri* may represent points along a clinal continuum, rather than distinct forms within well-differentiated groups. In further studies from the breeding areas, Snell (2002) found evidence of continuous phenotypic variation from darkest to lightest extremes in plumage of adults across the breeding range. Where breeding ranges of *kumlieni* and *thayeri* overlap (in eastern Baffin Island, eastern Southampton Island and Digges Sound), he found no evidence of assortative mating; gulls as dark or darker than the type of *thayeri* bred with birds much paler in appearance than the type of *kumlieni*, including birds that lacked visible wing-tip melanism. Snell concluded that Iceland Gull represents a single, highly variable species with no known character set distinguishing all *thayeri* from all *kumlieni* and from all nominate *glaucoides*.

Gay *et al.* (2005) sequenced the mitochondrial DNA of several North American taxa. They established that Thayer's and Glaucous-

winged Gulls grouped in the 'Arctic species' clade, which also includes Glaucous, Iceland and Slaty-backed Gulls *L. schistisagus*. Although relationships between taxa within the Arctic species clade are unresolved, the findings support the close relationship between *glaucoides* and *thayeri*. Surprisingly, however, they also found that the four Glaucous-winged Gull specimens sequenced shared the same haplotype with two of the three Thayer's sequenced and differed only by one mutation on the control region from the haplotype of the third *thayeri*. This suggests that *glaucescens* and *thayeri* are closely related and emphasises the recent origin of both. The authors were unable to establish whether this could be explained by extensive lineage-sharing, or whether *thayeri* and *glaucescens* are reciprocally monophyletic, and the lack of sequence variation prevented them from separating their haplotypes.

While classic *glaucoides* and *thayeri* do exhibit a fairly stable and consistent suite of characters, *kumlieni* shows exceptional variation – some appearing intermediate between Thayer's and Iceland Gulls, while others are almost inseparable from one or the other (Garner & Mactavish 2001; Howell & Mactavish 2003). Furthermore, the limits of the variation within the Kumlien's and Thayer's phenotypes remain poorly defined. Notwithstanding, detailed studies of adult Thayer's Gulls wintering in central California (Howell & Elliott 2001) and of adult Kumlien's Gulls wintering in Newfoundland (Howell & Mactavish 2003) concluded that the treatment of *thayeri* and *glaucoides* as separate species is valid, but the position of *kumlieni* remains uncertain. McGowan & Kitchener (2001) presented evidence that suggested that *kumlieni* is not a valid taxon but represents a variable intermediate form resulting from introgressive hybridisation between the *thayeri* and *glaucoides* lineages.

Current taxonomy

Throughout this period, the AOU has continued to treat *thayeri* as a full species. This position has gradually received growing support and now the majority of leading taxonomic authorities and checklist committees including AERC, BirdLife International, Clements and Howard & Moore consider

that Thayer's Gull merits treatment as a monotypic species, while Iceland Gull is considered polytypic, with races *glaucoides* and *kumlieni*.

Based on evidence that non-assortative mating occurs among *glaucoides*, *kumlieni* and *thayeri* across the breeding range, and the fact that morphological differences among them are clinal, BOU (1991) included *thayeri* as a subspecies of the Iceland Gull. BOU continues to regard *thayeri* as a race of Iceland Gull, a position which is no longer held by any other European or North American taxonomic authority, but one that is supported by evidence from the breeding grounds. Further research into the taxonomic relationship between *thayeri*, *kumlieni* and *glaucoides* would be fascinating, but extremely challenging, and still might not fully resolve what is clearly a complex situation. Commenting on Gaston & Decker (1985), DeBenedictis (1987) stated: 'This paper may mark the beginning of the end of *thayeri* as a species'. Almost 30 years on from that remark, Thayer's Gull has still not gone away; rather it continues to be one of the most enigmatic, challenging and controversial of gulls, and remains no more or less identifiable in the field.

Acknowledgments

I would like to thank Mike Dazenbaker, Lee Evans, Michael Force, the late Martin Garner, Steve Hampton, Steve Howell, Harry Legrand, Bruce Mactavish, Richard Millington, Neil Morris, Killian Mullaney and Jeff Poklen for their comments on this bird. Yann Kolbeinsson, Geir Mobakken and Arnoud van den Berg provided current information on accepted records of Thayer's Gull from Iceland, Scandinavia and the Netherlands.

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Editorial comment Paul French, BBRC Chairman, commented: 'Thayer's Gull has long been on the radar of keen British gullers, and this intensified after the identification and publication of the first Irish records. The fact that it took more than 20 years from that first Irish bird (in Co. Cork in 1990) to the discovery of the bird at Pitsea illustrates both the identification issues surrounding this taxon and its rarity. Steve Arlow is therefore to be congratulated on this excellent find and positive identification on such brief views. I'm sure he would agree that his series of photographs were absolutely critical in the assessment process. These images illustrate all of the required details, including the crucial primary pattern and orbital ring, which are currently thought to be diagnostic of this taxon, and the Committee was unanimous in accepting this record on a single circulation.

'Following on from this record, Tom Lowe discovered Britain's first accepted juvenile Thayer's Gull, in Lincolnshire in April 2012 (see below), and there are currently three records from 2014 (all of juveniles) in circulation. A further juvenile, seen in both Oxfordshire and Derbyshire in the winter of 2007/08, will pre-date the 2010 Essex adult if accepted; this record is also in circulation.

'Whatever its taxonomic position, BBRC will accept any individual that exhibits the full range of characters of *thayeri*. However, observers should be aware that the variation in *kumlieni* still has to be taken into account, as well as odd individuals of Glaucous-winged and both Herring and American Herring Gulls, along with their various hybrid combinations. This will never be an easy identification or assessment, but with detailed notes and (preferably) high-quality photographs, further accepted records are to be expected.'

Martin Collinson, BOURC Chairman, commented: 'Thayer's Gull has had many false starts in its journey to the British List. Identification criteria were poorly understood for many years, at least on this side of the Atlantic, and as a High Arctic, primarily western, gull its vagrancy potential seemed low. Clearly both these factors have changed: with multiple accepted records of this species and of other Pacific coast gulls in the Western Palearctic, it was only a matter of time before an individual made the grade in Britain.

'There is an insoluble hybridisation problem with all large gulls that makes it impossible to say

with certainty that any individual is completely genetically 'pure'. BOURC faced this problem with Glaucous-winged Gull and at the time the pragmatic solution was that if the bird falls morphologically within the range of variation of birds that would be acceptable as 'pure' on the Pacific coasts of the Americas and East Asia, we should be minded to accept the identification. In essence, this position has not changed. Both the Essex and the Lincolnshire birds were considered by BOURC and fulfilled the accepted criteria for identification as Thayer's Gull. As there was no doubt about provenance, the subspecies was added to the British List.

As explained above, the taxonomic position of Thayer's Gull has never been fully resolved, though most major authorities have recently favoured treatment as a full species. Weir *et al.* (2000) compared the historical distribution of Iceland Gull taxa (gleaned from examination of specimens and records of expeditions from before 1900) with the modern-day distribution. Their data showed that, in addition to Greenland, nominate *glaucoides* formerly bred in High Arctic Canada, concurrently with *thayeri*. Subsequently, the breeding range of *thayeri* has expanded eastwards and southwards, restricting nominate *glaucoides* to its current breeding range in Low Arctic Greenland. The first *kumlieni* were not recorded until the 1840s, and Weir *et al.* (2000) were able to show that Kumlien's Gull is a morphologically variable result of introgressive hybridisation between nominate *glaucoides* and *thayeri*. From a systematic point of view the paper provides mixed signals: the fact that the breeding ranges of Thayer's and Iceland Gull overlapped before 1900, apparently with little if any hybridisation, argues strongly for separate species status. However, the range expansion of Thayer's Gull, with the emergence of Kumlien's Gull through interbreeding, is consistent with merging of two conspecific taxa. On an evolutionary timescale the relationship between the various Iceland Gull taxa, as with most other large northern gulls, is in rapid flux, exacerbated now by climate change.

The BOU Taxonomic Sub-committee (TSC) broadly followed an Evolutionary Species Concept requiring that, to be treated as separate species, two or more taxa must not only be diagnosably different but must also be judged as unlikely to merge together again on an evolutionary timescale. It would be a brave committee that would call this decision either way, though the case for treatment of Thayer's Gull as a separate species is clearly defensible in the context of large gull taxonomy. The ill-considered decision by BOU Council to abolish the TSC and rely on an external checklist, as yet unspecified, for taxonomy in future effectively emasculates the (historically male) BOURC by removing its control over one half of the work involved in maintaining the British List. However, whatever taxonomic authority BOU Council members eventually decide to follow, it seems likely that Thayer's Gull will be treated as a full species.

Subsequent British records of Thayer's Gull

As outlined in the comments above by Paul French and Martin Collinson, another British record of Thayer's Gull, a juvenile found by Tom Lowe at Elsham, Lincolnshire, on 3rd–18th April 2012, was considered and accepted by both BBRC and BOURC (Hudson *et al.* 2015). Other records, all of juveniles, remain under review with BBRC: one seen in Oxfordshire in December 2007 and January 2008, and then in Derbyshire in February 2008; one at Burry Holms, Gower, in January 2014; one on Islay, Argyll, from February to April 2014; and one that commuted between Mirfield and Pugney's Country Park in Yorkshire in late December 2014.

More recently, the discovery of an adult

Thayer's Gull at Minsmere, Suffolk, on 27th March 2016, provided an educational experience for all involved. It also highlighted just how fraught the identification of Thayer's Gull can be, and how easy it is to become distracted when faced with a plethora of options and expectations. Fortunately, this individual spent much of the day on the scrape at Minsmere, which enabled many observers to catch up with this intriguing gull and clinch the diagnostic pattern in the primaries. Although the record has not yet even been submitted formally to BBRC, this adult seemed to display all the classic features associated with Thayer's. Since this was only the second adult reported in Britain, it seems useful to include a discussion of the process leading to its identification here. Some details and images

that helped to clinch the identification of both the Lincolnshire and Suffolk Thayer's Gulls are thus presented below.

The Lincolnshire bird

A classic juvenile Thayer's Gull is a distinctive bird, making it potentially easier to find than an adult but no less difficult to identify. Tom Lowe's discovery of a juvenile at Elsham, Lincolnshire, in April 2012 was described in full in Lowe (2012), from which the following summary of the key points is taken.

Tom's initial reaction to a juvenile large gull with uniformly dark underparts was that it was an American Herring Gull but that option was quickly dismissed on account of the bird's size and structure – it was slightly smaller than most of the surrounding Herring Gulls and the head was small and rounded, so structurally there was a superficial resemblance to an Iceland Gull. However, its apparent size and shape varied according to its posture: when sitting on the ground it could appear surprisingly large, but when standing among Herring Gulls it looked slim and long-winged, with a slender neck and small head that tapered into long lores and a fairly long bill. On some views, the bill looked quite narrow but, on others, it appeared to thicken at the gonyes and look somewhat blob-tipped. The bill was dark maroon basally, with the distal third black. The bird was not especially long-legged, but the legs were stout and a slightly deeper pink than those of the surrounding first-winter Herring Gulls. In terms of plumage, the velvety, mud-brown head and body, fully juvenile upperparts and long blackish primaries stood out.

Clinching the identification of a potential Thayer's of any age requires detailed observation and, ideally, photographs of the spread wing pattern, but on the first day the latter proved elusive: 'I was feeling increasingly confident that I was indeed watching a Thayer's Gull, but I was desperate to clinch the spread wing pattern. I needed to see the bird preen, stretch or fly, and to try to record this. I sat with my finger poised above the video-record button of my camera for an hour and a half, before the battery died. Ten minutes later, the bird flew over the hedge into the feeding field. In that fleeting view, I

glimpsed a pale, silvery underside to the primaries, and a very pale inner-primary window on the upperwing, flanked by darker outer primaries and secondaries, but then the bird was gone. I had not seen enough to be sure, and I could not relocate the bird. Did it show the characteristic "Venetian blinds" primary pattern of Thayer's Gull, or was this to be curtains for it and me? I spread the news of what I had seen and, that evening, uploaded my best images of the bird to the internet.'

Happily, the bird was present the next day, when photographs in flight were obtained, and it remained in the area for two weeks and was seen by many observers. Photographs established that P5–P10 (the six outer primaries) showed dark outer webs and contrastingly pale inner webs, but with a darker tip to the inner web giving a distinctive 'Nike swoosh' pattern to each feather. The inner primaries, P1–P4, showed a more subdued version of the same pattern, but with the addition of a long, pale lozenge shape in the outer web, effectively making the entire feather appear pale except for an isolated darker tip to the outer web. The secondaries also showed a pattern of dark outer and pale inner webs but, as they tended to be held more tightly together, the general impression was that of a solid dark brown bar, similar in colour to the outer primaries, and with a broad pale trailing edge. From below, all the remiges were pale and silvery, with contrasting dark tips to P5–P10 forming an isolated dark bar along the wing-tip. The underwing-coverts and axillaries were dark brown. The bird showed a broad, muddy brown tail-band, with pale notching and marbling at the base of the outer three or four feathers. The rump and uppertail-coverts were heavily barred with brown, and similar dense barring was visible on the undertail-coverts. The tertials were a slightly darker brown with finely patterned edges to the distal half of each feather, 'lacy' tips and some simple internal markings consisting of a creamy-white crescent near the tip of each web. At rest, the blackish-brown primaries showed a distinct pale fringe around the tip of each feather.

See plates 184–186, and also *Brit. Birds* 106: 477–480, which describes and illustrates



Tom Lowe



Graham Catley



Graham Catley

184–186. Juvenile Thayer's Gull *Larus glaucooides thayeri*, Elsham, Lincolnshire, April 2012.

how Tom's first photos were judged the Carl Zeiss Award winner in 2013. (Readers with a good memory may also recall that Steve Arlow's images of the Pitsea Thayer's Gull were placed third in the 2011 Carl Zeiss Award – *Brit. Birds* 104: 462–465.)

The Minsmere bird

Brian Small provided the following summary of an adult Thayer's Gull he discovered on the scrape at Minsmere on 27th March 2016.

'The bird was discovered at around 08.30, but it took about four hours to sort out all the features and clinch the identification. This involved, most importantly, sufficient images to rule out the unexpectedly similar Vega Gull *L. s. vegae*, but also getting my head around the idea of a Thayer's Gull on the Scrape at Minsmere! The truth is that, when I

first found it, I was reminded a lot of the photos taken by Killian Mullarney of the recent Vega Gull in Co. Wexford (*Brit. Birds* 109: plate 62); so much so that that was what I first thought it was – later, with feedback from others, I realised I was not being quite as daft as I felt at the time.

'Initially, I was confronted by a large adult gull with an obvious 'hooded' appearance, with soft or smudgy ochre- or brown-grey streaks on the head, becoming more crescent-like on the breast sides. I guess this was the first thing I noticed, though actually the whole bird just seemed different – in an oddly familiar sort of way. The mantle was similar in tone to some *argenteus* Herring Gulls (a little darker than some around it), but never as dark as *argentatus*; the bill was perhaps a little finer at the tip than for

Herring Gull, creamy yellow at the base, becoming yellower towards the tip with a restricted area of red on the lower edge of the bill near the gonydeal angle. The leg colour was also different from Herring Gulls of the same age, a deep raspberry or purple-tinged pink. The closed primaries looked black with prominent white tips, though the underside of the far-wing primaries were silvery white with a black lower (outer) edge and narrow black band isolating a large white tip.

‘Confusingly, however, the bird was undoubtedly big! Not once did I think of Iceland Gull – in particular, the head seemed quite chunky, and I was not the only observer taken in by its size. It always looked good for a “Pacific-rim” gull, however, and I plumped initially for Vega Gull, and mentioned this to John Grant, who was next to me in the hide. At this point I rang Adam Rowlands to let him know I was watching a Vega-type gull on the reserve, and it was then that Adam mentioned that Thayer’s might well come into the equation, based on the comments on the BBRC file of the Essex Thayer’s Gull. I let David Fairhurst know too, but after some 90 minutes of observations family commitments meant that I had to leave the bird, hoping that subsequent reference to articles and photos on the internet would help.

‘Some time later, David was watching the bird when I rang him with photographs in front of me on my computer screen. Although the head shape looked like that in the images of the Vega Gull in Ireland, it wasn’t quite the same and one thing for sure

was that there was too much white in the primaries. I brought up on my screen the photos of the Irish and Spanish Thayer’s on the *Birding Frontiers* website and, well, the penny dropped – it had to be a Thayer’s... surely?

‘By early afternoon, I was back in West Hide, from which, looking into the light, you could see the gull (asleep or hidden!), but viewing was not ideal. After a while, however, the bird took flight and it was suddenly transformed, from what seemed like quite a large gull on the ground to something distinctly neater and more compact in flight; more importantly, the general wing pattern seemed just right for *thayeri*! The wing-tips appeared essentially silvery white from below with a limited line of black near the tips of the outer five primaries; even from above they also seemed largely white. There was undoubted excitement and at that point I got a text from Adam (watching the bird from another vantage point) and he confirmed our impression of it being a Thayer’s – Adam was the only person I had spoken to who had field experience of Thayer’s.

‘Tempering our excitement with caution as we had yet to see a good photo that showed the precise wing pattern, we hoped that photos might in due course reveal the exact primary pattern. Later that afternoon Craig Fulcher and Jeff Higgott obliged, with images revealing the pattern of the outer primaries: it was absolutely spot on for Thayer’s. The outer edges of P10 and P9 were narrowly black with greyer inner webs – P10 was marked with a large white mirror and small



Brian Small

187. Adult Thayer’s Gull *Larus glaucooides thayeri* (second left, with (from left to right) third-winter Herring Gull *L. argentatus argentatus*, first-winter Great Black-backed Gull *L. marinus* and adult Herring Gull *L. a. argentatus*), Minsmere, Suffolk, 27th March 2016.

Jeff Higgott



Jeff Higgott

Jeff Higgott



188–190. Adult Thayer's Gull *Larus glaucooides thayeri* (with spread wings in 190), with Herring *L. argentatus* and Great Black-backed Gulls *L. marinus*, Minsmere, Suffolk, 27th March 2016.

black subterminal triangle; P9, too, had a large white mirror; there was a narrow black line across P5 and large inner white areas bordering the black on P5–P8, while the trailing edge was broad and white – this last feature also gave a prominent white area on the tertial tips.

'We had managed to see all of the features of Thayer's Gull, and there was nothing that contradicted that identification, but I still wanted a bit more feedback. I sent photos and links to Chris Gibbins for his thoughts. After checking images of Vega and comparing these with the Minsmere bird, in particular the silvery (rather than blackish) underside of P10, he commented that this and the rest of the details noted and photographed fitted Thayer's. He also commented that "You are right to be mindful that some Vega types may create problems; but you are also right that your bird is too pale on the underside of the primaries for a Vega. I think you are spot on about how different from Kumlien's/Iceland your Thayer's

is; this problem never really comes into it. I think more work is needed to understand variation in Vega, at the moment it is not clear whether birds with less black and more white in the wings are pure or represent hybridisation somewhere along the line. Killian Mullarney was mindful to rule out a Thayer's with his Vega, and I think you are right to (and can) rule out Vega with your Thayer's. It's a great bird.'

'What an Easter Sunday! It was a bit fraught, and my initial sway towards Vega did not help – I simply had not expected how alike Thayer's and Vega Gulls might be, but we got there in the end. It had been a group effort with a lot of help from Adam and David during the critical discussions over its identification. Finally, as I had not seen Thayer's previously, the day had been a steep learning curve but it just goes to show there is always a lot to learn about gulls.'

Videos of the Minsmere bird are available at <https://vimeo.com/160629688> and <https://vimeo.com/160620059>

Short papers

Did Ptarmigan occur in the English Lake District in the eighteenth and early nineteenth centuries?

A re-examination of the evidence

Abstract Evidence for the occurrence of the Ptarmigan *Lagopus muta* in the English Lake District in the eighteenth and early nineteenth centuries is based on at most three records, two of which may not be independent of one another. There are uncertainties attached to all three records and it is concluded that they do not establish beyond doubt that Ptarmigan have existed in the area within the past 300 years.

Fossil evidence suggests that the Ptarmigan *Lagopus muta* was distributed widely in Britain in the Mesolithic period (7,000–10,000 years BP; Yalden & Albarella 2009). By the time that ornithologists began to record the distribution of birds in Britain in the late eighteenth and early nineteenth centuries, however, the species' range had contracted and it was found primarily in Scotland. Yet it is often stated that Ptarmigan occurred in the English Lake District until around 200 years ago (e.g. Holloway 1996, Stott *et al.* 2002, Brown & Grice 2005). Much of the evidence for this was summarised at the end of the nineteenth century by Rev. H. A. Macpherson, the leading Lakeland ornithologist of his day. In *The Birds of Cumberland* (Macpherson & Duckworth 1886) the tone is dismissive ('A. G. More has shewn conclusively that the Ptarmigan... believed to exist in the Keswick district were of mythical origin'), but when he came to write *The Vertebrate Fauna of Lakeland* (Macpherson 1892) he was much more upbeat: 'The former existence of the Ptarmigan in Lakeland has been affirmed and reaffirmed by numerous writers... Most later writers have accepted this revised position. This short paper presents the results of a re-examination of this material to determine how reliable the evidence is that Ptarmigan occurred in the Lake District in the eighteenth and early nineteenth centuries.

Evidence for the occurrence of the Ptarmigan in Lakeland around 1800

The first published suggestion that Ptarmigan might be found in Lakeland is

contained in the 1776 edition of Pennant's *British Zoology*:

'Ptarmigans are found in these kingdoms only on the summits of the highest hills of the highlands of Scotland and of the Hebrides, and a few still inhabit the lofty hills near Keswick in Cumberland.'

The final part of the sentence referring to Cumberland is missing from the 1768 edition. Evidently, some new information came to light between these two dates. In 1772, on the second of his tours to Scotland, Pennant stayed two nights in Keswick, and spent his time visiting local churches and taking a boat trip on Derwent Water (Pennant 1774). There is no evidence that he visited any of the higher fells in the neighbourhood and it is not credible that he actually saw Ptarmigan there himself, but rather got the information from some unidentified third party (though whether it was when he was in the Keswick area in 1772 or later is unclear). As noted by Mabey (1986), this was typical of Pennant's method of working – a reliance on second-hand information that he did not go out of his way to check or confirm.

The second published reference to Ptarmigan in Lakeland is contained in J. Heysham's 'A Catalogue of Cumberland Animals' of 1794. It reads:

'PTARMIGAN. *Tetrao lagopus*, Lin. Syst. 1. p.274. no. 4. Lath. Synop. 10. Pen. Zool. 95.—The Ptarmigan is become a very scarce bird in Cumberland; and I believe is no where to be found in this county, except on the lofty mountains about Keswick. In winter they are nearly white.'

The inclusion of the word 'lofty' is interesting in that it had previously been used by Pennant and the implication is that Heysham simply learnt about the occurrence of Ptarmigan in the Keswick area via Pennant. The 'Pen. Zool. 95' reference shows that he was aware of Pennant's *British Zoology* and that it was the 1776 edition, in which the Ptarmigan was species no. 95, rather than the 1768 one, which used a different way of indexing species. These comments also apply to the 'Lath. Synop.' reference (Latham's *General Synopsis* of 1783), which repeats verbatim Pennant's words quoted above, but adds 'as well as in Wales'.

The third apparently independent reference to Ptarmigan in Lakeland to appear in print is contained in an account of a tour of the Lakes in 1803, published anonymously (Anon. 1804). The author describes visiting Hutton's Museum in Keswick and quotes a list of the principal British birds on display, including 'Tetrao Lagopus', then the scientific name for the Ptarmigan. Macpherson (1893) states that these birds were all taken locally, but nowhere in the original does it say this. However, in what appears to be a reference to this bird, Frere (1887) noted that:

'... in 1841 there was in the Museum at Keswick a Ptarmigan said to have been killed on Skiddaw, but I remember no other particulars.'

This is the only evidence that the Ptarmigan had been obtained locally, though whether it was labelled as such or this information was given to Frere by the person who showed him round the Museum (not Hutton himself – he died in 1831 – but perhaps his daughter Hannah) is not clear.

As a young man Thomas Hutton acted as a guide and boatman to the burgeoning numbers of visitors to the Lakes. He established his museum in 1785 (Brears 1992), more than a decade after Pennant had visited the town and at least a decade after the publication of the edition of *British Zoology* referring to Ptarmigan in the Keswick area. This effectively rules out the possibility that Pennant saw the stuffed Ptarmigan himself and it is doubtful that he was ever aware of its existence. We do not know when Hutton acquired the Ptarmigan but it was probably around the time the Museum opened; having

created his museum, Hutton was reluctant to commit his own funds to obtaining new exhibits and such as he did add were chiefly the gifts of well-wishers (Brears 1992).

Hutton was evidently an entertaining host, but was not inclined to let the facts get in the way of a good story. Brears (1992) recounted various incidents that do not cast Hutton in a good light, such as his interception and retention of exhibits intended for Peter Crosthwaite, proprietor of the other Museum in Keswick and Hutton's great rival. Desmond (1994) noted that Hutton 'gave much erroneous information about Lake plants', and his claim to have found Alpine Barrenwort *Epimedium alpinum* on Carrock Fell is now regarded as bogus (Brears 1992). Clearly, some caution should be applied to any information originating from Hutton. Pennant and Hutton's records appear to be independent of one another but, given Hutton's nature, the possibility that he labelled or referred to his stuffed Ptarmigan as coming from Skiddaw based on the comments in *British Zoology* or Heysham's *Catalogue* cannot be ruled out.

The late Victorian interest in the status of the Ptarmigan was not confined to Lakeland but included also southwest Scotland. In a review of its occurrence in the latter area, Service (1887) quoted from an anonymous article in the *Dumfries Courier* for 21st February 1826:

'... we have just been informed that Mr. John Lewars has a brace of young ptarmigans alive and so tame that they run about the doors like domestic fowls.

These birds were brought, we understand, from the English side, and were probably hatched on the top of Skiddaw.'

Macpherson (1892) dismissed this as 'too wildly improbable to stand in serious need of refutation', and it is difficult to disagree with him. Its interest lies in the fact that it is the first occasion that Skiddaw (the dominant fell in the Keswick area), rather than 'lofty hills near Keswick', is specifically named as a place where Ptarmigan might be found and pre-dates Frere's comments quoted above by about 15 years.

There was a tendency among nineteenth-century writers to repeat what earlier authors had written, more often than not without

attribution and without having carried out even rudimentary checks for accuracy. In reviewing how such writers dealt with the distribution of the Ptarmigan in Britain following the publication of Pennant's *British Zoology*, More (1881) noted that several quote Cumberland as the only place in England where they were to be found, and, following the appearance of Latham's *General Synopsis* in 1783 with its reference to Wales (see above), a number, such as Donovan (1794) and Bewick (1797), opt for 'lofty hills' of Cumberland and Wales. In his *British Ornithology*, Graves (1811) goes further, quoting Wales and continues:

'they abound on all the heathy mountains in the north of Westmoreland and Cumberland, and like the Black Grouse feed on most kinds of mountain berries'

This is the first occasion that Westmorland makes an appearance as an area where Ptarmigan were once to be found. Selby (1825) embellishes the point further:

'According to Pennant and earlier writers, this species seems, at one period, to have inhabited some of the mountainous ridges of Cumberland and Westmoreland. It is now, however, totally extinct in England...'

By 'earlier writers' Selby is presumably referring to Latham, Donovan, Bewick and

Graves. In summarising this chaotic state of affairs, More (1881) observed:

'Thus, for more than a hundred years, we find Pennant's original [report of] Keswick continually quoted, and this apparently without any confirmation, or fresh enquiries; the range has been even extended, so as to include Westmoreland. We have Wales repeated up to 1837, although Latham is the sole and unsupported authority for that statement; and we are led to conclude, from the silence of Pennant, and the want of any corroboration since the time of Latham, together with the omission of Wales by many of our best authorities, that Latham unconsciously added Wales, in the belief that he had quoted it from Pennant, who was so well known as an authority concerning his own country.'

Having pointed out the shortcomings of the material appearing in the ornithological literature in the century following the appearance of *British Zoology*, More (1881) then proposed his own solution to the question of the occurrence of Ptarmigan in Cumberland and Westmorland:

'Mr Dover, himself residing in Keswick, has kindly instituted enquiries on the spot, and he tells me that there is, even



Rebecca Nason

191. Male (foreground) and female Ptarmigan *Lagopus muta*, Cairngorms, Scotland, April 2009.

now, a “white” or white-mottled variety of the Red Grouse, known to frequent Skiddaw Forest. His friends have there met with a few “highly white-mottled Grouse,” which the gamekeeper had also observed for several years, and Mr. Dover himself has seen and shot upon Skiddaw some Grouse, “with plumage much mixed with white, and with their legs deeply feathered, white to the toes, so as to give them a whitish mottled appearance when seen upon the open at a little distance.” Again, in a more recent letter, he tells me that a few years ago a party, when shooting Grouse upon Shap Fells in Westmoreland, met with two or three birds which were so white that two Scotch gamekeepers who were present called them Ptarmigan; and these birds both Mr. Dover and his informant believe were white-mottled Grouse.’

Macpherson (1898) himself was later to record some such birds taken in Lakeland and Nelson (1907) made reference to several in Yorkshire (see also comments in Wilson 1911).

In an aside in his earliest publication on Ptarmigan in Cumberland, Macpherson (1887) noted that one of his contacts, a former gamekeeper, ‘recollected the introduction [into Cumberland] of some [Ptarmigan] from Scotland’. No date is given for this but it can hardly refer to a period earlier than the first quarter of the nineteenth century. In what was almost certainly a separate event, he noted in the *Vertebrate Fauna* that around 1826 T. C. Heysham (J. Heysham’s son) ‘was writing to a correspondent at Perth, asking him to procure for him “a brace or two of the white grous... in February or March, as well as some of their eggs during the next summer”’. There is no evidence that either of these attempted introductions was successful and they occurred too late to account for any of the early records in Cumberland. There are no records of any earlier introductions.

Evidence for the occurrence of the Ptarmigan in Lakeland in the early eighteenth century

In about 1610 John Denton of Cardew, near Carlisle, compiled a *History of Cumberland*.

The original manuscript has been lost but several later versions exist. Macpherson (1894) drew attention to one of these entitled *An Account of the County of Cumberland 1737*, and which, in a section dealing with Wasdale (in what is now West Cumbria), contains a passage not shown in earlier versions. It reads:

‘Further northwards, ascending by ye course of ye River Irt... a large Territory of vast forest ground falls in view from ye summit of ye great mountain called Scaw fell... This territory being part of ye large forest of Coupland was formerly well replenished wth Red Deer wch are now reduc’d to a small number, & upon ye mountains & fells there is a store of black game and a *certain species of pouts wth white feathers & other pied*, wch is a rarity particular to these fells, Skiddaw hill, & some other fells in this county, & not to be found elsewhere (as we are informed) in any other County of ye Kingdom.’

A footnote at the bottom of the same page adds:

‘These pouts are found upon ye Fells between Shap & Kendal in Westmorland. Lancelot Jackson.’

Macpherson (1894) identified the *pouts* (modern day ‘poulters’) with Ptarmigan, though he acknowledges (and dismisses) the possibility that they are ‘pied or albino Red Grouse’.

Discussion

In the past much weight has been attached to Heysham’s record, presumably because he lived in Cumberland and was thought to have some special local knowledge. In fact, he lived in Carlisle and his familiarity with the Lakes proper seems to have been limited. The words he uses to refer to the occurrence of Ptarmigan in the northern fells make it likely that he did so solely on the strength of what Pennant and/or Latham had written.

Discounting Heysham’s contribution, the case for the presence of Ptarmigan in Cumberland towards the end of the eighteenth century rests primarily on two records: Pennant’s original claim of 1776 and the presence of a stuffed Ptarmigan in Hutton’s Museum. It is not certain that these two records are independent of one another.

Given Hutton's character, it is quite possible that he simply referred to his stuffed Ptarmigan as having come from the Keswick area as part of his patter to visitors. The only evidence that it was locally taken derives from a secondary source based on recollections long after the event.

One other, much more speculative possibility should also be mentioned. Pennant learnt that Ptarmigan might be present in the Lake District between about 1768 and 1776, but how he obtained this information is unclear. Conceivably, the boatman who took him out on Derwent Water when he was in Keswick in 1772 was none other than Thomas Hutton (who would have been about 26 years of age at the time) and that it was one of the latter's fanciful stories that planted this idea in Pennant's mind? There is no evidence that such an encounter ever took place, but if it did, it would explain much.

The uncertainty over the origins and independence of these two records, the fact that neither derives from an entirely reliable source and the lack of basic details, casts serious doubt on their validity. The added complication that both might be cases of mistaken identity and that the birds concerned were Red Grouse *L. lagopus* with some white feathers in their plumage, is difficult to refute, particularly as no description of the birds has survived, but raises further doubt as to their credibility. The potential presence of introduced Ptarmigan is, however, almost certainly irrelevant; even if true, such introductions appear to postdate Pennant and Hutton's records by several decades. The notion that Ptarmigan might also have occurred on the fells in Westmorland around 1800 is without substance.

If Ptarmigan did survive in Lakeland until the end of the eighteenth century, it is strange that they were not better recorded. The other Lakeland speciality of the high fells, the Dotterel *Charadrius morinellus*, was well known to local naturalists at this period (e.g. Macpherson 1892) and it is curious that egg-collectors and others seeking it out made no mention of Ptarmigan, even though Skiddaw was reputedly one of the prime places for finding Dotterel in the area. The White-tailed Eagle *Haliaeetus albicilla*, admittedly a much more conspicuous bird,

was also quite well recorded despite not surviving in the Lake District beyond the end of the eighteenth century.

The possibility that Ptarmigan might have been present in Lakeland at the beginning of the eighteenth century depends critically on identifying *pouts with white feathers and other pied* as Ptarmigan, which is not an unreasonable interpretation. There is no suggestion that the Red Grouse with some white feathers noted above were anything other than an unusual, aberrant variety, whereas the description in the Denton manuscript gives the impression that there were many birds of this type. Ptarmigan seems the better interpretation but this is by no means certain, and, in the absence of any further information, cannot be regarded as definite.

In conclusion, the evidence for the occurrence of Ptarmigan on the Cumbrian fells in the eighteenth century is, at best, weak and does not establish beyond doubt that the species has existed there within the past three centuries. If there is some substance to these claims, then they had all disappeared by 1800 at the latest.

Acknowledgments

I thank Deborah Walsh of the Armit Museum, Ambleside and Stephen White of Carlisle Library for help in locating some of the material consulted as part of this review. I am indebted to Dick Potts, Mark Oksien and Dave Shackleton for their comments on an earlier draft.

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A neglected colony of the Twite in central England

Abstract Although the vast majority of Twites *Linaria flavirostris* breeding in Britain & Ireland occur in Scotland, small pockets of breeding Twites remain in other areas. The small population in the Derbyshire Peak District now appears to be separated from the birds in the Pennines, at least in the breeding season. This short paper reviews what is known about the Derbyshire population, both historically and currently.

In Britain & Ireland, the Twite *Linaria flavirostris* is a short-distance migrant or resident species associated with upland and coastal environments. The species' breeding distribution is concentrated in northwest Scotland, notably from the Outer Hebrides north and east to Caithness, Orkney and Shetland, but also farther south in Scotland, where it becomes less numerous down the west coast towards the Solway Firth. Scottish birds account for the vast majority (around 94%) of the UK population (Langston *et al.* 2006), but there are small 'pockets' or subpopulations of breeding Twites in Snowdonia, along the northern and western fringes of Ireland, and in the Pennines of northern central England.

The Twite is considered Vulnerable in Europe, following continued rapid declines and isolation from the wider Palearctic

population (Ashpole *et al.* 2015). Outside the EU region, the Twite remains listed as Least Concern, owing to its wide distribution and apparently stable population (www.iucnredlist.org/details/22720438/0). There are two main populations of the Twite in Europe: in addition to the British and Irish race *L. f. pipilans* (above), nominate *L. f. flavirostris* breeds mainly along the west coast of Norway and winters in central Europe. A third subspecies, *L. f. bensonorum*, confined to the Outer Hebrides, is sometimes recognised (e.g. Eaton *et al.* 2015).

In the recent *Bird Atlas 2007–11* survey, the Twite was confirmed breeding in 6% of the 10-km survey squares in Britain & Ireland (8% of those in Britain, 1% of those in Ireland), which represents a range contraction of 29% (19% Britain, 80% Ireland) since



Fig. 1. Map showing the distribution of Twites *Linaria flavirostris* in Derbyshire, using records from the Derbyshire Ornithological Society. Records back to 1996 are plotted. Darker dots show more recent records and/or a concentration of older records. In short, the map shows the modern concentration around Peak Dale, more specifically Dove Holes, and also highlights many areas where birds formerly bred, but no longer do so (such as Edale).

the first national atlas in 1968–72 (Balmer *et al.* 2013). At a UK level, the Twite is Red-listed on the basis of severe population decline (Eaton *et al.* 2015). Although taxonomic status of, and gene flow between, different Twite populations is still unclear, especially in the north of the species' range, the need to monitor and conserve the remaining British and Irish Twites is clear, and it is understandable that there is particular interest in the small pockets of breeding birds that persist outside Scotland.

The historical status of the Twite in Derbyshire

The Twite has a special association with the Peak District since it was from specimens obtained there in the seventeenth century

that Francis Jessop of Sheffield was able to identify it as a distinct species (Seebohm 1884). At the end of the nineteenth century it was regarded as a regular breeding bird on the Derbyshire moorlands (Whitlock 1893).

Although there were rather few subsequent records, its status in the Derbyshire Peak District is believed to have changed little until the early 1950s. After 1950, however, it became distinctly scarce, with very few records until 1965, and breeding during that period was proven only at Edale, in 1958. From 1965, however, there was a marked increase in the numbers breeding and also in their regional distribution. In 1971, Noel Orford organised a survey of the Twite in central Britain on behalf of the BTO. He found that the principal breeding areas in the Peak District were on the northwestern moors between Glossop and Hayfield, on Combs Moss and the moors around the Cat and Fiddle (west of Buxton). On the eastern moors (which extend from Totley Moss to

Matlock), breeding was proved for the first time on Big Moor in 1971 (Orford 1973). During the 1970s much of the eastern moors area was further colonised by Twites, resulting in the largest flock ever recorded in the county: 400 birds on Big Moor in October 1973 (Frost 1978). A smaller breeding population also became established on moorland farther north, between Ringinglow Bog and the Derwent area, at around the same time.

The high population levels of the early 1970s were short-lived, however, and what turned into a long-term decline was already evident by the end of that decade. On the eastern moors breeding was last proved in 1990, with subsequent survey effort there, notably in 1998, 2004 and 2010, failing to find any breeding Twites. The small

population farther north has also disappeared. On the northwestern moors, a breeding bird survey organised by Derbyshire Ornithological Society (DOS) in 1995–99 found breeding Twites in just five tetrads, three of which were in the Kinder Scout area (DOS 2013). In a survey of the Peak District National Park moorlands in 2004, the species was found breeding in only two localities in Derbyshire, at Edale and Combs Moss. A mere ten pairs, in just seven 1-km squares, were found in the whole of the National Park (including areas beyond the Derbyshire border), compared with 136 pairs in 88 1-km squares in 1990 (Carr & Middleton 2004; Middleton 2007). There have been no subsequent records of breeding Twites on Derbyshire moorlands away from a few selected quarries in the Peak District.

Other than the more general literature on the birds of Derbyshire (Frost 1978; DOS 2013), the Derbyshire (or ‘South Peak’) breeding Twites have received little attention from researchers, who have focused instead on the main concentration of English-breeding Twite, in the Pennines – some 40 km to the north, in the area between Huddersfield, Halifax and Manchester. As in Derbyshire, however, there are now few annual records from many areas in the Pennines once favoured by Twites. Ringing totals

also chart a steady decline and while part of the reason may be a decrease in fieldwork effort, the decline is clearly real. For example, the once popular feeding site at Light Hazzles Reservoir, in Greater Manchester, held just 13 records of Twites in 2010 (Greater Manchester Bird Recording Group 2010). In short, the population decline and range contraction in north-central England is obvious, but quantifying the loss of remote and fragmented colonies from disparate data sources remains difficult (Raine *et al.* 2009; fig. 1).

The current status of Twite in Derbyshire

Since 1995 a small breeding population has been found in the limestone quarries in northwest Derbyshire (DOS 2013). Reports are confined to a small area between the villages of Peak Dale, Dove Holes and Chapel-en-le-Frith, with only occasional records from farther afield. This rural landscape is dominated by sheep-grazed farmland and limestone quarries, both active and disused. Although there are no confirmed breeding records from other parts of Derbyshire in recent years, other clues – such as reports of copulation and fledglings seen in late summer – are not infrequent. Contemporary records suggest that Twites nest in cavities on the rock face and since 1995 there are breeding-season



Peter Welch

192. Colour-ringed juvenile Twites *Linaria flavirostris*, Derbyshire, August 2015.

records from four separate quarries, with nesting believed to occur regularly in two, and probably three, of them (Frost 2008). Although Pennine birds have been recorded using quarries and scree slopes, nesting on the ground among vegetation (such as Heather *Calluna vulgaris*, Bracken *Pteridium aquilinum*, Purple Moor-grass *Molinia caerulea* and cottongrass *Eriophorum*) is more frequent and thought to be preferred.

Recent studies of Derbyshire Twites

Historically, birds ringed in Derbyshire have been recovered in the Wash, in Lincolnshire, Essex, Kent and Belgium, with one extraordinary recovery from the Italian Alps (Frost 1978; Wernham *et al.* 2002). A colour-ringing scheme was established in Derbyshire in 2015 to monitor exchange with other subpopulations as well as site fidelity of breeding and wintering birds (Dunning & Christmas in prep.). Food provisioning at two sites near Dove Holes allows the opportunity for ringing and subsequent resightings, while the feeders also provide a back-up for birds at the breeding sites when natural food availability is scarce (Raine 2004). Birds ringed in Derbyshire have been marked with a bright ('bubblegum') pink ring above a metal (BTO) ring on the left leg and a combination of two plain colours on the right.

Ringling effort at one of the Derbyshire sites in August–September 2015 resulted in the capture of 41 Twites; this, from mark-recapture analysis, translates into an estimate of 60 birds in the area. Most (21 of 23) birds caught in August were juveniles. Of the 41 birds marked, three juveniles were resighted during winter 2015/16 at Thornham Harbour, in north Norfolk (190 km ESE of the ringing site). Several birds ringed during autumn 2015 in the West Pennines were recorded in the same wintering flock. The same flock relocated to Dunwich, Suffolk, later that winter.

Movements of marked birds among the various colonies and feeding stations in the Pennines show that dispersal in the post-fledging period was <5 km in 65% of nestlings marked; movements of >40 km, the distance to northwest Derbyshire, represented <5% of movements (Raine *et al.* 2006a,b). There are no records of marked birds moving between the Derbyshire and Pennine study areas during the breeding season from the recent colour-ringing work, and there is no evidence (anecdotal or otherwise) of such interchange from earlier work. However, in spring 2016, four Twites from the Pennine group were subsequently controlled at the Derbyshire site. Of these four, one was known to have overwintered in the Pennines (ringed in November



Peter Welch

193. One of the limestone quarries in northwest Derbyshire that currently support the only breeding Twites *Linaria flavirostris* in the Derbyshire Peak District (see text); April 2016.



Peter Welch

194. Twites *Linaria flavirostris*, Derbyshire, September 2015.

2015) and subsequently relocated to Derbyshire in January/February 2016. Two individuals, ringed at Owlery Clough in October 2014, were reported together in Derbyshire in April 2016; it is not known where these two spent the intervening period. The fourth bird, ringed in September 2014, spent the 2015/16 winter on the east coast, first at Thornham, then at Dunwich from mid December, in a flock that also contained two birds ringed in Derbyshire. This individual subsequently appeared at the Derbyshire study site along with the two local colour-ringed birds with which it shared winter territory. This observation shows that even though the Derbyshire Twites are now largely isolated from the Pennine birds in the breeding season, interchange between the two groups in the winter may provide some hope for the recolonisation of sites farther north in Derbyshire.

At the time of writing, 15 of the 41 birds ringed in Derbyshire in 2015 have returned to the study site (including the Norfolk birds). In addition, one second-calendar-year bird ringed in Derbyshire in March 2016 was subsequently reported at Nant Ffrancon, in Snowdonia (per K. Jones). This bird's origin is unknown, but this could represent a small passage through the area.

These observations show that north Derbyshire is clearly an important area for Twites, in terms of breeding, wintering and potentially migration. Continued study of the remnant breeding population in Derbyshire will hope-

fully provide more information on Twites in the county, and highlight any potential conservation initiatives.

Acknowledgments

The Twite Recovery Project is run and funded as a joint venture by the RSPB and Natural England which, together with farmers and landowners, continue to restore in-bye land within 2.5 ha of each of the Twite colonies to provide foraging habitat whilst the birds are in the South Pennines. In this area, the RSPB has a corporate relationship with CEMEX, which in addition to active quarrying, owns the mineral rights to much of the surrounding area utilised by breeding Twites.

We thank the Twite Network, RSPB, Natural England, BTO, CEMEX and the DOS for continued support of colour-ringing efforts in Derbyshire and beyond; all the ringers and observers involved in the project, most notably George Hudson and Peter Welch; and Andy Brown, Mike Denton, Bethan Roberts and anonymous reviewers for their comments on the draft manuscript.

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Rarities Committee news

News from the BBRC AGM

The recent BBRC AGM, held at the British Museum of Natural History, Tring, in April, saw many subjects debated, discussed and tasks allocated. The following may be of interest to readers.

- The status of several species currently on the BBRC list was reviewed. Three species in particular were analysed with a view to their potential removal. Black-winged Stilt *Himantopus himantopus*, Red-flanked Bluetail *Tarsiger cyanurus* and Two-barred Crossbill *Loxia leucoptera* all fulfil at least one of the criteria for removal, but the Committee felt that any decision should be deferred at least another year to see if current trends continue. Two-barred Crossbill was also noted to be irruptive and subject to occasional influxes, while in other years it is incredibly rare. Conversely, ‘Black Brant’ *Branta bernicla nigricans* and Ferruginous Duck *Aythya nyroca* are both on the cusp of a return to the BBRC list. However, we felt that the true picture of Black Brant in particular was not being portrayed accurately at the moment, and again it was decided to wait another year at least for more data to be forthcoming. The Scarce Migrants Report in *BB* is vital to our further understanding of the occurrence of these species/subspecies, and forms the basis of our decisions.
- ‘Coues’s Arctic Redpoll’ *Acanthis hornemanni exilipes* has somehow slipped under the BBRC radar for a few years, but this taxon now comfortably fulfils the criteria for a national rarity. We now have a situation where both subspecies of Arctic Redpoll are treated by BBRC, but claims which cannot be considered at a subspecies level will continue to be dealt with by the relevant regional or county committee (see also Stoddart 2016, *Brit. Birds* 109: 46–58).
- It was also recognised that some species which have recently been removed from the BBRC list may prove problematic to some county records committees, with Blyth’s Reed Warbler *Acrocephalus dumetorum* in particular raising concerns. County and regional rarities committees are reminded that BBRC will always help out with requests for assistance on difficult species that were national rarities until recently.

- The recent elevation of Cackling Goose *Branta hutchinsii* as a full species on the British List will see a surge of accepted records of this taxon. However, it is also recognised that some individuals are impossible to separate from Canada Goose *B. canadensis* on field views alone. Consequently, BBRC has added Cackling/Canada Goose to the list of 'either/or' species that it will consider and publish. It should be noted that only records of those individuals that are considered to be of wild origin will be published. A paper on Cackling Geese is currently in preparation.
- Flyover records have always been problematic, and this has unsurprisingly been a topic of concern following the reinstatement of Red-throated Pipit *Anthus cervinus* as a national rarity. BBRC policy has not changed and the criteria remain that the call has to be heard at least three times and that the bird has to be seen to have been of the correct size, shape and preferably genus. It was also recognised that more people are now making sound recordings, and it is only a matter of time before a rarity is recorded without being seen. BBRC will assess such records on a case-by-case basis.

For further information on any of the topics discussed above, please contact Paul French, chair@bbrc.org.uk

New Secretary for BBRC

After ten years of dedicated service, Nigel Hudson has decided that it's finally time to fully enjoy his retirement on the Isles of Scilly. He has brought an incredible wealth of knowledge and expertise to the role of secretary and will be sorely missed. However, his departure will be a protracted one and he will be able to help with the training of a new secretary. Consequently, we are advertising now for potential candidates to come forward and learn more about the role from Nigel before taking over fully at a date to be agreed upon. Since BBRC's work is now wholly computerised, the candidate should have significant experience of IT, be familiar in particular with Excel spreadsheets, and ideally with database and website management. They should also be well organised, self-motivated and able to work well in a team. Communication skills are also essential, as is an ability to handle confidential data submissions appropriately. We welcome any expressions of interest in this role, which has a monthly stipend that is adequate but unfortunately does not match the skills or endeavour that the post requires. All enquiries should be directed to chair@bbrc.org.uk

New voting member for BBRC

Chris Bradshaw has completed his ten years of service as a voting member of BBRC, and we are looking for nominations to fill the vacancy. There is no BBRC candidate this year and we welcome nominations from across the UK, but would be especially interested in hearing from candidates in southern England. Nominations should be sent to chair@bbrc.org.uk before 30th June 2016, with the names of a proposer and seconder, a brief summary of the nominee's experience and the written agreement of the nominee. After this date, if we have received multiple nominations, a voting slip and list of candidates with relevant details will be sent to all county recorders and bird observatory wardens for an election, as per section 2.2.3 of our constitution (see www.bbrc.org.uk/constitution).

The prime qualifications of candidates include:

- birding credibility, including a widely acknowledged expertise in identification and proven reliability in the field
- a track record of high-quality submissions to county records committees and BBRC, and some experience of record assessment
- an ability to work efficiently, the capacity to assess upwards of 700 records per year and easy access to the internet



BBRC

British Birds Rarities Committee



BBRC is sponsored by Carl Zeiss Ltd and the RSPB

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Notes

Numbers of Balearic Shearwaters passing through west Lyme Bay, Devon, in 2006–2015

Recently, there has been much focus on the Balearic Shearwater *Puffinus mauretanicus* in a UK context. The species is Critically Endangered because of a declining breeding population and was placed on the BoCC4 Red list, as a regular and apparently increasing visitor, especially to the coastal waters of southwest England (Wynn & Yésou 2007; Wynn 2009; Arcos 2011; Eaton *et al.* 2015). Yet the numbers observed in UK waters have been particularly high during three of the past five years, as this note demonstrates for one key area. The SeaWatch SW project provided the opportunity for more systematic seawatching observations, and as part of that project I monitored birds passing through west Lyme Bay, Devon, using either the vantage points of Berry Head or Start Point, both prior, during and after the project finished. This note presents a brief summary of counts from west Lyme Bay (WLB) during 2006–15, showing the pattern of seasonal occurrence and some evidence that numbers are increasing.

Lyme Bay stretches from Portland Bill in

the east to Start Point in the west (see fig. 1 in Darlston & Wynn 2012). The bay acts as both a feeding area and a catchment for seabirds during onshore winds. Berry Head and Start Point are on the west side of Lyme Bay and rank among the best headlands in Devon and the UK for seeing Balearic Shearwaters, feeding and moving through in a south or southwest direction.

It is difficult to evaluate older records of Balearic Shearwater from the area, given that Balearic and Manx Shearwaters *P. puffinus* were separated only in 1991 (Sangster *et al.* 2002). Nonetheless, in the 1990s, observed passage counts were modest, and a double-figure day total was notable; 78 on 6th September 1998 was a record passage at the time. The first substantiated three-figure count was logged in 2006: 102 on 13th September. New day-total records for Devon were 109 on 16th August 2008 and 145 on 2nd September 2009 before the then-record year of 2011 and a new record of 383 on 12th September (Darlston & Wynn 2012). Since 2011, day-counts of 100+ have been achieved in all



Mark Darlston

195. Balearic Shearwater *Puffinus mauretanicus*, west Lyme Bay, Dorset, August 2013.

Table 1. Number of hours spent watching and number of Balearic Shearwaters *Puffinus mauretanicus* recorded, west Lyme Bay, all months 2006–15.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	total
no. hours	135	123	332	299	181	234	240	135	231	262	2,172
no. birds	372	141	701	489	366	1,525	690	1,037	690	2,037	8,048

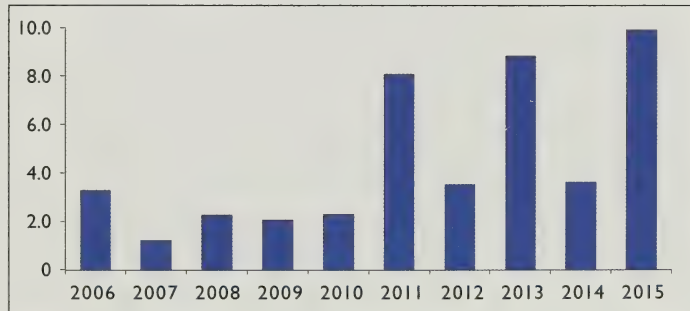
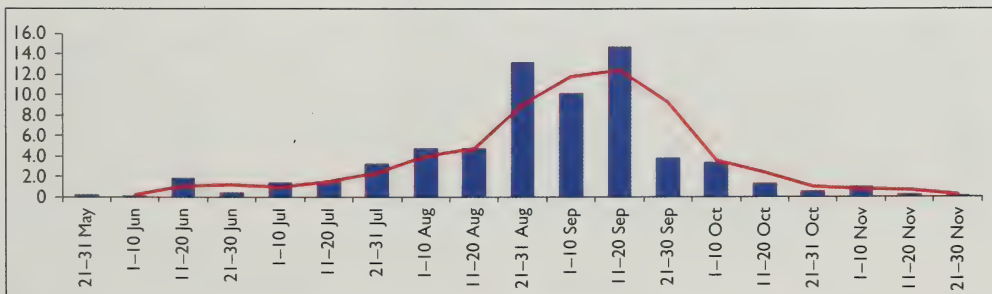
subsequent years, with the record broken twice in August 2015 – 406 on 21st and then 528 on 26th – in both cases involving birds moving southwest at Start Point and leaving the bay. While day-counts of 100+ in WLB have occurred from late July to early October, most (91%) are in August and September, with the majority (68%) between 21st August and 20th September.

These increasing numbers could be related to greater observer effort, yet this seems not to be the case. The data presented below are based on 2,172 hours of seawatching during 2006–15, resulting in a total of 8,048 Balearic Shearwater sightings (table 1). To correct for effort, the units are Balearic Shearwaters seen per hour (hence even watches where no sightings are made are included). Most watches were carried out as a single observer or accompanied by other key local watchers (see acknowledgments) and generally in optimum conditions, with some onshore wind (westerly through to easterly; that between southwest and southeast is the best) and avoiding sunny days (glare makes separation from Manx Shearwater less straightforward).

Fig. 1. shows the seasonal trend in WLB, and clearly illustrates the peak period from late August to

mid September. While the species has been recorded in every month, numbers are very small and sightings infrequent outwith mid June to mid November. Peak counts from key sites elsewhere in the southwest, other than at Portland, tend to be somewhat later than in WLB; some of the larger counts in west Cornwall, for example, are in October (such as a personal count of 420 from Pendeen Watch on 21st October 2014).

Fig. 2 shows the overall mean numbers of sightings per hour through WLB during 2006–15. Following five moderate years in 2006–10, with a range of 1.2–3.3 birds/hr, the next five years featured three years with very high numbers: 8.1 birds/hr in 2011, followed by 8.8 in 2013 and 9.9 in 2015. Even in the intervening years, rates were still higher than in any year during 2006–10 (3.5 and 3.6 birds/hr respectively).

**Fig. 2.** Numbers of Balearic Shearwaters *Puffinus mauretanicus* (annual mean number of birds/hr) passing through west Lyme Bay, June–November 2006–15.**Fig. 1.** Seasonal pattern of Balearic Shearwater *Puffinus mauretanicus* movement (measured in birds/hr) through west Lyme Bay, 2006–15. Data show means for each 10-/11-day period.

The variation shown in fig. 2 is striking and begs the question whether the three years with large numbers of sightings indicate a genuine shift in distribution or increasing numbers in the English Channel – or whether they simply reflect particular weather patterns and feeding conditions. Darlston & Wynn (2012) described the 2011 event, and there were some similarities to that year in the record counts of 2015 (albeit without the sea conditions that retained large congregations of feeding birds over several days in that year). It is now possible to predict the arrival of good numbers of Balearics in WLB if large numbers are reported off the coast of Brittany, followed by south or southwest winds through the western English Channel. On 18th August 2015, a large count of around 3,300 Balearic Shearwaters was reported in the Bay of St Brieuc (Laurent Thebault pers. comm.). Atlantic low-pressure systems moving through the Channel gave a run of south to southwest winds, and the following counts of Balearic Shearwaters were made in WLB: 107 in 10 hours on 19th August then 406 in 11 hours on 21st. Winds then eased, before another low moving through produced 181 in 12 hours on 25th, followed by SSW winds on 26th which saw 528 birds in just 4.5 hours. A further three days with counts of 100+ were recorded into September, before numbers tailed off. It appears that Lyme Bay is on a perfect trajectory for birds hopping the Channel from the French side. Whether

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some of these birds circulate back towards the French coast, move on southwest down the Channel to Cornwall to enter the Celtic sea, or recirculate in Lyme Bay is open to question. It is possible that the reality is a combination of all three scenarios and more.

Continued monitoring should reveal whether the numbers observed in the past five years do constitute a genuine increase, or whether counts revert to levels more similar to those in 2006–10.

Acknowledgments

Thanks to many observers who I have had the pleasure to watch with (mainly on Berry Head), in particular Mike Langman, Bill MacDonald and Adele Rennells, who have kept me company and helped with recording on many seawatches. I also thank the owners of private land at Start Point for allowing me access and parking.

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Foraging and feeding habits of Audouin's Gulls in the Balearic Islands

During a week-long visit to Menorca in May 2015, up to four Audouin's Gulls *Larus audouinii* were a daily feature along the beach and rocky coastline at the resort of Santo Tomas. The birds would regularly swoop in for discarded food items left by beach-goers. Such scavenging appeared to be typical behaviour for these birds, which were usually the first gulls on the scene. These encounters recalled similar behaviour during a previous visit to Mallorca, in May 2009.

While this is common behaviour for many gulls, it seems that it is not necessarily the norm for Audouin's Gull, and is poorly documented. For example, BWP mentions that the species will infrequently visit seaside resorts or marinas, where scattering of food on the shore may even prove a successful lure. This same statement seems to be reiterated in several online resources with no more up-to-date information offered.

Much research has been undertaken on

the foraging strategies of Audouin's Gull (see for example Christel *et al.* 2012). Although the species is still largely regarded as a pelagic feeder, it seems that terrestrial feeding is becoming more frequent, including exploiting the abundant (introduced) North American Red Swamp Crayfish *Procambarus clarkia* in the rice fields around the Ebro Delta, in eastern Spain (which supports around two-thirds of the global population). Is this species really diversifying its feeding habits, perhaps in response to changes in fishing practices and the availability of

certain food resources? Or is this apparent greater adaptability simply a function of an increasing population and the fact that many more birdwatchers are enjoying watching Audouin's Gulls than was possible for much of the twentieth century?

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Iris colour of Green Woodpecker

Plates 196 & 197 show a male Green Woodpecker *Picus viridis*, which I photographed in my garden in Gloucestershire in June 2015. The left eye has the normal whitish iris colour for an adult Green Woodpecker but the right eye shows a dark, chestnut-brown iris. The iris of a juvenile Green Woodpecker is typically somewhat darker than that of an adult (described in *BWP* as grey, pearl grey or greyish-white; and by Baker 1993 as grey-brown), but such a marked difference between the eyes of an individual seems most unusual, and I can find no published reference to it. A post on the RSPB website (www.rspb.org.uk/community/wildlife/f/13609/t/108468.aspx) illustrates another bird with markedly different-coloured eyes. Is this phenomenon commoner in Green Woodpeckers than generally realised, and if so why does it occur?

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196 & 197. Male Green Woodpecker *Picus viridis*, Gloucestershire, June 2015.

Stonechat post-breeding groups in north Norfolk

We read with interest the recent paper on breeding European Stonechats *Saxicola rubicola* in Cumbria (Callion 2015), in particular the section on 'Juvenile dispersal and moulting groups'. We thought it might be interesting to compare the groups described in Cumbria with some observations of post-breeding Stonechat groups in north Norfolk.

On the north Norfolk coast, Kelling Hard and Weybourne Camp generally support one or two pairs of breeding Stonechats and a small number of birds also regularly overwinter, generally in pairs or as single birds. During the period 2008–13, MN visited this area regularly though not systematically, and in late summer and throughout autumn often encountered large parties of Stonechats. Up to eight birds in a single group were observed, but these parties were often fluid and actively roaming over a wide area. Smaller groups, of 4–6 birds, were more usual, but a greater number of Stonechats could frequently be found in total over the area as a whole. Since large parts of the area are private land, the whole of it could not be covered comprehensively, so numbers may have been greater than those observed on any given date.

In the absence of a colour-ringing programme, it might have been assumed that these Stonechat groups consisted solely of the

local adults and young birds raised on site. Fortunately, a Stonechat colour-ringing project was undertaken in north Norfolk during 2009–12, led by NE and initially centred on Kelling Heath, which is approximately 1.6 km inland from the coast to the south of the area visited (fig. 1). That project was subsequently expanded to include Weybourne Camp from 2010 and also encompassed occasional other pairs or wandering birds along neighbouring parts of the north Norfolk coast.

The north Norfolk colour-ringing project was not as extensive in area or scope as the Cumbrian study, and continued only for a short period. This somewhat limits the ability to draw extensive conclusions from the more limited number of resightings. However, observations of colour-ringed birds in 2012 confirmed that the post-breeding groups seen around Kelling Hard and Weybourne Camp included young birds raised both inland on Kelling Heath and from a nest at Arnold's Marsh, Cley (3.8 km to the west along the coast). In other years, the groups generally consisted of a majority of unringed birds or juveniles of uncertain origin ringed post-fledging on the coast.

In total, MN saw eight colour-ringed birds at Kelling Hard/Weybourne Camp in 2012: four 'local' adults (a breeding pair and two other males that had held territory in the immediate area during the summer but had not attracted a mate) and four juvenile/first-winter birds. Three of the latter were raised on Kelling Heath while the fourth was from Arnold's Marsh. In addition, another colour-ringed juvenile from Arnold's Marsh (a sibling from the same brood) was recorded earlier in the summer on several dates by another observer. The young raised on the site in 2012 were not colour-ringed in the nest and several other unringed birds of uncertain origin, including both juveniles and adult-types



Fig. 1. Map of the main European Stonechat *Saxicola rubicola* ringing and observation areas. KHa = Kelling Hard, KHe = Kelling Heath, AM = Arnold's Marsh, WC = Weybourne Camp. Imagery ©2016 Getmapping plc, DigitalGlobe, Landsat, Data SIO, NOAA, US Navy, NGA, GEBCO. Map data ©2016 Google.



Marcus Nash

198. Colour-ringed male European Stonechat *Saxicola rubicola*, Kelling Hard, June 2013. Originally ringed as a juvenile post-fledging at Weybourne Camp in September 2012.

(adults or birds of the year that had undergone post-juvenile moult, hereafter referred to as first-winters), were also seen. The only confirmed adults, which were identifiable from their rings, were all 'local' birds and no colour-ringed adult from any of the other sites was seen here at this time.

Mixed groups of Stonechats were observed from 5th August to 9th October in 2012, with one or two birds then remaining on and off through to the end of the year, though they were not the same individuals throughout. From 15th November onwards, just the breeding male together with an unringed female (which was therefore not the breeding female) were seen. The largest group observed at the site during 2012, of eight Stonechats on 2nd October, consisted of two 'local' colour-ringed adult males (the successful breeder and one of the other territorial males), a colour-ringed first-winter raised on Kelling Heath, a colour-ringed first-winter fledged at Arnold's Marsh, two unringed and unaged birds (first-winter or adult) and two unringed juveniles.

As previously mentioned, the groups were fluid and larger or smaller groups were

observed from one visit to the next. The make-up of the individual subgroups changed between visits. Colour-ringed birds seemed to remain in the area for a variable period, but were not necessarily recorded as present on every visit (owing to the lack of comprehensive coverage). It is also possible that individual birds wandered along the coast, rather than remaining in the immediate area the whole time.

It is interesting to compare some aspects of the post-breeding groups seen in Norfolk with those in Cumbria. The Cumbrian groups were located 'on the coast, away from nesting territories' whereas the groups observed in Norfolk were on the coast in an area where there were breeding territories. The Cumbrian groups were 'exclusively juveniles' whereas, in 2012 at least, colour-ringing allowed the identification of mixed groups in Norfolk that included adults and unrelated juveniles/first-winters. The Cumbrian groups consisted of moulting juveniles whereas the Norfolk groups included at times both moulting juveniles and colour-ringed first-winter birds that appeared to have completed their post-juvenile moult. The arrival

of new first-winters to join the Norfolk groups, having apparently (largely) completed their post-juvenile moult, suggests that these groups were not directly related to the process of moulting.

The timing of observation of the Norfolk groups also differs somewhat from that of those seen in Cumbria, where they were recorded 'in late July and throughout August'. During 2008–13, MN made relatively few visits during July and early August, but groups of Stonechats were observed regularly from mid August to mid October, and even into early November in 2008.

One of the most interesting observations regarding the Cumbrian groups was 'that there were never any siblings among the colour-ringed groups'. It was suggested that this could be a way of avoiding inbreeding, if pair formation occurred in such post-breeding groups. The presence of siblings together in the Norfolk groups was suspected on two occasions in 2012 but could unfortunately not be confirmed. In the first instance, while two siblings from the same brood on Kelling Heath had been seen separately at the site during different periods over the

previous two months, there was a question over whether the ring colours had been noted correctly when two were apparently seen together. The second instance was due to a duplicate combination, used on a juvenile at Kelling Heath and an adult at a different site. A bird bearing that combination present during mid September and undergoing its post-juvenile moult could only have been the individual from Kelling Heath. However, when the same combination was observed on a bird present in early October, it had completed its moult and its identity could not be confirmed beyond doubt. At that stage, it was in the company of what may well have been its sibling from an earlier brood.

The occurrence of groups of juvenile Stonechats is well known. Cramp (1988) stated: 'During breeding season, parties of independent juveniles form wandering groups (c. 5–10) between territories (P. W. Greig-Smith)'. Urquhart (2002) quoted the same source and goes on to suggest that these groups are found 'sometimes briefly in association with apparently unmated Common Stonechats or even Whinchats [*S. rubetra*]'. Urquhart also suggested that males will



Marcus Nash

199. Colour-ringed female European Stonechat *Saxicola rubicola*, Kelling Heath, August 2013. Originally ringed as a nestling on Kelling Heath in May 2012.

occasionally 'adopt' unrelated juveniles while still looking after their own young after fledging, citing colour-ringing studies in Aberdeenshire. In addition, he noted observations in Germany 'from mid June that unpaired males cease singing and "adopt" independent juveniles from neighbouring territories'. Similarly, the groups in Norfolk in 2012 sometimes included the 'local' males together with a mixture of juveniles, which could possibly be interpreted as reflecting such 'adoptive' behaviour. The resident breeding male was seen with unrelated colour-ringed young birds on at least one occasion, but since its own juveniles were unringed it was not possible to say whether these formed part of the group. The local breeding female was not seen in any group with colour-ringed juveniles/first-winters during this period but was seen several times separately with unringed juveniles that were assumed to be her own progeny. While observations of one of the unmated territorial males with an unrelated juvenile from Kelling Heath during August could possibly be said to conform to the description of 'adoption' given by Urquhart, the presence of both unmated males on one date suggests otherwise. Similarly, the presence of both the local breeding male and one of the local unmated territorial males in the group with at least two unrelated first-winters on 2nd October would suggest this does not reflect 'adoption' as described by Urquhart.

In some respects the groups of Stonechats seen in Norfolk appear similar to the dispersal and moulting groups in Cumbria described by Callion. However, they clearly differ in many respects as described above, most notably in the presence of adults together with assorted juveniles/first-winters. The presence of the local breeding male in at least one mixed group seems particularly unusual. The later timing of the Norfolk groups may influence their structure and location. At the end of the breeding season, the defence of breeding territories ceases, at which point the adults may be more likely to join groups and the groups may be able to build at locations where territories had been

held during the breeding season. According to Urquhart, winter territories are established from around mid to late September in the UK, with occupation completed by late October or early November. The timing of the Norfolk groups seems to coincide with the period before winter territories are fully established. Similarly, if the defence of breeding territories has ceased, the concept of 'adoption' may not be required to explain mixed groups of adults and unrelated young birds in these areas.

Whether these groups serve any particular function, beyond that of increased vigilance and associated protection from predators, is unclear. Based on observations in Norfolk at least, it seems that the groups there are not solely associations of birds seeking additional protection while undergoing post-juvenile moult and do not reflect some sort of 'adoptive' behaviour by local adults. Furthermore, while it cannot be proven beyond doubt that siblings have occurred in the Norfolk groups, it seems highly likely that this does occur, suggesting that the groups do not serve as an effective means to avoid inbreeding. It may be that post-breeding Stonechat groups have a different structure at different stages of the season and in different local situations. They may serve different functions accordingly or it could simply be that they are just inherently transient associations reflecting which birds are present in the area at the time.

Acknowledgments

We are very grateful to John Callion not only for all his work studying Stonechats in Cumbria and producing such a detailed paper, which was the inspiration to write this response, but also for providing additional feedback on the Cumbrian groups in answer to our questions. We would also like to thank Moss Taylor for all his work on the Stonechat colour-ringing project in north Norfolk and for checking through this note.

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Letters

Early field guides

In the light of Nigel Redman's *BB eye* (*Brit. Birds* 108: 558–560) and Bill Bourne's recent letter (*Brit. Birds* 109: 123), an early attempt at a field guide that I possess may be of interest. It comprises two octavo volumes in a neat, contemporary rebinding of Thomas Bewick's *Figures of British Land Birds* (1800) with George Montagu's *Ornithological Dictionary or Alphabetical Synopsis of British Birds* (Vols. 1 & 2, 1802). Bewick's illustrations (wood engravings) are placed opposite Montagu's descriptions wherever possible. Vol. I covers 'Auks' to 'Lunda' [Puffin *Fratercula arctica*] and Vol. II 'Magpie' to 'Yelper' [*Avocet Recurvirostra avosetta*].

Bewick's illustrations of waterbirds first
Nigel Palk, 4 East Lawn, Ipswich IP4 3LH

In modern fashion, a 'field guide' has to offer both text and illustration. It takes an unusual author to leave out the latter requirement successfully. In 2010, Nils van Duivendijk did so by introducing meticulous character comparisons within the text of his *Advanced Bird ID Guide*. I feel obliged, however, to recall the similar service to 'dark age' observers (like me) of the *Guide to the Birds of Europe and North Africa* (1923). It was conceived by Colonel R. G. Wardlaw Ramsay as 'a great desideratum', written to draft manuscript stage by him and in 1921 handed across his death bed to W. Eagle Clarke. The Colonel's last words on it were 'publish it or not as you think best'.

This concise pocket book was finished by Surgeon Rear Admiral J. H. Stenhouse (who followed Eagle Clarke as an early Fair Isle

appeared in Volume II of *A History of British Birds*, in 1804; since these are not included, and the volumes have fine contemporary bindings with spines inscribed 'Newcastle 1800' and 'Newcastle 1802', my personal conclusion is that they were bound between 1802 and 1805. Two octavo volumes is hardly a 'field guide' but the fact that someone was prepared to have these two volumes so beautifully integrated and bound was surely a realisation that it made sense to have the illustrations close to the text, and this expensive project (leather bound, with gold tooling, and 12 hand-coloured figures of eggs in addition to the other illustrations) was an early step towards the modern field guide.

stalwart) and published by Gurney & Jackson two years later. Wardlaw Ramsay was an upper-class soldier/ornithologist from the latish British Imperial mould and, as a handy 'database', had inherited the vast skin collection and library of his uncle, the Marquess of Tweeddale.

I owe Dougal Andrew for the advice that 'Wardlaw Ramsay' should be in my National Service kitbag. In 1952 I found a third-hand copy and in the following decade it served me well in places as far apart as Malta, Kenya, Lapland, Spain and Jordan. Even now, in its 93rd year, I still value it as a quick reference to obvious races and above all for its potted biometrics (in mm). The last remain lamentably absent from today's 'light-age' field guides – and the quest for the ultimate 'one stop' identification book continues...

D. I. M. Wallace, Mount Pleasant Farm, Main Road, Anslow, Burton-on-Trent DE13 9QE

Reviews

Lines from Nature

By John Busby

Langford Press, 2016

Hbk, 191pp, many colour images

ISBN 978-1-904078-61-6

RRP £38, *BB Bookshop* price £34.99 if you quote BB-LN

This book is a collection of images by well-known wildlife artist John Busby, from across his working life and accompanied by his own narrative. It's a bit of a travelogue in celebration of his work as he takes us to places and times where inspiration grabbed him, be it the Bass Rock and its Northern Gannets, or Tigers in India. There is not much text devoted to technique or about drawing – the work pretty much speaks for itself – but reminiscences of places and times, notes on observations and motivations.

The characteristic 'Busby' is an economy of both line and colour, using a rather thick, soft pencil on textured paper, often with a simple watercolour wash or crayon finish: instantly recognisable. He also had a lovely eye for colour combinations, but it was his ability to capture movement so beautifully that sets his work apart. The development of such skills comes only from continual practice, which sharpens the eye and trains the memory, enabling rapid renderings of the briefest moments in time. Just look at the retreating Otter at the top of p. 23 or

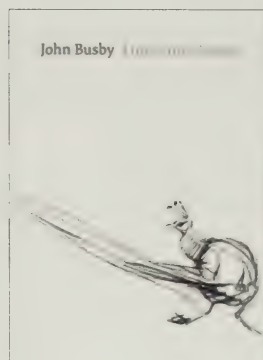
the Fox and Hare studies on pp. 150–155. There are several works featuring rock pools in both watercolour and oils, an aspect of his work new to me.

Sadly, John died just as this book was nearing publication, so it has become a celebration to his talent, and I like the relaxed atmosphere of the book as John describes some of his favourite places and events from which his art has been inspired.

John Busby was undoubtedly a master. He remains hugely influential to the growing band of young, observational field artists, which is currently blossoming. He taught art and many have benefited from his expert guidance.

I don't see how anyone could be anything other than delighted and enthralled as they browse through this book – it's absolutely wonderful!

Alan Harris



An Overview of Migrant Marine and Coastal Birds: synthesis and analysis of recent data

Edited by F. Caloin

Biotope éditions, 2015

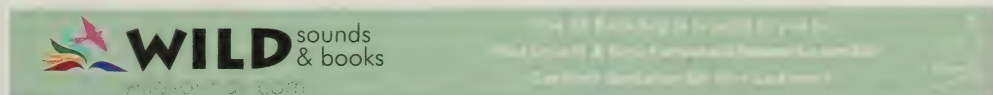
Pbk, 204pp; many colour photographs, charts and maps

ISBN 978-2-36662-133-4

Available free online in English and French at www.parc-opale.fr/en/documentheque/425/view/55/ouvrages-specialises/25/an-overview-of-migrant-marine-and-coastal-birds

Although not apparent from the title, this publication reviews bird migration in the Pas-de-Calais and Nord regions of northwest France, focusing principally on the data gained from ringing, and from seawatching at Cap Gris Nez and Le Clipon at Dunkirk. Introductory sections explain the aims of the book, and are followed by the species accounts; these analyse data on 59 species of seabirds, wildfowl and waders that are commonly

seen migrating by day, and 47 nocturnal migrants – all but two being passerines – where the accounts are based principally on ringing data. For each species, English, French, Dutch and scientific names are given and a banner shows the main occurrence periods. For 11 scarce but regular migrants, a brief note and a single photograph are included. Seabird numbers recorded, primarily at Cap Gris Nez, are given, and although the



numbers are not explained these appear to relate to the potential range recorded in spring and autumn. The equivalent data for landbirds is the number ringed annually in Nord/Pas-de-Calais.

The choice of species included was limited by space considerations. Generally, each species account covers a double-page spread, but a few are dealt with as two to a spread. Species accounts describe the main breeding, migration and wintering areas, often with a map of northwest Europe showing either ringing recoveries or the broad directions of migration. Accounts of winter movements and spring migration are combined into one section, with another section describing autumn migration. For most species these sections are usually supported by graphs depicting seasonal abundance for the two periods, but for a number of species, the graphs also show a comparison, usually for spring, with Dungeness in Kent. The species accounts also include information on relevant bird directives, protected status, and status in the region and nationally.

This publication is copiously illustrated with photographs, mostly taken in the region. Those of

the migrating seabirds and wildfowl are almost all first class; that of a Sooty Shearwater *Puffinus griseus* flying down-Channel with the white cliffs of Dover in the background is particularly evocative. Landbird photographs are mostly of birds in the hand and in many cases chosen to illustrate particular identification features.

The editors and the many supporting organisations are to be congratulated for pulling together such a wealth of disparate information about which very little has previously been published. Crucially, some of that support has been financial, notably from the Regional National Park (a lesson there, one might hope, for those holding the purse strings in the UK). Perhaps most importantly, it may provide the necessary spur for collaboration in the proposed rigorous collection of data from both sides of the English Channel (see *Brit. Birds* 108: 505), which can form the basis for continued monitoring of the many species from a wide area of Europe that funnel through this region.

Peter Oliver

Recent reports

Compiled by Barry Nightingale and Harry Hussey

This summary of unchecked reports covers early April to early May 2016.

Headlines There were some eye-catching Nearctic landbirds in the period – a Belted Kingfisher briefly in Co. Derry, a Rose-breasted Grosbeak on a feeder in Shetland and a White-crowned Sparrow trapped in Cheshire & Wirral – while from the opposite direction came three short-staying Alpine Accentors and an Eastern Bonelli's Warbler on the Isle of Man. A Dalmatian Pelican in Cornwall and a Great Bustard in off the sea in Kent were among the more unexpected non-passerines, while a Pied-billed Grebe in Argyll, a brief Lesser Kestrel in Kent and a Pallid Harrier in Gloucestershire were also notable. In addition, there was a widespread arrival of some Mediterranean species, including Purple Heron, Black Kite, Black-winged Stilt, Kentish Plover, Red-footed Falcon, Woodchat Shrike and Red-rumped Swallow.

Cackling Goose *Branta hutchinsii* Islay (Argyll), 12th April, two 19th April. **American Wigeon** *Anas americana* Long-stayers in Co. Antrim and Sussex; also White's Marsh (Co. Cork), 20th April. **Black Duck** *Anas rubripes* Long-stayer, Strontian (Highland), 17th and 27th April. **Lesser Scaup** *Aythya affinis* Long-stayer, East Glamorgan to 2nd May; also Lochwinnoch (Clyde), 1st May. **King Eider** *Somateria spectabilis* Long-stayer, Largo Bay (Fife), to 21st April; Achiltibuie (Highland), 15th April to 7th May; Ythan Estuary (North-east Scotland), 18th April to 8th May. **Surf**

Scoter *Melanitta perspicillata* Records from Caernarfonshire (two), Lothian, Co. Mayo (four), Scilly and Yorkshire. **Bufflehead** *Bucephala albeola* Oban (Argyll), 16th April.

White-billed Diver *Gavia adamsii* Portsoy, seven, 21st April, then up to five to 1st May, one to 7th; also nine (from a boat) between Portsoy and Sandend (all North-east Scotland), 1st May; other records from Co. Donegal, Highland (two or three), Moray & Nairn (two), Orkney, Outer Hebrides (up to three), Shetland (two). **Dalmatian Pelican** *Pelecanus crispus*

In Cornwall, St Ives on 7th, Land's End 8th–9th and then Nanjizal 9th (having earlier been seen in Poland, Germany and eastern France).

Night Heron *Nycticorax nycticorax* Long Melford (Suffolk), 4th May; St Mary's (Scilly), 6th May. **Cattle Egret** *Bubulcus ibis* Long-stayers Cambridgeshire, Kent, Co. Sligo, Somerset and Co.

Wexford; presumed new arrivals in Clyde, Dorset, East Glamorgan (two), Hampshire, Norfolk, Suffolk and Sussex. **Purple Heron** *Ardea purpurea* Influx, with records from Buckinghamshire, Co. Cork, Devon (two or three), Essex, Kent (up to four), Norfolk (one or two) and Suffolk. **Black Stork** *Ciconia nigra* Leith Hill (Surrey), 28th April. **Glossy Ibis** *Plegadis falcinellus* Widely distributed in both Britain and Ireland, with records comprising a mixture of long-stayers and presumed new arrivals, or at least mobile birds. Sightings from Angus & Dundee, Co. Antrim, Berkshire, Cheshire & Wirral, Co. Cork, Devon, Dorset, Co. Dublin, Gloucestershire, Gwent, Kent, Co. Kerry, Lancashire & N Merseyside, Co. Limerick, Norfolk, Somerset, Sussex, Co. Wexford and Co. Wicklow. **Pied-billed Grebe** *Podilymbus podiceps* Loch Feorlin (Argyll), 6th–8th May.

Black Kite *Milvus migrans* Influx, with records from Cornwall, Dumfries & Galloway, Essex, Hampshire, Kent (numerous localities), Lincolnshire, Outer Hebrides and Sussex. **Pallid Harrier** *Circus macrourus* Marshfield (Gloucestershire), 12th April.

Great Bustard *Otis tarda* Samphire Hoe (Kent), 4th May. **Black-winged Stilt** *Himantopus himantopus* In April, records from Buckinghamshire (two), Kent, Somerset



Mark Dowie

200. Adult Dalmatian Pelican *Pelecanus crispus*, Sennen, Cornwall, May 2016. It remains to be seen whether this will be treated as the first British record, but it's a smart-looking bird...

(two) and Sussex. Then in May, ten Pulborough Brooks (Sussex) on 2nd, with either dispersing birds or other new arrivals in Dorset (two), Kent, Lincolnshire, Norfolk and Surrey (two). **American Golden Plover** *Pluvialis dominica* Angle Bay (Pembrokeshire), 29th April. **Kentish Plover** *Anarhynchus alexandrinus* A small influx, with records from Cornwall (two), Dorset (two or three), East Glamorgan and Greater Manchester. **Hudsonian Whimbrel** *Numenius hudsonicus* Marazion/Perranuthnoe (Cornwall), long-stayer to 8th May. **Broad-billed Sandpiper** *Calidris falcinellus* Newport Wetlands (Gwent), 22nd–23rd April; Marshside (Lancashire & N Merseyside), 8th May. **White-rumped Sandpiper** *Calidris fuscicollis* Walney Island (Cumbria), 3rd May. **Lesser Yellowlegs** *Tringa flavipes* Islay, 2nd–8th May; Lady's Island Lake 5th–6th May, then Tacumshin (Co. Wexford) on 6th; Ythan Estuary, 7th–8th May. **Long-billed Dowitcher** *Limnodromus scolopaceus* Long-stayers Keyhaven/Pennington Marshes (Hampshire), to 28th April; Cresswell Pond/Druridge Pools (Northumberland), to 27th April; Sandwich Bay (Kent), to 12th April.

Whiskered Tern *Chlidonias hybrida* Ham Wall (Somerset), 5th May; Long Eaton GP (Derbyshire), two, 6th May; Attenborough (Nottinghamshire), two, 6th May; Sandbach Flashes



201. Iberian Chiffchaff *Phylloscopus ibericus*, Telford, Shropshire, April 2016. A sound recording of this bird is available at <http://ebird.org/ebird/view/checklist?subID=S28974085>

(Cheshire & Wirral), two, 7th May; Keyhaven Marshes (Hampshire), two, 7th May; Severn Estuary (Gloucestershire), two, 8th May; Saltholme (Cleveland), two, 8th–9th May. **Bonaparte's Gull** *Chroicocephalus philadelphia* Long-stayers Bowling Green Marsh (Devon), to 16th April, and Cardiff Bay Wetlands (East Glamorgan), again 19th April; also Tacumshin, 23rd–30th April. **American Herring Gull** *Larus smithsonianus* Two long-stayers in Cornwall – Drift Resr to 2nd May; St Just area to 21st April; another on Barra (Outer Hebrides), to 22nd April. **Glaucous-winged Gull** *Larus glaucescens* Castletownbere (Co. Cork), long-stayer to 2nd May.

Oriental Turtle Dove *Streptopelia orientalis* Long-stayer Otford (Kent), to 9th May. **Snowy Owl** *Bubo scandiacus* Long-stayer Kenidjack, 15th April, then Bartinney Downs (Cornwall), 17th, same Tresco/Bryher (Scilly), 18th April to 8th May. **Alpine Swift** *Apus melba* Kingsdown (Kent), 4th May; Cinderford (Gloucestershire), 8th May. **European Bee-eater** *Merops apiaster* Records of singles from Dorset, Hampshire, Kent, Norfolk and Yorkshire. **Belted Kingfisher** *Megaceryle alcyon* Mountsandel Forest (Co. Derry), 22nd April. **Lesser Kestrel** *Falco naumanni* Pegwell

Bay (Kent), 4th May. **Red-footed Falcon** *Falco vespertinus* Influx, with records from Cornwall (two), Dorset, Norfolk (two), Scilly and Yorkshire.

Woodchat Shrike *Lanius senator* Influx, with records from Anglesey, Cornwall (three), Derbyshire, Devon, Pembrokeshire, Scilly (three) and Co. Waterford. **Short-toed Lark** *Calandrella brachydactyla* Records from Fair Isle, Isle of Man, Norfolk, Scilly, Shetland and Yorkshire. **Red-rumped Swallow** *Cecropis daurica* Records from Cornwall, Dorset (two), Fair Isle, Hampshire, Kent (three), Lincolnshire, Scilly (three) and Suffolk.

Pallas's Leaf Warbler *Phylloscopus proregulus* Portesham (Dorset), long-stayer to 28th April. **Dusky Warbler** *Phylloscopus fuscatu*s Hickling Broad (Norfolk), 7th May. **Western Bonelli's Warbler** *Phylloscopus bonelli* Nanjizal, 23rd April; Gibraltar Point (Lincolnshire), 8th–9th May. **Eastern Bonelli's Warbler** *Phylloscopus orientalis* Calf of Man (Isle of Man), 5th–6th May. **Iberian Chiffchaff** *Phylloscopus ibericus* Telford (Shropshire), long-stayer to 2nd May; Little Treleaver (Cornwall), 11th–19th April; Tresco, 17th April to 7th May; Reculver, 20th April, perhaps same Margate

(both Kent), 23rd–28th April; Godolphin (Cornwall), 3rd May. **Subalpine Warbler** *Sylvia cantillans* Reydon (Suffolk), 12th April; Portland Bill (Dorset), 13th–17th April; Skokholm (Pembrokeshire), 24th April; Fair Isle, 8th May; Whalsay (Shetland), 8th May; Great Saltee (Co. Wexford), 8th May. **Savi's Warbler** *Locustella luscinioides* Minsmere (Suffolk), 12th April to 6th May; Hummersea (Cleveland), 15th–16th April.

Alpine Accentor *Prunella collaris* Brownwich Cliff (Hampshire), 13th April; Scolt Head (Norfolk), 13th April; Gibraltar Point, 7th May. **'Black-headed Wagtail'** *Motacilla flava feldegg* Titchwell (Norfolk), 2nd–3rd May; Whitesands Bay (Pembrokeshire), 8th May; Rhyl (Denbighshire), 8th May. **Tawny Pipit** *Anthus campestris* Sumburgh (Shetland), 8th May. **Olive-backed Pipit** *Anthus hodgsoni* Seaciff (Lothian), 24th April.

Arctic Redpoll *Acanthis hornemanni* Fair Isle, long-stayer to 18th April. **Rose-breasted Grosbeak** *Pheucticus ludovicianus* West Burra (Shetland), 3rd–4th May. **White-crowned Sparrow** *Zonotrichia leucophrys* Woolston Eyes (Cheshire & Wirral), 30th April. **Little Bunting** *Emberiza pusilla* St Ann's Head (Pembrokeshire), 16th April.

Notable records of commoner species

Great Northern Diver *Gavia immer* Luce Sands (Dumfries & Galloway), 158, 13th April.

Wood Sandpiper *Tringa glareola* Widespread influx in early May, with peaks of 17 Cley (Norfolk), 6th, seven Nene Washes (Cambridgeshire) and five Frampton Marsh (Lincolnshire), 7th May.



Rebecca Nason

202. First-summer male Rose-breasted Grosbeak *Pheucticus ludovicianus*, West Burra, Shetland, May 2016.

Pomarine Skua *Stercorarius pomarinus* North Uist (Outer Hebrides), 67, 2nd, 347 3rd May; Splash Point (Sussex), 76, 6th May; Dungeness (Kent), 121, 6th May; Beachy Head (Sussex), 62, 6th May. **Black Tern** *Chlidonias niger* Strong passage, including, at Splash Point (Sussex), 54, 2nd May; Abberton Resr (Essex), 56, 5th May; Spurn (Yorkshire), 74, 8th May; Idle Valley, 67, 8th May, Holme Pierrepont (both Nottinghamshire), 50, 8th May; Sunk Island (Yorkshire), 103, 8th May. **Sandwich Tern** *Sterna sandvicensis* Blakeney Point (Norfolk), roost count of 2,000, 24th April. **Common Tern** *Sterna hirundo*/Arctic Tern *S. paradisaea* Dungeness, 6,560 past, 2nd May.



David Bowman

203. White-crowned Sparrow *Zonotrichia leucophrys*, Woolston Eyes, Cheshire & Wirral, April 2016.

Last word

The Białowieża Forest – a new threat

For some months now a debate has been going on in Poland regarding the future of the Białowieża Forest. This is because a very considerable increase in logging is planned in this unique woodland complex, under the pretext of combating the European Spruce Bark Beetle *Ips typographus*. Earlier this year, in late March 2016, the new Minister of the Environment, Jan Szyszko, approved a plan for a three-fold increase in the amount of timber acquired from the Białowieża Forest, from the 60,000 m³ hitherto agreed in Poland's ten-year forest management plan to over 190,000 m³ during the next ten years.

Straddling the border between Poland and Belarus, the Białowieża Forest is all that remains of the primeval lowland forests that once covered almost the whole of Europe. At present, it is the only place in Europe where patches of primeval forest still survive, and which are inhabited by communities of organisms characteristic of natural woodlands. Many species of plants and animals that have long disappeared from other European wood-

lands continue to flourish there. The Białowieża Forest supports inter alia more than 1,000 vascular plant species, some 4,000 species of fungi, more than 10,000 insect species and around 60 species of mammals, including European Bison *Bison bonasus*, Grey Wolf *Canis lupus* and Eurasian Lynx *Lynx lynx* (Gutowski & Jaroszewicz 2001).

The Białowieża Forest is also a bird refuge of international importance. In the Polish part of the forest (c. 62,000 ha) more than 240 species of birds have been found, including 180 breeding species. For a number of species, the Białowieża Forest is the main or one of the main breeding habitats not just in Poland, but also in Europe (table 1). Most of the breeding species are associated with the interior and edges of the forest, and many are threatened at a European scale. The Białowieża Forest is a breeding habitat for many different birds, including five species of owl, ten species of woodpecker, six species of tit and four species of flycatcher. Many of these require old trees with plentiful nesting



Jacek Zięba

204. Pygmy Owl *Glaucidium passerinum*, Białowieża Forest, Poland, October 2011. The Białowieża Forest supports the largest population of Pygmy Owl in Poland (more than 20% of the national population).

Table 1. Numbers (pairs/males) of the most important breeding bird species in the Białowieża Forest in relation to the Polish population size (Pugacewicz 2009, 2010; Rowiński 2010; Pugacewicz et al. 2013; Chodkiewicz et al. 2015).

	numbers in the Białowieża Forest	percentage of Polish population in the Białowieża Forest
Hazel Grouse <i>Tetrastes bonasia</i>	1,600–1,800	9.7
Black Stork <i>Ciconia nigra</i>	10–12	0.7
Honey-buzzard <i>Pernis apivorus</i>	120–130	3.3
Lesser Spotted Eagle <i>Aquila pomarina</i>	53–57	2.2
Corn Crake <i>Crex crex</i>	240–250	0.6
Common Crane <i>Grus grus</i>	110–120	0.5
Green Sandpiper <i>Tringa ochropus</i>	100–300	1.2
Stock Dove <i>Columba oenas</i>	150–250	0.7
Pygmy Owl <i>Glaucidium passerinum</i>	280–300	23.2
Tengmalm's Owl <i>Aegolius funereus</i>	30–50	2.2
European Nightjar <i>Caprimulgus europaeus</i>	250–280	3.3
Grey-headed Woodpecker <i>Picus canus</i>	60–75	1.7
Black Woodpecker <i>Dryocopus martius</i>	150–180	0.5
Three-toed Woodpecker <i>Picooides tridactylus</i>	60–80	10.8
Middle Spotted Woodpecker <i>Dendropicos medius</i>	1,100–1,300	5.8
White-backed Woodpecker <i>Dendrocopos leucotos</i>	60–90	6.5
Red-backed Shrike <i>Lanius collurio</i>	1,000–1,500	0.1
Red-breasted Flycatcher <i>Ficedula parva</i>	300–600	1.0
Collared Flycatcher <i>Ficedula albicollis</i>	5,000–10,000	10.5

holes and dead wood (Tomiałojć & Wesołowski 2005; Rowiński 2010) and the spruce bark beetle plays a key role in shaping the long-term dynamics and structure of forests for such species (Beudert et al. 2015).

The Polish part of the Forest has been declared a UNESCO Biosphere Reserve as well as a Natura 2000 Site and an Important Bird Area. In addition, an area of 10,500 ha is protected in the form of a National Park. In 2014, the Białowieża Forest was declared a UNESCO World Heritage Site, the only Polish natural area designated as such.

It should surely go without saying that such an area, unique in Europe, should be afforded the highest possible degree of protection. Sadly, this is not the case. For at least 15 years now, a campaign has been waged to preserve and consolidate the exceptional character of the Białowieża Forest by ensuring that the largest possible area of the Forest is protected as a National Park. Unfortunately, to no avail. Currently, only one-third of the Forest is strictly protected (in the form of a National Park and Nature Reserves), while the remaining part (c. 39,500 ha) is managed in accordance with standard forestry practices. During the past 100 years, many millions of

cubic metres of timber have been logged in the Forest, and the most recent proposal from the State Forest Administration, to substantially increase logging operations, and its approval by the Minister of the Environment, has triggered a storm of protest in Poland. The minister has ignored the opinions of, among others, the Biology Departments of the most prestigious Polish universities, the State Council for the Conservation of Nature, the Scientific Council of the Białowieża National Park and also the Nature Conservation Committee of the Polish Academy of Sciences. He has also rejected the views of the largest nature conservation organisations in Poland as well as those of the Polish people, more than 150,000 of whom signed a petition in protest against the planned logging operations. Similarly ineffective was a letter from the European Commission stating unequivocally that any increase in logging in the Białowieża Forest would constitute a threat to priority habitats and valuable species of animals and would therefore be at odds with European environmental law.

What arguments underlie this controversial decision on the part of the State Forest Administration and the Minister of the

Environment? The chief one is combating the 'plague' of the spruce bark beetle. According to foresters and the minister, the population explosion of this beetle can be brought under control only by felling Norway Spruce *Picea abies* trees; moreover, they claim that the logging plans should include other tree species (both coniferous and deciduous), together with removal of dead timber, in order to guarantee the health of the forest. On the other hand, scientists are clear that such an approach has no scientific justification, as supported by relevant research and published papers. They contend that such intensive logging would be effective only if it removed at least 80% of the trees attacked by the spruce bark beetle in the entire forest complex. This, however, is simply not feasible in the Białowieża Forest, because of its high conservation status (Fahse & Heurich 2011; Chylarecki & Selva 2016; Wesolowski *et al.* 2016). Scientists also draw attention to the fact that the densities of many woodland bird species are far lower in the managed parts of the Forest, from which dead spruce trees have been removed in the fight against the spruce bark beetle, than in the Forest itself (National Park, Nature Reserves), where protection is all-embracing and no logging takes place (Wesolowski *et al.* 2016). Sadly, but perhaps unsurprisingly, these arguments have fallen on deaf ears.

There is no doubt that the decision taken by the Polish Minister of the Environment for a three-fold increase in the logging of trees in the Białowieża Forest will, if it is implemented, be detrimental to the assemblage of birds and other organisms inhabiting this primeval forest complex. In the opinion of scientists, the area of the naturally most valuable stands of more than 100-year-old trees would decrease by about 20%. The removal over a period of ten years of several thousand old trees would bring about a deterioration in the living conditions of all specialised organisms living in the interior of old woodlands in the Białowieża Forest (Wesolowski *et al.* 2016).

Łukasz Ławicki is a member of the West-Pomeranian Nature Society and a co-worker of the Polish Society for the Protection of Birds (BirdLife Poland).

Stop press On 10th May, the Minister of the Environment dismissed 32 of the 39 existing members of the State Council for the Conservation of Nature – the vast majority of them were outstanding scientific authorities, who have protested against an increase in logging in the Białowieża Forest.

Hard times lie ahead for the Białowieża Forest. If we do not join together to oppose such decisions, the last primeval forest in Europe will soon be history. Please consider signing this online petition to support the protection of the Białowieża Forest: <http://kochampuszcze.pl/ilovebialowieza>

Acknowledgments

I wish to thank Peter Senn, Przemek Chylarecki, Adam Wajrak and Jacek Zięba for giving me help in preparing the text.

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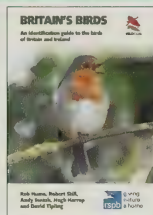
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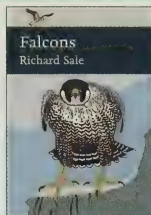
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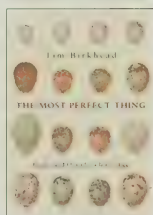
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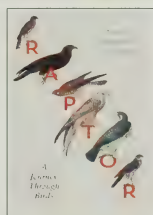
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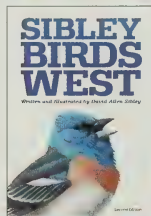
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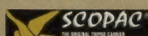
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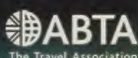
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